ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TABLE OF CONTENT

APPENDIX

Administrative Statements

ASHLEY COUNTY MEDICAL CENTER

INFECTION CONTROL

POLICIES AND PROCEDURES

President, Board of Directors

Chief of Staff

Chairperson, Infection Control Committee

Infection Control Nurse

Reviewed/Revised Date_____

INFECTION CONTROL AUTHORITY

The Infection Control Committee, through its chairman, has the authority to institute any appropriate control measures or studies, and to recommend corrective action within any department, when there is considered to be a danger to any patient or personnel.

The Infection Control Committee has the ultimate authority in the event there is a question or disagreement in relation to Infection Control Policy and Procedure.

To facilitate early and complete reporting, the Infection Control Committee, Infection Control Nurse, or the Registered Nurse on the unit has the authority to initiate Culture and Sensitivity testing, and institute any appropriate Isolation Procedures. When any of these action, the physician responsible for the patient will be notified.

APPROVED BY:

_____
Chief of Staff

_____
CEO

_____
Governing Board

_____
Infection Control Chairman
Reviewed/Revised Date_____

INFECTION CONTROL ALLOCATION STATEMENT

The Infection Control/Employee Health function of Ashley County Medical Center will require a total of 40 hours a week to do surveillance, prevention and control of infection and meet all the OSHA and State Health requirements as determined by the Infection Control Committee.

40 hours for IC/Employee Health/QI/Education

APPROVED BY;

_____
Chief of Staff

_____
CEO

_____
Governing Board

_____
Infection Control Chairperson

Date_____

ASHLEY COUNTY MEDICAL CENTER

To promote good health and provide quality health care with a qualified staff in a caring compassionate manner.

VISION STATEMENT

- To expand needed healthcare services.
- To recruit healthcare professionals to meet the needs of the people we serve.
- To promote good health and wellness through the provision of community education and facilities.
- To provide resources for continuous quality improvement.
- To operate in an economically sound manner.

Adopted February 21, 2000

Introduction

The policies, procedures and forms in this manual are intended as guidelines. It is recognized that situations can be unique. Personnel are expected to use established practice and sound judgment in making decisions during their daily activities.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUNBER:**
Introduction		2001
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
	Hospital Wide	ICC

The word “Nosocomial” is derived from Greek roots and means “in the hospital”. Thus, nosocomial infections are those acquired in the hospital. National studies indicate that between 5 and 8% of all patients are admitted to hospitals will develop nosocomial infections. One authority estimates that more than 30,000 of these patients will die annually. nosocomial infections add greatly to the length of stay and to the expenses incurred by the patient. It is estimated that nosocomial infections add nearly one billion dollars annually to the national health costs.

Nosocomial Infections will be referred to as Hospital Acquired Infections (HAI) throughout this Policies and Procedures Manual.

The sick are physiologically prone to infection, and the well can inadvertently spread infection. As members of a health care team, the primary work for us to remember in relation to this problem is PREVENTION. We must make every effort to prevent infection, and as the second line of defense, every possible effort should be made to detect any outbreaks quickly, and to contain it once has been discovered. This means constant surveillance of the hospital environment and all who enter it.

Infection Control measures are required both by law and professional standards. Participation in the infection control program is an “unwritten” part of everyone’s job description. The purpose of this manual is to help our hospital achieve the best possible infection control for the protection of our patients, visitors, and personnel.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURE MANUAL

TITLE/DESCRIPTION:		**FILLING NUMBER:**
Goals		2002
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
	Hospital Wide	ICC

The goal of an infection control program is to improve patient care practices, and thus improve patient care, by reducing the potential for HAI. Control of HAI depends on the surveillance program capable of identifying the number and characteristics of such infections at the time they occur, of implementing appropriate measures to reduce their spread, and of identifying causative factors.

An effective infection program involves all hospital professionals, employees, and visitors under the direction of the infection control committee.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES

TITLE/DESCRIPTION:		**FILING NUMBER:**
Objectives		2003
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
	Hospital Wide	ICC

Objectives of the Infection Control Program include:

1. An effective hospital-wide program for the surveillance, prevention, and control of infection.

2. To include in that program all patient care and patient care support departments/services.

3. To provide written policies and procedures that describes the role and scope of participation of each department/service in infection prevention and control activities.

4. To provide written policies and procedures that describes the role and scope of participation of employee health activities in the program.

5. To provide written policies and procedures that describe the types of surveillance carried out to monitor the rates of HAI, the systems used to collect and analyze data, and the activities to prevent and control infection.

6. To review and analyze HAI data, risk factors, and, as needed, special studies that relate to infection prevention and control in an ongoing manner.

7. To assure provision of laboratory support, particularly microbiological and serological.

8. Collection of HAI data, using, as appropriate, rates stratified by infection risks or focused infection studies to monitor the effects of intervention strategies on the infection rates and to provide feedback to selected groups of physicians, nurses, and support staff about the HAI risk of their patients.

9. To conduct activities to prevent and control infection n the patients and personnel.

10. To provide written policies that defines the indications for specific precautions to prevent transmission of infection.

11. To assure adequate availability of infection control devices and supplies in patient care areas.

12. To assure that filled infection waste containers are disposed of in a timely manner in accordance with the hospital’s hazardous materials and waste program.

13. To assure that persons qualified in infection surveillance, prevention, and control provide consultation regarding the purchase of all equipment and supplies used for sterilization, disinfection, and decontamination purposes.

14. To review cleaning procedures, agents, and schedules in use throughout the hospital at least every two years.

15. To assure that persons qualified in infection surveillance, prevention, and control provide consultation regarding any major change in cleaning products or techniques.

16. To provide a multidisciplinary committee which oversees the Infection Control Program, and to assure that the committee membership includes appropriate representation and fulfills its defined committee requirements.

17. To assure that the responsibility for the management of infection surveillance, prevention, and control is assigned to a qualified person.

18. To assure that the written policies and procedures are made known to personnel doing patient care procedures that are associated with the potential for infection.

19. To assure that all personnel are competent to participate in infection monitoring, prevention, and control activities and are provided with any necessary orientation, on-the-job training, and continuing education, all of which are documented.

20. To assure compliance with all federal, state, and local regulations in regard to infection control.

21. To control the cost of health care by controlling and reducing potential for infection processes that result in extended length of patient stay, prolonged absenteeism of personnel, and use of medical resources.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLCIES AND PROCEDURES MANUAL

TITLE/ DESCRIPTION:		**FILING NUMBER:**
Standard of Care Policy		2004
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2010	Hospital Wide	ICC

Any patient who is isolated for an infectious disease will be given the same quality of care as any non-isolation patient.

Isolated patients will not be discriminated against at any time and will have total patient care within the specifications of their isolation needs.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Infection Control Chairperson		2005
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2006	Hospital Wide	ICC

POSITION

Infection Control Chairperson

DESCRIPTION

The Infection Control Chairperson should be a member of the Medical Staff. He/She is appointed to this position for one year term by the Chief of Staff. The Chairperson supervises the infection surveillance program, which determines sources of infection, consults on infection and control of infectious diseases.

DUTIES

1. Expert effective leadership in promotion of medical asepsis and oversee safeguards against the transmission of infection.

2. Interpret and recommend isolation policies and procedures and present to the committee procedures to be reviewed from time to time and modify the policies and methods as indicated.

3. Responsible for giving direction and advice to the infection control nurse in all her/his responsibilities.

4. Recommend to the committee appropriate general control measures for endemic problems.

5. Rule on questions concerning isolation of patients and infectious state of patients (those in doubt) in accordance with this hospital's infection control policies.

6. As representative of the hospital, cooperate with local, state, and national health agencies in the study and control of infection.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Infection Control Committee		2006
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2006	Hospital Wide	ICC

PURPOSE

To serve as a multidisciplinary subcommittee of the Medical Staff, reporting to the Executive Committee.

The Infection Control Committee will establish and execute policies to prevent the acquisition and cross contamination of HAIs.

The Infection Control Committee will have input into the establishment of staff member health programs that will control infectious disease among hospital personnel.

OBJECTIVES

To establish a functional surveillance system for control of HAIs.

To identify, through the surveillance system, any specific problem areas in need of administrative or professional resolution, and report to the Medical Staff of the hospital.

FUNTIONS

Establish and implement the surveillance system for evaluating and reporting infections in patients, personnel, and discharged patients.

Establish and implement the policies and procedures related to control of infections within the hospital. This includes procedures commonly used in patient care.

Provide to the hospital pertinent information, counsel and advise in relation to infection control. This shall include evaluation of new equipment and procedures for cleaning, decontamination and sterilizing.

Develop criteria for identification of commonly acquired and HAIs.

Cooperate with Medical Records Department in reflecting the presence of infections that were not reported in the final diagnosis.

Review necropsy reports for presence of any undiagnosed antemortem infections.

Review environmental cultures and any cultures from personnel of the specialty areas when appropriate.

Delegate authority to institute an appropriate control measure or studies when there is a reasonable danger to any patient or personnel.

Provide written minutes of meetings or other committee activities to the Executive Committee of the Medical Staff.

Maintain active participation on personnel in-service for the purposes of medical and surgical asepsis, and in their respective roles and responsibilities in the prevention and control of HAIs.

COMPOSITION

The Infection Control Committee shall consist of representatives from Administration, Nursing, Laboratory, Pathology, Pharmacy, Dietary, Environmental Services, and Medical Staff Members (as required by the Bylaws of the Medical Staff) and the person or persons directly responsible for management of the infection surveillance, prevention, and Infection Control Program, usually the Infection Control Practitioner.

Consulting representatives may be requested from Engineering, Cardiopulmonary Care Services, Operating Suite, Central Services, Laundry and the Public Health Department.

MEETINGS

The Infection Control Committee shall meet bi-monthly. The time and day will be decided on by the Infection Control Committee Chairperson.

2010 INFECTION CONTRL COMMITTEE LIST

CHAIRMAN…….DR. GRESHAM

CEO……..PHILL GILMORE

INFECTION CONTROL NURSE……..JULIE KEETH

DIRECTOR OF NURSING…….MARTHA CRANE

ASSISTANT DIRECTOR OF NURSING/ STAFFING…….TAMMY CARTER

LABOR AND DELIVER……...VICKEY FAIRCHILD

PATHOOLOGIST……..DR. STEVEN STURDIVANT

QI/RM……..DONNA WHITE

RESPIRATORY THERAPY……..KATHY CHILDS

LAB-MICROBILOGY……..LYNN YOUNG

HOUSEKEEPING……PAUL ZANDER

PHARMACY……DAWN BURCHFIELD

DIETARY……...JANE JOHNSON

ENGINEERING……..……..JIMMY STELL

RADIOLOGY……..RONNIE DILLION

AGENDA FOR INFECTION CONTROL MEETINGS

I. CALL TO ORDER

II. APPROVAL OF MINUTES

III. OLD BUSINESS

IV. NEW BUSINESS

V. INFECTION CONTROL REPORTS

- A. NOSOCOMIAL RATE
- B. SURGICAL INFECTION RATE
- C. COMMUNITY LINKED RATE
  1. CLUSTERS
  2. UNUSUAL PATHOGENS
  3. ANTIBIOGRAM
- D. EMPLOYEE ILLNESS
- E. AUTOCLAVE REPORT
- F. PERSONNEL EXPOSURE
- G. REPORTS TO ASHD
- H. QI REPORT
- I. INSERVICE

INFECTION CONTROL COMMITTEE CALENDER

JANUARY

A. Department Policy
   1. Admissions/Administration/BO
   2. Anesthesia
   3. Employee Health/IC
   4. Review Visiting Policy

B. Review Employee Health Plan

C. Visiting Policy

MARCH

A. Department Policy
   1. Wellness Center
   2. Volunteers
   3. UR/Risk Management
   4. Material Management

B. Review Exposure Control Plan

C. Yearly Bloodborne Pathogen Inservice

D. Review QI Plan

E. Review Engineering Control Equipment

MAY

A. Department Policy
   1. OT
   2. PT
   3. ER
   4. LAB

B. Inspect Laundry

C. Review Allocation Statement

JULY

A. Department Policy
   1. Nursing
   2. Radiology
   3. Pharmacy
   4. Maintenance

B. Review Infectious Waste Program

SEPTEMBER

A. Department Policy
   1. Surgery
   2. Central Sterile Supply
   3. Home Health
   4. Social Services
   5. Housekeeping

B. Review Sterilization Decontamination

C. Review Disinfectants and Cleaners

NOVEMBER

A. Department Policy
   1. Respiratory Therapy
   2. Dietary
   3. Medical Records
   4. Education
   5. Rural Health Clinic

B. Review General Infection Control Policies

C. Review TB Policy

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DISCRIOTION:		**FILING NUMBER:**
Infection Control Practitioner		2009
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2006	Hospital Wide	ICC

POSITION TITLE: Infection Control Practitioner

POSITION SUMMARY:

The Infection Control Practitioner assumes 24-hour accountability for the Infection Control Program.

This position involves professional responsibilities in the following areas; case finding, surveillance, reporting, analysis and interpretation, inspection, control measures, education, consultation, evaluation, and recommendations.

The major objectives of the Infection Control Practitioner include the following:

1. To assure quality of patient care by:

   A. Reducing infection risks to patients and personnel through surveillance.

   B. Providing education pertinent to infection

   C. Ascertaining the need for monitoring programs in any given area and instituting and maintaining such programs in an effort to identify and ultimately eliminate infection hazards.

2. To extend his or her services and knowledge beyond the walls of the institution, reaching into community health and education, and serve as a consultant in the area of infection control for other health care facilities.

SUMMARY:

Plans, develops, coordinates, and evaluates infection control activities. Develops, and provides educational programs for all hospital personnel. Performs surveillance of patient units and laboratory data. Identifies and reports HAIs and patients in isolation. Participates in research related to the improvement in infection control for patient care and personnel health.

The Infection Control Practitioner reports directly to the Director of Nursing, may act as co-chairperson of the Infection Control Committee, and collaborates with the QI Director and Administrative Supervisors, as well as other departments, to ensure support of the Infection Control Program.

QUALIFICATIONS:

1. Current state licensure.
2. B.S. degree in nursing or equivalent required.
3. Advanced educational preparation in infection control.
4. Minimum of two years in infection control practice.
5. Progressive nursing experience with demonstrated leadership and teaching abilities.
6. Demonstrated skill in management principles of planning, organizing, and directing.

ASHLEY COUNTY MEDICAL CENTER
JOB DESCRIPTION

DEPARTMENT: **INFECTION CONTROL**
POSITION TITLE: **INFECTION CONTROL/HEALTH INFORMATION**
DATE APPROVED: **JANUARY 1, 2008**

POSITION SUMMARY: Provides surveillance of hospital inpatient population for evidence of infection. Assists nursing personnel in proper care of infected patients, including isolation procedures when indicated. Establishes and maintains a program of infection control training for hospital personnel. Collects and complies data on numbers and type of infections. Coordinates the infection control portion of the hospital's survey process to achieve compliance with the standards.

ESSENTIAL FUNCTIONS:

Accountability:	24/7 for the Infection Control Department and the hospital
Budget:	Must Develop and Oversee the Infection Control Dept. Budget
Leadership:	Must be able to lead and instruct personnel in the proper care of infected patients and employees
Staff Competency:	Directly responsible for all infection controls of the hospital.
Education:	Provide training on employees on infection controls, employee health, and bio-terrorism controls.
Goals:	Develop and implement goals for the Infection Control Department in Employee Health, Bio-terrorism and Infection control.
Quality Care:	
Quality Improvement:	Identify QI indicators for Infection Control and develop plan for evaluation and reporting.
Committee Requirement:	Infection Control, ER/SCU and Safety committees
Safety Requirements:	Responsible for employee health which includes safety related to needlesticks and exposure to bloodborne pathogens.
Report to:	Director of Nursing

WORK SCHEDULE

Normal Work Hours:	6:30 a.m.- 3:00 p.m. Monday through Friday
On Call Responsibility:	24 hours call for any Infection Control problems.
Administrative Call:	N/A

QUALIFICATIONS

Education:	Graduate of an accredited school for Registered Nurse.
License Requirement:	Licenses by the Arkansas State Board of Nursing - RN
Certification Requirements:	BLS/ACLS certified, CPR
Experience Requirements:	Preferred 5 years experience as RN
Specific Physical Requirements:	Must be able to sit or stand for long periods of time. Must be able to lift small equipment or boxes. Must be able to work under stress and be able to multi-task.

CHARACTERISTICS:

Team Player:	Must be a team player.
Multi-task:	Must be able to manage multiple issues simultaneously.
Strategic Thinking:	Must be a strategic and creative thinker.
Leadership Skills:	Requires leadership skills.

Tasks

Employee Evaluations:	N/A
Employee Education:	Continue to educate all employees and public on Infection Control.
Public Speaking:	Job requires public speaking on various Infection Control and Community issues.
Specific Patient Care Tasks:	Perform accurate data collection on Infection control matters.
Staffing:	N/A
Identification and Resolving Problems:	Identify and resolve Infection Control hospital problems.

Research and Respond to Patient Complaints:	Responsible for Infection Control complaints.

Physical Demands	Continuous over 70%	Frequent 40%-69%	Occasional 15%-39%	Rarely UP to 15%
Standing		X		
Walking		X		
Climbing				X
Bending			X	
Crouching			X	
Pushing/Pulling				X
Carrying			X	
Lifting/Lowering 1-15 lbs.		X		
15-30 lbs			X	
30-50 lbs				X
Over 50 lbs				X
Fine Hand/Eye Coordination	X			
Color Discrimination	X			
Hearing Acuity	X			

Mental Demands	Continuous over 70%	Frequent 40%-69%	Occasional 15%-39%	Rarely UP to 15%
Concentration on Detail	X			
Attention span of 1+ hours on a task	X			
Ability to Remember multiple task	X			
Oral Communication	X			
Written Communication	X			

Working Conditions	Continuous over 70%	Frequent 40%-69%	Occasional 15%-39%	Rarely UP to 15%
Exposure to blood and body fluids			X	
Exposure to toxins, cytotoxins, poisons				X
Exposure to extreme heat, cold, temp fluctuations				X
Exposure to hazardous chemicals				X
Exposure to radiation				X
Other				

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Environmental Monitoring		2011
EFFETIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2010	Hospital Wide	ICC

INFECTION CONTROL- ENVIRONMENTAL MONITORING

In accordance with the recommendations of the American Hospital Association, routine environmental cultures will not be done.

If there is an epidemiological reason to do so, environmental cultures will be done, but only at the discretion of the Infection Control Committee.

HOSPITAL ACQUIRED INFECTION

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Definitions and Classifications		3001
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2007	Hospital Wide	ICC

I. Definitions

A. A general definition for infection selected from Webster's New Collegiate Dictionary:

> The state produced by the establishment of an infective agent in or on a suitable host…. which under favorable conditions, multiplies and produces effects which are injurious…..localized infection is usually accompanied by inflammation, but inflammation may occur without infection.

B. HAIs express themselves in hospitalized patients in whom infection was not present or incubating at the time of admission. The term "Hospital Acquired Infections" will include potentially preventable infections as well as some infections that may be regarded as inevitable.

1. The patient should be within normal limits, physiologically, for three days after admission. This refers only to signs, symptoms, and laboratory data related to his/her infection. There are occasional exceptions, but these decisions are made with the assistance of the Infection Control Committee.

2. Hospital acquired exogenous shall be any infection that occurs while in the hospital, caused by an organism that would not be considered normal flora in that area of the body.

3. Hospital acquired endogenous shall be any infection that could have been caused by organisms from the patient.

4. An infection present on admission van be classified as HAI, but ONLY if it is directly related to or is the residual of a previous admission.

5. If the physician indicates in the chart that a HAI is, or has been present, then the information is recorded unequivocally as an infection, whether or not additional supporting data is present in the chart.

6. The appearance of clinical infection at a new and <u>different site</u>, even though the same organism as the original infection must be considered as a new HAI.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
CDC Definitions of HAI		3002
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2007	Hospital Wide	ICC

FOLLOWING IS THE CENTER FOR DISEASE CONTROL DEFINITIONS FOR SURVEILLANCE OF HAIS.

AJIC major articles

CDC/NHSN surveillance definition of health care–associated infection and criteria for specific types of infections in the acute care setting

Teresa C. Horan, MPH, Mary Andrus, RN, BA, CIC, and Margaret A. Dudeck, MPH
Atlanta, Georgia

BACKGROUND

Since 1988, the Centers for Disease Control and Prevention (CDC) has published 2 articles in which nosocomial infection and criteria for specific types of nosocomial infection for surveillance purposes for use in acute care settings have been defined.[1,2] This document replaces those articles, which are now considered obsolete, and uses the generic term "health care–associated infection" or "HAI" instead of "nosocomial." This document reflects the elimination of criterion 1 of clinical sepsis (effective in National Healthcare Safety Network [NHSN] facilities since January 2005) and criteria for laboratory–confirmed bloodstream infection (LCBI). Specifically for LCBI, criterion 2c and 3c, and 2b and 3b, were removed effective in NHSN facilities since January 2005 and January 2008, respectively. The definition of "implant," which is part of the surgical site infection (SSI) criteria, has been slightly modified. No other infection criteria have been added, removed, or changed. There are also notes throughout this document that reflect changes in the use of surveillance criteria since the implementation of NHSN. For example, the population for which clinical sepsis is used has been restricted to patients ≤1 year old. Another example is that incisional SSI descriptions have been expanded to specify whether an SSI affects the primary or a secondary incision following operative procedures in which more than 1 incision is made. For additional information about how these criteria are used for NHSN surveillance, refer to the *NHSN Manual: Patient Safety Component Protocol* available at the NHSN Web site (www.cdc.gov/ncidod/dhqp/nhsn.html). Whenever revisions occur, they will be published and made available at the NHSN Web site.

From the National Healthcare Safety Network, Division of Healthcare Quality Promotion, Centers for Disease Control and Prevention, Atlanta, GA.

Address correspondence to Teresa C. Horan, MPH, Division of Healthcare Quality Promotion, Centers for Disease Control and Prevention, Mailstop A24, 1600 Clifton Road, NE, Atlanta, GA 30333. E-mail: thoran@cdc.gov.

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0196-6553/$34.00

doi:10.1016/j.ajic.2008.03.002

CDC/NHSN SURVEILLANCE DEFINITION OF HEALTH CARE–ASSOCIATED INFECTION

For the purposes of NHSN surveillance in the acute care setting, the CDC defines an HAI as a localized or systemic condition resulting from an adverse reaction to the presence of an infectious agent(s) or its toxin(s). There must be no evidence that the infection was present or incubating at the time of admission to the acute care setting.

HAIs may be caused by infectious agents from endogenous or exogenous sources.

- Endogenous sources are body sites, such as the skin, nose, mouth, gastrointestinal (GI) tract, or vagina that are normally inhabited by microorganisms.
- Exogenous sources are those external to the patient, such as patient care personnel, visitors, patient care equipment, medical devices, or the health care environment.

Other important considerations include the following:

- Clinical evidence may be derived from direct observation of the infection site (eg, a wound) or

review of information in the patient chart or other clinical records.

- For certain types of infection, a physician or surgeon diagnosis of infection derived from direct observation during a surgical operation, endoscopic examination, or other diagnostic studies or from clinical judgment is an acceptable criterion for an HAI, unless there is compelling evidence to the contrary. For example, one of the criteria for SSI is "surgeon or attending physician diagnosis." Unless stated explicitly, physician diagnosis alone is not an acceptable criterion for any specific type of HAI.
- Infections occurring in infants that result from passage through the birth canal are considered HAIs.
- The following infections are *not* considered health care associated:
  - Infections associated with complications or extensions of infections already present on admission, unless a change in pathogen or symptoms strongly suggests the acquisition of a new infection;
  - infections in infants that have been acquired transplacentally (eg, herpes simplex, toxoplasmosis, rubella, cytomegalovirus, or syphilis) and become evident ≤48 hours after birth; and
  - reactivation of a latent infection (eg, herpes zoster [shingles], herpes simplex, syphilis, or tuberculosis).
- The following conditions are *not* infections:
  - Colonization, which means the presence of microorganisms on skin, on mucous membranes, in open wounds, or in excretions or secretions but are not causing adverse clinical signs or symptoms; and
  - inflammation that results from tissue response to injury or stimulation by noninfectious agents, such as chemicals.

CRITERIA FOR SPECIFIC TYPES OF INFECTION

Once an infection is deemed to be health care associated according to the definition shown above, the specific type of infection should be determined based on the criteria detailed below. These have been grouped into 13 major type categories to facilitate data analysis. For example, there are 3 specific types of urinary tract infections (symptomatic urinary tract infection, asymptomatic bacteriuria, and other infections of the urinary tract) that are grouped under the major type of Urinary Tract Infection. The specific and major types of infection used in NHSN and their abbreviated codes are listed in Table 1, and the criteria for each of the specific types of infection follow it.

USE OF THESE CRITERIA FOR PUBLICLY REPORTED HAI DATA

Not all infections or infection criteria may be appropriate for use in public reporting of HAIs. Guidance on what infections and infection criteria are recommended is available from other sources (eg, HICPAC [http://www.cdc.gov/ncidod/dhqp/hicpac_pubs.html]; National Quality Forum [http://www.qualityforum.org/]; professional organizations).

UTI-URINARY TRACT INFECTION

SUTI-Symptomatic urinary tract infection

A symptomatic urinary tract infection must meet at least *1* of the following criteria:

1. Patient has at least *1* of the following signs or symptoms with no other recognized cause: fever (>38°C), urgency, frequency, dysuria, or suprapubic tenderness
   and
   patient has a positive urine culture, that is, $\geq 10^5$ microorganisms per cc of urine with no more than 2 species of microorganisms.
2. Patient has at least *2* of the following signs or symptoms with no other recognized cause: fever (>38°C), urgency, frequency, dysuria, or suprapubic tenderness
   and
   at least *1* of the following
   a. positive dipstick for leukocyte esterase and/or nitrate
   b. pyuria (urine specimen with ≥10 white blood cell [WBC]/mm^3 or ≥3 WBC/high-power field of unspun urine)
   c. organisms seen on Gram's stain of unspun urine
   d. at least *2* urine cultures with repeated isolation of the same uropathogen (gram-negative bacteria or *Staphylococcus saprophyticus*) with $\geq 10^2$ colonies/mL in nonvoided specimens
   e. $\leq 10^5$ colonies/mL of a single uropathogen (gram-negative bacteria or *S saprophyticus*) in a patient being treated with an effective antimicrobial agent for a urinary tract infection
   f. physician diagnosis of a urinary tract infection
   g. physician institutes appropriate therapy for a urinary tract infection.
3. Patient ≤1 year of age has at least *1* of the following signs or symptoms with no other recognized cause: fever (>38°C rectal), hypothermia

Table 1. CDC/NHSN major and specific types of health care–associated infections

UTI	**Urinary tract infection**		
	SUTI	Symptomatic urinary tract infection	
	ASB	Asymptomatic bacteriuria	
	OUTI	Other infections of the urinary tract	
SSI	**Surgical site infection**		
	SIP	Superficial incisional primary SSI	
	SIS	Superficial incisional secondary SSI	
	DIP	Deep incisional primary SSI	
	DIS	Deep incisional secondary SSI	
	Organ/space	Organ/space SSI. Indicate specific type:	
		• BONE	• LUNG
		• BRST	• MED
		• CARD	• MEN
		• DISC	• ORAL
		• EAR	• OREP
		• EMET	• OUTI
		• ENDO	• SA
		• EYE	• SINU
		• GIT	• UR
		• IAB	• VASC
		• IC	• VCUF
		• JNT	
BSI	**Bloodstream infection**		
	LCBI	Laboratory-confirmed bloodstream infection	
	CSEP	Clinical sepsis	
PNEU	**Pneumonia**		
	PNU1	Clinically defined pneumonia	
	PNU2	Pneumonia with specific laboratory findings	
	PNU3	Pneumonia in immunocompromised patient	
BJ	**Bone and joint infection**		
	BONE	Osteomyelitis	
	JNT	Joint or bursa	
	DISC	Disc space	
CNS	**Central nervous system**		
	IC	Intracranial infection	
	MEN	Meningitis or ventriculitis	
	SA	Spinal abscess without meningitis	
CVS	**Cardiovascular system infection**		
	VASC	Arterial or venous infection	
	ENDO	Endocarditis	
	CARD	Myocarditis or pericarditis	
	MED	Mediastinitis	

Continued

Table 1. Continued

EENT	**Eye, ear, nose, throat, or mouth infection**	
	CONJ	Conjunctivitis
	EYE	Eye, other than conjunctivitis
	EAR	Ear, mastoid
	ORAL	Oral cavity (mouth, tongue, or gums)
	SINU	Sinusitis
	UR	Upper respiratory tract, pharyngitis, laryngitis, epiglottitis
GI	**Gastrointestinal system infection**	
	GE	Gastroenteritis
	GIT	Gastrointestinal (GI) tract
	HEP	Hepatitis
	IAB	Intraabdominal, not specified elsewhere
	NEC	Necrotizing enterocolitis
LRI	**Lower respiratory tract infection, other than pneumonia**	
	BRON	Bronchitis, tracheobronchitis, tracheitis, without evidence of pneumonia
	LUNG	Other infections of the lower respiratory tract
REPR	**Reproductive tract infection**	
	EMET	Endometritis
	EPIS	Episiotomy
	VCUF	Vaginal cuff
	OREP	Other infections of the male or female reproductive tract
SST	**Skin and soft tissue infection**	
	SKIN	Skin
	ST	Soft tissue
	DECU	Decubitus ulcer
	BURN	Burn
	BRST	Breast abscess or mastitis
	UMB	Omphalitis
	PUST	Pustulosis
	CIRC	Newborn circumcision
SYS	**Systemic Infection**	
	DI	Disseminated infection

(<37°C rectal), apnea, bradycardia, dysuria, lethargy, or vomiting

and

patient has a positive urine culture, that is, $\geq 10^5$ microorganisms per cc of urine with no more than two species of microorganisms.

4. Patient ≤1 year of age has at least *1* of the following signs or symptoms with no other recognized cause: fever (>38°C), hypothermia (<37°C), apnea, bradycardia, dysuria, lethargy, or vomiting

and

at least *1* of the following:

a. positive dipstick for leukocyte esterase and/or nitrate
b. pyuria (urine specimen with $\geq$10 WBC/mm^3 or $\geq$3 WBC/high-power field of unspun urine)
c. organisms seen on Gram's stain of unspun urine
d. at least *2* urine cultures with repeated isolation of the same uropathogen (gram-negative bacteria or *S saprophyticus*) with $\geq 10^2$ colonies/mL in nonvoided specimens
e. $\leq 10^5$ colonies/mL of a single uropathogen (gram-negative bacteria or *S saprophyticus*) in a patient being treated with an effective antimicrobial agent for a urinary tract infection
f. physician diagnosis of a urinary tract infection
g. physician institutes appropriate therapy for a urinary tract infection.

ASB-Asymptomatic bacteriuria

An asymptomatic bacteriuria must meet at least *1* of the following criteria:

1. Patient has had an indwelling urinary catheter within 7 days before the culture
   and
   patient has a positive urine culture, that is, $\geq 10^5$ microorganisms per cc of urine with no more than 2 species of microorganisms
   and
   patient has no fever (>38°C), urgency, frequency, dysuria, or suprapubic tenderness.
2. Patient has *not* had an indwelling urinary catheter within 7 days before the first positive culture
   and
   patient has had at least 2 positive urine cultures, that is, $\geq 10^5$ microorganisms per cc of urine with repeated isolation of the same microorganism and no more than 2 species of microorganisms
   and
   patient has no fever (>38°C), urgency, frequency, dysuria, or suprapubic tenderness.

Comments

- A positive culture of a urinary catheter tip is *not* an acceptable laboratory test to diagnose a urinary tract infection.
- Urine cultures must be obtained using appropriate technique, such as clean catch collection or catheterization.
- In infants, a urine culture should be obtained by bladder catheterization or suprapubic aspiration; a positive urine culture from a bag specimen is unreliable and should be confirmed by a specimen aseptically obtained by catheterization or suprapubic aspiration.

OUTI-Other infections of the urinary tract (kidney, ureter, bladder, urethra, or tissue surrounding the retroperitoneal or perinephric space)

Other infections of the urinary tract must meet at least *1* of the following criteria:

1. Patient has organisms isolated from culture of fluid (other than urine) or tissue from affected site.
2. Patient has an abscess or other evidence of infection seen on direct examination, during a surgical operation, or during a histopathologic examination.
3. Patient has at least *2* of the following signs or symptoms with no other recognized cause: fever (>38°C), localized pain, or localized tenderness at the involved site
   and
   at least *1* of the following:
   a. purulent drainage from affected site
   b. organisms cultured from blood that are compatible with suspected site of infection
   c. radiographic evidence of infection (eg, abnormal ultrasound, computerized tomography [CT] scan, magnetic resonance imaging [MRI], or radiolabel scan [gallium, technetium], etc)
   d. physician diagnosis of infection of the kidney, ureter, bladder, urethra, or tissues surrounding the retroperitoneal or perinephric space
   e. physician institutes appropriate therapy for an infection of the kidney, ureter, bladder, urethra, or tissues surrounding the retroperitoneal or perinephric space.
4. Patient $\leq$1 year of age has at least *1* of the following signs or symptoms with no other recognized cause: fever (>38°C rectal), hypothermia (<37°C rectal), apnea, bradycardia, lethargy, or vomiting
   and
   at least *1* of the following:
   a. purulent drainage from affected site
   b. organisms cultured from blood that are compatible with suspected site of infection

c. radiographic evidence of infection (eg, abnormal ultrasound, CT scan, MRI, or radiolabel scan [gallium, technetium])
d. physician diagnosis of infection of the kidney, ureter, bladder, urethra, or tissues surrounding the retroperitoneal or perinephric space
e. physician institutes appropriate therapy for an infection of the kidney, ureter, bladder, urethra, or tissues surrounding the retroperitoneal or perinephric space.

Reporting instruction

- Report infections following circumcision in newborns as CIRC.

SSI-SURGICAL SITE INFECTION

SIP/SIS-Superficial incisional surgical site infection

A superficial incisional SSI (SIP or SIS) must meet the following criterion:
Infection occurs within 30 days after the operative procedure
and
involves only skin and subcutaneous tissue of the incision
and
patient has at least *1* of the following:

a. purulent drainage from the superficial incision
b. organisms isolated from an aseptically obtained culture of fluid or tissue from the superficial incision
c. at least *1* of the following signs or symptoms of infection: pain or tenderness, localized swelling, redness, or heat, *and* superficial incision is deliberately opened by surgeon and is culture positive or not cultured. A culture-negative finding does not meet this criterion.
d. diagnosis of superficial incisional SSI by the surgeon or attending physician.

There are 2 specific types of superficial incisional SSI:

- *Superficial incisional primary (SIP):* a superficial incisional SSI that is identified in the primary incision in a patient who has had an operation with 1 or more incisions (eg, C-section incision or chest incision for coronary artery bypass graft with a donor site [CBGB]).
- *Superficial incisional secondary (SIS):* a superficial incisional SSI that is identified in the secondary incision in a patient who has had an operation with more than 1 incision (eg, donor site [leg] incision for CBGB).

Reporting instructions

- Do not report a stitch abscess (minimal inflammation and discharge confined to the points of suture penetration) as an infection.
- Do not report a localized stab wound infection as SSI, instead report as skin (SKIN), or soft tissue (ST), infection, depending on its depth.
- Report infection of the circumcision site in newborns as CIRC. Circumcision is not an NHSN operative procedure.
- Report infected burn wound as BURN.
- If the incisional site infection involves or extends into the fascial and muscle layers, report as a deep incisional SSI.
- Classify infection that involves both superficial and deep incision sites as deep incisional SSI.

DIP/DIS-Deep incisional surgical site infection

A deep incisional SSI (DIP or DIS) must meet the following criterion:
Infection occurs within 30 days after the operative procedure if no implant[1] is left in place or within 1 year if implant is in place and the infection appears to be related to the operative procedure
and
involves deep soft tissues (eg, fascial and muscle layers) of the incision
and
patient has at least *1* of the following:

a. purulent drainage from the deep incision but not from the organ/space component of the surgical site
b. a deep incision spontaneously dehisces or is deliberately opened by a surgeon and is culture-positive or not cultured when the patient has at least *1* of the following signs or symptoms: fever (>38°C), or localized pain or tenderness. A culture-negative finding does not meet this criterion.
c. an abscess or other evidence of infection involving the deep incision is found on direct examination, during reoperation, or by histopathologic or radiologic examination
d. diagnosis of a deep incisional SSI by a surgeon or attending physician.

There are 2 specific types of deep incisional SSI:

- *Deep incisional primary (DIP):* a deep incisional SSI that is identified in a primary incision in a patient

[1] A nonhuman-derived object, material, or tissue (eg, prosthetic heart valve, nonhuman vascular graft, mechanical heart, or hip prosthesis) that is permanently placed in a patient during an operative procedure and is not routinely manipulated for diagnostic or therapeutic purposes.

who has had an operation with one or more incisions (eg, C-section incision or chest incision for CBGB); and

- *Deep incisional secondary (DIS):* a deep incisional SSI that is identified in the secondary incision in a patient who has had an operation with more than 1 incision (eg, donor site [leg] incision for CBGB).

Reporting instruction

- Classify infection that involves *both* superficial and deep incision sites as deep incisional SSI.

Organ/space-Organ/space surgical site infection

An organ/space SSI involves any part of the body, excluding the skin incision, fascia, or muscle layers, that is opened or manipulated during the operative procedure. Specific sites are assigned to organ/space SSI to identify further the location of the infection. Listed below in reporting instructions are the specific sites that must be used to differentiate organ/space SSI. An example is appendectomy with subsequent subdiaphragmatic abscess, which would be reported as an organ/space SSI at the intraabdominal specific site (SSI-IAB).

An organ/space SSI must meet the following criterion:

Infection occurs within 30 days after the operative procedure if no implant[†] is left in place or within 1 year if implant is in place and the infection appears to be related to the operative procedure
and
infection involves any part of the body, excluding the skin incision, fascia, or muscle layers, that is opened or manipulated during the operative procedure
and
patient has at least *1* of the following:

a. purulent drainage from a drain that is placed through a stab wound into the organ/space
b. organisms isolated from an aseptically obtained culture of fluid or tissue in the organ/space
c. an abscess or other evidence of infection involving the organ/space that is found on direct examination, during reoperation, or by histopathologic or radiologic examination
d. diagnosis of an organ/space SSI by a surgeon or attending physician.

Reporting instructions

- Specific sites of organ/space SSI (see also criteria for these sites)

O BONE	O LUNG
O BRST	O MED
O CARD	O MEN
O DISC	O ORAL
O EAR	O OREP
O EMET	O OUTI
O ENDO	O SA
O EYE	O SINU
O GIT	O UR
O IAB	O VASC
O IC	O VCUF
O JNT	

- Occasionally an organ/space infection drains through the incision. Such infection generally does not involve reoperation and is considered a complication of the incision; therefore, classify it as a deep incisional SSI.

BSI-BLOODSTREAM INFECTION

LCBI-Laboratory-confirmed bloodstream infection

LCBI criteria 1 and 2 may be used for patients of any age, including patients ≤1 year of age.

LCBI must meet at least *1* of the following criteria:

1. Patient has a recognized pathogen cultured from 1 or more blood cultures
   and
   organism cultured from blood is *not* related to an infection at another site. (See Notes 1 and 2.)
2. Patient has at least *1* of the following signs or symptoms: fever (>38°C), chills, or hypotension
   and
   signs and symptoms and positive laboratory results are *not* related to an infection at another site
   and
   common skin contaminant (ie, diphtheroids [*Corynebacterium* spp], *Bacillus* [not *B anthracis*] spp, *Propionibacterium* spp, coagulase-negative staphylococci [including *S epidermidis*], viridans group streptococci, *Aerococcus* spp, *Micrococcus* spp) is cultured from *2* or more blood cultures drawn on separate occasions. (See Notes 3 and 4.)
3. Patient ≤1 year of age has at least *1* of the following signs or symptoms: fever (>38°C, rectal), hypothermia (<37°C, rectal), apnea, or bradycardia
   and
   signs and symptoms and positive laboratory results are *not* related to an infection at another site
   and
   common skin contaminant (ie, diphtheroids [*Corynebacterium* spp], *Bacillus* [not *B anthracis*] spp, *Propionibacterium* spp, coagulase-negative staphylococci [including *S epidermidis*], viridans group streptococci, *Aerococcus* spp, *Micrococcus* spp) is cultured from *2* or more blood

cultures drawn on separate occasions. (See Notes 3 and 4.)

Notes

1. In criterion 1, the phrase "1 or more blood cultures" means that at least 1 bottle from a blood draw is reported by the laboratory as having grown organisms (ie, is a positive blood culture).
2. In criterion 1, the term "recognized pathogen" does *not* include organisms considered common skin contaminants (see criteria 2 and 3 for a list of common skin contaminants). A few of the recognized pathogens are *S aureus, Enterococcus* spp, *E coli, Pseudomonas* spp, *Klebsiella* spp, *Candida* spp, and others.
3. In criteria 2 and 3, the phrase "2 or more blood cultures drawn on separate occasions" means (1) that blood from at least 2 blood draws were collected within 2 days of each other (eg, blood draws on Monday and Tuesday or Monday and Wednesday would be acceptable for blood cultures drawn on separate occasions, but blood draws on Monday and Thursday would be too far apart in time to meet this criterion) and (2) that at least 1 bottle from each blood draw is reported by the laboratory as having grown the same common skin contaminant organism (ie, is a positive blood culture). (See Note 4 for determining sameness of organisms.)
   a. For example, an adult patient has blood drawn at 8 AM and again at 8:15 AM of the same day. Blood from each blood draw is inoculated into 2 bottles and incubated (4 bottles total). If 1 bottle from each blood draw set is positive for coagulase-negative staphylococci, this part of the criterion is met.
   b. For example, a neonate has blood drawn for culture on Tuesday and again on Saturday, and both grow the same common skin contaminant. Because the time between these blood cultures exceeds the 2-day period for blood draws stipulated in criteria 2 and 3, this part of the criteria is *not* met.
   c. A blood culture may consist of a single bottle for a pediatric blood draw because of volume constraints. Therefore, to meet this part of the criterion, each bottle from 2 or more draws would have to be culture positive for the same skin contaminant.
4. There are several issues to consider when determining sameness of organisms.
   a. If the common skin contaminant is identified to the species level from 1 culture, and a companion culture is identified with only a descriptive name (ie, to the genus level), then it is assumed that the organisms are the same. The speciated organism should be reported as the infecting pathogen (see examples in Table 2).
   b. If common skin contaminant organisms from the cultures are speciated but no antibiograms are done or they are done for only 1 of the isolates, it is assumed that the organisms are the same.
   c. If the common skin contaminants from the cultures have antibiograms that are different for 2 or more antimicrobial agents, it is assumed that the organisms are *not* the same (see examples in Table 3).
   d. For the purpose of NHSN antibiogram reporting, the category interpretation of intermediate (I) should *not* be used to distinguish whether 2 organisms are the same.

Table 2. Examples of "sameness" by organism speciation

Culture	Companion Culture	Report as...
S epidermidis	*Coagulase-negative staphylococci*	*S epidermidis*
Bacillus spp (not *anthracis*)	*B cereus*	*B cereus*
S salivarius	*Strep* viridans	*S salivarius*

Table 3. Examples of "sameness" by organism antibiogram

Organism Name	Isolate A	Isolate B	Interpret as...
S epidermidis	All drugs **S**	All drugs **S**	Same
S epidermidis	OX **R** CEFAZ **R**	OX **S** CEFAZ **S**	Different
Corynebacterium spp	PENG **R** CIPRO **S**	PENG **S** CIPRO **R**	Different
Strep viridans	All drugs **S**	All drugs **S** except ERYTH **R**	Same

S, sensitive; **R**, resistant.

Specimen collection considerations

Ideally, blood specimens for culture should be obtained from 2 to 4 blood draws from separate venipuncture sites (eg, right and left antecubital veins), not through a vascular catheter. These blood draws should be performed simultaneously or over a short period of time (ie, within a few hours).[3,4] If your facility does not currently obtain specimens using this technique, you may still report BSIs using the criteria and notes above, but you should work with appropriate personnel to facilitate better specimen collection practices for blood cultures.

Reporting instructions

- Purulent phlebitis confirmed with a positive semiquantitative culture of a catheter tip, but with either negative or no blood culture is considered a CVS-VASC, not a BSI.
- Report organisms cultured from blood as BSI–LCBI when no other site of infection is evident.

CSEP-CLINICAL SEPSIS

CSEP may be used only to report primary BSI in neonates and infants. It is not used to report BSI in adults and children.

Clinical sepsis must meet the following criterion:

Patient ≤1 year of age has at least *1* of the following clinical signs or symptoms with no other recognized cause: fever (>38°C rectal), hypothermia (<37°C rectal), apnea, or bradycardia

and

blood culture *not* done or *no* organisms detected in blood

and

no apparent infection at another site

and

physician institutes treatment for sepsis.

Reporting instruction

- Report culture-positive infections of the bloodstream as BSI-LCBI.

PNEU-PNEUMONIA

See Appendix.

BJ–BONE AND JOINT INFECTION

BONE-Osteomyelitis

Osteomyelitis must meet at least *1* of the following criteria:

1. Patient has organisms cultured from bone.
2. Patient has evidence of osteomyelitis on direct examination of the bone during a surgical operation or histopathologic examination.
3. Patient has at least *2* of the following signs or symptoms with no other recognized cause: fever (>38°C), localized swelling, tenderness, heat, or drainage at suspected site of bone infection

   and

   at least *1* of the following:

   a. organisms cultured from blood
   b. positive blood antigen test (eg, *H influenzae*, *S pneumoniae*)
   c. radiographic evidence of infection (eg, abnormal findings on x-ray, CT scan, MRI, radiolabel scan [gallium, technetium, etc]).

Reporting instruction

- Report mediastinitis following cardiac surgery that is accompanied by osteomyelitis as SSI-MED rather than SSI-BONE.

JNT-Joint or bursa

Joint or bursa infections must meet at least *1* of the following criteria:

1. Patient has organisms cultured from joint fluid or synovial biopsy.
2. Patient has evidence of joint or bursa infection seen during a surgical operation or histopathologic examination.
3. Patient has at least *2* of the following signs or symptoms with no other recognized cause: joint pain, swelling, tenderness, heat, evidence of effusion or limitation of motion

   and

   at least *1* of the following:

   a. organisms *and* white blood cells seen on Gram's stain of joint fluid
   b. positive antigen test on blood, urine, or joint fluid
   c. cellular profile and chemistries of joint fluid compatible with infection and *not* explained by an underlying rheumatologic disorder
   d. radiographic evidence of infection (eg, abnormal findings on x-ray, CT scan, MRI, radiolabel scan [gallium, technetium, etc]).

DISC-Disc space infection

Vertebral disc space infection must meet at least *1* of the following criteria:

1. Patient has organisms cultured from vertebral disc space tissue obtained during a surgical operation or needle aspiration.
2. Patient has evidence of vertebral disc space infection seen during a surgical operation or histopathologic examination.
3. Patient has fever (>38°C) with no other recognized cause or pain at the involved vertebral disc space

   and

   radiographic evidence of infection, (eg, abnormal findings on x-ray, CT scan, MRI, radiolabel scan [gallium, technetium, etc]).

4. Patient has fever (>38°C) with no other recognized cause and pain at the involved vertebral disc space
   and
   positive antigen test on blood or urine (eg, *H influenzae*, *S pneumoniae*, *N meningitidis*, or Group B *Streptococcus*).

CNS-CENTRAL NERVOUS SYSTEM INFECTION

IC-Intracranial infection (brain abscess, subdural or epidural infection, encephalitis)

Intracranial infection must meet at least *1* of the following criteria:

1. Patient has organisms cultured from brain tissue or dura.
2. Patient has an abscess or evidence of intracranial infection seen during a surgical operation or histopathologic examination.
3. Patient has at least *2* of the following signs or symptoms with no other recognized cause: headache, dizziness, fever (>38°C), localizing neurologic signs, changing level of consciousness, or confusion
   and
   at least *1* of the following:
   a. organisms seen on microscopic examination of brain or abscess tissue obtained by needle aspiration or by biopsy during a surgical operation or autopsy
   b. positive antigen test on blood or urine
   c. radiographic evidence of infection, (eg, abnormal findings on ultrasound, CT scan, MRI, radionuclide brain scan, or arteriogram)
   d. diagnostic single antibody titer (IgM) or 4-fold increase in paired sera (IgG) for pathogen
   and
   if diagnosis is made antemortem, physician institutes appropriate antimicrobial therapy.
4. Patient ≤1 year of age has at least *2* of the following signs or symptoms with no other recognized cause: fever (>38°C rectal), hypothermia (<37°C rectal), apnea, bradycardia, localizing neurologic signs, or changing level of consciousness
   and
   at least *1* of the following:
   a. organisms seen on microscopic examination of brain or abscess tissue obtained by needle aspiration or by biopsy during a surgical operation or autopsy
   b. positive antigen test on blood or urine
   c. radiographic evidence of infection, (eg, abnormal findings on ultrasound, CT scan, MRI, radionuclide brain scan, or arteriogram)
   d. diagnostic single antibody titer (IgM) or 4-fold increase in paired sera (IgG) for pathogen
   and
   if diagnosis is made antemortem, physician institutes appropriate antimicrobial therapy.

Reporting instruction

- If meningitis and a brain abscess are present together, report the infection as IC.

MEN-Meningitis or ventriculitis

Meningitis or ventriculitis must meet at least *1* of the following criteria:

1. Patient has organisms cultured from cerebrospinal fluid (CSF).
2. Patient has at least *1* of the following signs or symptoms with no other recognized cause: fever (>38°C), headache, stiff neck, meningeal signs, cranial nerve signs, or irritability
   and
   at least *1* of the following:
   a. increased white cells, elevated protein, and/or decreased glucose in CSF
   b. organisms seen on Gram's stain of CSF
   c. organisms cultured from blood
   d. positive antigen test of CSF, blood, or urine
   e. diagnostic single antibody titer (IgM) or 4-fold increase in paired sera (IgG) for pathogen
   and
   if diagnosis is made antemortem, physician institutes appropriate antimicrobial therapy.
3. Patient ≤1 year of age has at least *1* of the following signs or symptoms with no other recognized cause: fever (>38°C rectal), hypothermia (<37°C rectal), apnea, bradycardia, stiff neck, meningeal signs, cranial nerve signs, or irritability
   and
   at least 1 of the following:
   a. positive CSF examination with increased white cells, elevated protein, and/or decreased glucose
   b. positive Gram's stain of CSF
   c. organisms cultured from blood
   d. positive antigen test of CSF, blood, or urine
   e. diagnostic single antibody titer (IgM) or 4-fold increase in paired sera (IgG) for pathogen

and
if diagnosis is made antemortem, physician institutes appropriate antimicrobial therapy.

Reporting instructions

- Report meningitis in the newborn as health care-associated *unless* there is compelling evidence indicating the meningitis was acquired transplacentally.
- Report CSF shunt infection as SSI-MEN if it occurs ≤1 year of placement; if later or after manipulation/access of the shunt, report as CNS-MEN.
- Report meningoencephalitis as MEN.
- Report spinal abscess *with* meningitis as MEN.

SA-Spinal abscess without meningitis

An abscess of the spinal epidural or subdural space, without involvement of the cerebrospinal fluid or adjacent bone structures, must meet at least *1* of the following criteria:

1. Patient has organisms cultured from abscess in the spinal epidural or subdural space.
2. Patient has an abscess in the spinal epidural or subdural space seen during a surgical operation or at autopsy or evidence of an abscess seen during a histopathologic examination.
3. Patient has at least *1* of the following signs or symptoms with no other recognized cause: fever (>38°C), back pain, focal tenderness, radiculitis, paraparesis, or paraplegia
   and
   at least 1 of the following:
   a. organisms cultured from blood
   b. radiographic evidence of a spinal abscess (eg, abnormal findings on myelography, ultrasound, CT scan, MRI, or other scans [gallium, technetium, etc]).
   and
   if diagnosis is made antemortem, physician institutes appropriate antimicrobial therapy.

Reporting instruction

- Report spinal abscess *with* meningitis as MEN.

CVS-CARDIOVASCULAR SYSTEM INFECTION

VASC-Arterial or venous infection

Arterial or venous infection must meet at least *1* of the following criteria:

1. Patient has organisms cultured from arteries or veins removed during a surgical operation
   and
   blood culture *not* done or *no* organisms cultured from blood.
2. Patient has evidence of arterial or venous infection seen during a surgical operation or histopathologic examination.
3. Patient has at least *1* of the following signs or symptoms with no other recognized cause: fever (>38°C), pain, erythema, or heat at involved vascular site
   and
   more than 15 colonies cultured from intravascular cannula tip using semiquantitative culture method
   and
   blood culture *not* done or *no* organisms cultured from blood.
4. Patient has purulent drainage at involved vascular site
   and
   blood culture *not* done or *no* organisms cultured from blood.
5. Patient ≤1 year of age has at least *1* of the following signs or symptoms with no other recognized cause: fever (>38°C rectal), hypothermia (<37°C rectal), apnea, bradycardia, lethargy, or pain, erythema, or heat at involved vascular site
   and
   more than 15 colonies cultured from intravascular cannula tip using semiquantitative culture method
   and
   blood culture *not* done or *no* organisms cultured from blood.

Reporting instructions

- Report infections of an arteriovenous graft, shunt, or fistula or intravascular cannulation site without organisms cultured from blood as CVS-VASC.
- Report intravascular infections with organisms cultured from the blood as BSI-LCBI.

ENDO-Endocarditis

Endocarditis of a natural or prosthetic heart valve must meet at least *1* of the following criteria:

1. Patient has organisms cultured from valve or vegetation.
2. Patient has 2 or more of the following signs or symptoms with no other recognized cause: fever (>38°C), new or changing murmur, embolic phenomena, skin manifestations (ie, petechiae, splinter hemorrhages, painful subcutaneous nodules),

congestive heart failure, or cardiac conduction abnormality
and
at least *1* of the following:
a. organisms cultured from *2* or more blood cultures
b. organisms seen on Gram's stain of valve when culture is negative or *not* done
c. valvular vegetation seen during a surgical operation or autopsy
d. positive antigen test on blood or urine (eg, *H influenzae, S pneumoniae, N meningitidis*, or Group B *Streptococcus*)
e. evidence of new vegetation seen on echocardiogram
and
if diagnosis is made antemortem, physician institutes appropriate antimicrobial therapy.

3. Patient ≤1 year of age has *2* or more of the following signs or symptoms with no other recognized cause: fever (>38°C rectal), hypothermia (<37°C rectal), apnea, bradycardia, new or changing murmur, embolic phenomena, skin manifestations (ie, petechiae, splinter hemorrhages, painful subcutaneous nodules), congestive heart failure, or cardiac conduction abnormality
and
at least *1* of the following:
a. organisms cultured from *2* or more blood cultures
b. organisms seen on Gram's stain of valve when culture is negative or *not* done
c. valvular vegetation seen during a surgical operation or autopsy
d. positive antigen test on blood or urine (eg, *H influenzae, S pneumoniae, N meningitidis*, or Group B *Streptococcus*)
e. evidence of new vegetation seen on echocardiogram
and
if diagnosis is made antemortem, physician institutes appropriate antimicrobial therapy.

CARD-Myocarditis or pericarditis

Myocarditis or pericarditis must meet at least *1* of the following criteria:

1. Patient has organisms cultured from pericardial tissue or fluid obtained by needle aspiration or during a surgical operation.
2. Patient has at least *2* of the following signs or symptoms with no other recognized cause: fever (>38°C), chest pain, paradoxical pulse, or increased heart size
and
at least *1* of the following:
a. abnormal EKG consistent with myocarditis or pericarditis
b. positive antigen test on blood (eg, *H influenzae, S pneumoniae*)
c. evidence of myocarditis or pericarditis on histologic examination of heart tissue
d. 4-fold rise in type-specific antibody with or without isolation of virus from pharynx or feces
e. pericardial effusion identified by echocardiogram, CT scan, MRI, or angiography.
3. Patient ≤1 year of age has at least *2* of the following signs or symptoms with no other recognized cause: fever (>38°C rectal), hypothermia (<37°C rectal), apnea, bradycardia, paradoxical pulse, or increased heart size
and
at least *1* of the following:
a. abnormal EKG consistent with myocarditis or pericarditis
b. positive antigen test on blood (eg, *H influenzae, S pneumoniae*)
c. histologic examination of heart tissue shows evidence of myocarditis or pericarditis
d. 4-fold rise in type-specific antibody with or without isolation of virus from pharynx or feces
e. pericardial effusion identified by echocardiogram, CT scan, MRI, or angiography.

Comment

- Most cases of postcardiac surgery or postmyocardial infarction pericarditis are not infectious.

MED-Mediastinitis

Mediastinitis must meet at least *1* of the following criteria:

1. Patient has organisms cultured from mediastinal tissue or fluid obtained during a surgical operation or needle aspiration.
2. Patient has evidence of mediastinitis seen during a surgical operation or histopathologic examination.
3. Patient has at least *1* of the following signs or symptoms with no other recognized cause: fever (>38°C), chest pain, or sternal instability
and
at least *1* of the following:
a. purulent discharge from mediastinal area
b. organisms cultured from blood or discharge from mediastinal area

c. mediastinal widening on x-ray.

4. Patient ≤1 year of age has at least *1* of the following signs or symptoms with no other recognized cause: fever (>38°C rectal), hypothermia (<37°C rectal), apnea, bradycardia, or sternal instability
   and
   at least *1* of the following:
   a. purulent discharge from mediastinal area
   b. organisms cultured from blood or discharge from mediastinal area
   c. mediastinal widening on x-ray.

Reporting instruction

- Report mediastinitis following cardiac surgery that is accompanied by osteomyelitis as SSI-MED rather than SSI-BONE.

EENT-EYE, EAR, NOSE, THROAT, OR MOUTH INFECTION

CONJ-Conjunctivitis

Conjunctivitis must meet at least *1* of the following criteria:

1. Patient has pathogens cultured from purulent exudate obtained from the conjunctiva or contiguous tissues, such as eyelid, cornea, meibomian glands, or lacrimal glands.
2. Patient has pain or redness of conjunctiva or around eye
   and
   at least *1* of the following:
   a. WBCs and organisms seen on Gram's stain of exudate
   b. purulent exudate
   c. positive antigen test (eg, ELISA or IF for *Chlamydia trachomatis*, herpes simplex virus, adenovirus) on exudate or conjunctival scraping
   d. multinucleated giant cells seen on microscopic examination of conjunctival exudate or scrapings
   e. positive viral culture
   f. diagnostic single antibody titer (IgM) or 4-fold increase in paired sera (IgG) for pathogen.

Reporting instructions

- Report other infections of the eye as EYE.
- Do *not* report chemical conjunctivitis caused by silver nitrate ($AgNO_3$) as a health care–associated infection.
- Do *not* report conjunctivitis that occurs as a part of a more widely disseminated viral illness (such as measles, chickenpox, or a URI).

EYE-Eye, other than conjunctivitis

An infection of the eye, other than conjunctivitis, must meet at least *1* of the following criteria:

1. Patient has organisms cultured from anterior or posterior chamber or vitreous fluid.
2. Patient has at least *2* of the following signs or symptoms with no other recognized cause: eye pain, visual disturbance, or hypopyon
   and
   at least *1* of the following:
   a. physician diagnosis of an eye infection
   b. positive antigen test on blood (eg, *H influenzae*, *S pneumoniae*)
   c. organisms cultured from blood.

EAR-Ear mastoid

Ear and mastoid infections must meet at least *1* of the following criteria:

Otitis externa must meet at least *1* of the following criteria:

1. Patient has pathogens cultured from purulent drainage from ear canal.
2. Patient has at least *1* of the following signs or symptoms with no other recognized cause: fever (>38°C), pain, redness, or drainage from ear canal
   and
   organisms seen on Gram's stain of purulent drainage.

Otitis media must meet at least *1* of the following criteria:

1. Patient has organisms cultured from fluid from middle ear obtained by tympanocentesis or at surgical operation.
2. Patient has at least *2* of the following signs or symptoms with no other recognized cause: fever (>38°C), pain in the eardrum, inflammation, retraction or decreased mobility of eardrum, or fluid behind eardrum.

Otitis interna must meet at least *1* of the following criteria:

1. Patient has organisms cultured from fluid from inner ear obtained at surgical operation.
2. Patient has a physician diagnosis of inner ear infection.

Mastoiditis must meet at least *1* of the following criteria:

1. Patient has organisms cultured from purulent drainage from mastoid.

2. Patient has at least 2 of the following signs or symptoms with no other recognized cause: fever (>38°C), pain, tenderness, erythema, headache, or facial paralysis
   and
   at least *1* of the following:
   a. organisms seen on Gram's stain of purulent material from mastoid
   b. positive antigen test on blood.

ORAL-Oral cavity (mouth, tongue, or gums)

Oral cavity infections must meet at least *1* of the following criteria:

1. Patient has organisms cultured from purulent material from tissues of oral cavity.
2. Patient has an abscess or other evidence of oral cavity infection seen on direct examination, during a surgical operation, or during a histopathologic examination.
3. Patient has at least *1* of the following signs or symptoms with no other recognized cause: abscess, ulceration, or raised white patches on inflamed mucosa, or plaques on oral mucosa
   and
   at least *1* of the following:
   a. organisms seen on Gram's stain
   b. positive KOH (potassium hydroxide) stain
   c. multinucleated giant cells seen on microscopic examination of mucosal scrapings
   d. positive antigen test on oral secretions
   e. diagnostic single antibody titer (IgM) or 4-fold increase in paired sera (IgG) for pathogen
   f. physician diagnosis of infection and treatment with topical or oral antifungal therapy.

Reporting instruction

- Report health care–associated primary herpes simplex infections of the oral cavity as ORAL; recurrent herpes infections are *not* health care–associated.

SINU-Sinusitis

Sinusitis must meet at least *1* of the following criteria:

1. Patient has organisms cultured from purulent material obtained from sinus cavity.
2. Patient has at least *1* of the following signs or symptoms with no other recognized cause: fever (>38°C), pain or tenderness over the involved sinus, headache, purulent exudate, or nasal obstruction
   and
   at least *1* of the following:
   a. positive transillumination
   b. positive radiographic examination (including CT scan).

UR-Upper respiratory tract, pharyngitis, laryngitis, epiglottitis

Upper respiratory tract infections must meet at least *1* of the following criteria:

1. Patient has at least *2* of the following signs or symptoms with no other recognized cause: fever (>38°C), erythema of pharynx, sore throat, cough, hoarseness, or purulent exudate in throat
   and
   at least *1* of the following:
   a. organisms cultured from the specific site
   b. organisms cultured from blood
   c. positive antigen test on blood or respiratory secretions
   d. diagnostic single antibody titer (IgM) or 4-fold increase in paired sera (IgG) for pathogen
   e. physician diagnosis of an upper respiratory infection.
2. Patient has an abscess seen on direct examination, during a surgical operation, or during a histopathologic examination.
3. Patient ≤1 year of age has at least *2* of the following signs or symptoms with no other recognized cause: fever (>38°C rectal), hypothermia (<37°C rectal), apnea, bradycardia, nasal discharge, or purulent exudate in throat
   and
   at least *1* of the following:
   a. organisms cultured from the specific site
   b. organisms cultured from blood
   c. positive antigen test on blood or respiratory secretions
   d. diagnostic single antibody titer (IgM) or 4-fold increase in paired sera (IgG) for pathogen
   e. physician diagnosis of an upper respiratory infection.

GI-GASTROINTESTINAL SYSTEM INFECTION

GE-Gastroenteritis

Gastroenteritis must meet at least *1* of the following criteria:

1. Patient has an acute onset of diarrhea (liquid stools for more than 12 hours) with or without

vomiting or fever (>38°C) and no likely noninfectious cause (eg, diagnostic tests, therapeutic regimen other than antimicrobial agents, acute exacerbation of a chronic condition, or psychologic stress).
2. Patient has at least *2* of the following signs or symptoms with no other recognized cause: nausea, vomiting, abdominal pain, fever (>38°C), or headache
   and
   at least *1* of the following:
   a. an enteric pathogen is cultured from stool or rectal swab
   b. an enteric pathogen is detected by routine or electron microscopy
   c. an enteric pathogen is detected by antigen or antibody assay on blood or feces
   d. evidence of an enteric pathogen is detected by cytopathic changes in tissue culture (toxin assay)
   e. diagnostic single antibody titer (IgM) or 4-fold increase in paired sera (IgG) for pathogen.

GIT-Gastrointestinal tract (esophagus, stomach, small and large bowel, and rectum) excluding gastroenteritis and appendicitis

Gastrointestinal tract infections, excluding gastroenteritis and appendicitis, must meet at least *1* of the following criteria:

1. Patient has an abscess or other evidence of infection seen during a surgical operation or histopathologic examination.
2. Patient has at least *2* of the following signs or symptoms with no other recognized cause and compatible with infection of the organ or tissue involved: fever (>38°C), nausea, vomiting, abdominal pain, or tenderness
   and
   at least *1* of the following:
   a. organisms cultured from drainage or tissue obtained during a surgical operation or endoscopy or from a surgically placed drain
   b. organisms seen on Gram's or KOH stain or multinucleated giant cells seen on microscopic examination of drainage or tissue obtained during a surgical operation or endoscopy or from a surgically placed drain
   c. organisms cultured from blood
   d. evidence of pathologic findings on radiographic examination
   e. evidence of pathologic findings on endoscopic examination (eg, *Candida* esophagitis or proctitis).

HEP-Hepatitis

Hepatitis must meet the following criterion:

Patient has at least *2* of the following signs or symptoms with no other recognized cause: fever (>38°C), anorexia, nausea, vomiting, abdominal pain, jaundice, or history of transfusion within the previous 3 months
and
at least *1* of the following:
   a. positive antigen or antibody test for hepatitis A, hepatitis B, hepatitis C, or delta hepatitis
   b. abnormal liver function tests (eg, elevated ALT/AST, bilirubin)
   c. cytomegalovirus (CMV) detected in urine or oropharyngeal secretions.

Reporting instructions

- Do *not* report hepatitis or jaundice of noninfectious origin (alpha-1 antitrypsin deficiency, etc).
- Do *not* report hepatitis or jaundice that results from exposure to hepatotoxins (alcoholic or acetaminophen-induced hepatitis, etc).
- Do *not* report hepatitis or jaundice that results from biliary obstruction (cholecystitis).

IAB-Intraabdominal, not specified elsewhere including gallbladder, bile ducts, liver (excluding viral hepatitis), spleen, pancreas, peritoneum, subphrenic or subdiaphragmatic space, or other intraabdominal tissue or area not specified elsewhere

Intraabdominal infections must meet at least *1* of the following criteria:

1. Patient has organisms cultured from purulent material from intraabdominal space obtained during a surgical operation or needle aspiration.
2. Patient has abscess or other evidence of intraabdominal infection seen during a surgical operation or histopathologic examination.
3. Patient has at least *2* of the following signs or symptoms with no other recognized cause: fever (>38°C), nausea, vomiting, abdominal pain, or jaundice
   and
   at least *1* of the following:
   a. organisms cultured from drainage from surgically placed drain (eg, closed suction drainage system, open drain, T-tube drain)
   b. organisms seen on Gram's stain of drainage or tissue obtained during surgical operation or needle aspiration

c. organisms cultured from blood *and* radiographic evidence of infection (eg, abnormal findings on ultrasound, CT scan, MRI, or radiolabel scans [gallium, technetium, etc] or on abdominal x-ray).

Reporting instruction

- Do *not* report pancreatitis (an inflammatory syndrome characterized by abdominal pain, nausea, and vomiting associated with high serum levels of pancreatic enzymes) unless it is determined to be infectious in origin.

NEC-Necrotizing enterocolitis

Necrotizing enterocolitis in infants must meet the following criterion:

Infant has at least *2* of the following signs or symptoms with no other recognized cause: vomiting, abdominal distention, or prefeeding residuals
and
persistent microscopic or gross blood in stools
and
at least *1* of the following abdominal radiographic abnormalities:

a. pneumoperitoneum
b. pneumatosis intestinalis
c. unchanging "rigid" loops of small bowel.

LRI-LOWER RESPIRATORY TRACT INFECTION, OTHER THAN PNEUMONIA

BRON-Bronchitis, tracheobronchitis, bronchiolitis, tracheitis, without evidence of pneumonia

Tracheobronchial infections must meet at least *1* of the following criteria:

1. Patient has *no* clinical or radiographic evidence of pneumonia
   and
   patient has at least *2* of the following signs or symptoms with no other recognized cause: fever (>38°C), cough, new or increased sputum production, rhonchi, wheezing
   and
   at least *1* of the following:
   a. positive culture obtained by deep tracheal aspirate or bronchoscopy
   b. positive antigen test on respiratory secretions.
2. Patient ≤1 year of age has *no* clinical or radiographic evidence of pneumonia
   and
   patient has at least *2* of the following signs or symptoms with no other recognized cause: fever (>38°C rectal), cough, new or increased sputum production, rhonchi, wheezing, respiratory distress, apnea, or bradycardia
   and
   at least *1* of the following:
   a. organisms cultured from material obtained by deep tracheal aspirate or bronchoscopy
   b. positive antigen test on respiratory secretions
   c. diagnostic single antibody titer (IgM) or 4-fold increase in paired sera (IgG) for pathogen.

Reporting instruction

- Do *not* report chronic bronchitis in a patient with chronic lung disease as an infection unless there is evidence of an acute secondary infection, manifested by change in organism.

LUNG-Other infections of the lower respiratory tract

Other infections of the lower respiratory tract must meet at least *1* of the following criteria:

1. Patient has organisms seen on smear or cultured from lung tissue or fluid, including pleural fluid.
2. Patient has a lung abscess or empyema seen during a surgical operation or histopathologic examination.
3. Patient has an abscess cavity seen on radiographic examination of lung.

Reporting instructions

- Report concurrent lower respiratory tract infection and pneumonia with the same organism(s) as PNEU.
- Report lung abscess or empyema without pneumonia as LUNG.

REPR-REPRODUCTIVE TRACT INFECTION

EMET-Endometritis

Endometritis must meet at least *1* of the following criteria:

1. Patient has organisms cultured from fluid or tissue from endometrium obtained during surgical operation, by needle aspiration, or by brush biopsy.
2. Patient has at least *2* of the following signs or symptoms with no other recognized cause: fever

(>38°C), abdominal pain, uterine tenderness, or purulent drainage from uterus.

Reporting instruction

- Report postpartum endometritis as a health care–associated infection *unless* the amniotic fluid is infected at the time of admission or the patient was admitted 48 hours after rupture of the membrane.

EPIS-Episiotomy

Episiotomy infections must meet at least *1* of the following criteria:

1. Postvaginal delivery patient has purulent drainage from the episiotomy.
2. Postvaginal delivery patient has an episiotomy abscess.

Comment

- Episiotomy is not considered an operative procedure in NHSN.

VCUF-Vaginal cuff

Vaginal cuff infections must meet at least 1 of the following criteria:

1. Posthysterectomy patient has purulent drainage from the vaginal cuff.
2. Posthysterectomy patient has an abscess at the vaginal cuff.
3. Posthysterectomy patient has pathogens cultured from fluid or tissue obtained from the vaginal cuff.

Reporting instruction

- Report vaginal cuff infections as SSI-VCUF.

OREP-Other infections of the male or female reproductive tract (epididymis, testes, prostate, vagina, ovaries, uterus, or other deep pelvic tissues, excluding endometritis or vaginal cuff infections)

Other infections of the male or female reproductive tract must meet at least *1* of the following criteria:

1. Patient has organisms cultured from tissue or fluid from affected site.
2. Patient has an abscess or other evidence of infection of affected site seen during a surgical operation or histopathologic examination.
3. Patient has *2* of the following signs or symptoms with no other recognized cause: fever (>38°C), nausea, vomiting, pain, tenderness, or dysuria
   and
   at least 1 of the following:
   a. organisms cultured from blood
   b. physician diagnosis.

Reporting instructions

- Report endometritis as EMET.
- Report vaginal cuff infections as VCUF.

SST-SKIN AND SOFT TISSUE INFECTION

SKIN-Skin

Skin infections must meet at least *1* of the following criteria:

1. Patient has purulent drainage, pustules, vesicles, or boils.
2. Patient has at least *2* of the following signs or symptoms with no other recognized cause: pain or tenderness, localized swelling, redness, or heat
   and
   at least *1* of the following:
   a. organisms cultured from aspirate or drainage from affected site; if organisms are normal skin flora (ie, diphtheroids [*Corynebacterium* spp], *Bacillus* [not *B anthracis*] spp, *Propionibacterium* spp, coagulase-negative staphylococci [including *S epidermidis*], viridans group streptococci, *Aerococcus* spp, *Micrococcus* spp), they must be a pure culture
   b. organisms cultured from blood
   c. positive antigen test performed on infected tissue or blood (eg, herpes simplex, varicella zoster, *H influenzae, N meningitidis*)
   d. multinucleated giant cells seen on microscopic examination of affected tissue
   e. diagnostic single antibody titer (IgM) or 4-fold increase in paired sera (IgG) for pathogen.

Reporting instructions

- Report omphalitis in infants as UMB.
- Report infections of the circumcision site in newborns as CIRC.
- Report pustules in infants as PUST.
- Report infected decubitus ulcers as DECU.
- Report infected burns as BURN.
- Report breast abscesses or mastitis as BRST.

ST-Soft tissue (necrotizing fascitis, infectious gangrene, necrotizing cellulitis, infectious myositis, lymphadenitis, or lymphangitis)

Soft tissue infections must meet at least *1* of the following criteria:

1. Patient has organisms cultured from tissue or drainage from affected site.
2. Patient has purulent drainage at affected site.
3. Patient has an abscess or other evidence of infection seen during a surgical operation or histopathologic examination.
4. Patient has at least *2* of the following signs or symptoms at the affected site with no other recognized cause: localized pain or tenderness, redness, swelling, or heat
   and
   at least *1* of the following:
   a. organisms cultured from blood
   b. positive antigen test performed on blood or urine (eg, *H influenzae, S pneumoniae, N meningitidis*, Group B *Streptococcus, Candida* spp)
   c. diagnostic single antibody titer (IgM) or 4-fold increase in paired sera (IgG) for pathogen.

Reporting instructions

- Report infected decubitus ulcers as DECU.
- Report infection of deep pelvic tissues as OREP.

DECU-Decubitus ulcer, including both superficial and deep infections

Decubitus ulcer infections must meet the following criterion:

Patient has at least *2* of the following signs or symptoms with no other recognized cause: redness, tenderness, or swelling of decubitus wound edges
and
at least *1* of the following:

a. organisms cultured from properly collected fluid or tissue (see Comments)
b. organisms cultured from blood.

Comments

- Purulent drainage alone is *not* sufficient evidence of an infection.
- Organisms cultured from the surface of a decubitus ulcer are *not* sufficient evidence that the ulcer is infected. A properly collected specimen from a decubitus ulcer involves needle aspiration of fluid or biopsy of tissue from the ulcer margin.

BURN-Burn

Burn infections must meet at least *1* of the following criteria:

1. Patient has a change in burn wound appearance or character, such as rapid eschar separation, or dark brown, black, or violaceous discoloration of the eschar, or edema at wound margin
   and
   histologic examination of burn biopsy shows invasion of organisms into adjacent viable tissue.
2. Patient has a change in burn wound appearance or character, such as rapid eschar separation, or dark brown, black, or violaceous discoloration of the eschar, or edema at wound margin
   and
   at least *1* of the following:
   a. organisms cultured from blood in the absence of other identifiable infection
   b. isolation of herpes simplex virus, histologic identification of inclusions by light or electron microscopy, or visualization of viral particles by electron microscopy in biopsies or lesion scrapings.
3. Patient with a burn has at least *2* of the following signs or symptoms with no other recognized cause: fever (>38°C) or hypothermia (<36°C), hypotension, oliguria (<20 cc/hr), hyperglycemia at previously tolerated level of dietary carbohydrate, or mental confusion
   and
   at least *1* of the following:
   a. histologic examination of burn biopsy shows invasion of organisms into adjacent viable tissue
   b. organisms cultured from blood
   c. isolation of herpes simplex virus, histologic identification of inclusions by light or electron microscopy, or visualization of viral particles by electron microscopy in biopsies or lesion scrapings.

Comments

- Purulence alone at the burn wound site is *not* adequate for the diagnosis of burn infection; such purulence may reflect incomplete wound care.
- Fever alone in a burn patient is *not* adequate for the diagnosis of a burn infection because fever may be the result of tissue trauma or the patient may have an infection at another site.
- Surgeons in Regional Burn Centers who take care of burn patients exclusively may require Criterion 1 for diagnosis of burn infection.

- Hospitals with Regional Burn Centers may further divide burn infections into the following: burn wound site, burn graft site, burn donor site, burn donor site-cadaver; NHSN, however, will code all of these as BURN.

BRST-Breast abscess or mastitis

A breast abscess or mastitis must meet at least *1* of the following criteria:

1. Patient has a positive culture of affected breast tissue or fluid obtained by incision and drainage or needle aspiration.
2. Patient has a breast abscess or other evidence of infection seen during a surgical operation or histopathologic examination.
3. Patient has fever (>38°C) and local inflammation of the breast
   and
   physician diagnosis of breast abscess.

Comment

- Breast abscesses occur most frequently after childbirth. Those that occur within 7 days after childbirth should be considered health care associated.

UMB-Oomphalitis

Omphalitis in a newborn (≤30 days old) must meet at least *1* of the following criteria:

1. Patient has erythema and/or serous drainage from umbilicus
   and
   at least *1* of the following:
   a. organisms cultured from drainage or needle aspirate
   b. organisms cultured from blood.
2. Patient has both erythema and purulence at the umbilicus.

Reporting instructions

- Report infection of the umbilical artery or vein related to umbilical catheterization as VASC if there is no accompanying blood culture or a blood culture is negative.
- Report as health care associated if infection occurs in a newborn within 7 days of hospital discharge.

PUST-Infant pustulosis

Pustulosis in an infant (≤1 year old) must meet at least *1* of the following criteria:

1. Infant has *1* or more pustules
   and
   physician diagnosis of skin infection.
2. Infant has *1* or more pustules
   and
   physician institutes appropriate antimicrobial therapy.

Reporting instructions

- Do *not* report erythema toxicum and noninfectious causes of pustulosis.
- Report as health care associated if pustulosis occurs in an infant within 7 days of hospital discharge.

CIRC-Newborn circumcision

Circumcision infection in a newborn (≤30 days old) must meet at least *1* of the following criteria:

1. Newborn has purulent drainage from circumcision site.
2. Newborn has at least *1* of the following signs or symptoms with no other recognized cause at circumcision site: erythema, swelling, or tenderness
   and
   pathogen cultured from circumcision site.
3. Newborn has at least *1* of the following signs or symptoms with no other recognized cause at circumcision site: erythema, swelling, or tenderness
   and
   skin contaminant (ie, diphtheroids [*Corynebacterium* spp], *Bacillus* [not *B anthracis*] spp, *Propionibacterium* spp, coagulase-negative staphylococci [including *S epidermidis*], viridans group streptococci, *Aerococcus* spp, *Micrococcus* spp) is cultured from circumcision site
   and
   physician diagnosis of infection or physician institutes appropriate therapy.

SYS-SYSTEMIC INFECTION

DI-Disseminated infection

Disseminated infection is infection involving multiple organs or systems, without an apparent single site of infection, usually of viral origin, and with signs or symptoms with no other recognized cause and compatible with infectious involvement of multiple organs or systems.

Reporting instructions

- Use this code for viral infections involving multiple organ systems (eg, measles, mumps, rubella, varicella, erythema infectiosum). These infections often can be identified by clinical criteria alone. Do *not* use this code for health care–associated

infections with multiple metastatic sites, such as with bacterial endocarditis; only the primary site of these infections should be reported.
- Do *not* report fever of unknown origin (FUO) as DI.
- Report neonatal "sepsis" as CSEP.
- Report viral exanthems or rash illness as DI.

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APPENDIX. PNEU-PNEUMONIA

There are 3 specific types of pneumonia: clinically defined pneumonia (PNU1), pneumonia with specific laboratory findings (PNU2), and pneumonia in immunocompromised patients (PNU3). Listed below are general comments applicable to all specific types of pneumonia, along with abbreviations used in the algorithms (Tables 4-7) and reporting instructions. Table 8 shows threshold values for cultured specimens used in the surveillance diagnosis of pneumonia. Figures 1 and 2 are flow diagrams for the pneumonia algorithms that may be used as data collection tools.

General comments

1. Physician diagnosis of pneumonia alone is not an acceptable criterion for health care–associated pneumonia.
2. Although specific criteria are included for infants and children, pediatric patients may meet any of the other pneumonia specific site criteria.
3. Ventilator-associated pneumonia (ie, pneumonia in persons who had a device to assist or control respiration continuously through a tracheostomy or by endotracheal intubation within the 48-hour period before the onset of infection, inclusive of the weaning period) should be so designated when reporting data.
4. When assessing a patient for presence of pneumonia, it is important to distinguish between changes in clinical status due to other conditions such as myocardial infarction, pulmonary embolism, respiratory distress syndrome, atelectasis, malignancy, chronic obstructive pulmonary disease, hyaline membrane disease, bronchopulmonary dysplasia, etc. Also, care must be taken when assessing intubated patients to distinguish between tracheal colonization, upper respiratory tract infections (eg, tracheobronchitis), and early onset pneumonia. Finally, it should be recognized that it may be difficult to determine health care–associated pneumonia in the elderly, infants, and immunocompromised patients because such conditions may mask typical signs or symptoms associated with pneumonia. Alternate specific criteria for the elderly, infants and immunocompromised patients have been included in this definition of health care–associated pneumonia.
5. Health care–associated pneumonia can be characterized by its onset: early or late. Early onset pneumonia occurs during the first 4 days of hospitalization and is often caused by *Moraxella catarrhalis, H influenzae,* and *S pneumoniae.* Causative agents of late onset pneumonia are frequently gram negative bacilli or *S aureus,* including methicillin-resistant *S aureus.* Viruses (eg, influenza A and B or respiratory syncytial virus) can cause early and late onset nosocomial pneumonia, whereas yeasts, fungi, legionellae, and *Pneumocystis carinii* are usually pathogens of late onset pneumonia.
6. Pneumonia due to gross aspiration (for example, in the setting of intubation in the emergency room or operating room) is considered health care associated if it meets any specific criteria and was not clearly present or incubating at the time of admission to the hospital.
7. Multiple episodes of health care–associated pneumonia may occur in critically ill patients with lengthy hospital stays. When determining whether to report multiple episodes of health care–associated pneumonia in a single patient, look for evidence of resolution of the initial infection. The addition of or change in pathogen alone is not indicative of a new episode of pneumonia. The combination of new signs and symptoms and radiographic evidence or other diagnostic testing is required.
8. Positive Gram stain for bacteria and positive KOH (potassium hydroxide) mount for elastin fibers and/or fungal hyphae from appropriately collected sputum specimens are important clues that point toward the etiology of the infection. However, sputum samples are frequently contaminated with airway colonizers and therefore must be interpreted cautiously. In particular, *Candida* is commonly seen on stain, but infrequently causes healthcare-associated pneumonia.

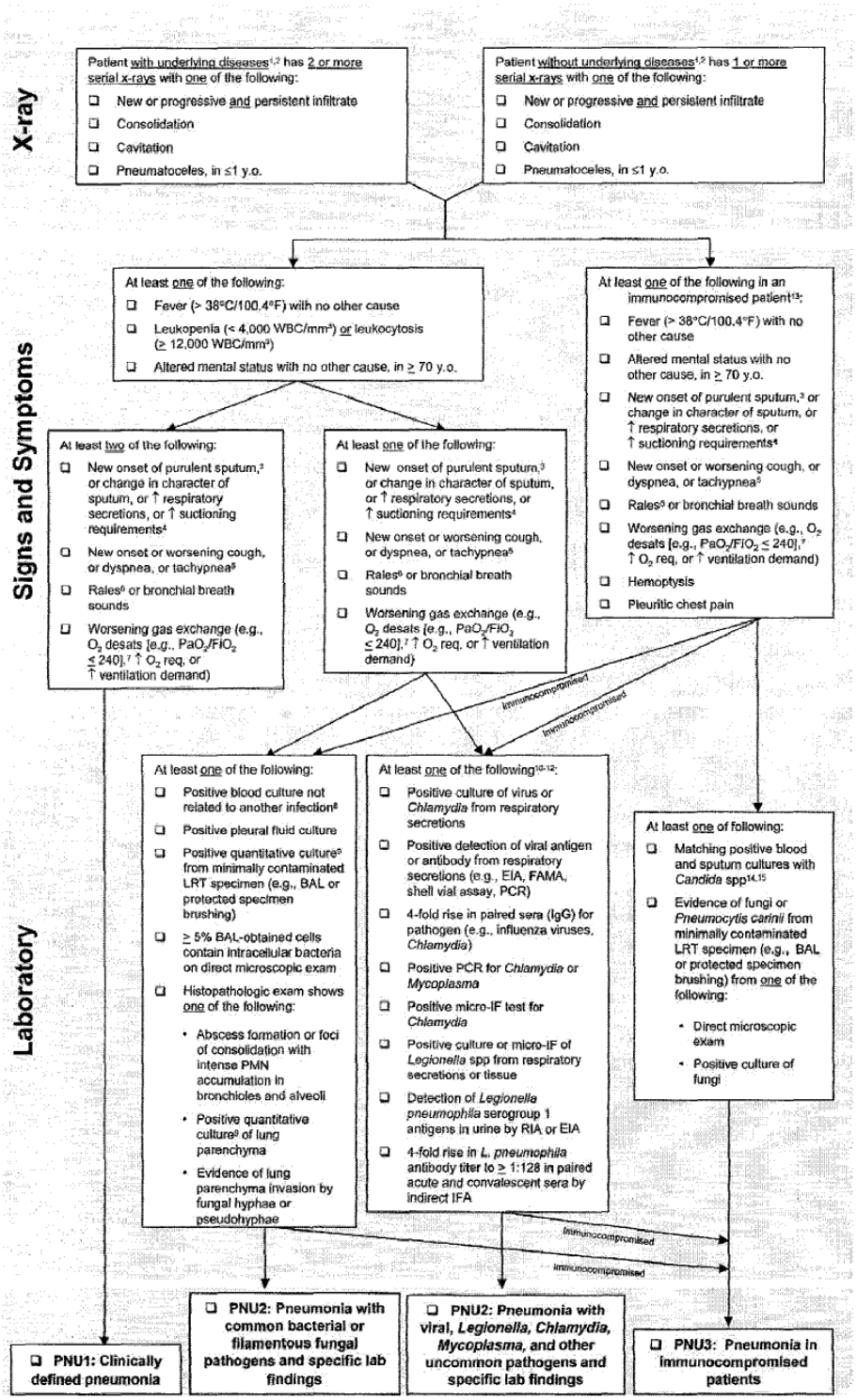

Fig 1. Pneumonia flow diagram.

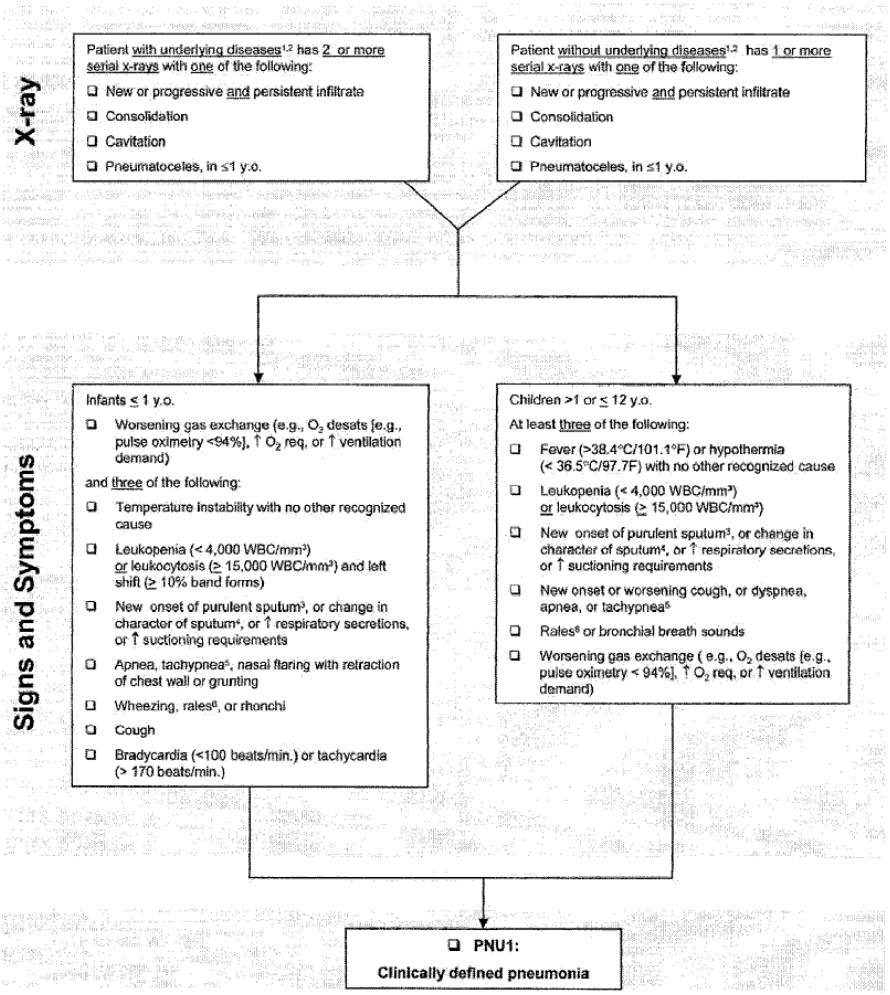

Fig 2. Pneumonia flow diagram alternate criteria for infants and children.

Abbreviations

BAL–bronchoalveolar lavage
EIA–enzyme immunoassay
FAMA–fluorescent-antibody staining of membrane antigen
IFA–immunofluorescent antibody
LRT–lower respiratory tract
PCR–polymerase chain reaction
PMN–polymorphonuclear leukocyte
RIA–radioimmunoassay

Reporting instructions

- There is a hierarchy of specific categories within the major type pneumonia (PNEU). Even if a patient meets criteria for more than 1 specific site, report only 1:
  - If a patient meets criteria for both PNU1 and PNU2, report PNU2.
  - If a patient meets criteria for both PNU2 and PNU3, report PNU3.
  - If a patient meets criteria for both PNU1 and PNU3, report PNU3.
- Report concurrent lower respiratory tract infection (eg, abscess or empyema) and pneumonia with the same organism(s) as pneumonia.
- Lung abscess or empyema *without* pneumonia are classified as LUNG.
- Bronchitis, tracheitis, tracheobronchitis, or bronchiolitis *without* pneumonia are classified as BRON.

Table 4. Algorithms for clinically defined pneumonia (PNU1)

Radiology	Signs/Symptoms
Two or more serial chest radiographs with at least 1 of the following[1,2]: • New or progressive and persistent infiltrate • Consolidation • Cavitation • Pneumatoceles, in infants ≤1 year old NOTE: In patients without underlying pulmonary or cardiac disease (eg, respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), 1 definitive chest radiograph is acceptable.[1]	FOR ANY PATIENT, at least 1 of the following: • Fever (>38°C or >100.4°F) with no other recognized cause • Leukopenia (<4000 WBC/mm^3) or leukocytosis (≥12,000 WBC/mm^3) • For adults ≥70 years old, altered mental status with no other recognized cause *and* at least 2 of the following: • New onset of purulent sputum[3] or change in character of sputum[4] or increased respiratory secretions or increased suctioning requirements • New onset or worsening cough, or dyspnea, or tachypnea[5] • Rales[6] or bronchial breath sounds • Worsening gas exchange (eg, O_2 desaturations [eg, PaO_2/FiO_2 ≤240],[7] increased oxygen requirements, or increased ventilator demand) ALTERNATE CRITERIA, for infants ≤1 year old: Worsening gas exchange (eg, O_2 desaturations, increased oxygen requirements, or increased ventilator demand) *and* at least 3 of the following: • Temperature instability with no other recognized cause • Leukopenia (<4000 WBC/mm^3) *or* leukocytosis (≥15,000 WBC/mm^3) and left shift (≥10% band forms) • New onset of purulent sputum[3] or change in character of sputum,[4] or increased respiratory secretions or increased suctioning requirements • Apnea, tachypnea,[5] nasal flaring with retraction of chest wall or grunting • Wheezing, rales,[6] or rhonchi • Cough • Bradycardia (<100 beats/min) or tachycardia (>170 beats/min) ALTERNATE CRITERIA, for child >1 year old or ≤12 years old, at least *3* of the following: • Fever (>38.4°C or >101.1°F) or hypothermia (<36.5°C or <97.7°F) with no other recognized cause • Leukopenia (<4000 WBC/mm^3) or leukocytosis (≥15,000 WBC/mm^3) • New onset of purulent sputum[3] or change in character of sputum[4] or increased respiratory secretions or increased suctioning requirements • New onset or worsening cough or dyspnea, apnea, or tachypnea[5] • Rales[6] or bronchial breath sounds • Worsening gas exchange (eg, O_2 desaturations [eg, pulse oximetry <94%], increased oxygen requirements, or increased ventilator demand)

Footnotes to Algorithms:

1. Occasionally, in nonventilated patients, the diagnosis of health care–associated pneumonia may be quite clear on the basis of symptoms, signs, and a single definitive chest radiograph. However, in patients with pulmonary or cardiac disease (for example, interstitial lung disease or congestive heart failure), the diagnosis of pneumonia may be particularly difficult. Other noninfectious conditions (for example, pulmonary edema from decompensated congestive heart failure) may simulate the presentation of pneumonia. In these more difficult cases, serial chest radiographs must be examined to help separate infectious from noninfectious pulmonary processes. To help confirm difficult cases, it may be useful to review radiographs on the day of diagnosis, 3 days prior to the diagnosis and on days 2 and 7 after the diagnosis. Pneumonia may have rapid onset and progression, but does not resolve quickly. Radiographic changes of pneumonia persist for several weeks. As a result, rapid radiographic resolution suggests that the patient does *not* have pneumonia but rather a noninfectious process such as atelectasis or congestive heart failure.
2. Note that there are many ways of describing the radiographic appearance of pneumonia. Examples include, but are not limited to, "air-space disease," "focal opacification," "patchy areas of increased density." Although perhaps not specifically delineated as pneumonia by the radiologist, in the appropriate clinical setting these alternative descriptive wordings should be seriously considered as potentially positive findings.
3. Purulent sputum is defined as secretions from the lungs, bronchi, or trachea that contain ≥25 neutrophils and ≤10 squamous epithelial cells per low power field (×100). If your laboratory reports these data qualitatively (eg, "many WBCs" or "few squames"), be sure their descriptors match this definition of purulent sputum. This laboratory confirmation is required because written clinical descriptions of purulence are highly variable.
4. A single notation of either purulent sputum or change in character of the sputum is not meaningful; repeated notations over a 24-hour period would be more indicative of the onset of an infectious process. Change in character of sputum refers to the color, consistency, odor, and quantity.

Table 5. Algorithms for pneumonia with common bacterial or filamentous fungal pathogens and specific laboratory findings (PNU2)

Radiology	Signs/Symptoms	Laboratory
Two or more serial chest radiographs with at least 1 of the following[1,2]: • New or progressive *and* persistent infiltrate • Consolidation • Cavitation • Pneumatoceles, in infants ≤1 year old NOTE: In patients without underlying pulmonary or cardiac disease (eg, respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), *1 definitive* chest radiograph is acceptable.[1]	At least 1 of the following: • Fever (>38°C or >100.4°F) with no other recognized cause • Leukopenia (<4000 WBC/mm^3) *or* leukocytosis (≥12,000 WBC/mm^3) • For adults ≥70 years old, altered mental status with no other recognized cause *and* at least 1 of the following: • New onset of purulent sputum[3] or change in character of sputum[4] or increased respiratory secretions or increased suctioning requirements • New onset or worsening cough or dyspnea or tachypnea[5] • Rales[6] or bronchial breath sounds • Worsening gas exchange (eg, O_2 desaturations [eg, PaO_2/FiO_2 ≤240][7], increased oxygen requirements, or increased ventilator demand)	At least 1 of the following: • Positive growth in blood culture[8] not related to another source of infection • Positive growth in culture of pleural fluid • Positive quantitative culture[9] from minimally contaminated LRT specimen (eg, BAL or protected specimen brushing) • ≥5% BAL-obtained cells contain intracellular bacteria on direct microscopic exam (eg, Gram stain) • Histopathologic exam shows at least 1 of the following evidences of pneumonia: • Abscess formation or foci of consolidation with intense PMN accumulation in bronchioles and alveoli • Positive quantitative culture[9] of lung parenchyma • Evidence of lung parenchyma invasion by fungal hyphae or pseudohyphae

Table 6. Algorithms for pneumonia with viral, *Legionella, Chlamydia, Mycoplasma*, and other uncommon pathogens and specific laboratory findings (PNU2)

Radiology	Signs/Symptoms	Laboratory
Two or more serial chest radiographs with at least 1 of the following[1,2]: • New or progressive *and* persistent infiltrate • Consolidation • Cavitation • Pneumatoceles, in infants ≤1 year old NOTE: In patients without underlying pulmonary or cardiac disease (eg, respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), *1 definitive* chest radiograph is acceptable.[1]	At least 1 of the following: • Fever (>38°C or >100.4°F) with no other recognized cause • Leukopenia (<4000 WBC/mm^3) or leukocytosis (≥12,000 WBC/mm^3) • For adults ≥70 years old, altered mental status with no other recognized cause *and* at least 1 of the following: • New onset of purulent sputum[3] or change in character of sputum[4] or increased respiratory secretions or increased suctioning requirements • New onset or worsening cough or dyspnea or tachypnea[5] • Rales[6] or bronchial breath sounds • Worsening gas exchange (eg, O_2 desaturations [eg, PaO_2/FiO_2 ≤240],[7] increased oxygen requirements, or increased ventilator demand)	At least 1 of the following[10-12]: • Positive culture of virus or *Chlamydia* from respiratory secretions • Positive detection of viral antigen or antibody from respiratory secretions (eg, EIA, FAMA, shell vial assay, PCR) • Four-fold rise in paired sera (IgG) for pathogen (eg, influenza viruses, *Chlamydia*) • Positive PCR for *Chlamydia* or *Mycoplasma* • Positive micro-IF test for *Chlamydia* • Positive culture or visualization by micro-IF of *Legionella* spp, from respiratory secretions or tissue • Detection of *Legionella pneumophila* serogroup 1 antigens in urine by RIA or EIA • Four-fold rise in *L pneumophila* serogroup 1 antibody titer to ≥1:128 in paired acute and convalescent sera by indirect IFA

5. In adults, tachypnea is defined as respiration rate >25 breaths per minute. Tachypnea is defined as >75 breaths per minute in premature infants born at <37 weeks gestation and until the 40th week; >60 breaths per minute in infants <2 months old; >50 breaths per minute in infants 2 to 12 months old; and >30 breaths per minute in children >1 year old.
6. Rales may be described as "crackles."
7. This measure of arterial oxygenation is defined as the ratio of the arterial tension (PaO_2) to the inspiratory fraction of oxygen (FiO_2).
8. Care must be taken to determine the etiology of pneumonia in a patient with positive blood cultures and radiographic evidence of pneumonia, especially if the patient has invasive devices in place such as intravascular lines or an indwelling urinary catheter. In general, in an immunocompetent patient, blood cultures positive for coagulase-negative staphylococci, common skin contaminants, and yeasts will not be the etiologic agent of the pneumonia.
9. Refer to threshold values for cultured specimens (Table 8). An endotracheal aspirate is not a minimally contaminated specimen. Therefore, an endotracheal aspirate does not meet the laboratory criteria.
10. Once laboratory-confirmed due to pneumonia because of respiratory syncytial virus (RSV), adenovirus, or influenza virus have been identified in a hospital, clinician's presumptive diagnosis of these pathogens in subsequent cases with similar clinical signs and symptoms is an acceptable criterion for presence of health care–associated infection.

Table 7. Algorithms for pneumonia in immunocompromised patients (PNU3)

Radiology	Signs/Symptoms	Laboratory
Two or more serial chest radiographs with at least 1 of the following[1,2]: • New or progressive *and* persistent infiltrate • Consolidation • Cavitation • Pneumatoceles, in infants ≤1 year old NOTE: In patients without underlying pulmonary or cardiac disease (eg, respiratory distress syndrome, bronchopulmonary dysplasia, pulmonary edema, or chronic obstructive pulmonary disease), 1 *definitive* chest radiograph is acceptable.[1]	Patient who is immunocompromised[13] has at least 1 of the following: • Fever (>38°C or >100.4°F) with no other recognized cause • For adults ≥70 years old, altered mental status with no other recognized cause • New onset of purulent sputum[3] or change in character of sputum[4] or increased respiratory secretions or increased suctioning requirements • New onset or worsening cough or dyspnea or tachypnea[5] • Rales[6] or bronchial breath sounds • Worsening gas exchange (eg, O_2 desaturations [eg, PaO_2/FiO_2 ≤240],[7] increased oxygen requirements, or increased ventilator demand) • Hemoptysis • Pleuritic chest pain	At least 1 of the following: • Matching positive blood and sputum cultures with *Candida* spp[14,15] • Evidence of fungi or *Pneumocystis carinii* from minimally contaminated LRT specimen (eg, BAL or protected specimen brushing) from 1 of the following: o Direct microscopic exam o Positive culture of fungi • Any of the laboratory criteria defined under PNU2

11. Scant or watery sputum is commonly seen in adults with pneumonia due to viruses and *Mycoplasma* although sometimes the sputum may be mucopurulent. In infants, pneumonia due to RSV or influenza yields copious sputum. Patients, except premature infants, with viral or *Mycoplasmal* pneumonia may exhibit few signs or symptoms, even when significant infiltrates are present on radiographic exam.
12. Few bacteria may be seen on stains of respiratory secretions from patients with pneumonia due to *Legionella* spp, mycoplasma, or viruses.
13. Immunocompromised patients include those with neutropenia (absolute neutrophil count <500/mm^3), leukemia, lymphoma, HIV with CD4 count <200, or splenectomy; those who are early posttransplantation, are on cytotoxic chemotherapy, or are on high-dose steroids (e.g., >40mg of prednisone or its equivalent [>160mg hydrocortisone, >32mg methylprednisolone, >6mg dexamethasone, >200mg cortisone] daily for >2weeks).
14. Blood and sputum specimens must be collected within 48 hours of each other.
15. Semiquantitative or nonquantitative cultures of sputum obtained by deep cough, induction, aspiration, or lavage are acceptable. If quantitative culture results are available, refer to algorithms that include such specific laboratory findings.

Table 8. Threshold values for cultured specimens used in the diagnosis of pneumonia

Specimen collection/technique	Values
Lung parenchyma*	≥10^4 cfu/g tissue
Bronchoscopically obtained specimens	
Bronchoalveolar lavage	≥10^4 cfu/mL
Protected BAL	≥10^4 cfu/mL
Protected specimen brushing	≥10^4 cfu/mL
Nonbronchoscopically obtained (blind) specimens	
Bronchoalveolar lavage	≥10^4 cfu/mL
Protected BAL	≥10^4 cfu/mL

cfu, colony-forming units.
*Open-lung biopsy specimens and immediate post-mortem specimens obtained by transthoracic or transbronchial biopsy.

Vol. 20 No. 4 INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY 247

GUIDELINE FOR PREVENTION OF SURGICAL SITE INFECTION, 1999

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Centers for Disease Control and Prevention
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Table of Contents

250 INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY April 1999

Special Report

Guideline for Prevention of Surgical Site Infection, 1999

Alicia J. Mangram, MD; Teresa C. Horan, MPH, CIC; Michele L. Pearson, MD; Leah Christine Silver, BS; William R. Jarvis, MD; The Hospital Infection Control Practices Advisory Committee

EXECUTIVE SUMMARY

The "Guideline for Prevention of Surgical Site Infection, 1999" presents the Centers for Disease Control and Prevention (CDC)'s recommendations for the prevention of surgical site infections (SSIs), formerly called surgical wound infections. This two-part guideline updates and replaces previous guidelines.[1,2]

Part I, "Surgical Site Infection: An Overview," describes the epidemiology, definitions, microbiology, pathogenesis, and surveillance of SSIs. Included is a detailed discussion of the pre-, intra-, and postoperative issues relevant to SSI genesis.

Part II, "Recommendations for Prevention of Surgical Site Infection," represents the consensus of the Hospital Infection Control Practices Advisory Committee (HICPAC) regarding strategies for the prevention of SSIs.[3] Whenever possible, the recommendations in Part II are based on data from well-designed scientific studies. However, there are a limited number of studies that clearly validate risk factors and prevention measures for SSI. By necessity, available studies have often been conducted in narrowly defined patient populations or for specific kinds of operations, making generalization of their findings to all specialties and types of operations potentially problematic. This is especially true regarding the implementation of SSI prevention measures. Finally, some of the infection control practices routinely used by surgical teams cannot be rigorously studied for ethical or logistical reasons (e.g., wearing vs not wearing gloves). Thus, some of the recommendations in Part II are based on a strong theoretical rationale and suggestive evidence in the absence of confirmatory scientific knowledge.

It has been estimated that approximately 75% of all operations in the United States will be performed in "ambulatory," "same-day," or "outpatient" operating rooms by the turn of the century.[4] In recommending various SSI prevention methods, this document makes no distinction between surgical care delivered in such settings and that provided in conventional inpatient operating rooms. This document is primarily intended for use by surgeons, operating room nurses, postoperative inpatient and clinic nurses, infection control professionals, anesthesiologists, healthcare epidemiologists, and other personnel directly responsible for the prevention of nosocomial infections.

This document does *not:*

- Specifically address issues unique to burns, trauma, transplant procedures, or transmission of bloodborne pathogens from healthcare worker to patient, nor does it specifically address details of SSI prevention in pediatric surgical practice. It has been recently shown in a multicenter study of pediatric surgical patients that characteristics related to the operations are more important than those related to the physiologic status of the patients.[5] In general, all SSI prevention measures effective in adult surgical care are indicated in pediatric surgical care.
- Specifically address procedures performed outside of the operating room (e.g., endoscopic procedures), nor does it provide guidance for infection prevention for invasive procedures such as cardiac catheterization or interventional radiology. Nonetheless, it is likely that many SSI prevention strategies also could be applied or adapted to reduce infectious complications associated with these procedures.
- Specifically recommend SSI prevention methods

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unique to minimally invasive operations (i.e., laparoscopic surgery). Available SSI surveillance data indicate that laparoscopic operations generally have a lower or comparable SSI risk when contrasted to open operations.[6-11] SSI prevention measures applicable in open operations (e.g., open cholecystectomy) are indicated for their laparoscopic counterparts (e.g., laparoscopic cholecystectomy).

- Recommend specific antiseptic agents for patient preoperative skin preparations or for healthcare worker hand/forearm antisepsis. Hospitals should choose from products recommended for these activities in the latest Food and Drug Administration (FDA) monograph.[12]

I. SURGICAL SITE INFECTION (SSI): AN OVERVIEW

A. INTRODUCTION

Before the mid-19th century, surgical patients commonly developed postoperative "irritative fever," followed by purulent drainage from their incisions, overwhelming sepsis, and often death. It was not until the late 1860s, after Joseph Lister introduced the principles of antisepsis, that postoperative infectious morbidity decreased substantially. Lister's work radically changed surgery from an activity associated with infection and death to a discipline that could eliminate suffering and prolong life.

Currently, in the United States alone, an estimated 27 million surgical procedures are performed each year.[13] The CDC's National Nosocomial Infections Surveillance (NNIS) system, established in 1970, monitors reported trends in nosocomial infections in U.S. acute-care hospitals. Based on NNIS system reports, SSIs are the third most frequently reported nosocomial infection, accounting for 14% to 16% of all nosocomial infections among hospitalized patients.[14] During 1986 to 1996, hospitals conducting SSI surveillance in the NNIS system reported 15,523 SSIs following 593,344 operations (CDC, unpublished data). Among surgical patients, SSIs were the most common nosocomial infection, accounting for 38% of all such infections. Of these SSIs, two thirds were confined to the incision, and one third involved organs or spaces accessed during the operation. When surgical patients with nosocomial SSI died, 77% of the deaths were reported to be related to the infection, and the majority (93%) were serious infections involving organs or spaces accessed during the operation.

In 1980, Cruse estimated that an SSI increased a patient's hospital stay by approximately 10 days and cost an additional $2,000.[15,16] A 1992 analysis showed that each SSI resulted in 7.3 additional postoperative hospital days, adding $3,152 in extra charges.[17] Other studies corroborate that increased length of hospital stay and cost are associated with SSIs.[18,19] Deep SSIs involving organs or spaces, as compared to SSIs confined to the incision, are associated with even greater increases in hospital stays and costs.[20,21]

Advances in infection control practices include improved operating room ventilation, sterilization methods, barriers, surgical technique, and availability of antimicrobial prophylaxis. Despite these activities, SSIs remain a substantial cause of morbidity and mortality among hospitalized patients. This may be partially explained by the emergence of antimicrobial-resistant pathogens and the increased numbers of surgical patients who are elderly and/or have a wide variety of chronic, debilitating, or immunocompromising underlying diseases. There also are increased numbers of prosthetic implant and organ transplant operations performed. Thus, to reduce the risk of SSI, a systematic but realistic approach must be applied with the awareness that this risk is influenced by characteristics of the patient, operation, personnel, and hospital.

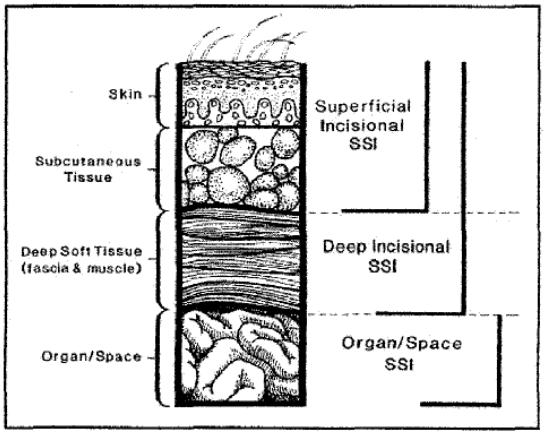

FIGURE. Cross-section of abdominal wall depicting CDC classifications of surgical site infection.[22]

B. KEY TERMS USED IN THE GUIDELINE

1. Criteria for Defining SSIs

The identification of SSI involves interpretation of clinical and laboratory findings, and it is crucial that a surveillance program use definitions that are consistent and standardized; otherwise, inaccurate or uninterpretable SSI rates will be computed and reported. The CDC's NNIS system has developed standardized surveillance criteria for defining SSIs (Table 1).[22] By these criteria, SSIs are classified as being either incisional or organ/space. Incisional SSIs are further divided into those involving only skin and subcutaneous tissue (superficial incisional SSI) and those involving deeper soft tissues of the incision (deep incisional SSI). Organ/space SSIs involve any part of the anatomy (e.g., organ or space) other than incised body wall layers, that was opened or manipulated during an operation (Figure). Table 2 lists site-specific classifications used to differentiate organ/space SSIs. For example, in a patient who had an appendectomy and subsequently developed an intra-abdominal abscess not draining through the incision, the infection would be reported as an organ/space SSI at the intra-abdominal site. Failure to use objective criteria to define SSIs has been shown to substantially affect reported SSI rates.[23,24] The CDC NNIS definitions of SSIs have been applied consistently by surveillance and surgical personnel in many settings and currently are a de facto national standard.[22,25]

TABLE 1
CRITERIA FOR DEFINING A SURGICAL SITE INFECTION (SSI)*

Superficial Incisional SSI

Infection occurs within 30 days after the operation
and
infection involves only skin or subcutaneous tissue of the incision
and at least *one* of the following:

1. Purulent drainage, with or without laboratory confirmation, from the superficial incision.
2. Organisms isolated from an aseptically obtained culture of fluid or tissue from the superficial incision.
3. At least one of the following signs or symptoms of infection: pain or tenderness, localized swelling, redness, or heat *and* superficial incision is deliberately opened by surgeon, *unless* incision is culture-negative.
4. Diagnosis of superficial incisional SSI by the surgeon or attending physician.

Do *not* report the following conditions as SSI:

1. Stitch abscess (minimal inflammation and discharge confined to the points of suture penetration).
2. Infection of an episiotomy or newborn circumcision site.
3. Infected burn wound.
4. Incisional SSI that extends into the fascial and muscle layers (see deep incisional SSI).

Note: Specific criteria are used for identifying infected episiotomy and circumcision sites and burn wounds.[433]

Deep Incisional SSI

Infection occurs within 30 days after the operation if no implant† is left in place or within 1 year if implant is in place and the infection appears to be related to the operation
and
infection involves deep soft tissues (e.g., fascial and muscle layers) of the incision
and at least *one* of the following:

1. Purulent drainage from the deep incision but not from the organ/space component of the surgical site.
2. A deep incision spontaneously dehisces or is deliberately opened by a surgeon when the patient has at least one of the following signs or symptoms: fever (>38°C), localized pain, or tenderness, unless site is culture-negative.
3. An abscess or other evidence of infection involving the deep incision is found on direct examination, during reoperation, or by histopathological or radiologic examination.
4. Diagnosis of a deep incisional SSI by a surgeon or attending physician.

Notes:

1. Report infection that involves both superficial and deep incision sites as deep incisional SSI.
2. Report an organ/space SSI that drains through the incision as a deep incisional SSI.

Organ/Space SSI

Infection occurs within 30 days after the operation if no implant† is left in place or within 1 year if implant is in place and the infection appears to be related to the operation
and
infection involves any part of the anatomy (e.g., organs or spaces), other than the incision, which was opened or manipulated during an operation
and at least *one* of the following:

1. Purulent drainage from a drain that is placed through a stab wound‡ into the organ/space.
2. Organisms isolated from an aseptically obtained culture of fluid or tissue in the organ/space.
3. An abscess or other evidence of infection involving the organ/space that is found on direct examination, during reoperation, or by histopathologic or radiologic examination.
4. Diagnosis of an organ/space SSI by a surgeon or attending physician.

* Horan TC et al.[22]
† National Nosocomial Infection Surveillance definition: a nonhuman-derived implantable foreign body (e.g., prosthetic heart valve, nonhuman vascular graft, mechanical heart, or hip prosthesis) that is permanently placed in a patient during surgery.
‡ If the area around a stab wound becomes infected, it is not an SSI. It is considered a skin or soft tissue infection, depending on its depth.

2. Operating Suite

A physically separate area that comprises operating rooms and their interconnecting hallways and ancillary work areas such as scrub sink rooms. No distinction is made between operating suites located in conventional inpatient hospitals and those used for "same-day" surgical care, whether in a hospital or a free-standing facility.

3. Operating Room

A room in an operating suite where operations are performed.

4. Surgical Personnel

Any healthcare worker who provides care to surgical patients during the pre-, intra-, or postoperative periods.

5. Surgical Team Member

Any healthcare worker in an operating room during the operation who has a surgical care role. Members of the surgical team may be "scrubbed" or not; scrubbed members have direct contact with the sterile operating field or sterile instruments or supplies used in the field (refer to "Preoperative Hand/Forearm Antisepsis" section).

C. MICROBIOLOGY

According to data from the NNIS system, the distribution of pathogens isolated from SSIs has not changed markedly during the last decade (Table 3).[26,27] *Staphylococcus aureus,* coagulase-negative staphylococci, *Enterococcus* spp., and *Escherichia coli* remain the most frequently isolated pathogens. An increasing proportion of SSIs are caused by antimicrobial-resistant pathogens, such as methicillin-resistant *S. aureus* (MRSA),[28,29] or by *Candida albicans.*[30] From 1991 to 1995, the incidence of fungal SSIs among patients at NNIS hospitals increased from 0.1 to 0.3 per 1,000 discharges.[30] The increased proportion of SSIs caused by resistant pathogens and *Candida* spp. may reflect increasing numbers of severely ill and immunocompromised surgical patients and the impact of widespread use of broad-spectrum antimicrobial agents.

Outbreaks or clusters of SSIs have also been caused by unusual pathogens, such as *Rhizopus oryzae, Clostridium perfringens, Rhodococcus bronchialis, Nocardia farcinica, Legionella pneumophila* and *Legionella dumoffii,* and *Pseudomonas multivorans.* These rare outbreaks have been traced to contaminated adhesive dressings,[31] elastic bandages,[32] colonized surgical personnel,[33,34] tap water,[35] or contaminated disinfectant solutions.[36] When a cluster of SSIs involves an unusual organism, a formal epidemiologic investigation should be conducted.

D. PATHOGENESIS

Microbial contamination of the surgical site is a necessary precursor of SSI. The risk of SSI can be conceptualized according to the following relationship[37,38]:

$$\frac{\text{Dose of bacterial contamination} \times \text{virulence}}{\text{Resistance of the host patient}} = \text{Risk of surgical site infection}$$

Quantitatively, it has been shown that if a surgical site is contaminated with $>10^5$ microorganisms per gram of tissue, the risk of SSI is markedly increased.[39] However, the dose of contaminating microorganisms required to produce infection may be much lower when foreign material is present at the site (i.e., 100 staphylococci per gram of tissue introduced on silk sutures).[40-42]

Microorganisms may contain or produce toxins and other substances that increase their ability to invade a host, produce damage within the host, or survive on or in host tissue. For example, many gram-negative bacteria produce endotoxin, which stimulates cytokine production. In turn, cytokines can trigger the systemic inflammatory response syndrome that sometimes leads to multiple system organ failure.[43-45] One of the most common causes of multiple system organ failure in modern surgical care is intra-abdominal infection.[46,47] Some bacterial surface components, notably polysaccharide capsules, inhibit phagocytosis,[48] a critical and early host defense response to microbial contamination. Certain strains of clostridia and streptococci produce potent exotoxins that disrupt cell membranes or alter cellular metabolism.[49] A variety of microorganisms, including gram-positive bacteria such as coagulase-negative staphylococci, produce glycocalyx and an associated component called "slime,"[50-55] which physically shields bacteria from phagocytes or inhibits the binding or penetration of antimicrobial agents.[56] Although these and other virulence factors are well defined, their mechanistic relationship to SSI development has not been fully determined.

For most SSIs, the source of pathogens is the endogenous flora of the patient's skin, mucous membranes, or hollow viscera.[57] When mucous membranes or skin is incised, the exposed tissues are at risk for contamination with endogenous flora.[58] These organisms are usually aerobic gram-positive cocci (e.g., staphylococci), but may include fecal flora (e.g., anaerobic bacteria and gram-negative aerobes) when incisions are made near the perineum or groin. When a gastrointestinal organ is opened

TABLE 2
SITE-SPECIFIC CLASSIFICATIONS OF ORGAN/SPACE SURGICAL SITE INFECTION*

Arterial or venous infection
Breast abscess or mastitis
Disc space
Ear, mastoid
Endocarditis
Endometritis
Eye, other than conjunctivitis
Gastrointestinal tract
Intra-abdominal, not specified elsewhere
Intracranial, brain abscess or dura
Joint or bursa
Mediastinitis
Meningitis or ventriculitis
Myocarditis or pericarditis
Oral cavity (mouth, tongue, or gums)
Osteomyelitis
Other infections of the lower respiratory tract (e.g., abscess or empyema)
Other male or female reproductive tract
Sinusitis
Spinal abscess without meningitis
Upper respiratory tract
Vaginal cuff

* Horan TC et al.[27]

TABLE 3
DISTRIBUTION OF PATHOGENS ISOLATED* FROM SURGICAL SITE INFECTIONS, NATIONAL NOSOCOMIAL INFECTIONS SURVEILLANCE SYSTEM, 1986 TO 1996

	Percentage of isolates	
Pathogen	1986-1989[179] (N=16,727)	1990-1996[26] (N=17,671)
Staphylococcus aureus	17	20
Coagulase-negative staphylococci	12	14
Enterococcus spp.	13	12
Escherichia coli	10	8
Pseudomonas aeruginosa	8	8
Enterobacter spp.	8	7
Proteus mirabilis	4	3
Klebsiella pneumoniae	3	3
Other *Streptococcus* spp.	3	3
Candida albicans	2	3
Group D streptococci (non-enterococci)	—	2
Other gram-positive aerobes	—	2
Bacteroides fragilis	—	2

*Pathogens representing less than 2% of isolates are excluded.

during an operation and is the source of pathogens, gram-negative bacilli (e.g., *E. coli)*, gram-positive organisms (e.g., enterococci), and sometimes anaerobes (e.g., *Bacillus fragilis)* are the typical SSI isolates. Table 4 lists operations and the likely SSI pathogens associated with them. Seeding of the operative site from a distant focus of infection can be another source of SSI pathogens,[59-68] particularly in patients who have a prosthesis or other implant placed during the operation. Such devices provide a nidus for attachment of the organism.[50,69-73]

Exogenous sources of SSI pathogens include surgical personnel (especially members of the surgical team),[74-78] the operating room environment (including air), and all tools, instruments, and materials brought to the sterile field during an operation (refer to "Intraoperative Issues" section). Exogenous flora are primarily aerobes, especially gram-positive organisms (e.g., staphylococci and streptococci). Fungi from endogenous and exogenous sources rarely cause SSIs, and their pathogenesis is not well understood.[79]

E. RISK AND PREVENTION

The term *risk factor* has a particular meaning in epidemiology and, in the context of SSI pathophysiology and prevention, strictly refers to a variable that has a significant, independent association with the development of SSI after a specific operation. Risk factors are identified by multivariate analyses in epidemiologic studies. Unfortunately, the term risk factor often is used in the surgical literature in a broad sense to include patient or operation features which, although associated with SSI development in univariate analysis, are not necessarily independent predictors.[80] The literature cited in the sections that follow includes risk factors identified by both univariate and multivariate analyses.

Table 5 lists patient and operation characteristics that may influence the risk of SSI development. These characteristics are useful in two ways: (1) they allow stratification of operations, making surveillance data more comprehensible; and, (2) knowledge of risk factors before certain operations may allow for targeted prevention measures. For example, if it is known that a patient has a remote site infection, the surgical team may reduce SSI risk by scheduling an operation after the infection has resolved.

An SSI prevention measure can be defined as an action or set of actions intentionally taken to reduce the risk of an SSI. Many such techniques are directed at reducing opportunities for microbial contamination of the patient's tissues or sterile surgical instruments; others are adjunctive, such as using antimicrobial prophylaxis or avoiding unnecessary traumatic tissue dissection. Optimum application of SSI prevention measures requires that a variety of patient and operation characteristics be carefully considered.

1. Patient Characteristics

In certain kinds of operations, patient characteristics possibly associated with an increased risk of an SSI include coincident remote site infections[59-68] or colonization,[81-83] diabetes,[84-87] cigarette smoking,[85,88-92] systemic steroid use,[84,87,93] obesity (>20% ideal body weight),[85-87,94-97] extremes of age,[92,98-102] poor nutritional status,[85,94,98,103-105] and perioperative transfusion of certain blood products.[106-109]

a. Diabetes

The contribution of diabetes to SSI risk is controversial,[84-86,98,110] because the independent contribution of diabetes to SSI risk has not typically been assessed after controlling for potential confounding factors. Recent preliminary findings from a study of patients who underwent coronary artery bypass graft showed a significant relationship between increasing levels of HgA1c and SSI rates.[111] Also, increased glucose levels (>200 mg/dL) in the immediate postoperative period (≤48 hours) were associated with increased SSI risk.[112,113] More studies are needed to assess the efficacy of perioperative blood glucose control as a prevention measure.

b. Nicotine use

Nicotine use delays primary wound healing and may increase the risk of SSI.[85] In a large prospective study, current cigarette smoking was an independent risk factor for sternal and/or mediastinal SSI following cardiac surgery.[85] Other studies have corroborated cigarette smoking as an important SSI risk factor.[88-92] The limitation of these studies, however, is that terms like *current cigarette smoking* and *active smokers* are not always defined. To appropriately determine the contribution of tobacco use to SSI risk, standardized definitions of smoking history must be adopted and used in studies designed to control for confounding variables.

c. Steroid use

Patients who are receiving steroids or other immuno-

TABLE 4
OPERATIONS, LIKELY SURGICAL SITE INFECTION (SSI) PATHOGENS, AND REFERENCES ON USE OF ANTIMICROBIAL PROPHYLAXIS*

Operations	Likely Pathogens†‡	References
Placement of all grafts, prostheses, or implants	*Staphylococcus aureus;* coagulase-negative staphylococci	269,282-284,290
Cardiac	*S. aureus;* coagulase-negative staphylococci	251-253,462,463
Neurosurgery	*S. aureus;* coagulase-negative staphylococci	241,249,258,259,261,464,465
Breast	*S. aureus;* coagulase-negative staphylococci	242,248
Ophthalmic Limited data; however, commonly used in procedures such as anterior segment resection, vitrectomy, and scleral buckles	*S. aureus;* coagulase-negative staphylococci; streptococci; gram-negative bacilli	466
Orthopedic Total joint replacement Closed fractures/use of nails, bone plates, other internal fixation devices Functional repair without implant/device Trauma	*S. aureus;* coagulase-negative staphylococci; gram-negative bacilli	60,243-246,254,255,467-473
Noncardiac thoracic Thoracic (lobectomy, pneumonectomy, wedge resection, other noncardiac mediastinal procedures) Closed tube thoracostomy	*S. aureus;* coagulase-negative staphylococci; *Streptococcus pneumoniae;* gram-negative bacilli	240,247,474,475
Vascular	*S. aureus;* coagulase-negative staphylococci	250,463,476,477
Appendectomy	Gram-negative bacilli; anaerobes	263,452,478
Biliary tract	Gram-negative bacilli; anaerobes	260,262,479-484
Colorectal	Gram-negative bacilli; anaerobes	200,239,256,287-289,485-490
Gastroduodenal	Gram-negative bacilli; streptococci; oropharyngeal anaerobes (e.g., peptostreptococci)	256,257,491-493
Head and neck (major procedures with incision through oropharyngeal mucosa)	*S. aureus;* streptococci; oropharyngeal anaerobes (e.g., peptostreptococci)	494-497
Obstetric and gynecologic	Gram-negative bacilli; enterococci; group B streptococci; anaerobes	270-280,435
Urologic May not be beneficial if urine is sterile	Gram-negative bacilli	267

* Refer to "Antimicrobial prophylaxis in surgery," *The Medical Letter,* 1997,[396] for current recommendations of antimicrobial agents and doses.
† Likely pathogens from both endogenous and exogenous sources.
‡ Staphylococci will be associated with SSI following all types of operations.

suppressive drugs preoperatively may be predisposed to developing SSI,[84,87] but the data supporting this relationship are contradictory. In a study of long-term steroid use in patients with Crohn's disease, SSI developed significantly more often in patients receiving preoperative steroids (12.5%) than in patients without steroid use (6.7%).[93] In contrast, other investigations have not found a relationship between steroid use and SSI risk.[98,114,115]

d. Malnutrition

For some types of operations, severe protein-calorie malnutrition is crudely associated with postoperative nosocomial infections, impaired wound healing dynamics, or death.[116-124] The National Academy of Sciences/National Research Council (NAS/NRC),[94] Study on the Efficacy of Infection Control (SENIC),[125] and NNIS[126] schemes for SSI risk stratification do not explicitly incorporate nutritional status as a predictor variable, although it may be represented indirectly in the latter two. In a widely quoted 1987 study of 404 high-risk general surgery operations, Christou and coworkers derived an SSI probability index in which final predictor variables were patient age, operation duration, serum albumin level, delayed hypersensitivity test score, and intrinsic wound contamination level.[117] Although this index predicted SSI risk satisfactorily for 404 subsequent patients and was generally received as a significant advance in SSI risk stratification, it is not widely used in SSI surveillance data analysis, surgical infection research, or analytic epidemiology.

Theoretical arguments can be made for a belief that severe preoperative malnutrition should increase the risk of both incisional and organ/space SSI. However, an epidemiologic association between incisional SSI and malnutrition is difficult to demonstrate consistently for all surgical subspecialties.[118-120,124,127-131] Multivariate logistic regression modeling has shown that preoperative protein-calorie malnutrition is not an independent predictor of

TABLE 5
PATIENT AND OPERATION CHARACTERISTICS THAT MAY INFLUENCE THE RISK OF SURGICAL SITE INFECTION DEVELOPMENT

Patient
Age
Nutritional status
Diabetes
Smoking
Obesity
Coexistent infections at a remote body site
Colonization with microorganisms
Altered immune response
Length of preoperative stay
Operation
Duration of surgical scrub
Skin antisepsis
Preoperative shaving
Preoperative skin prep
Duration of operation
Antimicrobial prophylaxis
Operating room ventilation
Inadequate sterilization of instruments
Foreign material in the surgical site
Surgical drains
Surgical technique
Poor hemostasis
Failure to obliterate dead space
Tissue trauma

Adapted from references 25, 37.

mediastinitis after cardiac bypass operations.[85,132]

In the modern era, total parenteral nutrition (TPN) and total enteral alimentation (TEA) have enthusiastic acceptance by surgeons and critical care specialists.[118,133-137] However, the benefits of preoperative nutritional repletion of malnourished patients in reducing SSI risk are unproven. In two randomized clinical trials, preoperative "nutritional therapy" did not reduce incisional and organ/space SSI risk.[138-141] In a recent study of high-risk pancreatectomy patients with cancer, the provision of TPN preoperatively had no beneficial effect on SSI risk.[142] A randomized prospective trial involving 395 general and thoracic surgery patients compared outcomes for malnourished patients preoperatively receiving either a 7- to 15-day TPN regimen or a regular preoperative hospital diet. All patients were followed for 90 days postoperatively. There was no detectable benefit of TPN administration on the incidence of incisional or organ/space SSI.[143] Administering TPN or TEA may be indicated in a number of circumstances, but such repletion cannot be viewed narrowly as a prevention measure for organ/space or incisional SSI risk. When a major elective operation is necessary in a severely malnourished patient, experienced surgeons often use both pre- and postoperative nutritional support in consideration of the major morbidity associated with numerous potential complications, only one of which is organ/space SSI.[118,124,130,133,137,138,144-149] In addition, postoperative nutritional support is important for certain major oncologic operations,[135,136] after many operations on major trauma victims,[134] or in patients suffering a variety of catastrophic surgical complications that preclude eating or that trigger a hypermetabolic state. Randomized clinical trials will be necessary to determine if nutritional support alters SSI risk in specific patient-operation combinations.

e. Prolonged preoperative hospital stay

Prolonged preoperative hospital stay is frequently suggested as a patient characteristic associated with increased SSI risk. However, length of preoperative stay is likely a surrogate for severity of illness and co-morbid conditions requiring inpatient work-up and/or therapy before the operation.[16,26,65,85,94,100,150,151]

f. Preoperative nares colonization with *Staphylococcus aureus*

S. aureus is a frequent SSI isolate. This pathogen is carried in the nares of 20% to 30% of healthy humans.[81] It has been known for years that the development of SSI involving *S. aureus* is definitely associated with preoperative nares carriage of the organism in surgical patients.[81] A recent multivariate analysis demonstrated that such carriage was the most powerful independent risk factor for SSI following cardiothoracic operations.[82]

Mupirocin ointment is effective as a topical agent for eradicating *S. aureus* from the nares of colonized patients or healthcare workers. A recent report by Kluytmans and coworkers suggested that SSI risk was reduced in patients who had cardiothoracic operations when mupirocin was applied preoperatively to their nares, regardless of carrier status.[152] In this study, SSI rates for 752 mupirocin-treated patients were compared with those previously observed for an untreated group of 928 historical control patients, and the significant SSI rate reduction was attributed to the mupirocin treatment. Concerns have been raised regarding the comparability of the two patient groups.[153] Additionally, there is concern that mupirocin resistance may emerge, although this seems unlikely when treatment courses are brief.[81] A prospective, randomized clinical trial will be necessary to establish definitively that eradication of nasal carriage of *S. aureus* is an effective SSI prevention method in cardiac surgery. Such a trial has recently been completed on 3,909 patients in Iowa.[83] Five types of operations in two facilities were observed. Preliminary analysis showed a significant association between nasal carriage of *S. aureus* and subsequent SSI development. The effect of mupirocin on reducing SSI risk is yet to be determined.

g. Perioperative transfusion

It has been reported that perioperative transfusion of leukocyte-containing allogeneic blood components is an apparent risk factor for the development of postoperative bacterial infections, including SSI.[106] In three of five randomized trials conducted in patients undergoing elective colon resection for cancer, the risk of SSI was at least doubled in patients receiving blood transfusions.[107-109] However, on the basis of detailed epidemiologic reconsid-

TABLE 6
MECHANISM AND SPECTRUM OF ACTIVITY OF ANTISEPTIC AGENTS COMMONLY USED FOR PREOPERATIVE SKIN PREPARATION AND SURGICAL SCRUBS

Agent	Mechanism of Action	Gram-Positive Bacteria	Gram-Negative Bacteria	Mtb	Fungi	Virus	Rapidity of Action	Residual Activity	Toxicity	Uses
Alcohol	Denature proteins	E	E	G	G	G	Most rapid	None	Drying, volatile	SP, SS
Chlorhexidine	Disrupt cell membrane	E	G	P	F	G	Intermediate	E	Ototoxicity, keratitis	SP, SS
Iodine/Iodophors	Oxidation/substitution by free iodine	E	G	G	G	G	Intermediate	Minimal	Absorption from skin with possible toxicity, skin irritation	SP, SS
PCMX	Disrupt cell wall	G	F*	F	F	F	Intermediate	G	More data needed	SS
Triclosan	Disrupt cell wall	G	G	G	P	U	Intermediate	E	More data needed	SS

Abbreviations: E, excellent; F, fair; G, good; Mtb, *Mycobacterium tuberculosis*; P, poor; PCMX, para-chloro-meta-xylenol; SP, skin preparation; SS, surgical scrubs; U, unknown.
Data from Larson E.[178]
* Fair, except for *Pseudomonas* spp.; activity improved by addition of chelating agent such as EDTA.

erations, as many as 12 confounding variables may have influenced the reported association, and any effect of transfusion on SSI risk may be either small or nonexistent.[106] Because of methodologic problems, including the timing of transfusion, and use of nonstandardized SSI definitions, interpretation of the available data is limited. A meta-analysis of published trials will probably be required for resolution of the controversy.[154] There is currently no scientific basis for withholding necessary blood products from surgical patients as a means of either incisional or organ/space SSI risk reduction.

2. Operative Characteristics: Preoperative Issues

a. Preoperative antiseptic showering

A preoperative antiseptic shower or bath decreases skin microbial colony counts. In a study of >700 patients who received two preoperative antiseptic showers, chlorhexidine reduced bacterial colony counts ninefold (2.8×10^2 to 0.3), while povidone-iodine or triclocarban-medicated soap reduced colony counts by 1.3- and 1.9-fold, respectively.[155] Other studies corroborate these findings.[156,157] Chlorhexidine gluconate-containing products require several applications to attain maximum antimicrobial benefit, so repeated antiseptic showers are usually indicated.[158] Even though preoperative showers reduce the skin's microbial colony counts, they have not definitively been shown to reduce SSI rates.[159-165]

b. Preoperative hair removal

Preoperative shaving of the surgical site the night before an operation is associated with a significantly higher SSI risk than either the use of depilatory agents or no hair removal.[16,100,166-169] In one study, SSI rates were 5.6% in patients who had hair removed by razor shave compared to a 0.6% rate among those who had hair removed by depilatory or who had no hair removed.[166] The increased SSI risk associated with shaving has been attributed to microscopic cuts in the skin that later serve as foci for bacterial multiplication. Shaving immediately before the operation compared to shaving within 24 hours preoperatively was associated with decreased SSI rates (3.1% vs 7.1%); if shaving was performed >24 hours prior to operation, the SSI rate exceeded 20%.[166] Clipping hair immediately before an operation also has been associated with a lower risk of SSI than shaving or clipping the night before an operation (SSI rates immediately before = 1.8% vs night before = 4.0%).[170-173] Although the use of depilatories has been associated with a lower SSI risk than shaving or clipping,[166,167] depilatories sometimes produce hypersensitivity reactions.[166] Other studies showed that preoperative hair removal by any means was associated with increased SSI rates and suggested that no hair be removed.[100,174,175]

c. Patient skin preparation in the operating room

Several antiseptic agents are available for preoperative preparation of skin at the incision site (Table 6). The iodophors (e.g., povidone-iodine), alcohol-containing products, and chlorhexidine gluconate are the most commonly used agents. No studies have adequately assessed the comparative effects of these preoperative skin antiseptics on SSI risk in well-controlled, operation-specific studies.

Alcohol is defined by the FDA as having one of the following active ingredients: ethyl alcohol, 60% to 95% by volume in an aqueous solution, or isopropyl alcohol, 50% to 91.3% by volume in an aqueous solution.[12] Alcohol is readily available, inexpensive, and remains the most effective and rapid-acting skin antiseptic.[176] Aqueous 70% to 92% alcohol solutions have germicidal activity against bacteria, fungi, and viruses, but spores can be resistant.[176,177] One potential disadvantage of the use of alcohol in the operating room is its flammability.[176-178]

Both chlorhexidine gluconate and iodophors have broad spectra of antimicrobial activity.[177,179-181] In some comparisons of the two antiseptics when used as preoperative hand scrubs, chlorhexidine gluconate achieved greater reductions in skin microflora than did povidone-iodine and

also had greater residual activity after a single application.[182-184] Further, chlorhexidine gluconate is not inactivated by blood or serum proteins.[176,179,185,186] Iodophors may be inactivated by blood or serum proteins, but exert a bacteriostatic effect as long as they are present on the skin.[178,179]

Before the skin preparation of a patient is initiated, the skin should be free of gross contamination (i.e., dirt, soil, or any other debris).[187] The patient's skin is prepared by applying an antiseptic in concentric circles, beginning in the area of the proposed incision. The prepared area should be large enough to extend the incision or create new incisions or drain sites, if necessary.[1,177,187] The application of the skin preparation may need to be modified, depending on the condition of the skin (e.g., burns) or location of the incision site (e.g., face).

There are reports of modifications to the procedure for preoperative skin preparation which include: (1) removing or wiping off the skin preparation antiseptic agent after application, (2) using an antiseptic-impregnated adhesive drape, (3) merely painting the skin with an antiseptic in lieu of the skin preparation procedure described above, or (4) using a "clean" versus a "sterile" surgical skin preparation kit.[188-191] However, none of these modifications has been shown to represent an advantage.

d. Preoperative hand/forearm antisepsis

Members of the surgical team who have direct contact with the sterile operating field or sterile instruments or supplies used in the field wash their hands and forearms by performing a traditional procedure known as scrubbing (or the surgical scrub) immediately before donning sterile gowns and gloves. Ideally, the optimum antiseptic used for the scrub should have a broad spectrum of activity, be fast-acting, and have a persistent effect.[1,192,193] Antiseptic agents commercially available in the United States for this purpose contain alcohol, chlorhexidine, iodine/iodophors, parachloro-meta-xylenol, or triclosan (Table 6).[176,177,179,194,195] Alcohol is considered the gold standard for surgical hand preparation in several European countries.[196-199] Alcohol-containing products are used less frequently in the United States than in Europe, possibly because of concerns about flammability and skin irritation. Povidone-iodine and chlorhexidine gluconate are the current agents of choice for most U.S. surgical team members.[177] However, when 7.5% povidone-iodine or 4% chlorhexidine gluconate was compared to alcoholic chlorhexidine (60% isopropanol and 0.5% chlorhexidine gluconate in 70% isopropanol), alcoholic chlorhexidine was found to have greater residual antimicrobial activity.[200,201] No agent is ideal for every situation, and a major factor, aside from the efficacy of any product, is its acceptability by operating room personnel after repeated use. Unfortunately, most studies evaluating surgical scrub antiseptics have focused on measuring hand bacterial colony counts. No clinical trials have evaluated the impact of scrub agent choice on SSI risk.[195,202-206]

Factors other than the choice of antiseptic agent influence the effectiveness of the surgical scrub. Scrubbing technique, the duration of the scrub, the condition of the hands, or the techniques used for drying and gloving are examples of such factors. Recent studies suggest that scrubbing for at least 2 minutes is as effective as the traditional 10-minute scrub in reducing hand bacterial colony counts,[207-211] but the optimum duration of scrubbing is not known. The first scrub of the day should include a thorough cleaning underneath fingernails (usually with a brush).[180,194,212] It is not clear that such cleaning is a necessary part of subsequent scrubs during the day. After performing the surgical scrub, hands should be kept up and away from the body (elbows in flexed position) so that water runs from the tips of the fingers toward the elbows. Sterile towels should be used for drying the hands and forearms before the donning of a sterile gown and gloves.[212]

A surgical team member who wears artificial nails may have increased bacterial and fungal colonization of the hands despite performing an adequate hand scrub.[212,213] Hand carriage of gram-negative organisms has been shown to be greater among wearers of artificial nails than among non-wearers.[213] An outbreak of *Serratia marcescens* SSIs in cardiovascular surgery patients was found to be associated with a surgical nurse who wore artificial nails.[214] While the relationship between nail length and SSI risk is unknown, long nails—artificial or natural—may be associated with tears in surgical gloves.[177,180,212] The relationship between the wearing of nail polish or jewelry by surgical team members and SSI risk has not been adequately studied.[194,212,215-217]

e. Management of infected or colonized surgical personnel

Surgical personnel who have active infections or are colonized with certain microorganisms have been linked to outbreaks or clusters of SSIs.[33,34,76,218-237] Thus, it is important that healthcare organizations implement policies to prevent transmission of microorganisms from personnel to patients. These policies should address management of job-related illnesses, provision of postexposure prophylaxis after job-related exposures and, when necessary, exclusion of ill personnel from work or patient contact. While work exclusion policies should be enforceable and include a statement of authority to exclude ill personnel, they should also be designed to encourage personnel to report their illnesses and exposures and not penalize personnel with loss of wages, benefits, or job status.[238]

f. Antimicrobial prophylaxis

Surgical antimicrobial prophylaxis (AMP) refers to a very brief course of an antimicrobial agent initiated just before an operation begins.[239-265] AMP is not an attempt to sterilize tissues, but a critically timed adjunct used to reduce the microbial burden of intraoperative contamination to a level that cannot overwhelm host defenses. AMP does not pertain to prevention of SSI caused by postoperative contamination.[265] Intravenous infusion is the mode of AMP delivery used most often in modern surgical practice.[20,26,242,266-281] Essentially all confirmed AMP indications pertain to elective operations in which skin incisions are closed in the operating room.

TABLE 7
SURGICAL WOUND CLASSIFICATION

Class I/Clean: An uninfected operative wound in which no inflammation is encountered and the respiratory, alimentary, genital, or uninfected urinary tract is not entered. In addition, clean wounds are primarily closed and, if necessary, drained with closed drainage. Operative incisional wounds that follow nonpenetrating (blunt) trauma should be included in this category if they meet the criteria.

Class II/Clean-Contaminated: An operative wound in which the respiratory, alimentary, genital, or urinary tracts are entered under controlled conditions and without unusual contamination. Specifically, operations involving the biliary tract, appendix, vagina, and oropharynx are included in this category, provided no evidence of infection or major break in technique is encountered.

Class III/Contaminated: Open, fresh, accidental wounds. In addition, operations with major breaks in sterile technique (e.g., open cardiac massage) or gross spillage from the gastrointestinal tract, and incisions in which acute, nonpurulent inflammation is encountered are included in this category.

Class IV/Dirty-Infected: Old traumatic wounds with retained devitalized tissue and those that involve existing clinical infection or perforated viscera. This definition suggests that the organisms causing postoperative infection were present in the operative field before the operation.

Garner JS[1] and Simmons BP[2]

Four principles must be followed to maximize the benefits of AMP:

- Use an AMP agent for all operations or classes of operations in which its use has been shown to reduce SSI rates based on evidence from clinical trials or for those operations after which incisional or organ/space SSI would represent a catastrophe.[266,268,269,282-284]
- Use an AMP agent that is safe, inexpensive, and bactericidal with an in vitro spectrum that covers the most probable intraoperative contaminants for the operation.
- Time the infusion of the initial dose of antimicrobial agent so that a bactericidal concentration of the drug is established in serum and tissues by the time the skin is incised.[285]
- Maintain therapeutic levels of the antimicrobial agent in both serum and tissues throughout the operation and until, at most, a few hours after the incision is closed in the operating room.[179,266-268,282,284,286] Because clotted blood is present in all surgical wounds, therapeutic serum levels of AMP agents are logically important in addition to therapeutic tissue levels. Fibrin-enmeshed bacteria may be resistant to phagocytosis or to contact with antimicrobial agents that diffuse from the wound space.

Table 4 summarizes typical SSI pathogens according to operation type and cites studies that establish AMP efficacy for these operations. A simple way to organize AMP indications is based on using the surgical wound classification scheme shown in Table 7, which employs descriptive case features to *postoperatively* grade the degree of intraoperative microbial contamination. A surgeon makes the decision to use AMP by anticipating *preoperatively* the surgical wound class for a given operation.

AMP is indicated for all operations that entail entry into a hollow viscus under controlled conditions. The most frequent SSI pathogens for such clean-contaminated operations are listed in Table 4. Certain clean-contaminated operations, such as elective colon resection, low anterior resection of the rectum, and abdominoperineal resection of the rectum, also require an additional preoperative protective maneuver called "preparation of the colon," to empty the bowel of its contents and to reduce the levels of live microorganisms.[200,239,256,268,284,287] This maneuver includes the administration of enemas and cathartic agents followed by the oral administration of nonabsorbable antimicrobial agents in divided doses the day before the operation.[200,288,289]

AMP is sometimes indicated for operations that entail incisions through normal tissue and in which no viscus is entered and no inflammation or infection is encountered. Two well-recognized AMP indications for such clean operations are: (1) when any intravascular prosthetic material or a prosthetic joint will be inserted, and (2) for any operation in which an incisional or organ/space SSI would pose catastrophic risk. Examples are all cardiac operations, including cardiac pacemaker placement,[290] vascular operations involving prosthetic arterial graft placement at any site or the revascularization of the lower extremity, and most neurosurgical operations (Table 4). Some have advocated use of AMP during all operations on the breast.[80,242,264]

By definition, AMP is not indicated for an operation classified in Table 7 as contaminated or dirty. In such operations, patients are frequently receiving therapeutic antimicrobial agents perioperatively for established infections.

Cephalosporins are the most thoroughly studied AMP agents.[284] These drugs are effective against many gram-positive and gram-negative microorganisms. They also share the features of demonstrated safety, acceptable pharmacokinetics, and a reasonable cost per dose.[242] In particular, cefazolin is widely used and generally viewed as the AMP agent of first choice for clean operations.[266] If a patient is unable to receive a cephalosporin because of penicillin allergy, an alternative for gram-positive bacterial coverage is either clindamycin or vancomycin.

Cefazolin provides adequate coverage for many clean-contaminated operations,[268,291] but AMP for operations on the distal intestinal tract mandates use of an agent such as cefoxitin (or some other second-generation cephalosporin) that provides anaerobic coverage. If a patient cannot safely receive a cephalosporin because of allergy, a reasonable alternative for gram-negative cover-

TABLE 8
PARAMETERS FOR OPERATING ROOM VENTILATION, AMERICAN INSTITUTE OF ARCHITECTS, 1996

Temperature	68-73°F, depending on normal ambient temperatures
Relative humidity	30%-60%
Air movement	From "clean to less clean" areas
Air changes	Minimum 15 total air changes per hour
	Minimum 3 air changes of outdoor air per hour

American Institute of Architects.[299]

age is aztreonam. However, an agent such as clindamycin or metronidazole should also be included to ensure anaerobic coverage.

The aminoglycosides are seldom recommended as first choices for AMP, either as single drugs or as components of combination regimens.[242,264] References cited in Table 4 provide many details regarding AMP choices and dosages, antimicrobial spectra and properties, and other practical clinical information.

The routine use of vancomycin in AMP is not recommended for any kind of operation.[242,266,283,292] However, vancomycin may be the AMP agent of choice in certain clinical circumstances, such as when a cluster of MRSA mediastinitis or incisional SSI due to methicillin-resistant coagulase-negative staphylococci has been detected. A threshold has not been scientifically defined that can support the decision to use vancomycin in AMP. The decision should involve consideration of local frequencies of MRSA isolates, SSI rates for particular operations, review of infection prevention practices for compliance, and consultation between surgeons and infectious disease experts. An effective SSI surveillance program must be operational, with careful and timely culturing of SSI isolates to determine species and AMP agent susceptibilities.[80]

Agents most commonly used for AMP (i.e., cephalosporins) exhibit time-dependent bactericidal action. The therapeutic effects of such agents are probably maximized when their levels continuously exceed a threshold value best approximated by the minimal bactericidal concentration value observed for the target pathogens in vitro. When the duration of an operation is expected to exceed the time in which therapeutic levels of the AMP agent can be maintained, additional AMP agent should be infused. That time point for cefazolin is estimated as 3 to 4 hours. In general, the timing of a second (or third, etc.) dose of any AMP drug is estimated from three parameters: tissue levels achieved in normal patients by a standard therapeutic dose, the approximate serum half-life of the drug, and awareness of approximate MIC_{90} values for anticipated SSI pathogens. References in Table 6 should be consulted for these details and important properties of antimicrobial agents used for AMP in various specialties.

Basic "rules of thumb" guide decisions about AMP dose sizes and timing. For example, it is believed that a full therapeutic dose of cefazolin (1-2 g) should be given to adult patients no more than 30 minutes before the skin is incised.[242,285] There are a few exceptions to this basic guide. With respect to dosing, it has been demonstrated that larger doses of AMP agents are necessary to achieve optimum effect in morbidly obese patients.[293] With respect to timing, an exception occurs for patients undergoing cesarean section in whom AMP is indicated: the initial dose is administered immediately after the umbilical cord is clamped.[266,272,273] If vancomycin is used, an infusion period of approximately 1 hour is required for a typical dose. Clearly, the concept of "on-call" infusion of AMP is flawed simply because delays in transport or schedule changes can mean that suboptimal tissue and serum levels may be present when the operation starts.[242,294] Simple protocols of AMP timing and oversight responsibility should be locally designed to be practical and effective.

3. Operative characteristics: Intraoperative issues

a. Operating room environment

(1) Ventilation

Operating room air may contain microbial-laden dust, lint, skin squames, or respiratory droplets. The microbial level in operating room air is directly proportional to the number of people moving about in the room.[295] Therefore, efforts should be made to minimize personnel traffic during operations. Outbreaks of SSIs caused by group A beta-hemolytic streptococci have been traced to airborne transmission of the organism from colonized operating room personnel to patients.[233,237,296,297] In these outbreaks, the strain causing the outbreak was recovered from the air in the operating room.[237,296] It has been demonstrated that exercising and changing of clothing can lead to airborne dissemination of group A streptococci from vaginal or rectal carriage.[233,234,237,297]

Operating rooms should be maintained at positive pressure with respect to corridors and adjacent areas.[298] Positive pressure prevents airflow from less clean areas into more clean areas. All ventilation or air conditioning systems in hospitals, including those in operating rooms, should have two filter beds in series, with the efficiency of the first filter bed being ≥30% and that of the second filter bed being ≥90%.[299] Conventional operating room ventilation systems produce a minimum of about 15 air changes of filtered air per hour, three (20%) of which must be fresh air.[299,300] Air should be introduced at the ceiling and exhausted near the floor.[300,301] Detailed ventilation parameters for operating rooms have been published by the American Institute of Architects in collaboration with the U.S. Department of Health and Human Services (Table 8).[299]

Laminar airflow and use of UV radiation have been suggested as additional measures to reduce SSI risk for certain operations. Laminar airflow is designed to move particle-free air (called "ultraclean air") over the aseptic operating field at a uniform velocity (0.3 to 0.5 μm/sec), sweeping away particles in its path. Laminar airflow can be directed vertically or horizontally, and recirculated air is usually passed through a high efficiency particulate air (HEPA)

filter.[302,303] HEPA filters remove particles ≥0.3μm in diameter with an efficiency of 99.97%.[64,300,302,304] Most of the studies examining the efficacy of ultraclean air involve only orthopedic operations.[298,305-311] Charnley and Eftaknan studied vertical laminar airflow systems and exhaust-ventilated clothing and found that their use decreased the SSI rate from 9% to 1%.[305] However, other variables (i.e., surgeon experience and surgical technique) changed at the same time as the type of ventilation, which may have confounded the associations. In a multicenter study examining 8,000 total hip and knee replacements, Lidwell et al. compared the effects of ultraclean air alone, antimicrobial prophylaxis alone, and ultraclean air in combination with antimicrobial prophylaxis on the rate of deep SSIs.[307] The SSI rate following operations in which ultraclean air alone was used decreased from 3.4% to 1.6%, whereas the rate for those who received only antimicrobial prophylaxis decreased from 3.4% to 0.8%. When both interventions were used in combination, the SSI rate decreased from 3.4% to 0.7%. These findings suggest that both ultraclean air and antimicrobial prophylaxis can reduce the incidence of SSI following orthopedic implant operations, but antimicrobial prophylaxis is more beneficial than ultraclean air. Intraoperative UV radiation has not been shown to decrease overall SSI risk.[94,312]

(2) Environmental surfaces

Environmental surfaces in U.S. operating rooms (e.g., tables, floors, walls, ceilings, lights) are rarely implicated as the sources of pathogens important in the development of SSIs. Nevertheless, it is important to perform routine cleaning of these surfaces to reestablish a clean environment after each operation.[180,212,300,302] There are no data to support routine disinfecting of environmental surfaces or equipment between operations in the absence of contamination or visible soiling. When visible soiling of surfaces or equipment occurs during an operation, an Environmental Protection Agency (EPA)-approved hospital disinfectant should be used to decontaminate the affected areas before the next operation.[180,212,300-302,313-315] This is in keeping with the Occupational Safety and Health Administration (OSHA) requirement that all equipment and environmental surfaces be cleaned and decontaminated after contact with blood or other potentially infectious materials.[315] Wet-vacuuming of the floor with an EPA-approved hospital disinfectant is performed routinely after the last operation of the day or night. Care should be taken to ensure that medical equipment left in the operating room be covered so that solutions used during cleaning and disinfecting do not contact sterile devices or equipment.[316] There are no data to support special cleaning procedures or closing of an operating room after a contaminated or dirty operation has been performed.[300,301]

Tacky mats placed outside the entrance to an operating room/suite have not been shown to reduce the number of organisms on shoes or stretcher wheels, nor do they reduce the risk of SSI.[1,179,295,301]

(3) Microbiologic sampling

Because there are no standardized parameters by which to compare microbial levels obtained from cultures of ambient air or environmental surfaces in the operating room, routine microbiologic sampling cannot be justified. Such environmental sampling should only be performed as part of an epidemiologic investigation.

(4) Conventional sterilization of surgical instruments

Inadequate sterilization of surgical instruments has resulted in SSI outbreaks.[302,317,318] Surgical instruments can be sterilized by steam under pressure, dry heat, ethylene oxide, or other approved methods. The importance of routinely monitoring the quality of sterilization procedures has been established.[1,180,212,299] Microbial monitoring of steam autoclave performance is necessary and can be accomplished by use of a biological indicator.[212,314,319] Detailed recommendations for sterilization of surgical instruments have been published.[212,314,320,321]

(5) Flash sterilization of surgical instruments

The Association for the Advancement of Medical Instrumentation defines flash sterilization as "the process designated for the steam sterilization of patient care items for immediate use."[321] During any operation, the need for emergency sterilization of equipment may arise (e.g., to reprocess an inadvertently dropped instrument). However, flash sterilization is not intended to be used for either reasons of convenience or as an alternative to purchasing additional instrument sets or to save time. Also, flash sterilization is not recommended for implantable devices(*) because of the potential for serious infections.[314,320,321]

Flash sterilization is not recommended as a routine sterilization method because of the lack of timely biologic indicators to monitor performance, absence of protective packaging following sterilization, possibility for contamination of processed items during transportation to operating rooms, and use of minimal sterilization cycle parameters (i.e., time, temperature, pressure).[319] To address some of these concerns, many hospitals have placed equipment for flash sterilization in close proximity to operating rooms and new biologic indicators that provide results in 1 to 3 hours are now available for flash-sterilized items.[322-325] Nevertheless, flash sterilization should be restricted to its intended purpose until studies are performed that can demonstrate comparability with conventional sterilization methods regarding risk of SSI. Sterilization cycle parameters for flash sterilization are shown in Table 9.

b. Surgical attire and drapes

In this section the term *surgical attire* refers to scrub suits, caps/hoods, shoe covers, masks, gloves, and gowns. Although experimental data show that live microorganisms are shed from hair, exposed skin, and mucous membranes of operating room personnel,[75,181,326-330] few controlled clinical studies have evaluated the relationship between the use of surgical attire and SSI risk. Nevertheless, the use of barriers seems prudent to minimize a patient's exposure to the skin, mucous membranes, or hair of surgical team mem-

** According to the FDA, an implantable device is a "device that is placed into a surgically or naturally formed cavity of the human body if it is intended to remain there for a period of 30 days or more."[321]*

TABLE 9
PARAMETERS FOR FLASH STERILIZATION CYCLES, ASSOCIATION FOR THE ADVANCEMENT OF MEDICAL INSTRUMENTATION

Gravity-Displacement	**Minimum Exposure Time and Temperature**
Nonporous items	3 min at 132°C (270°F)
Nonporous and porous items	10 min at 132°C (270°F)
Prevacuum	**Minimum Exposure Time and Temperature**
Nonporous items	3 min at 132°C (270°F)
Nonporous and porous items	4 min at 132°C (270°F)

Association for the Advancement of Medical Instrumentation.[321]

bers, as well as to protect surgical team members from exposure to blood and bloodborne pathogens (e.g., human immunodeficiency virus and hepatitis viruses).

(1) Scrub suits

Surgical team members often wear a uniform called a "scrub suit" that consists of pants and a shirt. Policies for laundering, wearing, covering, and changing scrub suits vary greatly. Some policies restrict the laundering of scrub suits to the facility, while other facilities have policies that allow laundering by employees. There are no well-controlled studies evaluating scrub suit laundering as an SSI risk factor.[331] Some facilities have policies that restrict the wearing of scrub suits to the operating suite, while other facilities allow the wearing of cover gowns over scrub suits when personnel leave the suite. The Association of Operating Room Nurses recommends that scrub suits be changed after they become visibly soiled and that they be laundered only in an approved and monitored laundry facility.[212] Additionally, OSHA regulations require that "if a garment(s) is penetrated by blood or other potentially infectious materials, the garment(s) shall be removed immediately or as soon as feasible."[315]

(2) Masks

The wearing of surgical masks during operations to prevent potential microbial contamination of incisions is a longstanding surgical tradition. However, some studies have raised questions about the efficacy and cost-benefit of surgical masks in reducing SSI risk.[328,332-338] Nevertheless, wearing a mask can be beneficial since it protects the wearer's nose and mouth from inadvertent exposures (i.e., splashes) to blood and other body fluids. OSHA regulations require that masks in combination with protective eyewear, such as goggles or glasses with solid shields, or chin-length face shields be worn whenever splashes, spray, spatter, or droplets of blood or other potentially infectious material may be generated and eye, nose, or mouth contamination can be reasonably anticipated.[315] In addition, a respirator certified by the National Institute for Occupational Safety and Health with protection factor N95 or higher is required when the patient has or is suspected of having infectious tuberculosis.[339]

(3) Surgical caps/hoods and shoe covers

Surgical caps/hoods are inexpensive and reduce contamination of the surgical field by organisms shed from the hair and scalp. SSI outbreaks have occasionally been traced to organisms isolated from the hair or scalp (*S. aureus* and group A *Streptococcus),*[75,76] even when caps were worn by personnel during the operation and in the operating suites.

The use of shoe covers has never been shown to decrease SSI risk or to decrease bacteria counts on the operating room floor.[340,341] Shoe covers may, however, protect surgical team members from exposure to blood and other body fluids during an operation. OSHA regulations require that surgical caps or hoods and shoe covers or boots be worn in situations when gross contamination can reasonably be anticipated (e.g., orthopedic operations, penetrating trauma cases).[315]

(4) Sterile gloves

Sterile gloves are put on after donning sterile gowns. A strong theoretical rationale supports the wearing of sterile gloves by all scrubbed members of the surgical team. Sterile gloves are worn to minimize transmission of microorganisms from the hands of team members to patients and to prevent contamination of team members' hands with patients' blood and body fluids. If the integrity of a glove is compromised (e.g., punctured), it should be changed as promptly as safety permits.[315,342,343] Wearing two pairs of gloves (double-gloving) has been shown to reduce hand contact with patients' blood and body fluids when compared to wearing only a single pair.[344,345]

(5) Gowns and drapes

Sterile surgical gowns and drapes are used to create a barrier between the surgical field and potential sources of bacteria. Gowns are worn by all scrubbed surgical team members and drapes are placed over the patient. There are limited data that can be used to understand the relationship of gown or drape characteristics with SSI risk. The wide variation in the products and study designs make interpretation of the literature difficult.[329,346-350]

Gowns and drapes are classified as disposable (single use) or reusable (multiple use). Regardless of the material used to manufacture gowns and drapes, these items should be impermeable to liquids and viruses.[351,352] In general, only gowns reinforced with films, coatings, or membranes appear to meet standards developed by the American Society for Testing and Materials.[351-353] However, such "liquid-proof" gowns may be uncomfortable because

they also inhibit heat loss and the evaporation of sweat from the wearer's body. These factors should be considered when selecting gowns.[353,354] A discussion of the role of gowns and drapes in preventing the transmission of bloodborne pathogens is beyond the scope of this document.[355]

c. Asepsis and surgical technique

(1) Asepsis

Rigorous adherence to the principles of asepsis by all scrubbed personnel is the foundation of surgical site infection prevention. Others who work in close proximity to the sterile surgical field, such as anesthesia personnel who are separated from the field only by a drape barrier, also must abide by these principles. SSIs have occurred in which anesthesia personnel were implicated as the source of the pathogen.[34,231,234,356-358] Anesthesiologists and nurse anesthetists perform a variety of invasive procedures such as placement of intravascular devices and endotracheal tubes, and administration of intravenous drugs and solutions. Lack of adherence to the principles of asepsis during such procedures,[359] including use of common syringes[360,361] and contaminated infusion pumps,[359,362-364] and the assembly of equipment and solutions in advance of procedures,[316,360] have been associated with outbreaks of postoperative infections, including SSI. Recommendations for infection control practices in anesthesiology have been published.[212,365-367]

(2) Surgical technique

Excellent surgical technique is widely believed to reduce the risk of SSI.[26,49,179,180,368,369] Such techniques include maintaining effective hemostasis while preserving adequate blood supply, preventing hypothermia, gently handling tissues, avoiding inadvertent entries into a hollow viscus, removing devitalized (e.g., necrotic or charred) tissues, using drains and suture material appropriately, eradicating dead space, and appropriately managing the postoperative incision.

Any foreign body, including suture material, a prosthesis, or drain, may promote inflammation at the surgical site[94] and may increase the probability of SSI after otherwise benign levels of tissue contamination. Extensive research compares different types of suture material and their presumed relationships to SSI risk.[370-379] In general, monofilament sutures appear to have the lowest infection-promoting effects.[3,94,179,180]

A discussion of appropriate surgical drain use and details of drain placement exceed the scope of this document, but general points should be briefly noted. Drains placed through an operative incision increase incisional SSI risk.[380] Many authorities suggest placing drains through a separate incision distant from the operative incision.[283,381] It appears that SSI risk also decreases when closed suction drains are used rather than open drains.[174] Closed suction drains can effectively evacuate postoperative hematomas or seromas, but timing of drain removal is important. Bacterial colonization of initially sterile drain tracts increases with the duration of time the drain is left in place.[382]

Hypothermia in surgical patients, defined as a core body temperature below 36°C, may result from general anesthesia, exposure to cold, or intentional cooling such as is done to protect the myocardium and central nervous system during cardiac operations.[302,383,384] In one study of patients undergoing colorectal operations, hypothermia was associated with an increased SSI risk.[385] Mild hypothermia appears to increase incisional SSI risk by causing vasoconstriction, decreased delivery of oxygen to the wound space, and subsequent impairment of function of phagocytic leukocytes (i.e., neutrophils).[386-390] In animal models, supplemental oxygen administration has been shown to reverse the dysfunction of phagocytes in fresh incisions.[391] In recent human experiments, controlled local heating of incisions with an electrically powered bandage has been shown to improve tissue oxygenation.[392] Randomized clinical trials are needed to establish that measures which improve wound space oxygenation can reduce SSI risk.

4. Operative Characteristics: Postoperative Issues

a. Incision care

The type of postoperative incision care is determined by whether the incision is closed primarily (i.e., the skin edges are re-approximated at the end of the operation), left open to be closed later, or left open to heal by second intention. When a surgical incision is closed primarily, as most are, the incision is usually covered with a sterile dressing for 24 to 48 hours.[393,394] Beyond 48 hours, it is unclear whether an incision must be covered by a dressing or whether showering or bathing is detrimental to healing. When a surgical incision is left open at the skin level for a few days before it is closed (delayed primary closure), a surgeon has determined that it is likely to be contaminated or that the patient's condition prevents primary closure (e.g., edema at the site). When such is the case, the incision is packed with a sterile dressing. When a surgical incision is left open to heal by second intention, it is also packed with sterile moist gauze and covered with a sterile dressing. The American College of Surgeons, CDC, and others have recommended using sterile gloves and equipment (sterile technique) when changing dressings on any type of surgical incision.[180,395-397]

b. Discharge planning

In current practice, many patients are discharged very soon after their operation, before surgical incisions have fully healed.[398] The lack of optimum protocols for home incision care dictates that much of what is done at home by the patient, family, or home care agency practitioners must be individualized. The intent of discharge planning is to maintain integrity of the healing incision, educate the patient about the signs and symptoms of infection, and advise the patient about whom to contact to report any problems.

F. SSI SURVEILLANCE

Surveillance of SSI with feedback of appropriate data to surgeons has been shown to be an important component of strategies to reduce SSI risk.[16,399,400] A successful surveillance program includes the use of epidemiologically sound infection definitions (Tables 1 and 2) and effective

TABLE 10
PHYSICAL STATUS CLASSIFICATION, AMERICAN SOCIETY OF ANESTHESIOLOGISTS*

Code	Patient's Preoperative Physical Status
1	Normally healthy patient
2	Patient with mild systemic disease
3	Patient with severe systemic disease that is not incapacitating
4	Patient with an incapacitating systemic disease that is a constant threat to life
5	Moribund patient who is not expected to survive for 24 hours with or without operation

* Reference 406.
Note: The above is the version of the ASA Physical Status Classification System that was current at the time of development of, and still is used in, the NNIS Risk Index. Meanwhile, the American Society of Anesthesiologists has revised their classification system; the most recent version is available at http://www.asahq.org/profinfo/physicalstatus.html.

surveillance methods, stratification of SSI rates according to risk factors associated with SSI development, and data feedback.[25]

1. SSI Risk Stratification

a. Concepts

Three categories of variables have proven to be reliable predictors of SSI risk: (1) those that estimate the intrinsic degree of microbial contamination of the surgical site, (2) those that measure the duration of an operation, and (3) those that serve as markers for host susceptibility.[25] A widely accepted scheme for classifying the degree of intrinsic microbial contamination of a surgical site was developed by the 1964 NAS/NRC Cooperative Research Study and modified in 1982 by CDC for use in SSI surveillance (Table 7).[2,94] In this scheme, a member of the surgical team classifies the patient's wound at the completion of the operation. Because of its ease of use and wide availability, the surgical wound classification has been used to predict SSI risk.[16,94,126,401-405] Some researchers have suggested that surgeons compare clean wound SSI rates with those of other surgeons.[16,399] However, two CDC efforts—the SENIC Project and the NNIS system—incorporated other predictor variables into SSI risk indices. These showed that even within the category of clean wounds, the SSI risk varied by risk category from 1.1% to 15.8% (SENIC) and from 1.0% to 5.4% (NNIS).[125,126] In addition, sometimes an incision is incorrectly classified by a surgical team member or not classified at all, calling into question the reliability of the classification. Therefore, reporting SSI rates stratified by wound class alone is not recommended.

Data on 10 variables collected in the SENIC Project were analyzed by using logistic regression modeling to develop a simple additive SSI risk index.[125] Four of these were found to be independently associated with SSI risk: (1) an abdominal operation, (2) an operation lasting >2 hours, (3) a surgical site with a wound classification of either contaminated or dirty/infected, and (4) an operation performed on a patient having ≥3 discharge diagnoses. Each of these equally weighted factors contributes a point when present, such that the risk index values range from 0 to 4. By using these factors, the SENIC index predicted SSI risk twice as well as the traditional wound classification scheme alone.

The NNIS risk index is operation-specific and applied to prospectively collected surveillance data. The index values range from 0 to 3 points and are defined by three independent and equally weighted variables. One point is scored for each of the following when present: (1) American Society of Anesthesiologists (ASA) Physical Status Classification of >2 (Table 10), (2) either contaminated or dirty/infected wound classification (Table 7), and (3) length of operation >T hours, where T is the approximate 75th percentile of the duration of the specific operation being performed.[126] The ASA class replaced discharge diagnoses of the SENIC risk index as a surrogate for the patient's underlying severity of illness (host susceptibility)[406,407] and has the advantage of being readily available in the chart during the patient's hospital stay. Unlike SENIC's constant 2-hour cut-point for duration of operation, the operation-specific cut-points used in the NNIS risk index increase its discriminatory power compared to the SENIC index.[126]

b. Issues

Adjustment for variables known to confound rate estimates is critical if valid comparisons of SSI rates are to be made between surgeons or hospitals.[408] Risk stratification, as described above, has proven useful for this purpose, but relies on the ability of surveillance personnel to find and record data consistently and correctly. For the three variables used in the NNIS risk index, only one study has focused on how accurately any of them are recorded. Cardo et al. found that surgical team members' accuracy in assessing wound classification for general and trauma surgery was 88% (95% CI: 82%-94%).[409] However, there are sufficient ambiguities in the wound class definitions themselves to warrant concern about the reproducibility of Cardo's results. The accuracy of recording the duration of operation (i.e., time from skin incision to skin closure) and the ASA class has not been studied. In an unpublished report from the NNIS system, there was evidence that overreporting of high ASA class existed in some hospitals. Further validation of the reliability of the recorded risk index variables is needed.

Additionally, the NNIS risk index does not adequately discriminate the SSI risk for all types of operations.[27,410] It seems likely that a combination of risk factors specific to patients undergoing an operation will be more predictive. A

few studies have been performed to develop procedure-specific risk indices[218,411-414] and research in this area continues within CDC's NNIS system.

2. SSI Surveillance Methods

SSI surveillance methods used in both the SENIC Project and the NNIS system were designed for monitoring inpatients at acute-care hospitals. Over the past decade, the shift from inpatient to outpatient surgical care (also called ambulatory or day surgery) has been dramatic. It has been estimated that 75% of all operations in the United States will be performed in outpatient settings by the year 2000.[4] While it may be appropriate to use common definitions of SSI for inpatients and outpatients,[415] the types of operations monitored, the risk factors assessed, and the case-finding methods used may differ. New predictor variables may emerge from analyses of SSIs among outpatient surgery patients, which may lead to different ways of estimating SSI risk in this population.

The choice of which operations to monitor should be made jointly by surgeons and infection control personnel. Most hospitals do not have the resources to monitor all surgical patients all the time, nor is it likely that the same intensity of surveillance is necessary for certain low-risk procedures. Instead, hospitals should target surveillance efforts toward high-risk procedures.[416]

a. Inpatient SSI surveillance

Two methods, alone or together, have been used to identify inpatients with SSIs: (1) direct observation of the surgical site by the surgeon, trained nurse surveyor, or infection control personnel[16,97,399,402,409,417-420] and (2) indirect detection by infection control personnel through review of laboratory reports, patient records, and discussions with primary care providers.[15,84,399,402,404,409,418,421-427] The surgical literature suggests that direct observation of surgical sites is the most accurate method to detect SSIs, although sensitivity data are lacking.[16,399,402,417,418] Much of the SSI data reported in the infection control literature has been generated by indirect case-finding methods,[125,126,422,425,426,428-430] but some studies of direct methods also have been conducted.[97,409] Some studies use both methods of detection.[84,409,424,427,431] A study that focused solely on the sensitivity and specificity of SSIs detected by indirect methods found a sensitivity of 83.8% (95% CI: 75.7%-91.9%) and a specificity of 99.8% (95% CI: 99%-100%).[409] Another study showed that chart review triggered by a computer-generated report of antibiotic orders for post-cesarean section patients had a sensitivity of 89% for detecting endometritis.[432]

Indirect SSI detection can readily be performed by infection control personnel during surveillance rounds. The work includes gathering demographic, infection, surgical, and laboratory data on patients who have undergone operations of interest.[433] These data can be obtained from patients' medical records, including microbiology, histopathology, laboratory, and pharmacy data; radiology reports; and records from the operating room. Additionally, inpatient admissions, emergency room, and clinic visit records are sources of data for those postdischarge surgical patients who are readmitted or seek follow-up care.

The optimum frequency of SSI case-finding by either method is unknown and varies from daily to ≤3 times per week, continuing until the patient is discharged from the hospital. Because duration of hospitalization is often very short, postdischarge SSI surveillance has become increasingly important to obtain accurate SSI rates (refer to "Postdischarge SSI Surveillance" section).

To calculate meaningful SSI rates, data must be collected on all patients undergoing the operations of interest (i.e., the population at risk). Because one of its purposes is to develop strategies for risk stratification, the NNIS system collects the following data on all surgical patients surveyed: operation date; NNIS operative procedure category;[434] surgeon identifier; patient identifier; age and sex; duration of operation; wound class; use of general anesthesia; ASA class; emergency; trauma; multiple procedures; endoscopic approach; and discharge date.[433] With the exception of discharge date, these data can be obtained manually from operating room logs or be electronically downloaded into surveillance software, thereby substantially reducing manual transcription and data entry errors.[433] Depending on the needs for risk-stratified SSI rates by personnel in infection control, surgery, and quality assurance, not all data elements may be pertinent for every type of operation. At minimum, however, variables found to be predictive of increased SSI risk should be collected (refer to "SSI Risk Stratification" section).

b. Postdischarge SSI surveillance

Between 12% and 84% of SSIs are detected after patients are discharged from the hospital.[98,337,402,428,435-454] At least two studies have shown that most SSIs become evident within 21 days after operation.[446,447] Since the length of postoperative hospitalization continues to decrease, many SSIs may not be detected for several weeks after discharge and may not require readmission to the operating hospital. Dependence solely on inpatient case-finding will result in underestimates of SSI rates for some operations (e.g., coronary artery bypass graft) (CDC/NNIS system, unpublished data, 1998). Any comparison of SSI rates must take into account whether case-finding included SSIs detected after discharge. For comparisons to be valid, even in the same institution over time, the postdischarge surveillance methods must be the same.

Postdischarge surveillance methods have been used with varying degrees of success for different procedures and among hospitals and include (1) direct examination of patients' wounds during follow-up visits to either surgery clinics or physicians' offices,[150,399,402,404,430,436,440,441,447,452,455] (2) review of medical records of surgery clinic patients,[404,430,439] (3) patient surveys by mail or telephone,[435,437,438,441,442,444,445,448,449,455-457] or (4) surgeon surveys by mail or telephone.[98,428,430,437-439,443,444,446,448,450,451,455] One study found that patients have difficulty assessing their own wounds for infection (52% specificity, 26% positive predictive value),[458] suggesting that data obtained by patient questionnaire may inaccurately represent actual SSI rates.

Recently, Sands et al. performed a computerized search of three databases to determine which best identified SSIs: ambulatory encounter records for diagnostic, testing, and treatment codes; pharmacy records for specific antimicrobial prescriptions; and administrative records for rehospitalizations and emergency room visits.[446] This study found that pharmacy records indicating a patient had received antimicrobial agents commonly used to treat soft tissue infections had the highest sensitivity (50%) and positive predictive value (19%), although even this approach alone was not very effective.

As integrated health information systems expand, tracking surgical patients through the entire course of care may become more feasible, practical, and effective. At this time, no consensus exists on which postdischarge surveillance methods are the most sensitive, specific, and practical. Methods chosen will necessarily reflect the hospital's unique mix of operations, personnel resources, and data needs.

c. Outpatient SSI surveillance

Both direct and indirect methods have been used to detect SSIs that complicate outpatient operations. One 8-year study of operations for hernia and varicose veins used home visits by district health nurses combined with a survey completed by the surgeon at the patient's 2-week postoperative clinic visit to identify SSIs.[459] While ascertainment was essentially 100%, this method is impractical for widespread implementation. High response rates have been obtained from questionnaires mailed to surgeons (72%->90%).[443,444,446,455,459-461] Response rates from telephone questionnaires administered to patients were more variable (38%,[444] 81%,[457] and 85%[455]), and response rates from questionnaires mailed to patients were quite low (15%[455] and 33%[446]). At this time, no single detection method can be recommended. Available resources and data needs determine which method(s) should be used and which operations should be monitored. Regardless of which detection method is used, it is recommended that the CDC NNIS definitions of SSI (Tables 1 and 2) be used without modification in the outpatient setting.

G. GUIDELINE EVALUATION PROCESS

The value of the HICPAC guidelines is determined by those who use them. To help assess that value, HICPAC is developing an evaluation tool to learn how guidelines meet user expectations, and how and when these guidelines are disseminated and implemented.

II. RECOMMENDATIONS FOR PREVENTION OF SURGICAL SITE INFECTION

A. RATIONALE

The Guideline for Prevention of Surgical Site Infection, 1999, provides recommendations concerning reduction of surgical site infection risk. Each recommendation is categorized on the basis of existing scientific data, theoretical rationale, and applicability. However, the previous CDC system for categorizing recommendations has been modified slightly.

Category I recommendations, including IA and IB, are those recommendations that are viewed as effective by HICPAC and experts in the fields of surgery, infectious diseases, and infection control. Both Category IA and IB recommendations are applicable for, and should be adopted by, all healthcare facilities; IA and IB recommendations differ only in the strength of the supporting scientific evidence.

Category II recommendations are supported by less scientific data than Category I recommendations; such recommendations may be appropriate for addressing specific nosocomial problems or specific patient populations.

No recommendation is offered for some practices, either because there is a lack of consensus regarding their efficacy or because the available scientific evidence is insufficient to support their adoption. For such unresolved issues, practitioners should use judgement to determine a policy regarding these practices within their organization. Recommendations that are based on federal regulation are denoted with an asterisk.

B. RANKINGS

Category IA. Strongly recommended for implementation and supported by well-designed experimental, clinical, or epidemiological studies.

Category IB. Strongly recommended for implementation and supported by some experimental, clinical, or epidemiological studies and strong theoretical rationale.

Category II. Suggested for implementation and supported by suggestive clinical or epidemiological studies or theoretical rationale.

No recommendation; unresolved issue. Practices for which insufficient evidence or no consensus regarding efficacy exists.

Practices required by federal regulation are denoted with an asterisk (*).

C. RECOMMENDATIONS

1. Preoperative

a. Preparation of the patient

1. Whenever possible, identify and treat all infections remote to the surgical site before elective operation and postpone elective operations on patients with remote site infections until the infection has resolved. *Category IA*

2. Do not remove hair preoperatively unless the hair at or around the incision site will interfere with the operation. *Category IA*

3. If hair is removed, remove immediately before the operation, preferably with electric clippers. *Category IA*

4. Adequately control serum blood glucose levels in all diabetic patients and particularly avoid hyperglycemia perioperatively. *Category IB*

5. Encourage tobacco cessation. At minimum, instruct patients to abstain for at least 30 days before elective operation from smoking cigarettes, cigars, pipes, or any other form of tobacco consumption (e.g., chewing/dipping). *Category IB*

6. Do not withhold necessary blood products from surgical patients as a means to prevent SSI. *Category IB*

7. Require patients to shower or bathe with an antiseptic agent on at least the night before the operative day. *Category IB*

8. Thoroughly wash and clean at and around the incision site to remove gross contamination before performing antiseptic skin preparation. *Category IB*

9. Use an appropriate antiseptic agent for skin preparation (Table 6). *Category IB*

10. Apply preoperative antiseptic skin preparation in concentric circles moving toward the periphery. The prepared area must be large enough to extend the incision or create new incisions or drain sites, if necessary. *Category II*

11. Keep preoperative hospital stay as short as possible while allowing for adequate preoperative preparation of the patient. *Category II*

12. No recommendation to taper or discontinue systemic steroid use (when medically permissible) before elective operation. *Unresolved issue*

13. No recommendation to enhance nutritional support for surgical patients solely as a means to prevent SSI. *Unresolved issue*

14. No recommendation to preoperatively apply mupirocin to nares to prevent SSI. *Unresolved issue*

15. No recommendation to provide measures that enhance wound space oxygenation to prevent SSI. *Unresolved issue*

b. Hand/forearm antisepsis for surgical team members

1. Keep nails short and do not wear artificial nails. *Category IB*

2. Perform a preoperative surgical scrub for at least 2 to 5 minutes using an appropriate antiseptic (Table 6). Scrub the hands and forearms up to the elbows. *Category IB*

3. After performing the surgical scrub, keep hands up and away from the body (elbows in flexed position) so that water runs from the tips of the fingers toward the elbows. Dry hands with a sterile towel and don a sterile gown and gloves. *Category IB*

4. Clean underneath each fingernail prior to performing the first surgical scrub of the day. *Category II*

5. Do not wear hand or arm jewelry. *Category II*

6. No recommendation on wearing nail polish. *Unresolved Issue*

c. Management of infected or colonized surgical personnel

1. Educate and encourage surgical personnel who have signs and symptoms of a transmissible infectious illness to report conditions promptly to their supervisory and occupational health service personnel. *Category IB*

2. Develop well-defined policies concerning patient-care responsibilities when personnel have potentially transmissible infectious conditions. These policies should govern (a) personnel responsibility in using the health service and reporting illness, (b) work restrictions, and (c) clearance to resume work after an illness that required work restriction. The policies also should identify persons who have the authority to remove personnel from duty. *Category IB*

3. Obtain appropriate cultures from, and exclude from duty, surgical personnel who have draining skin lesions until infection has been ruled out or personnel have received adequate therapy and infection has resolved. *Category IB*

4. Do not routinely exclude surgical personnel who are colonized with organisms such as *S. aureus* (nose, hands, or other body site) or group A *Streptococcus,* unless such personnel have been linked epidemiologically to dissemination of the organism in the healthcare setting. *Category IB*

d. Antimicrobial prophylaxis

1. Administer a prophylactic antimicrobial agent only when indicated, and select it based on its efficacy against the most common pathogens causing SSI for a specific operation (Table 4) and published recommendations.[266,268,269,282-284] *Category IA*

2. Administer by the intravenous route the initial dose of prophylactic antimicrobial agent, timed such that a bactericidal concentration of the drug is established in serum and tissues when the incision is made. Maintain therapeutic levels of the agent in serum and tissues throughout the operation and until, at most, a few hours after the incision is closed in the operating room. *Category IA*

3. Before elective colorectal operations in addition to d2 above, mechanically prepare the colon by use of enemas and cathartic agents. Administer nonabsorbable oral antimicrobial agents in divided doses on the day before the operation. *Category IA*

4. For high-risk cesarean section, administer the prophylactic antimicrobial agent immediately after the umbilical cord is clamped. *Category IA*

5. Do not routinely use vancomycin for antimicrobial prophylaxis. *Category IB*

2. Intraoperative

a. Ventilation

1. Maintain positive-pressure ventilation in the operating room with respect to the corridors and adjacent areas. *Category IB*

2. Maintain a minimum of 15 air changes per hour, of which at least 3 should be fresh air. *Category IB*

3. Filter all air, recirculated and fresh, through the appropriate filters per the American Institute of Architects' recommendations.[299] *Category IB*

4. Introduce all air at the ceiling, and exhaust near the floor. *Category IB*

5. Do not use UV radiation in the operating room to prevent SSI. *Category IB*

6. Keep operating room doors closed except as needed for passage of equipment, personnel, and the patient. *Category IB*

7. Consider performing orthopedic implant operations in operating rooms supplied with ultraclean air. *Category II*

8. Limit the number of personnel entering the operating room to necessary personnel. *Category II*

b. Cleaning and disinfection of environmental surfaces

1. When visible soiling or contamination with blood or other body fluids of surfaces or equipment occurs during an operation, use an EPA-approved hospital disinfectant to clean the affected areas before the next operation. *Category IB**

2. Do not perform special cleaning or closing of operating rooms after contaminated or dirty operations. *Category IB*

3. Do not use tacky mats at the entrance to the operating room suite or individual operating rooms for infection control. *Category IB*

4. Wet vacuum the operating room floor after the last operation of the day or night with an EPA-approved hospital disinfectant. *Category II*

5. No recommendation on disinfecting environmental surfaces or equipment used in operating rooms between operations in the absence of visible soiling. *Unresolved issue*

c. Microbiologic sampling

1. Do not perform routine environmental sampling of the operating room. Perform microbiologic sampling of operating room environmental surfaces or air only as part of an epidemiologic investigation. *Category IB*

d. Sterilization of surgical instruments

1. Sterilize all surgical instruments according to published guidelines.[212,299,314,321] *Category IB*

2. Perform flash sterilization only for patient care items that will be used immediately (e.g., to reprocess an inadvertently dropped instrument). Do not use flash sterilization for reasons of convenience, as an alternative to purchasing additional instrument sets, or to save time. *Category IB*

e. Surgical attire and drapes

1. Wear a surgical mask that fully covers the mouth and nose when entering the operating room if an operation is about to begin or already under way, or if sterile instruments are exposed. Wear the mask throughout the operation. *Category IB**

2. Wear a cap or hood to fully cover hair on the head and face when entering the operating room. *Category IB**

3. Do not wear shoe covers for the prevention of SSI. *Category IB**

4. Wear sterile gloves if a scrubbed surgical team member. Put on gloves after donning a sterile gown. *Category IB**

5. Use surgical gowns and drapes that are effective barriers when wet (i.e., materials that resist liquid penetration). *Category IB*

6. Change scrub suits that are visibly soiled, contaminated, and/or penetrated by blood or other potentially infectious materials. *Category IB**

7. No recommendations on how or where to launder scrub suits, on restricting use of scrub suits to the operating suite, or for covering scrub suits when out of the operating suite. *Unresolved issue*

f. Asepsis and surgical technique

1. Adhere to principles of asepsis when placing intravascular devices (e.g., central venous catheters), spinal or epidural anesthesia catheters, or when dispensing and administering intravenous drugs. *Category IA*

2. Assemble sterile equipment and solutions immediately prior to use. *Category II*

3. Handle tissue gently, maintain effective hemostasis, minimize devitalized tissue and foreign bodies (i.e., sutures, charred tissues, necrotic debris), and eradicate dead space at the surgical site. *Category IB*

4. Use delayed primary skin closure or leave an incision open to heal by second intention if the surgeon considers the surgical site to be heavily contaminated (e.g., Class III and Class IV). *Category IB*

5. If drainage is necessary, use a closed suction drain. Place a drain through a separate incision distant from the operative incision. Remove the drain as soon as possible. *Category IB*

3. Postoperative incision care

a. Protect with a sterile dressing for 24 to 48 hours postoperatively an incision that has been closed primarily. *Category IB*

b. Wash hands before and after dressing changes and any contact with the surgical site. *Category IB*

c. When an incision dressing must be changed, use sterile technique. *Category II*

d. Educate the patient and family regarding proper incision care, symptoms of SSI, and the need to report such symptoms. *Category II*

e. No recommendation to cover an incision closed primarily beyond 48 hours, nor on the appropriate time to shower or bathe with an uncovered incision. *Unresolved issue*

4. Surveillance

a. Use CDC definitions of SSI (Table 1) without modification for identifying SSI among surgical inpatients and outpatients. *Category IB*

b. For inpatient case-finding (including readmissions), use direct prospective observation, indirect prospective detection, or a combination of both direct and indirect methods for the duration of the patient's hospitalization. *Category IB*

c. When postdischarge surveillance is performed for detecting SSI following certain operations (e.g., coronary artery bypass graft), use a method that accommodates available resources and data needs. *Category II*

d. For outpatient case-finding, use a method that accommodates available resources and data needs. *Category IB*

e. Assign the surgical wound classification upon completion of an operation. A surgical team member should make the assignment. *Category II*

f. For each patient undergoing an operation chosen for surveillance, record those variables shown to be associated with increased SSI risk (e.g., surgical wound class, ASA class, and duration of operation). *Category IB*

g. Periodically calculate operation-specific SSI rates

* *Federal regulation: OSHA.*

stratified by variables shown to be associated with increased SSI risk (e.g., NNIS risk index). *Category IB*

h. Report appropriately stratified, operation-specific SSI rates to surgical team members. The optimum frequency and format for such rate computations will be determined by stratified case-load sizes (denominators) and the objectives of local, continuous quality improvement initiatives. *Category IB*

i. No recommendation to make available to the infection control committee coded surgeon-specific data. *Unresolved issue*

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ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Surgical Wound Classification Infection Control Surveillance		3005
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2007	Hospital Wide	ICC

Following the Surgical Wound classification based on clinical estimation of bacterial density, contamination, and risk of subsequent infection. This classification is recommended for use in collating information concerning Surgical Wound Infections.

Class I Clean

Non-traumatic
No inflammation encountered
No break in technique
Respiratory, alimentary, genitourinary tracts not entered

Class I Surgeries (examples)

Adrenalectomy
Cesarean Section
Cholecystectomy & T-tube sites (if sterile culture obtained)
Elective Eye Surgery
Embolectomy
Exploratory Laparotomy
Gastrectomy
Herniorrhaphy
Laryngectomy
Nephrectomy
Neurosurgery – elective procedures
Orchiopexy
Orthopedic – reconstructive procedures
Pneumonectomy or Lobectomy
Portacaval Shunt
Prostatectomy – except T.U.R.
Radical Mastectomy
Radical Neck, outside incision
Resection of Ovary; Salpingo-oophorectomy
Thyroidectomy, Parathyroidectomy
Tubal Ligation
Ureterolithotomy
Vascular Surgery

Class II – Clean/Contaminated

Gastrointestinal or respiratory tracts entered without significant spillage.

Class II Surgeries (example)

Abdominal Hysterectomy
Appendectomy
A & P Repair or Resection
Bowel Resection
Burns / Debridement
Cholecystectomy
Cone Biopsy, Uterine, Cervical
Dilation and Curretage (D&C)
Internal Urethrotomy
Intranasal Surgery
Myringotomy
Nephrectomy with Bacteriuria at Surgery
Oral/Dental Surgery
Pilonidal Cyst and Sinus, not infected
Radical Neck, Mouth, Trachea
Tonsillectomy and Adenoidectomy
Transurethral Resection of the Prostate
Traumatic Wounds under 10 hours
Vaginal Hysterectomy
Vaginal Delivery with Episiotomy

Class III Contaminated

Major break in technique
Gross spillage from gastrointestinal tract
Traumatic wound – fresh
Entrance of genitourinary and / or biliary tracts in presence of infected urine or bile

Class III Surgeries (examples)

Appendectomy with Perforation or Peritonitis
Bowel Resection with Perforation or Closure of colostomy
Diverticulectomy
Drainage of Intra-Abdominal Abscess
Hemorrhoidectomy
Open Fractures
Traumatic Wound over 10 hours

Class IV – Infected

Acute bacterial inflammation encountered without pus. Transection of “clean” tissue for the purpose of surgical access to a collection of pus.

Perforated viscous encountered

Traumatic wound with retained devitalized tissue, foreign bodies, fecal contamination, and / or delayed treatment, or from a dirty source.

For surveillance and statistical purposes, wound infections will be monitored by using the NNIS surgical wound infection index as seen in the following table:

RISK CATEGORY

WOUND CLASS	0	1	2	3	(G+)	ALL OPERATIONS
Clean	1.0	2.3	5.4	-----	(0.47)	2.1
Clean-Contaminated	2.1	4.0	9.5	-----	(0.40)	3.3
Contaminated	----	3.4	6.8	13.2	(0.44)	6.4
Dirty	----	3.1	8.1	12.8	(0.43)	7.1
All Operations	1.5	2.9	6.8	13.0		

+ Goodman – Kruskal correlation coefficient

A surgical wound will be considered as a site of HAI if two or more of the following signs or symptoms are noted.

1. Purulent drainage**
2. Redness, swelling, heat, pain, or induration at site.
3. Excessive pain at surgical site
4. Unexplained temperature elevation
5. Unexpected restlessness, anorexia, reluctance to ambulate

** Any surgical wound which drains purulent material, with or without a positive culture, is considered to be the site of a HAI. The source of the organisms, whether endogenous or exogenous, is not considered.

SURVEILLANCE

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Surveillance		4001
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2008	Hospital Wide	ICC

Surveillance is performed on a whole hospital basis including the Emergence Room. Collection of data comes from:

1. Unit rounds weekly or more often by the Nurse Epidemiologist; temperature board; chart review; kardex review; daily census sheets; and the Utilization Review Coordinator/Case Manager, epidemiologist of significant findings on a daily basis.
2. Hospital Infection Control Reports: Copies of all CBC's, UA's and cultures will be reviewed by the Nurse Epidemiologist.
3. Review From Other Departments:
    a. The Operating Room reports any infectious cases or abscesses found during surgery to the Nurse Epidemiologist.
    b. Patient care areas report any new isolation cases or any suspected infections.
    c. Medical Records reports any positive bacteriology reports they receive on patients that have been discharged or any positive VDRL reports they obtain. They cooperate in getting charts for monthly data.
    d. Radiology Department reports x-ray diagnosis of tuberculosis.
    e. All readmissions within one week are assessed by nursing personnel and reported to Nurse Epidemiologist.
4. All cultures done within three days after admission will be reviewed by the Nurse Epidemiologist. Both concurrent and retrospective charts will be screened by the CDC guidelines for HAI and community acquired infections. This is reviewed bimonthly by the Infection Control Committee members and the Medical Staff Chairman assists the Nurse Epidemiologist to determine if HAI exists.

SUSPECTED INFECTION REPORT

Please return within three days to Infection Control Nurse

1. Infection Present on Admission: Yes___ No ___ HAI: Yes ___ No ___

2. Admitting Diagnosis:_____

3. Reason for Referral_____

4. Site and Extent of Suspected Infection _____

5. Surgical Procedure _____

6. Date of Surgery_____ Date Infection Noted_____

7. Culture Sent: Yes____ No _____ Date of Culture _____

8. Culture Source: _____

9. Antibiotic Given? Yes ____ No____ If Yes, Date _____

10. Prescribed Antibiotic _____

11. Precautions Instituted? _____ Type _____ Date_____
    Attending Physician _____
    Nurse Reporting Infection _____

12. Date Reported _____

13. Type of Infection:

Urinary	( )
Respiratory	( )
Skin	( )
Gastrointestinal	( )
Blood	( )
Postoperative Wound	( )

    Class of Surgery
    I ( ) II ( ) III ( ) IV ( )
    Other type of infection ( ) Indicate Type_____
    Class I- Elective; Class II – Intestinal & Colon; Class III – Abscess; Class IV – Draining Wound

14. Predominate Organism: _____
15. Remarks:_____

The intent of any surveillance method whether it is house wide or focused should be to assess the overall quality of care. Direct observation and direct contact with both patients

and direct care personnel has been demonstrated to be a reliable source of data.

Collection approach shall include concurrent surveillance during hospitalization and post discharge follow-up. Data cannot be limited to positive cultures and sensitivity and/or post discharge chart review.

THE DIFFERENT TYPES OF SURVEILLANCE

A. House wide surveillance

B. Focus surveillance or prevalence studies depend on number of beds in facility and/or a specific problem. Data gathered for a specific surgical procedure (i.e., Cholecystectomy, hysterectomy), surgeon specific or organism specific.

C. An outbreak demands an immediate focus study.

1. Aspiration pneumonia and stasis are a direct reflection of nursing care.

2. Bacteremia (Septicemia) – enhanced by invasive procedures

    a. Primary septicemia-lab confirmed and clinical sepsis. All intravascular device related septicemias are considered primary.

    b. Secondary septicemia – if organism same as organism at another site.

3. Urinary tract infections due to Foleys.

THE METHODS OF SURVEILLANCE

Data may be generated through the following means:

1. Daily assessment as related by direct care personnel.
   (RN, LPN)

2. Review of patient information in the medical record.

3. Direct observation.

4. Culture and sensitivity results.

In addition, information can be obtained from the admitting diagnosis, physician input and with aid of other ancillary departments (i.e., Cardio-Pulmonary, Laboratory, Physical Therapy, etc.).

The numerator and denominator on which the statistical data will be based will depend on the type of surveillance employed, i.e. If the surveillance is focused on a surgical procedure, the numerator would be the number of procedures complicated by wound infection and the denominator would be the number of that particular surgical procedure for the overall time period being included.

Example: Time period 2 months

$$\frac{\text{Numerator: \# of post op wound infections x 100}}{\text{Denominator: \# of Hysterectomies performed}} \quad \frac{3 \times 100}{60} \quad \frac{300}{60} = .2\%$$

WEEK OF:_____ **PATIENT INFECTIONS**												
Name	Diagnosis	Dr.	Adm.	Temp	WBC	UA	CXR	Cult	FC	IV	Other	Antibiotics

Infection Control Reporting

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Hospital Acquired Infection Reports		5001
EFFECTIVE DATE;	**APPLIES TO:**	**APPROVED BY:**
Revised 11/2010	Hospital Wide	ICC

1. PURPOSE

To define the types of reporting programs to provide a practical system for reporting, evaluating and maintaining records of infections among patients and personnel.

To assist the Infection Control Practitioner to obtain data in a consistent and effective manner.

2. REPORT GENERATION

All infections reported and/or discovered as verified by the Infection Control Practitioner should be compiled by site, type, organism, and occurrence.

The total number of discharges and admissions from each nursing unit is then obtained from Medical Records.

The data collected on both community-acquired and HAI, volume, and percentages are calculated for each unit:

Number of Infections x 100 = Percent of Infection
# of Patients discharged

A comparison may be made to other months, which perhaps a graph to show yearly comparisons. Use of data based on 1,000 patient days is considered more accurate, especially if done by unit.

The completed monthly or quarterly report should be presented to the Infection Control Committee before each bi- monthly meeting for the purpose of review and evaluation.

The current – month report should be compared to the previous months/quarter's data. After approval by the committee, a summary of the complete report should be distributed to the medical staff in order to keep them informed of the progress on the infection control program.

A copy of each nursing unit's infection control report should be reported to the nurse manager and included in quality assurance statistics. Action taken in response to recommendations should be recorded and sent back to the Infection Control Practitioner.

II. HOSPITAL ACQUIRED INFECTION REPORTS CONTENT

A. The Infection Control Committee approves the type and scope of surveillance activities, which includes at least the following:

1. The identification and location of the patient.

a. Patient's name, hospital number, room number, age.

2. The data of admission and onset of infection.

3. The type and site of infection; surgical procedures and wound classification.

4. The data of cultures taken and results, when known.

5. Any treatment and antibiotics administered, including any predisposing factors.

6. The identity of the practitioner responsible for the care of the patient.

B. Medical records must accurately reflect in the final diagnosis or list of complications all infections occurring during hospitalization.

C. It is of utmost importance for all clinical personnel to be competent to participate in infection monitoring, prevention, and control activities and to alert the Infection Control Practitioner of any suspected infections. The Infection Control Practitioner will then review the patient's chart, evaluate the gathered information, and take necessary steps to control the spread of infection.

At least every week the information should be reviewed and a decision made as to whether each case represents a true infection. The data should be scrutinized for evidence of clustering by patient care areas and services, and for infections in two or more patients caused by strains of a given microorganism with the same antibiogram.

Any case or cases may be brought to the committee for further action at the request of the Infection Control Practitioner.

This information should be considered confidential and privileged information which is reported to the Infection Control Committee.

D. Data collection for infection is facilitated by the use of various forms. The primary collection form is the work sheet which is completed for each HAI identified, whether in an inpatient, outpatient, or personnel.

The periodic report summarizes surveillance data.

Additionally, reporting back to the Surgical Services Department, Medical Staff, Nursing Units, and Administration is facilitated by the use of various formats.

E. The form used at ACMC is attached.

IV. INFECTION CONTROL COMMITTEE

RECORDS

Records should consist of the minutes of the Infection Control Committee meeting and the monthly infection reports, of which the original copies should be submitted to the Executive Committee, these should be retained as part of the hospital administration files. A copy of the minutes is then distributed to each member of the committee prior to the next meeting. A copy is to be retained in the Infection Control as part of the Nursing Department files,

FOLLOW UP OF HOSPITAL ACQUIRED INFECTIONS POLICY

1. When a patient is found to have a HAI, it shall be noted on the infection surveillance sheet for statistical purposes.

2. The Infection Control Practitioner shall provide a report to the charge nurse of the unit involved, citing:

    a. Patient.
    b. Site of infection.
    c. Precautions to patient and staff.
    d. Culture reports if any.
    e. Possible causes of infection.
    f. Preventive measures.

3. If a surgical procedure is involved, the Surgical Services Director will be notified monthly/quarterly of

    a. Patient.
    b. Site of infection.
    c. Surgical procedures and dates.
    d. Previous invasive procedures.
    e. When symptoms of infection developed and what they were.
    f. Possible causes of infection.
    g. Wound classification.

The Surgical Services Director will then evaluate Operating Room Data to check for incidents relative to room or personnel. She will then follow-up and advise.

4. If a patient's physician has not ordered necessary precautions relative to HAI, the hospital Epidemiologist/ Infection Control Practitioner will confer with the physician.

5. If a culture report shows a pathogen which is likely to be the cause of the HAI that is being treated with an inappropriate antibiotic, the hospital Epidemiologist/Infection Control Practitioner will notify the physician.

6. If an infection can be traced to a particular procedure or staff member, the Infection Control Practitioner will follow up with discussion, review of techniques, and observations, if deemed necessary.

7. If occasion should arise when a recurring infection problem is not improving (i.e., foley catheterization, I.V. catheterization), that will required that two people do the procedure to allow for peer review and increased attention to technique.

REPORT FORM: NURSING UNIT REPORT

Nursing Unit: _____ _____to _____200_

Of patients_____ = _____infection rate
of patients discharged

Post-operative wound infections _____

Bloodstream infections _____

Pulmonary infections _____

Urinary tract infections _____

_____# of UTI_____ = _____Risk of Infection from
# of patients cauterized catheterization

IV infections _____

Other infections _____

Recommendations:_____ Actions taken: (Return to Infection Control Practitioner)

_____ _____

_____ _____

_____ _____

Signed:_____ Signed:_____

REPORT FORM: INFECTION INVESTIGATION / CONTROL REPORT

Medical Record #	Nursing Area	Age	Sex	Admit Date	Physician Name	Cx site/date	Primary Diagnosis	Antibiotics	Comments	Factors predisposal to Infections

*Code (A) Respiratory
(B) IV Therapy
(C) Change of Organism
(D) Tracheostomy
(E) Respiratory Therapy
(F) Foley Catheter
(G) Sensitivity
(H) Change of Antibiotics

TITLE/DESCRIPTION:		**FILING NUMBER:**
Post Discharge Follow-up		5004
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
11/2004	Hospital Wide	ICC

INFECTION CONTROL
POST DISCHARGE NOSOCOMIAL INFECTION FOLLOW-UP

On a monthly basis, members of the medical staff performing surgery at ACMC will be sent a "Post Discharge Hospital Acquired Infection Follow-Up".

The physician will complete the questionnaire and return it to the Infection Control Nurse for follow-up of post discharge infections.

The post discharge HAI rate will be determined by comparison with CDC criteria for HAI. This information will be incorporated into monthly statistics.

A sample of this form follows.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL DEPARTMENT

POST DISCHARGE INFECTION SURVEILLANCE REPORT

Dear Doctor _____:

As part of the Hospital's Infection Control Surveillance Program, we are requesting your assistance and cooperation by completing and returning this questionnaire. Please return this form in the enclosed envelope.

Yours truly,
Julie Keeth, Infection Control

According to our records, you performed surgery on the following patients at our hospital during the month of _____.

PATIENT NAME / ADMISSION NUMBER

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

A.____ None of the following patients seen in follow-up had symptoms of infection.
B.____ The following patients from the above list were observed to have an infection NOT NOTED DURING HOSPITALIZATION.
Please list Patient's Name, Type of Infection, Culture Results, and Treatment.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING DATE:**
Reporting Methods		5006
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2007	Hospital Wide	ICC

REPORTABLE DISEASES

If the disease is reportable, the health department should be notified promptly. The reporting is best carried out by the Infection Control Practitioner. The Infection Control Committee must define the accountability for mandated reporting of inpatient, outpatient, and clinic populations.

It is also the obligation of physicians to reply as best as they can to requests for further information concerning cases on which they are submitted laboratory specimens and to provide additional specimens when so requested, if the condition and circumstances of the patient permit.

ARKANSAS STATE BOARD OF HEALTH

RULES AND REGULATIONS PERTAINING TO COMMUNICABLE DISEASE

Promulgated Under the Authority of
Act 96 of 1913, As Amended
Ark. Code Ann. §§ 20-7-101 et seq.

Effective May 10, 2004
By the Arkansas State Board of Health

Arkansas Department of Health
Little Rock, Arkansas
Dr. Fay Boozman

RULES AND REGULATIONS PERTAINING TO COMMUNICABLE DISEASE CONTROL

TABLE OF CONTENTS

AUTHORITY

These Rules and Regulations Pertaining to Communicable Disease Control are duly adopted and promulgated by the Arkansas State Board of Health pursuant to the authority expressly conferred by the Laws of the State of Arkansas including, without limitation, Act 96 of 1913 (Ark. Code Ann. § 20-7-101 et seq.).

PURPOSE

The purpose of the Rules and Regulations Pertaining to the Control of Communicable Diseases is to provide for the prevention and control of communicable diseases and to protect the public health, welfare and safety of the citizens of Arkansas.

SECTION I. DEFINITIONS:

A. **Board** means the Arkansas State Board of Health.

B. **Complete quarantine** means the limitation of freedom of movement of such well persons or domestic animals as have been exposed to a communicable disease, for a period of time not longer than the longest usual incubation period of the disease, in such manner as to prevent effective contact with those not so exposed.

C. **Director** means the Director of the Arkansas Department of Health.

D. **Department** means the Arkansas Department of Health.

E. **Emergency response employee** means firefighters, law enforcement officers, emergency medical technicians, first responders, and other individuals including employees of volunteer organizations without regard to whether such employees receive compensation who, in the performance of professional duties, respond to emergencies in the State of Arkansas.

F. **Medical provider** means any hospital, physician, nurse, hospital employee, nursing home, nursing home employee, or other health care provider.

G. **Modified quarantine** means a selective, partial limitation of freedom of movement of persons or domestic animals, commonly on the basis of known or presumed differences in susceptibility, but sometimes because of danger of disease transmission. It may be designed to meet particular situations. Examples are exclusion of children from school; exemption of immune persons from provisions required of susceptible persons (e.g., contacts acting as food handlers); restriction of military populations to the post or quarters.

H. **Personal surveillance** means the practice of close medical or other supervision of contacts in order to promote prompt recognition of infection or illness, but without restricting their movements.

I. **Segregation** means the separation for special consideration, control or observation of some part of a group of persons or domestic animals from the others to facilitate control of a communicable disease (e.g., removal of susceptible children to homes of immune persons, or establishments of a sanitary boundary to protect uninfected from infected portions of a population.)

SECTION II. GENERAL MEASURES FOR THE CONTROL OF COMMUNICABLE DISEASES.

The current edition of "Control of Communicable Disease in Man," published by the American Public Health Association, will be accepted for applying general control measures for communicable diseases.

SECTION III. RESPONSIBILITY FOR REPORTING.

A. It shall be the duty of every physician, practitioner, nurse; every superintendent or manager of a dispensary, hospital, clinic, nursing or extended care home; any person in attendance on a case of any of the diseases or conditions declared notifiable; or the local health department to report the disease or condition to the Department utilizing the Toll Free Communicable Disease Reporting System (1-800-482-8888) within twenty-four (24) hours.

B. Any person who determines by laboratory examination that a specimen derived from the human body yields evidence suggestive of a communicable disease shall report, within twenty-four (24) hours, to the Department on the Toll Free Communicable Disease Reporting System microscopical, cultural or other evidence of the presence of any of the diseases declared notifiable.

C. It shall be the duty of every superintendent of a public school district or such person(s) he designates, to report immediately to the Department on the Toll Free Communicable Disease Reporting System any outbreak of three (3) or more cases of any of the conditions declared notifiable.

SECTION IV. NOTIFIABLE DISEASES AND CONDITIONS

A. Notifiable diseases and conditions are to be reported to the Department utilizing the Toll Free Communicable Disease Reporting System (1-800-482-8888) within 24 hours of diagnosis. Reports should include:

1. The reporter's name, location and phone number.
2. The name of the disease reported and the onset date.
3. The patient's name, address, phone number, age, sex and race. (PLEASE spell the patient's name.)
4. The attending physician's name, location and phone number.
5. Any treatment information, if known.
6. Any pertinent laboratory or other information used in the diagnosis.

B. Additional disease-specific information may be requested. Any person desiring to further discuss reportable diseases may phone the Division of Epidemiology at (501) 661-2893 during normal business hours or 1-800-554-5738 after hours, holidays and weekends.

SECTION V. DISEASES AND CONDITIONS

A. NOTIFIABLE DISEASES AND CONDITIONS

AIDS*

Anthrax**

Blastomycosis

Botulism** (including Infant Botulism)

Brucellosis

CD4+ T-Lymphocyte Count

Campylobacteriosis

Chancroid

Chlamydial Infections

Cholera

Congenital Rubella syndrome

Congenital Syphilis

Creutzfeld-Jakob Disease

Cryptosporidiosis

Cyclosporiasis

Diphtheria

Ehrlichiosis

Encephalitis, all types

Enterotoxigenic *E. coli*

Food Poisoning, all types

Giardiasis

Gonorrhea

Haemophilus influenzae Invasive Disease

Hantavirus Pulmonary Syndrome

Hemolytic-Uremic Syndrome

Hepatitis (Type A**, B, C, non-A-non B, or unspecified)

Histoplasmosis

H.I.V. (Human Immunodeficiency Virus)*

Influenza (Indicate viral type if known)

Kawasaki Disease

Legionellosis

Leprosy
Listeriosis
Lyme Disease
Malaria
Measles (Rubeola)
Meningitis, all types
Meningococcal Infections**
Mumps
Pertussis** (Whooping Cough)
Plague**
Poliomyelitis
Psittacosis
Q Fever**
Rabies, Animal
Rabies, Human
Rheumatic Fever
Rocky Mountain Spotted Fever
Rubella
SARS**
Salmonellosis (Including Typhoid)
Shigellosis
Streptococcal Disease, Invasive Group A
Strep. Pneumoniae, Invasive, drug-resistant
Strep. Pneumoniae, Invasive, not resistant
Syphilis*
Tetanus
Toxic Shock Syndrome
Toxoplasmosis
Tuberculosis
Tularemia**
Typhus**
Vancomycin-resistant enterococci
Varicella (Chickenpox), deaths only

Variola** (Smallpox)

Viral Hemorrhagic Fevers**

West Nile Virus

Yellow Fever

* Any woman infected with AIDS, HIV or Syphilis, who is pregnant, must be so reported indicating the trimester of pregnancy. This applies each time the woman becomes pregnant.

** These diseases (suspected or confirmed) must be reported immediately to the Arkansas Department of Health. These diseases are of special importance or may indicate a bioterrorism event. If it is a local call or you are in Pulaski County, report to (501) 661-2893 between the hours of 8:00 AM – 4:30 PM. All other suspected or confirmed cases must be reported to (800) 554-5738. This line is available twenty-four hours a day.

B. REPORTABLE OCCUPATIONAL DISEASES AND OTHER CONDITIONS

Asbestosis

Blood Lead Levels*

Byssinosis

Chemical poisoning, All Types **

Pesticide Poisoning

Pneumoconiosis (Coal Workers)

Mesothelioma

Silicosis

* Blood lead levels over 10 ug/dl for patients 14 years old or younger and levels over 25 ug/dl for patients 15 years old and up.

** Includes chemical agents of terrorism

C. REPORT ANY UNUSUAL DISEASES OR OUTBREAKS THAT MAY REQUIRE PUBLIC HEALTH ASSISTANCE. Any unusual disease or outbreak must be reported immediately to the Department. If it is a local call or you are in Pulaski County, report to (501) 661-2893 between the hours of 8:00 AM – 4:30 PM. All other suspected or confirmed cases must be reported to (800) 554-5738. This line is available twenty-four hours a day.

D. The following bacterial isolates must be submitted upon request to the Department laboratory for identification/fingerprinting. In addition, the results of any Pulsed Field Gel Electrophoresis tests involving the following bacterial isolates must be submitted.

Campylobacter sp.

Enterotoxigenic *E. coli*

Haemophilus influenzae (invasive)

Listeria sp.

Mycobacterium tuberculosis complex

Neisseria meningitidis

Salmonella sp

Shigella sp.

Staph. aureus, vancomycin resistant or intermediate susceptible

SECTION VI. OTHER DISEASES.

Other diseases not named in these lists may at any time be declared notifiable as the necessity and public health demand, and these regulations shall apply when so ordered by the Director .

SECTION VII. RESPONSIBILITY OF THE DIRECTOR.

When the Director has knowledge, or is informed of the existence of a suspected case or outbreak of a communicable disease:

A. The Director shall take whatever steps necessary for the investigation and control of the disease.

B. If the Director finds that the nature of the disease and the circumstances of the case or outbreak warrant such action, the Director shall make, or cause to be made, an examination of the patient in order to verify the diagnosis, make an investigation to determine the source of the infection, and take appropriate steps to prevent or control spread of the disease.

SECTION VIII. CEASE AND DESIST ORDERS.

If the Director has reasonable cause to suspect that any person who is HIV positive is intentionally engaging in conduct that is likely to cause the transmission of the virus, the Director may issue an order to said person to cease and desist such conduct. Failure to comply immediately shall constitute a violation of these rules and regulations. Such violation shall be promptly reported to the prosecuting attorney in the county where the person resides for appropriate action.

SECTION IX. ISOLATION.

It shall be the duty of the attending physician, immediately upon discovering a disease requiring isolation, to cause the patient to be isolated pending official action by the Director. Such physician also shall advise other members of the household regarding precautions to be taken to prevent further spread of the disease, and shall inform them as to appropriate, specific, preventive measures. He shall, in addition, furnish the patient's attendant with such detailed instructions regarding the disinfection and disposal of infective secretions and excretions as may be prescribed by the Director of the Arkansas Department of Health.

SECTION X. STATE AND LOCAL QUARANTINE

A. The Director shall impose such quarantine restrictions and regulations upon commerce and travel by railway, common carriers, or any other means, and upon all individuals as in his judgment may be necessary to prevent the introduction of communicable disease into the State, or from one place to another within the State.

B. No quarantine regulations of commerce or travel shall be instituted or operated by any place, city, town or county against another place or county in this or in any other State except by authority of the Director.

C. No person shall interfere with any health authority having jurisdiction, or carry or remove from one building to another, or from one locality to another within or without the State, any patient affected with a communicable disease dangerous to the public health except as provided under the rules governing the transportation of same.

SECTION XI. TERMINAL DISINFECTION.

Each person released from quarantine or isolation shall take such measures as are required by the Department for that particular disease. The area of isolation shall be disinfected according to the instructions of the Department.

SECTION XII. IDENTIFICATION OF THE BODY OF A DECEASED PERSON WHO HAS BEEN INFECTED BY A COMMUNICABLE DISEASE

Any physician or any other person who has reason to believe that a deceased person may have been infected by Creutzfeldt-Jakob Disease (CJD) shall immediately after death attach to the large digit of the right foot, a red indicator tag furnished by the Department or, if not available, a tag measuring no less than 3 inches by 5 inches, which clearly states that the patient may have been infected with Creutzfeldt-Jakob Disease (CJD). If the body is wrapped in plastic sheets or other covering material and the toe tag is not visible, a duplicate clearly visible tag shall be applied to the outside covering material.

SECTION XIII. PROTECTION OF EMERGENCY RESPONSE EMPLOYEES

A. Any emergency response employee who fears that he or she has been exposed to a communicable disease may notify the Department. Upon notification, the Department shall determine if the exposure requires additional investigation. In the event that it is determined that the exposure is one which should not create the risk of transmission of a communicable disease, the emergency response employee shall be so notified. If requested, he or she will be instructed as to additional steps that may be taken to confirm that no exposure to actual disease has occurred. If the Department determines that the exposure was one that could have caused the transmission of a communicable disease, the Department shall immediately contact the treating physician to determine if the patient was infected with a communicable disease. If it is determined that the individual was infected with a communicable disease, the emergency response employee shall be contacted immediately by the Department and counseled concerning the recommended course of action.

B. Any medical provider who has knowledge that an emergency response employee has been exposed to a communicable disease shall notify the Department immediately. The Department shall contact the emergency response employee immediately and provide appropriate counseling concerning the appropriate course of action.

C. Any medical provider who has knowledge that a patient with a communicable disease is being transferred, transported or treated by an emergency response employee shall, prior to said transfer, transportation or treatment notify the emergency response employee of the patient's communicable condition.

SECTION XIV. EXCLUSION AND READMISSION TO SCHOOL OR CHILD CARE FACILITIES.

It shall be the duty of the principal or other person in charge of any public or private schools, or child care facilities, at the direction of the Department, to exclude therefrom any child, teacher or

employee affected with a communicable disease until the individual is certified free of disease, by written notice from a physician, school nurse, public health nurse or the Department.

SECTION XV. TUBERCULOSIS.

Refer to the Amendment to the Rules and Regulations Pertaining to the Control of Communicable Diseases, Arkansas State Board of Health, filed with the Secretary of State March 10, 1994.

SECTION XVI. PUBLIC FOOD HANDLERS

No person known to be infected with a communicable disease, or suspected of being infected with a communicable disease, or who has been found to be a carrier of disease-producing organisms, shall engage in the commercial handling of food, or be employed on a dairy or on premises handling milk or milk products, until he is determined by the Department to be free of such disease, or incapable of transmitting the infection.

SECTION XVII. COMMUNICABLE DISEASES IN DAIRIES

A. When the Department has good cause to believe that a milk supply is suspected to be the source of infection for any one of the communicable diseases known to be transmitted through milk, the Department shall prohibit the use, sale, or disposal of such milk except by a method approved by the Director until such time as he deems it to be safe for human consumption.

B. When a case of Typhoid Fever, Salmonella infection, Brucellosis, Shigellosis, Respiratory Streptococcal infection, Diphtheria, or any other disease capable of being transmitted through milk is confined on the premises where a dairy is maintained, the Department shall prohibit the use, sale or disposal of such milk except by a method approved by the Director until he is satisfied that such is safe for human consumption.

SECTION XVIII. LABORATORY TESTS FOR THE RELEASE OF CASES OR CARRIERS OF COMMUNICABLE DISEASES

When laboratory tests are required for the release of cases, or carriers, the tests shall be performed by the Public Health Laboratory or by another laboratory approved by the State Epidemiologist. A specimen may be sent to a laboratory not so approved, provided that it is divided and a portion of the specimen is sent to an approved laboratory. Release shall be considered on the basis of the report of the approved laboratory only.

SECTION XIX. DIPHTHERIA LABORATORY SPECIMENS FOR DIAGNOSIS AND RELEASE

A. Cultures should be obtained separately from the nose and throat by means of sterile swab and test tube as provided by the Department for aid in diagnosis.

B. A case or carrier of Diphtheria shall not be released until two cultures from the throat and two from the nose, taken not less than twenty-four (24) hours apart, fail to show the presence of Diphtheria bacilli. The first of such cultures shall be taken not less than one week from the day of the onset of the disease. A virulence test should be made in any case where positive cultures are reported three weeks or longer after the onset of the disease or discovery of a carrier. If the organisms are non-virulent, the patient may be released.

SECTION XX. TYPHOID FEVER

A. Laboratory Specimens for Diagnosis of Cases and Release

1. Samples of feces and whole blood submitted to the Public Health Laboratory for culture within the first week of the suspected case of Typhoid Fever give the greatest probability of obtaining a positive result insofar as the culture is concerned. Such cultures when positive are the only proof of diagnosis of Typhoid Fever.

2. A specimen of both feces and urine shall be collected about one week after the onset of the disease and sent to the Public Health Laboratory to determine whether Typhoid organisms are being passed from the bowel or kidney.

3. Patients who have been determined to have Typhoid Fever shall be isolated for such period as required, and shall be released from isolation and from supervision by the health authority after three specimens of both feces and urine, collected not less than twenty-four (24) hours apart and not earlier than seven (7) days after the patient becomes afebrile, shall have been examined by the Public Health Laboratory and found to be negative.

B. Typhoid Carriers

1. Any person who has recovered from Typhoid Fever and in whose feces or urine Typhoid bacilli are present one year or longer after such recovery shall be declared to be a chronic carrier. Any person who has recently recovered from Typhoid Fever and from whose feces or urine Typhoid organisms are cultured by the Public Health Laboratory during the first year from such recovery shall be considered a convalescent, or temporary carrier, and shall conform to all the Regulations regarding the control of Typhoid carriers. Any person found in the investigation of a case or cases of Typhoid Fever from whose feces or urine Typhoid bacilli are cultured by the Public Health Laboratory shall be declared to be a chronic carrier except that such person be one who has recently recovered from Typhoid Fever.

2. Control of Typhoid Carriers

a) The urine and feces of a Typhoid carrier shall be disposed of in such a manner that they will not endanger any public or private water supply, or be accessible to flies.

b) No Typhoid carrier shall prepare or handle any food or drink to be consumed by persons other than members of the household with whom he resides.

c) No Typhoid carrier shall conduct or be employed in any restaurant, hotel or boarding house, or conduct a lodging house in which, prior to taking lodgers, a separate toilet and bathroom have not been installed for the use solely of the Typhoid carrier. Said toilet shall be located in a part of the house separate from any part that may be occupied by a lodger.

d) Any person determined to be a Typhoid carrier as defined in these Regulations shall sign an AGREEMENT, to be witnessed by at least two persons. Said AGREEMENT shall read as follows:

TYPHOID CARRIER AGREEMENT

In view of the fact that I have been proven to be a Typhoid carrier, I do solemnly swear to abide by the following regulations as long as I remain a Typhoid carrier, which I understand will probably be for the remainder of my life:

1. Under no circumstances will I handle milk or milk products such as cream, ice cream, butter or cheese, nor any other foodstuffs, nor will I do any cooking of food except for my own individual consumption and for those members of my immediate family who have been immunized against typhoid fever within the past three years.

2. Following each visit to the toilet I will wash my hands thoroughly with soap and water.

3. I will inform the Arkansas Department of Health, Division of Communicable Diseases, 4815 West Markham Street, Little Rock, Arkansas 72205-3867, in advance of any change in address from that listed below.

Signature of Carrier

Complete Address of Carrier

Signatures and addresses of two witnesses

Name Address

Name Address

Date of Signing

3. Release of Chronic Typhoid Carriers from Control Restrictions

a) A chronic Typhoid carrier may be released from restrictions only on approval of the Director and only after submitting proof of a minimum of six (6) consecutive negative feces cultures (for urinary carriers, urine cultures) taken at least one (1) month apart and at least ten (10) days after taking any antibiotic, and performed by the Division of Laboratories of the Department. At least two (2) of the specimens must be liquid stools obtained after administration of a cathartic such as magnesium sulfate. At least two (2) of the specimens must be validated by collection under close supervision as having come from the carrier. For fecal carriers, the identity of the specimen may be confirmed by oral administration of a suitable marker material under supervision and finding this material in a specimen. Cultures of duodenal fluid may be substituted for stool cultures, if desired.

b) A released chronic carrier who wishes to work in a food handling or other occupation from which carriers are excluded must present evidence from a Local Health Department that he has received instruction in methods of food handling and personal hygiene. While employed in such a restricted occupation he must

submit evidence of a negative stool (or urine if appropriate) culture and additional food handling instruction every year.

SECTION XXI. VENEREAL DISEASE (SYPHILIS, GONORRHEA, CHANCROID, LYMPHOGRANULOMA VENEREUM, GRANULOMA INGUINALE) AND OPHTHALMIA NEONATURUM (GONORRHEAL OPHTHALMIA)

A. Testing of pregnant women.

1. Every physician attending a pregnant woman shall take, or cause to be taken, a sample of venous blood at the time of first examination and submit such sample to an approved laboratory for a standard serologic test for Syphilis; a standard test for Human Immunodeficiency virus; and a standard test for Hepatitis B. Any person other than a physician permitted by law to attend pregnant women but not permitted by law to take blood samples, shall cause a specimen of blood to be taken by, or under the direction of a physician duly licensed to practice medicine and surgery, and have such specimen submitted to an approved laboratory for testing.

2. Any person reporting a birth or stillbirth shall state on the certificate whether a blood test for Syphilis had been made upon a specimen of blood taken from the woman who bore the child for which a birth or stillbirth certificate is filed and the approximate date when the specimen was taken.

B. Ophthalmia Neonatorum (Gonorrhea Ophthalmia)

1. Ophthalmia Neonatorum is to be reported to the Epidemiology Program, Arkansas Department of Health, as soon as the disease is suspected.

2. It shall be the duty of the attending physician to prescribe appropriate medication for the prevention of infant blindness, to be administered within one (1) hour of the time of birth. Effective prophylaxis against gonococcal ophthalmia and chlamydial conjunctivitis is provided by either erthromycin (0.5%) ophthalmic ointment or tetracycline (1%) ophthalmic ointment given as a single application into each conjunctival sac with no rinsing of the eyes.

3. It shall be the duty of the local health authority in whose jurisdiction the case occurs to investigate the case to confirm the diagnosis by bacteriological examination and, if of Gonococcal origin, to determine if the attendant at delivery used prophylactic medication in the eyes of the infant.

4. Due to the nature of the infection and its communicability, and inasmuch as Gonorrheal Ophthalmia is amenable to penicillin therapy, it shall be the duty of every physician to administer adequate penicillin therapy at once. It shall be the duty of every midwife attending such cases, or suspected cases, to refer all such cases to a licensed physician for treatment.

5. Conjunctival discharges and articles soiled therewith shall be disinfected.

C. It shall be the duty of every physician to report, as soon as diagnosed, every case of venereal disease on the Confidential Case Report, as provided by the Department, or by utilizing the Toll Free Communicable Disease Reporting System , to the Venereal Disease Program, Arkansas Department of Health. Physicians shall report the patient by name, address, age, sex,

race and date of birth within twenty-four (24) hours of the diagnosis in case of primary, secondary and congenital Syphilis and Syphilis in pregnant women.

D. Whenever the Director has reasonable grounds to believe that any person is suffering from Syphilis, Gonorrhea, Chancroid, Lymphogranuloma Venereum or Granuloma Inguinale in a communicable state, he is authorized to cause such person to be apprehended and detained for the necessary tests and examination, including an approved blood serologic test and other approved laboratory tests, to ascertain the existence of said disease or diseases: provided, that any evidence so acquired shall not be used against such person in any criminal prosecution.

E. The Director may, when in the exercise of his discretion he believes that the public health requires it, commit any commercial prostitute, or other persons apprehended and examined and found afflicted with said diseases, or either of them who refuses or fails to take treatment adequate for the protection of the public health, to a hospital or other place in the State of Arkansas for such treatment even over the objection of the person so diseased and treated provided the commitment can be done without endangering the life of the patient.

F. It shall be the duty of a physician on the occasion of the first visit to or by a person suffering from Syphilis, Gonorrhea, Chancroid, Lymphogranuloma Venereum or Granuloma Inguinale to instruct said person in the precautions to be taken to prevent communication of the disease to others, and to inform him of the necessity of continued uninterrupted treatment until such adequate treatment has been administered.

G. It shall be the duty of every physician to administer appropriate and adequate treatment to any individual regardless of age, sex, or race whom he has reasonable grounds to believe is suffering from Syphilis, Gonorrhea, Chancroid, Lymphogranuloma Venereum or Granuloma Inguinale in a communicable state, to render the disease non-communicable to others for the protection of the public health. Likewise, it shall be the duty of every physician to treat, prophylactically or therapeutically, any individual regardless of age, sex or race whom he has reasonable grounds to believe has been exposed to a communicable case of Syphilis, Gonorrhea, Chancroid, Lymphogranuloma Venereum or Granuloma Inguinale for the protection of the public health. Consent to the provision of medical and surgical care or services by a physician licensed to practice medicine in this State, when executed by a minor who is or believes himself to be afflicted with a venereal disease, shall be valid and binding as if the minor had achieved his majority.

SECTION XXII. RABIES CONTROL.

Refer to the Rules and Regulations Pertaining to Rabies Control, Arkansas State Board of Health, July 1975, and the Rabies Control Act, Act 11 of 1968 as amended by Act 725 of 1975.

SEVERABILITY

If any provision of these Rules and Regulations, or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or applications of these Rules and Regulations which can give effect without the invalid provisions or applications, and to this end the provisions hereto are declared to be severable.

REPEAL

All Rules and Regulations and any parts of Rules and Regulations in conflict herewith are hereby repealed.

CERTIFICATION

This will certify that the foregoing Rules and Regulations Pertaining to Communicable Disease Control in Arkansas were adopted by the Arkansas State Board of Health at a regular session of the Board held in Little Rock, Arkansas on the 22nd day of April, 2004.

_____
Secretary
Arkansas Board of Health

The foregoing Rules and Regulations, a copy having been filed in my office, are hereby approved on the ____ day of _____, 2004.

_____
Governor

QI PLAN

ASHLEY COUNTY MEDICAL CNETER
INFECTION CONTROL POLICIES AND PROCDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Infection Control Quality Improvement Plan		6001
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 3/2010	Hospital Wide	ICC

PURPOSE: To ensure that the Infection Control Function is providing quality services.

Policy: The Infection Control Committee shall maintain an ongoing, organized quality improvement program. The Infection Control Quality Improvement Plan shall monitor important aspects of care in order to identify areas where services can be improved. The Infection Control Nurse shall report the results of all Quality Improvement activities to the Quality Improvement Committee quarterly.

Responsibility: The Infection Control Committee under the direction of a physician and ICN are responsible for assessing and improving the services performed by the Infection Control Function. The Medical Director of Infection Control along with Administration is responsible for setting expectations for Quality Improvement, for providing the resources and training necessary to accomplish quality improvement activities, and communicating and coordination of quality improvement activities. The Infection Control Nurse assists in planning and development of monitoring and evaluation activities.

Scope of Care: The scope of care for the Infection Control Program includes the activities which are most frequently performed by the program, pose the greatest risk, or present the most problems for patients and staff. These activities include:

A. Infection Surveillance
B. Prevention of Infection
C. Control of Infection

Important Aspects of Care: The most important aspects of care as related to the scope of activities for the Infection Control Program includes:

A. Infection Surveillance

   1. Monitoring patients for infections
   2. Monitoring employees for infection

B. Infection Prevention

   1. Environmental monitoring and observation of practice
   2. Education

C. Infection Control

1. Monitoring effectiveness of treatments

Identify Indicators and Establish Thresholds: Refer to the following pages for a detailed outline of indicators, thresholds, data sources, data collection procedures, and sample size for the above aspects of care.

Evaluation: Bimonthly the Infection Control Nurse and the Infection Control Committee shall analyze the patterns and trends in the data to determine whether problems or opportunities for improvement are present in the instances in which a threshold for evaluation is required.

Take Action to Solve Identified Problems:
As a result of the monitoring and evaluation findings and subsequent discussion, the Infection Control Committee shall develop and initiate corrective actions taken in response to identified problems. Data collected monthly will be compared and documented to evaluate the effectiveness of the action taken.

Communicate Relevant Information to the Organization Wide Quality Improvement Program:
Monthly summary reports, including the opportunities for improvement identified by monitoring and evaluation, the action taken and results of those actions shall be presented to the Quality Improvement Director.

Approval of Plan:
This plan shall be approved at least annually with updates as deemed necessary.

MAJOR APECT OF CARE:

Patient Infection

INDICATOR:
Monthly Hospital Acquired Pneumonia (Ventilator)

DAT SOURCE:

Patient Charts
Visual (rounds in ICU)

DATA COLLECTION:

The Infection Control Nurse will collect data from relevant sources and evaluate data. The Infection Control Committee will plan and implement corrective action to resolve problems and improve care provided. Results will be reported to the Quality Director and the Quality Improvement Committee.

MAJOR ASPECT OF CARE:

Patient Infection

INDICATOR:

Monthly Hospital Acquired Infection of IV Site

DATA SOURCE:

The Infection Control Nurse will collect data from relevant sources and evaluate data. The Infection Control Committee will plan and implement corrective action to resolve problems and improve care provided. Results will be reported to the Quality Director and the Quality Improvement Committee.

SAMPLE SIZE:

All Patients with IV’s

MAJOR ASPECTS OF CARE:

Patient Infection

INDICATOR:

Monthly Hospital Acquired Urinary Tract Infections
(foley catheter related)

DATA SOURCES:

Patient Chart
Report by Unit

DATA COLLECTION:

The Infection Control Nurse will collect data from relevant sources and evaluate data. The Infection Control Committee will plan and implement corrective action to resolve problems and improve care provided. Results will be reported to the Quality Improvement Director and the Quality Improvement Committee.

SAMPLE SIZE:

All patients with foleys

MAJOR ASPECTS OF CARE:

Patient Infection

INDICATOR:

Hospital Acquired Infection Related Deaths

DATA SOURCE:

Patient Charts
Report by Unit

DATA COLLECTION:

The Infection Control Nurse will collect data from relevant sources and evaluate data. The Infection Control Committee will plan and implement corrective action to resolve problems and improve care provided. Results will be reported to the Quality Director and the Quality Improvement Committee.

SAMPLE SIZE:

All deaths in hospital (inpatient)

MAJOR ASPECTS OF CARE:

Patient Infection

INDICATOR:

Percent Susceptible Report
Antibiotic Resistant Organisms

DATA SOURCE:

Culture Slips
LabCorp Reports

DATA COLLECTION:

The Infection Control Nurse will collect data from relevant sources and evaluate data. The Infection Control Committee will plan and implement corrective action to resolve problems and improve care provided. Results will be reported to the Quality Director and the Quality Improvement Committee.

SAMPLE SIZE:

All culture done at ACMC

MAJOR ASPECTS OF CARE:

Monitoring Employees for Infection

INDICATOR:

Monthly Exposure to Communicable Disease
- HIV
- Hep B
- TB
- Varicella
- Meningcoccal meningitis

DATA SOURCE:

Patient Charts
Daily Censes with Diagnosis

DATA COLLECTION:

The Infection Control Nurse will collect data from relevant sources and evaluate data. The Infection Control Committee will plan and implement corrective action to resolve problems and improve care provided. Results will be reported to the Quality Director and the Quality Improvement Committee.

SAMPLE SIZE:

All Clinical Staff

MAJOR ASPECTS OF CARE:

Monitoring Employees for Infection

INDICATOR:

Yearly TB skin test Conversions

DATA SOURCE:

Employee Health Files

DATA COLLECTION:

The Infection Control Nurse will collect data from relevant sources and evaluate data. The Infection Control Committee will plan and implement corrective action to resolve problems and improve care provided. Results will be reported to the Quality Director and the Quality Improvement Committee.

SAMPLE SIZE:

All Employees

MAJOR ASPECTS OF CARE:

Monitoring Employees for Infection

INDICATOR:

Monthly Exposure to Blood / Body Fluids

DATA SOURCE:

Variance Reports
Employee health Files

DATA COLLECTION:

The Infection Control Nurse will collect data from relevant sources and evaluate data. The Infection Control Committee will plan and implement corrective action to resolve problems and improve care provided. Results will be reported to the Quality Director and the Quality Improvement Committee.

SAMPLE SIZE:

All Clinical Staff

MAJOR ASPECTS OF CARE:

Environmental Monitoring / Observation of Patients

INDICATOR:

Monthly Total Positive Sterilizer Indicators

(Spore Tests

DATA SOURCE:

Report from Surgery Sterile Supply

DATA COLLECTION:

The Infection Control Nurse will collect data from relevant sources and evaluate data. The Infection Control Committee will plan and implement corrective action to resolve problems and improve care provided. Results will be reported to the Quality Director and the Quality Improvement Committee.

SAMPLE SIZE:

MAJOR ASPECTS OF CARE:

Environmental Surveillance / Observation

INDICATOR:

Compliance to Universal Precautions

1. Appropriate Glove Use
2. Appropriate Gown Use
3. Appropriate Mask Use
4. Appropriate Eye Protection Use
5. Appropriate Disposal of Infectious Material
6. Appropriate Handling of Contaminated Liners

DATA SOURCE:

Observation – to consist of six observations / month
Each observation = ten minute period

DATA COLLECTION:

The Infection Control Nurse will collect data from relevant sources and evaluate data. The Infection Control Committee will plan and implement corrective action to resolve problems and improve care provided. Results will be reported to the Quality Director and the Quality Improvement Committee.

SAMPLE SIZE:

6 Observations per Month

MAJOR ASPECTS OF CARE:

Infection Prevention Education

INDICATOR:

All new employees are educated on Infection Control and blood borne pathogens using E-Learning internet learning system

DATA SOURCE:

Inservice Records

DATA COLLECTION:

The Infection Control Nurse will collect data from relevant sources and evaluate data. The Infection Control Committee will plan and implement corrective action to resolve problems and improve care provided. Results will be reported to the Quality Director and the Quality Improvement Committee.

SAMPLE SIZE:

All Employees

MAJOR ASPECTS OF CARE:

Infection Prevention

INDICATOR:

All hospital employees will complete E-Learning Infection Control education annually, including Blood Borne Pathogens.

DATA SOURCE:

Inservice Records

DATA COLLECTION:

The Infection Control Nurse will collect data from relevant sources and evaluate data. The Infection Control Committee will plan and implement corrective action to resolve problems and improve care provided. Results will be reported to the Quality Director and the Quality Improvement Committee.

SAMPLE SIZE:

All Employees

MAJOR ASPECTS OF CARE:

Infection Control Monitoring Effectiveness of Treatment

INDICATOR:

Newborns of mother having positive Strep cultures
Pre-delivery show no indication of infection.

THRESHOLD:
100%

DATA SOURCE:

Newborn and Obstetrical Charts
Lab Reports and Culture Reports

DATA COLLECTION:

The Infection Control Nurse will collect data from relevant sources and evaluate data. The Infection Control Committee will plan and implement corrective action to resolve problems and improve care provided. Results will be reported to the Quality Director and the Quality Improvement Committee.

SAMPLE SIZE:

All Obstetrical patients and newborns

MAJOR ASPECTS OF CARE:

Environmental Surveillance / Observation

INDICATOR:

Correct Isolation Policy Initiated (Disease Specific)

THRESHOLD:

100%

DATA SOURCE:

Observation per Infection Control Nurse

DATA COLLECTION:

The Infection Control Nurse will collect data from relevant sources and evaluate data. The Infection Control Committee will plan and implement corrective action to resolve problems and improve care provided. Results will be reported to the Quality Director and the Quality Improvement Committee.

SAMPLE SIZE:

All hospital admissions (review admission diagnosis)

Isolation Policy

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Isolation Policy (Gowning)		7001
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2010	Hospital Wide	ICC

POLICY:

A gown is to be worn when indicated by the kind of isolation category. Gowns are only worn one time and then discarded appropriately. A gown will not be worn outside the isolation room.

PURPOSE:

To prevent contamination of clothing of personnel and visitors which could be carried to other parts of the hospital. To protect the patient with decreased resistance against infection of potentially pathogenic organisms.

EQUIPMENT:

Disposable Isolation Gowns

ESSENTIAL STEPS IN PROCEDURE:

A. Method

1. Remove all jewelry

2. Wash hands. (Refer to procedure "Handwashing").
   Handwashing is the single most effective deterrent to the spread of infection.

3. Select a clean gown. Keep a supply of gowns available at all times.

   a. Inspect gown for tears. If gown is not wearable, discard in trash.

4. Put on gown with opening at back

   a. Fasten tie at neck.

   b. Overlap gown to cover uniform or clothing; to prevent contamination of uniform.

   c. Fasten waist ties.

5. Perform necessary procedures. Plan to group patient's needs so that tasked can be performed at one time.

6. To remove gown:

   a. Untie waist and push sleeves above wrists.

   b. Wash hands

   c. Untie neck ties; do not touch hair or outside of gown

   d. Remove first sleeve of gown by placing forefinger of other hand into cuff of the gown. Avoid touching outside of gown.

   e. Remove other sleeve by using the hand inside the first sleeve and drawing the second sleeve down over the hand.

   f. Slip out of gown, folding it inside out, and discard it carefully in red lined trash container in patient's room. **Do not shake gown – to avoid aerosols of microorganisms.** Do not allow the outside of gown to touch clothing or uniform as gown is contaminated.

   g. Wash hands with soap and water, dry thoroughly. Turn off faucet handle using paper towel and to open door, then discard towel in trash. **HANDWASHING IS THE SINGLE MOST EFFECTIVE DETERRENT TO THE SPREAD OF INFECTION.**

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Isolation Policy (Masks)		7002
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2010	Hospital Wide	ICC

POLICY:

If a mask is required, a mask is to be worn by all persons entering the room. A disposable mask shall be worn. A mask should be changed every 30 minutes, or as it becomes moist. A mask is worn once and then discarded. A mask is never worn outside the isolation room.

PURPOSE:

To prevent the transmission of airborne infection via the respiratory tract.

EQUIPMENT:

Disposable Masks

ESSENTIAL STEPS IN PROCEDURE

A. METHOD

1. Preparation prior to entering patient's room.
   a. Wash hands. (Refer to procedure "Handwashing"). **HANDWASHING IS THE SINGLE MOST EFFECTIVE DETERRENT TO THE SPREAD OF INFECTION.**
   b. Put on mask
   c. Put on gown. (Refer to procedures "Gowning").

2. Mask Technique
   a. To put on mask. **Mask is always put on before gown**.
      1. Select a clean mask
      2. Place over nose and mouth. Avoid unnecessary handling of mask.
      3. Tie mask securely
   b. To remove mask
      1. Wash hands
      2. Untie mask and discard in red lined trash container. **Touch strings only.**
3. Wash hands again

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Isolation Policy (Gloves)		7003
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2010	Hospital Wide	ICC

POLICY:

Gloves must be worn when indicated by the category of isolation. Gloves will be worn one time only and then discarded. Gloves should be changed after direct contact with the patient's body fluids. Gloves should be strong enough to resist being torn during normal patient care.

PURPOSE:

To prevent gross contamination of the hands while contacting highly contaminated areas or articles.

EQUIPMENT:

Disposable gloves

ESSENTIAL STEPS IN PROCEDURE:

A. METHOD

1. Remove all jewelry to avoid puncturing of gloves.

2. Wash hands. . (Refer to procedure "Handwashing"). **HANDWASHING IS THE SINGLE MOST EFFECTIVE DETERRENT TO THE SPREAD OF INFECTION.**

3. Gloves are put on after the gown, so that glove cuffs may be drawn up over gown sleeves.

4. Gloves need not be sterile, refer to procedure for "Sterile Gloves".

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Latex Allergy		7004
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2009	Hospital Wide	ICC

INTRODUCTION:

Repeated exposure to proteins in latex through skin contact or inhalation may result in a latex allergy.

Employees will be educated about signs and symptoms of possible latex allergy and encouraged to report them.

Latex allergy testing may be indicated for high risk employees who demonstrate symptoms of latex allergy.

Low risk employees will be evaluated if they develop symptoms suggesting latex sensitivity during employment.

Latex allergic individuals with a positive history &/or skin test will be counseled about the risks of working in environments with high latex use. They will be provided with non-latex gloves and should avoid all latex containing products. They should wear allergic identification and always carry an epinephrine auto injector device.

Employee with contact dermatitis should wear cotton liners under latex or use non-latex gloves provided by ACMC.

Should a latex allergy develop due to work related exposure while an individual is an employee of ACMC, reassignment, sick leave and workman’s compensation will be evaluated on an individual basis.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Patient with Pediculosis		7005
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 1/2010	Hospital Wide	ICC

POLICY:

Patients infested with head lice will be treated according to CDC Guidelines for Isolation Precautions in Hospitals.

PROCEDURE:

1. The patient will be placed in Contact Isolation (mask not necessary) for 24 hours following effective therapy. (Therapy – NIX shampoo) Then removal of eggs with a fine tooth comb.

2. Notify Housekeeping Department of type of isolation.

3. Place proper signage on door.

4. Linens changed daily basis will be bagged in blue linen bags as per protocol for Contact Isolation. Take bag to doorway and spray Bedding Spray into bag then seal.

5. Dailey room cleaning will be done following housekeeping policy for isolation cleaning.

6. When transporting patient to another department, place a disposable surgical cap on head.

7. Terminal cleaning or room is done according to Housekeeping Policy for Pediculosis Procedure

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Vancomycin Resistant Enterococci (VRE) Isolation		7006
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 5/2010	Hospital Wide	ICC

Policy:

Contact Isolation will be initiated for all patients with VRE; a physician's order is not required to initiate placing patients wilt VRE in contact isolation upon confirmation from laboratory or history of previous colonization or infection. The appropriate physician should be notified.

PURPOSE:

To establish a consistent method for VRE control throughout the hospital.

RESPONSIBILITY:

1. Ashley County Medical Center healthcare Providers

2. Physicians

3. Infection Control / Employees Health Coordinator

PROCEDURE:

A. Identifying VRE

1. At present, Vancomycin resistance is determined by our reference lab (LabCorp).

2. A laboratory technologist / microbiologist will notify any of the following of a positive VRE culture: appropriate physician, nursing staff, or the Infection Control Nurse.

B. Isolation

1. Upon notification of appropriate physician and nursing staff of a positive culture, contact isolation is initiated.

a. Notify appropriate hospital staff promptly when VRE are detected. Inform clinical staff of the policies regarding VRE-infected or colonized patients. Because the slightest delay can lead to further spread of VRE and complicates control efforts, implement the required procedures as soon as VRE are detected.

b. Initiate the following isolation precautions to prevent patient-to-patient transmission of VRE:

* Place VRE-infected or colonized patients in private rooms or in the same room as other patients who have VRE.

***** Wear gloves (clean, nonsterile gloves are adequate) when entering the room of a VRE-infected or colonized patient because VRE can extensively contaminate such an environment. When caring for a patient, a change of gloves might be necessary after contact with material that could contain high concentration of VRE (e.g., stool).

* Wear a gown (a clean nonsterile is adequate) when entering the room of VRE –infected or colonized patient --a) if substantial contact with the or with the environmental surfaces in the patient's room is anticipated, b) if the patient is incontinent , or c) if the patient has had an ileostomy or colostomy, had diarrhea, or has a wound drainage not contained by by a dressing.

***** Remove gloves and gown before leaving the patient's room and immediately wash hands with antiseptic soap or a waterless antiseptic agent. Hands can be contaminated via glove leaks or during glove removal, and bland sop does not always completely remove VRE from hands.

***** Ensure that after glove and gown removal and handwashing, clothing and hands do not contact environmental surfaces in the patient's room that are potentially contaminated with VRE (e.g., door knob or curtain).

c. Dedicate the use of noncritical items (e.g., a stethoscope, sphygmomanometer, tourniquet or rectal thermometer) to a single patient or cohort of patients infected or colonized with VRE. If such devices are to be used on other patients, adequately clean and disinfect these devices first.

d. Use Mask and Eye Protection if there is a possibility of splashing body fluids into the face.

e. Handle Soiled Linen and Infectious Waste properly: Soiled linen from patients with VRE should be handled as little as possible and should not be sorted before laundering. Articles contaminated with infective material (such as wound dressings, sputum cups, suction apparatus, etc.) should be placed in biohazard labeled bags or containers before being sent for disposal, disinfection or sterilization.

f. Clean the room and environment : Environmental cleaning of the patients personal items, the bed, floors, etc., for a patient with VRE should be done daily. Appropriate germicidal must be used. The bath should be thoroughly cleaned and disinfected after use.

g. Standard precautions: Standard precautions should be practiced for all patients, regardless of VRE status.

C. ADMISSION, ROOM PLACEMENT AND ACTIVITIES

1. VRE colonization alone is not an indication for hospital admission. Patients admitted with VRE should be placed in a private room or in a room with another patient with VRE.

2. Limit the activities, movement, and transportation of the patient from their room to essential purposes only. If the patient is transported out of their room, ensure that precautions are maintained to minimize the risk of transmission of VRE to other patients and contamination of environmental surfaces or equipment.

D. TERMINATION OF CONTACT ISOLATION

1. A patient with VRE may be considered free of VRE when VRE negative results on at least three consecutive occasions (greater than or equal to 1 week apart) for all cultures from multiple body sites (including stool or rectal swabs, perineal areas, axillary or umbilicus, and wound, foley catheter, and/or colostomy) are obtained.

2. Because patients with VRE can remain colonized for long periods after discharge from the hospital, a system will be established to identify records of infected or colonized patients so they can be promptly identified and placed on isolation precautions upon readmission tot the hospital.

E. SURVEILLANCE

1. A listing of names and other appropriate information of patients and admissions that are found to be colonized or infected with VRE will be kept.

2. Once VRE has been detected on one or more patients, appropriate follow-up investigation will be done.

3. Cultures (rectal swabs) will be done on all roommates.

F. INFECTION CONTROL FOR PERSONNEL

1. Where feasible, cohort staff who provide regular, ongoing care to patients to minimize the movement/contact of healthcare providers between VRE-positive and VRE-negative patients.

2. Hospital who are carriers of enterococci have been implicated rarely in the transmission of this organism. Examine personnel with chronic skin and nail problems and perform hand and rectal swab cultures on these workers. Remove from

the care of VRE-negative patients those VRE-positive personnel linked epidemiologically to VRE transmission until their carrier state has been eradicated.

G. EDUCATION

Employees are required to review this policy on a yearly basis.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Care of Patients with Suspected or Confirmed SARS (Sever Adult Respiratory Syndrome)		7007
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2009	Nursing	ICC

POLICY:
ACMC employees will follow CDC recommendations for protecting healthcare workers from exposure to SARS.

PURPOSE:
Healthcare providers will learn to recognize and manage SARS patients and provide care for those requiring hospitalization. This includes patients presenting to the Emergency room.

CASE DEFINITION:
See updated SARS case definition as presented by the CDC. (Attached)\

PROCEDURE:
1. Screening questions to identify patients should concern fever, respiratory symptoms and recent travel outside of the state. The most recent case definition of SARS will be used as a basis of these screening questions.
2. Triage personnel will be trained for SARS screening.
3. A surgical mask will be placed on patients in whom SARS is suspected and personnel will immediately place an N-95 respirator on for their protection.
4. Patients will be placed in one of the back rooms of the ED and CONTACT (gloves, gown, and eye protection) and AIRBORNE precautions (N-95 Respirator) will be instigated.
5. Patients ill enough to be admitted to the hospital with suspected or confirmed SARS will be placed in room 206 on 2 Center which is a negative air flow room, or ICU/CCU with a portable negative air pressure unit in place depending on the census in that area. Subsequent cases of SARS will be placed in ICU. At this point ICU will be designated for SARS cases only.
6. If a suspected SARS patient is admitted to the hospital, infection control personnel should be notified immediately. Infection control measures for inpatients should include:
    a. Standard precautions (e.g., hand hygiene); in addition to routine standard precautions, health care personnel should wear eye protection for all patient contact.
    b. Contact precautions (e.g., use of gown and gloves for contact with the patient or their environment)
7. Airborne precautions (e.g., an isolation room with negative pressure relative to the surrounding area and use of an N-95 filtering disposable respirator for persons entering the room). If airborne precautions cannot be fully implemented, patients should be placed in a private room with the door kept shut at all times and all persons entering the room should wear an N-95 Respirator.

GUIDANCE FOR THE MANAGEMENT OF EXPOSURES TO SARS

1. Exclusion from duty is recommended for a healthcare worker if fever or respiratory symptoms develop during the 10 days following an unprotected exposure to a SARS patient. Exclusion from duty should be continued for 10 days after the resolution of fever and respiratory symptoms. During this period, infected workers should avoid contact with persons both in the facility and in the community.
2. Exclusion from duty is not recommended for an exposed healthcare worker if they do not have either fever or respiratory symptoms; however, the worker should report any unprotected exposure to SARS patients, to Infection Control immediately.
3. Active surveillance for fever and respiratory symptoms (e.g., daily screening) will be conducted on healthcare workers with unprotected exposure, and the worker should be vigilant for onset of illness. Workers with unprotected exposure developing such symptoms should not report for duty, but stay home and report symptoms to the Infection Control Nurse.

ADDENDUM:
This policy will be updated as more information is learned about SARS.

Supplement B: SARS Surveillance

Appendix B1: Revised CSTE SARS Surveillance Case Definition

December 2003

Clinical Criteria

Early illness

- Presence of two or more of the following features: fever (might be subjective), chills, rigors, myalgia, headache, diarrhea, sore throat, rhinorrhea

Mild-to-moderate respiratory illness

- Temperature of >100.4º F (>38º C)[1] *and*
- One or more clinical findings of lower respiratory illness (e.g., cough, shortness of breath, difficulty breathing)

Severe respiratory illness

- Meets clinical criteria of mild-to-moderate respiratory illness, *and*
- One or more of the following findings:
  - Radiographic evidence of pneumonia, *or*
  - Acute respiratory distress syndrome, *or*
  - Autopsy findings consistent with pneumonia or acute respiratory distress syndrome without an identifiable cause

Epidemiologic Criteria

Possible exposure to SARS-associated coronavirus (SARS-CoV)

One or more of the following exposures in the 10 days before onset of symptoms:

- Travel to a foreign or domestic location with documented or suspected recent transmission of SARS-CoV[2] *or*
- Close contact[3] with a person with mild-to-moderate or severe respiratory illness and with history of travel in the 10 days before onset of symptoms to a foreign or domestic location with documented or suspected recent transmission of SARS-CoV[2]

Likely exposure to SARS-CoV

One or more of the following exposures in the 10 days before onset of symptoms:

- Close contact[3] with a confirmed case of SARS-CoV disease *or*
- Close contact[3] with a person with mild-moderate or severe respiratory illness for whom a chain of transmission can be linked to a confirmed case of SARS-CoV disease in the 10 days before onset of symptoms

Laboratory Criteria

Tests to detect SARS-CoV are being refined, and their performance characteristics assessed; therefore, criteria for laboratory diagnosis of SARS-CoV are changing[4]. The following are the general criteria for laboratory confirmation of SARS-CoV:

Supplement B: SARS Surveillance

(continued from previous page)

- Detection of serum antibody to SARS-CoV by a test validated by CDC (e.g., enzyme immunoassay [EIA]), *or*
- Isolation in cell culture of SARS-CoV from a clinical specimen, *or*
- Detection of SARS-CoV RNA by a reverse-transcription-polymerase chain reaction (RT-PCR) test validated by CDC and with subsequent confirmation in a reference laboratory (e.g., CDC)

Information regarding the current criteria for laboratory diagnosis of SARS-CoV is available at http://www.cdc.gov/ncidod/sars/labdiagnosis.htm.

Exclusion Criteria

A person may be excluded as a SARS report under investigation (SARS RUI), including as a CDC-defined probable SARS-CoV case, if any of the following applies:

- An alternative diagnosis can explain the illness fully[5]
- Antibody to SARS-CoV is undetectable in a serum specimen obtained >28 days after onset of illness[6]
- The case was reported on the basis of contact with a person who was excluded subsequently as a case of SARS-CoV disease; then the reported case also is excluded, provided other epidemiologic or laboratory criteria are not present

Case Classification

SARS RUI

Reports in persons from areas where SARS is not known to be active:

- SARS RUI-1: Patients with severe illness compatible with SARS in groups likely to be first affected by SARS-CoV[7] if SARS-CoV is introduced from a person without clear epidemiologic links to known cases of SARS-CoV disease or places with known ongoing transmission of SARS-CoV

Reports in persons from areas where SARS activity is occurring:

- SARS RUI-2: Patients who meet the current clinical criteria for mild-to-moderate illness and the epidemiologic criteria for possible exposure (spring 2003 CDC definition for suspect cases[8])
- SARS RUI-3: Patients who meet the current clinical criteria for severe illness and the epidemiologic criteria for possible exposure (spring 2003 CDC definition for probable cases[8])
- SARS RUI-4: Patients who meet the clinical criteria for early or mild-moderate illness and the epidemiologic criteria for likely exposure to SARS-CoV

SARS-CoV disease classification

- Probable case of SARS-CoV disease: in a person who meets the clinical criteria for severe respiratory illness and the epidemiologic criteria for likely exposure to SARS-CoV
- Confirmed case of SARS-CoV disease: in a person who has a clinically compatible illness (i.e., early, mild-to-moderate, or severe) that is laboratory confirmed

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[1] A measured documented temperature of >100.4º F (>38º C) is expected. However, clinical judgment may allow a small proportion of patients without a documented fever to meet this criterion. Factors that might be considered include patient's self-report of fever, use of antipyretics, presence of immunocompromising conditions or therapies, lack of access to health care, or inability to obtain a measured temperature. Initial case classification based on reported information might change, and reclassification might be required.

[2] Types of locations specified will vary (e.g., country, airport, city, building, floor of building). The last date a location may be a criterion for exposure for illness onset is 10 days (one incubation period) after removal of that location from CDC travel alert status. The patient's travel should have occurred on or before the last date the travel alert was in

Supplement B: SARS Surveillance

(continued from previous page)

place. Transit through a foreign airport meets the epidemiologic criteria for possible exposure in a location which a CDC travel advisory is in effect. Information regarding CDC travel alerts and advisories and assistance in determining appropriate dates are available at http://www.cdc.gov/ncidod/sars/travel.htm.

[3]Close contact is defined as having cared for or lived with a person with SARS or having a high likelihood of direct contact with respiratory secretions and/or body fluids of a person with SARS (during encounters with the patient or through contact with materials contaminated by the patient) either during the period the person was clinically ill or within 10 days of resolution of symptoms. Examples of close contact include kissing or embracing, sharing eating or drinking utensils, close conversation (<3 feet), physical examination, and any other direct physical contact between persons. Close contact does not include activities such as walking by a person or sitting across a waiting room or office for a brief time.

[4]The identification of the etiologic agent of SARS (SARS-CoV) led to the rapid development of EIAs and immunofluorescence assays (IFAs) for serologic diagnosis and RT-PCR assays for detection of SARS-CoV RNA in clinical samples. These assays can be very sensitive and specific for detecting antibody and RNA, respectively, in the later stages of SARS-CoV disease. However, both are less sensitive for detecting infection early in illness. The majority of patients in the early stages of SARS-CoV disease have a low titer of virus in respiratory and other secretions and require time to mount an antibody response. SARS-CoV antibody tests might be positive as early as 8–10 days after onset of illness and often by 14 days after onset of illness, but sometimes not until 28 days after onset of illness. Information regarding the current criteria for laboratory diagnosis of SARS-CoV is available at http://www.cdc.gov/ncidod/sars/labdiagnosis.htm.

[5]Factors that may be considered in assigning alternate diagnoses include the strength of the epidemiologic exposure criteria for SARS-CoV disease, the specificity of the alternate diagnostic test, and the compatibility of the clinical presentation and course of illness for the alternative diagnosis.

[6]Current data indicate that >95% of patients with SARS-CoV disease mount an antibody response to SARS-CoV. However, health officials may choose not to exclude a case based on lack of a serologic response if reasonable concern exists that an antibody response could not be mounted.

[7]Consensus guidance between CDC and CSTE on which groups are most likely to be first affected by SARS-CoV if it re-emerges is in development. In principle, SARS-CoV disease should be considered at a minimum in the differential diagnosis for persons requiring hospitalization for radiographically confirmed pneumonia or acute respiratory distress syndrome without identifiable etiology and who have one of the following risk factors in the 10 days before the onset of illness:

- Travel to mainland China, Hong Kong, or Taiwan, or close contact with an ill person with a history of recent travel to one of these areas, *or*
- Employment in an occupation associated with a risk for SARS-CoV exposure (e.g., healthcare worker with direct patient contact or worker in a laboratory that contains live SARS-CoV), *or*
- Part of a cluster of cases of atypical pneumonia without an alternative diagnosis

Guidelines for the identification, evaluation, and management of these persons are available at http://www.cdc.gov/ncidod/sars/absenceofsars.htm.

[8]During the 2003 SARS epidemic, CDC case definitions were the following:
Suspect case

- Meets the clinical criteria for mild-to-moderate respiratory illness and the epidemiologic criteria for possible exposure to SARS-CoV but does not meet any of the laboratory criteria and exclusion criteria *or*
- Unexplained acute respiratory illness resulting in death in a person on whom an autopsy was not performed and who meets the epidemiologic criteria for possible exposure to SARS-CoV but does not meet any of the laboratory criteria and exclusion criteria

Probable case

- Meets the clinical criteria for severe respiratory illness and the epidemiologic criteria for possible exposure to SARS-CoV but does not meet any of the laboratory criteria and exclusion criteria

For more information, visit www.cdc.gov/ncidod/sars or call the CDC public response hotline at (888) 246-2675 (English), (888) 246-2857 (Español), or (866) 874-2646 (TTY)

January 8, 2004

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Care of Patients with Suspected or Confirmed Smallpox		7009
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2009	Nursing	ICC

POLICY:

To provide health care personnel with information on smallpox so they will be able to provide the appropriate health care to suspected and confirmed smallpox patients.

PURPOSE:

Health Care Providers will learn to recognize and manage smallpox patients and provide in-room care for the smallpox patients requiring hospital admission. This includes the evaluation and management of patients who present to the Emergency Department with suspected smallpox.

CHARACTERISTICS OF SMALLPOX:

Smallpox is a viral disease unique to humans. The virus is spread by inhalation of air droplets or aerosols. There are three clinical forms of smallpox.

- Twelve to fourteen after infection, the patient will become febrile and has severe aching pains and prostration.
- 2-3 days later, a popular rash develops over the face and spreads to the extremities.
- The patient will have oropharyngeal lesions for about a week. Infectious virus particles are released by sloughing of these lesions. Patients are most infective during this time.
- The rash will become vesicular and later, pustular. The patient remains febrile throughout the evolution of the rash and also pain.
- Gradually, scabs form, which eventually separate, leaving pitted scars.
- Death usually occurs during the second week.

The disease is most commonly confused with chickenpox and during the first 2-3 days of rash, it may be impossible to distinguish between the two. But remember-

- All smallpox lesions develop at the same pace and on any part of the body, and appear identical. (Chickenpox lesions are more superficial and appear in crops, and the rash is more dense on the trunk.)
- Smallpox lesions will present on the palms or soles where chickenpox does not.

TRANSMISSION:

Transmission of the virus normally occurs by inhalation of virus-containing large airborne droplets of saliva from an infected person with subsequent infection of the oropharyngeal region. Transmission occurs as the fever spikes and coincides with the onset of the skin rash.

Transmissibility of the virus via large airborne droplets decreases during the later stages of the disease as sloughing of the oropharyngeal lesions slow. Transmission via contact with material from the smallpox pustules or crusted scabs can also occur, however scabs are much less infectious than respiratory secretions. Death results from profound toxemia, leading to respiratory and/or heart failure.

SURVEILLANCE:

Triage Nurses and Employees are encouraged to enhance pre-event surveillance for generalized febrile vesicular - pustular rash illnesses.

Once a suspected patient is identified in the triage area:

- An N-95 mask will be placed on the patient.
- The patient will be taken to the ED room located in the back hall next to the O/P Clinic. (Exam room 2)
- The patient will immediately be placed on contact and droplet isolation.
- The Infection Control Nurse will be immediately notified. She will then notify public health officials and other appropriate authorities.
- An IV site using an 18-gauge needle will be accessed.
- Specimens will only be collected from the smallpox tem personnel.
- Family visiting with patient at this time will also be escorted to the Exam room. They will be asked to stay until ADH or other public health official gives permission for release or guidance on treatment and/or quarantine.
- The IC Nurse or other smallpox team member will be deployed to call public health as required and if needed- to identify contacts and ask all necessary information. (A list of all people who the patient has had face-to-face contact with since onset of fever. This includes any work-related people, social activities, family members etc. This information should be placed on a form. Attempts will be made to get names, addresses, phone numbers etc. This information will be reported to the required public health officials.)
- Public Health Officials will be contacted for assistance with laboratory diagnosis and any further treatment.

TREATMEMNT:

There are no proven treatments for clinical smallpox, medical care is supportive.

- Vaccination can be given to prevent or lesson the severity of the disease if given within 2-3 days of the initial exposure and decreases symptoms if given within the first week of exposure;
- Monitor and maintain fluid and electrolyte balance. Usually dehydration and electrolyte abnormalities can occur during the vesicular and pustular rash stages.
- Skin care. Bacterial super infections may occur and should be treated with appropriate antibiotic therapy;
- Monitoring for and treatment of complications;
- Some studies have shown that Cidofovir has shown some effectiveness in animal studies. The CDC should be consulted for more information and recommendations for treatment with ant-virals.

PLACEMENT OF PATIENT IN HOSPITAL:

The suspected patient and family will be taken to the Generations Unit.

- Patient will remain on contact and droplet isolation. (Gowns, N95 masks, gloves and protective eyewear will be used.)
- Public Health Officials will give guidance on appropriate treatment for the family and others who are being quarantined at this time.
- Monitoring equipment will be located and placed in patient's room.
- No visitation from friends or family will take place. Unless the family or friends have been vaccinated against smallpox. Patient will be isolated.
- Only smallpox team members may enter the area and only with minimal visitation.
- Dietary will deliver food and place trays outside the entrance area but before the double doors. All food will be on disposable trays.
- An isolation cart (with necessary isolation equipment, IV supplies, N95 masks, medication etc.) will be placed in the unit. Any replacement equipment will be ordered by the nurse and will be placed in the hall directly outside of the double doors leading into the unit.
- The smallpox policy and notebook with information will be placed on the isolation cart.
- All laundry and bed sheets will be placed in double blue bag and sent to the contract laundry. (Housekeeping will notify the contract laundry before laundry is sent.)
- Nurses will change into scrubs provided by the hospital and will shower prior to leaving the area.
- All infectious waste should be placed in red biohazard bags. (Public health officials will be consulted prior to waste disposal for proper and specific waste disposal and decontamination guidelines.)
- Employees handling waste or laundering scrubs etc, should have been vaccinated and a member of the smallpox team.

SKIN CARE:

The skin should be kept clean and efforts made to avoid rupturing vesicles or pustules. No salves or ointments should be applied. Scab lesions will be allowed to heal and separate on their own.

MONITORING AND TREATMENT OF COMPLICATIONS:

Several complications may occur during the course of a smallpox infection. These include:

- Hemorrhagic
- Secondary bacterial infection
- Corneal ulceration and/or keratitis
- Arthritis or "osteomyelitis variolosa"
- Respiratory
- Encephalitis
- Gastrointestinal
- Genitourinary

Hemorrhagic- Minor hemorrhagic manifestations such as subconjunctival hemorrhage occur commonly in smallpox patients. Usually no specific therapy is needed for this. However, if more

extensive hemorrhage is present, the patient should be evaluated for DIC and treated appropriately. These patients are highly contagious and prognosis is poor.

Secondary bacterial infections- These include abscesses of skin lesions, pneumonia, osteomyelitis, joint infections, and septicemia. Cultures will help guide antibiotic therapy.

Corneal ulceration and/or keratitis- These can appear around the second week of illness and begin at the corneal margins. Ulcers heal rapidly and may cause severe corneal scarring. A minor opacity may also be present. Topical idoxuridine has been used but its efficiency is undocumented. The CDC or other public health officials should be consulted for appropriate treatment.

Arthritis or "Osteoyelitis variolosa"- This usually occurs after the 15th day and is accompanied by a brief recurrence of fever during the scabbing stage.

Respiratory- Viral bronchitis and pneumonitis can be common complications of sever smallpox and are considered part of the normal disease syndrome. Treatment is symptomatic with measures to treat hypoxemia and supplemental oxygen and/or intubation as indicated. Secondary bacterial pneumonia can occur and should be treated with appropriate antibiotics as guided by laboratory diagnostics. Pulmonary edema can also occur.

Encephalitis- This usually appears around the 6th-10th day of illness when the rash was still in the papular or vesicular stage.

Gastrointestinal- Nausea and vomiting can occur in the earlier stages of smallpox. Then diarrhea may occasionally occur in the second week of illness. In some cases, extensive viral infection of the intestinal mucosa may occur with sloughing of the mucosal membrane. Genitourinary-Orchitis may occur. Hematuria may also occur in hemorrhagic smallpox.

DEATH OF A PATIENT:

In the event of a death,

- Public health officials will be notified for directions on the proper preparation and disposal of the body;
- The funeral home will be notified. The FH will provide ACMC with two body bags. The smallpox team staff will place the body in the first bag using gloves, N95 masks, gowns, etc., maintaining strict contact precautions. The isolation equipment and apparel will be changed. Then the body in the first bag will be placed in the second bag. A nametag with the patient's information that is required by the FH will be secured to the bag. The body will then be taken from the area.
- The smallpox tam that includes housekeeping will clean and disinfect the area. Public Health Officials will be contacted for guidance in the appropriate and proper decontamination procedure of the area.
- All smallpox team members will shower and change before leaving the area.
- No other patients will be placed in this area unless thay are suspected or confirmed patients with smallpox.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
ACMC Administration of Smallpox Vaccine to Employees		7010
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2010	Hospital Wide	ICC

POLICY:
Preparing for the consequences of a smallpox outbreak will require significant numbers of personnel associated with each component of the response. Therefore, ACMC will establish a Smallpox Health Care Team and establish policies for the administration of the Smallpox vaccination. The smallpox vaccine is the best protection one can get if ever exposed to the smallpox virus.

PURPOSE:
The ACIP (Advisory Committee on Immunization Practices) recommends that each acute care hospital who will be administering the vaccination establish a group of health care workers who would be vaccinated and trained to provide vaccinations to other health care providers and to provide in-room medical care for the first few smallpox patients requiring hospital admission. This training would also include the evaluation and management of patients who present to the Emergency Department with suspected smallpox. (See policy on Care of Suspected and Confirmed Smallpox Patients)

PROCEDURE:
There must be a voluntary willingness to be vaccinated against smallpox. Vaccination is required for all healthcare team members.
There is a preference for those who have been previously vaccinated to be vaccinated first.

The composition of the Health Care Response Team would include but not limited to:

- Emergency room staff, including physicians, and nurses
- Intensive Care Unit Staff, including physicians, nurses and nurses who are trained in pediatrics to provide care for infants and children.
- General Medical Unit staff; selected RNs, MDs, OB, Family Physicians, pediatricians, internists and hospitalists.
- Medical House staff; selected medical, pediatric, OB, FP (when essential).
- Specialists; infectious disease, surgery, anesthesia teams, medical consultants etc.
- Infection Control Professionals
- Respiratory Therapists
- Radiology Technicians
- Security Personnel
- Housekeeping Staff (those required to maintain environment and decrease risk of fomite transmission).
- It is not recommended at this time to vaccinate Clinical lab workers; viral load in clinical specimens are low; they should practice strict adherence to standard precautions.

Approximately 20-30% of all identified employees for the health care team will be vaccinated first. Previously vaccinated employees will be included in the first phase if feasible. This group will also be staggered within an area.

Then in 3 weeks, another 20-30% will be vaccinated, followed 3 weeks later by another group etc. However, the number of employees being vaccinated may change for succeeding phases depending on the number of employees on the previous group(s) who may be out due to complications or side effects of the vaccine. These usually occur between eight and ten days after vaccination.

CONTRAINDICATIONS TO VACCINATION

The risk of developing smallpox from face-to-face contacts outweighs the risk of developing complications for those contacts with contraindications to the vaccine. In this case, the person exposed would need to be vaccinated regardless of the contraindication.

Persons with certain medical conditions are known to have higher risk of developing complications following vaccination with vaccinia vaccine (smallpox vaccine). These include:

1. Persons with diseases or conditions which cause immunodeficiency, such as HIV, AIDS, leukemia, lymphoma, generalized malignancy, agammaglobulinemia, or therapy with alkylating agents, antimetabolites, radiation, or immunosuppressive doses of corticosteroids.
   (A household member with an immunodeficiency disease or who is undergoing one of the therapies listed who is exposed to a recently vaccinated household member is at risk of developing a post vaccine complication because of potential accidental inoculation with virus from the vaccination site of a vaccinated person.)
2. Persons who have been diagnosed with eczema, even if the condition is mild or not presently active.
   (A household member who had eczema or a history of eczema who is exposed to a recently vaccinated household member is also at higher risk for developing a post-vaccine complication due to potential accidental inoculation with virus from the vaccination site of the vaccinated person.)
3. Women who are pregnant or who are planning to become pregnant within a month following vaccination.
4. Persons with other acute or chronic skin conditions such as atopic dermatitis, burns, impetigo, or varicella zoster (shingles) should not be vaccinated until the condition resolves.
5. Persons with serious, life-threatening allergies to the antibiotics polymyxin B, streptomycin, tetracycline, or neomycin.

VACCINATION IN-HOUSE:

Appropriate Smallpox Team members will perform vaccinations in the Outpatient Clinic area. These employees will be trained to administer smallpox vaccinations prior to vaccinating employees. (See list of “Trained Smallpox Team Members”).

All employees receiving vaccinations will receive a copy of the following:

- Screening and Consent Signature Forms- needs to be completed and signed before vaccination.

- Record of immunization- A copy of this will be given to the employee receiving the vaccination and a copy will be sent to the health unit after vaccination.
- Information on the Smallpox vaccine- "What you need to know if you have immune system problems"
- "What you need to know if you are pregnant"- if appropriate.
- "What you need to know if your child is less than 1 year old"- if appropriate.
- "What you need to know if you have skin conditions".
- A copy of this policy.

ADMINISTRATIVE LEAVE:

The ACIP & ACMC does not advocate leave for health care providers who receive the vaccine. Only unless they are physically unable to work due to systemic signs and symptoms of illness, extensive skin lesions that cannot be adequately covered, or if they do not adhere to the recommended infection control precautions. Close contact required for transmission of vaccine to household contacts is unlikely to occur in the healthcare setting. ACMC may choose to re-assign or place on leave employees after receiving the vaccination based on the above.

SMALLPOX VACCINATION SITE CARE:

ACMC mandates that all employees who receive the vaccination will keep their vaccination sites covered. Sites will be covered immediately after vaccination. Sites will be changed when exudates begins to accumulate on the dressing. (Approximately every 3-5 days.) This dressing will be maintained for approximately 21 days or until the scab has separated.
The site will be covered with a folded gauze or similar absorbent material overlaid with a single semi-permeable dressing. The dressing can be a combination all in one. The employee will further cover the site with clothing while in healthcare setting. Members of the Smallpox Team will do dressing changes. Sites will be inspected daily by a member of the smallpox team.

No salves or ointments should be applied to the site. The scab lesions should be allowed to heal and separate on their own.

When showering:
Cover site with plastic wrap,
Dry site last, keep towels separate, wash used towels with hot water (>71° C, 160° F) and soap.

Change gloves between removing old dressing and applying new dressing.
Discard contaminated dressing materials as regulated medical waste in hospital or sealed bag at home.

Hands will be washed before dressing change and immediately after.

SUCCESSFUL VACCINE TAKE:

Successful vaccination is normally associated with tenderness, redness, swelling and a lesion at the vaccination site. Primary vaccination may also be associated with fever for a few days and enlarged, tender lymph nodes in the axilla of the vaccinated arm. These symptoms are more common in persons receiving their first dose of vaccine (15-20%) than in persons being revaccinated (0-10%). The clinical manifestations of vaccination with vaccinia virus are dependent upon the immune status of the vaccine recipient. Local reactions to vaccination may be classified as a major (primary) reaction or an equivocal reaction.

1. Primary (major) reaction- This reaction would be expected for persons receiving their first or primary smallpox vaccination or in persons who received a primary vaccination many years previously. The inoculation site becomes reddened and pruritic 3-4 days after vaccination. A vesicle surrounded by a red areola then forms which becomes umbilicated and then pustular by the 7th to 11th day after vaccination. The red areola has enlarged tremendously by this time. The pustule begins to dry, the redness subsides, and the lesion becomes crusted between the 2nd and 3rd week. By the end of the 3rd week, the scab falls off leaving a permanent scar that at first is pink in color but eventually becomes flesh-colored. At the end of the first week between the vesicular and pustular phases, there may be a variable amount of fever, malaise, and regional lymphadenitis. These symptoms usually subside within 1- 2 days and are more likely to occur in older children and adults than in infants.
2. Equivocal- All responses other than a major (primary) reaction are defined as equivocal reactions. These blunted reactions could be a result of a high level of immunity (person who has received multiple previous smallpox vaccinations) or vaccination failure caused by improper vaccine administration technique or less potent vaccine. If an equivocal reaction is observed, the vaccination procedures should be checked and vaccination repeated with vaccine from another vial or vaccine lot as it would be difficult to determine if the blunted reaction was caused by immunity or vaccine-take failure.

CONFIRMATION OF SUCCESSFUL VACCINATION:

Successful take of vaccination should be contingent upon the presence of a pustular lesion in a previously unvaccinated person and a pustular lesion or an area of definite induration or congestion surrounding a central lesion, 7 days following revaccination in a previously vaccinated person. Vaccinees who do not exhibit the type of “major” reaction at the vaccination site on day 7 should be revaccinated.

REVACCINATION:

Employees exhibiting equivocal and the below reaction will be revaccinated. A delayed type of skin sensitivity consisting of erythema only within 24-48 hours may occur following killed as well as live vaccine. This represents a response to inert protein in a previously sensitized person. This type of reaction can occur in a highly immunized person or in individuals with little or no immunity and is indistinguishable from the immediate or immune reaction. Therefore, persons exhibiting this type of reaction should be revaccinated.

After 2 unsuccessful takes on one person, the person will not be able to participate on the Smallpox Healthcare Team. No other vaccination tries are recommended at this time, unless the employee comes in direct contact with a smallpox patient.

RECOGNIZING ADVERSE REACTIONS:

Historically, 1000 people for every 1 million people vaccinated experienced reactions that, while not life-threatening, were serious. Complications occur more frequently in persons receiving their first dose of vaccine and among young children < 5 years of age. Based on past experience, according to the CDC, 1 - 2 people out of every 1 million people vaccinated will die as a result of a life-threatening reaction to the vaccine, or 1 out of every 3 million people who have been previously vaccinated. People most likely to have side effects are people in the contraindication category.

1. **Inadvertent inoculation at other sites-** This is the most frequent complication of vaccinia vaccination and accounts for about 50% of all complications following primary and revaccination. This complication usually results from autoinoculation when the virus is transferred by hand from the site of vaccination to other areas. The most common sites involved are the face, eyelid, nose, mouth, genitalia, and rectum. Most lesions will heal without specific therapy, but VIG (Vaccine Immune Globulin) may be useful for some cases of inadvertent ocular inoculation. Inadvertent inoculation can be prevented by hand washing after touching the vaccination site.
2. **Generalized vaccinia-** This complication is characterized by a vesicular rash of varying extent resulting from blood-borne dissemination of vaccinia virus. It is most frequently seen following primary vaccination. Lesions occur between 6-9 days following vaccination and can be few or generalized. The rash is generally self-limiting in persons with no underlying illnesses (immune deficiencies) and usually requires no treatment with VIG except in patients who appear toxic or who have serious underlying conditions.
3. **Eczema vaccinatum-** This complication is seen in vaccine recipients who have active or healed eczema or other chronic skin conditions. It can also occur in persons with these conditions who come into contact with a recently vaccinated individual. Vaccinial skin lesions can progress to cover all or most of the areas that are or were affected by the eczema or chronic skin condition. Fever and generalized lymphadenopathy may also occur. The illness is usually mild and self-limited, but can be severe and occasionally fatal. The most serious cases appear to occur in primary vaccines and close contact with eczema of vaccines, and are independent of the activity of underlying eczema.
4. **Progressive vaccinia (vaccinia necrosum or gangrenosa)-** This sever and potentially fatal complication occurs in persons with underlying immune deficiencies and can occur following primary or revaccination. It is characterized by failure of the vaccine site lesion to heal, with progressive necrosis of the vaccination site and surrounding areas. Secondary lesions may appear at other sites of the body and also exhibit progressive necrosis. VIG has been used to treat this complication with varying success.
5. **Post-vaccination encephalitis-** Encephalitis, characterized by fever, headache, vomiting, drowsiness, and occasional spastic paralysis, meningeal signs, convulsions or coma can occur. This usually occurs between 8-15 days post-vaccination. The incidence of post-vaccination encephalitis in primary vaccines also increase with increasing age. There are no other know predisposing factors for this complication. There is currently no known treatment for post-vaccination encephalitis and VIG is not effective for this complication.

REPORTING OF COMPLICATION ETC.:

All complications and side effects will be reported to the infection control practitioner. The infection control practitioner will then report to the ADH and all other entities. The infection control practitioner will report all reportable information as mandated by local, state and federal law.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICY AND PROCEDURE MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Care of patient with suspected or Confirmed H1N1 Influenza A		7011
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
11/2009	OB	ICC

POLICY:
ACMC Labor and Delivery employees will follow CDC recommendations for protecting healthcare workers and patients from exposure to seasonal influenza and H1N1 Influenza A.

PURPOSE:
Healthcare workers in the Labor and Delivery department will learn to care for patients with seasonal influenza and confirmed or suspected H1N1 Influenza A and their infants.

PROCEDURE:

1. All OB patients are to be screened for influenza symptoms upon admit during the seasonal influenza season and/or during an influenza pandemic.

2. If influenza symptoms are present and the patient is not in active labor, the patient is to be moved to the med-surg unit.

3. If the patient is in active labor and has symptoms of influenza, the patient is to be placed isolation. Seasonal influenza requires droplet isolation and H1N1 influenza requires airborne isolation along with droplet isolation with an N-95 respirator.

4. A surgical mask is to be placed on the patient until isolation set up is complete.

5. All employees caring for the patient are to wear an N-95 respirator.

6. Engineering is to be called and a negative air pressure unit requested for the patient's room. If a unit is not available, the patient is to be placed into a room and the door is to be closed at all times.

7. Visitors are to be restricted to one per patient and must be free of illness or influenza symptoms. No children under 12 are to be allowed into the Labor and Delivery department.

8. It is recommended by the CDC to place all OB patients with suspected or confirmed H1N1 influenza on Tamiflu as soon as possible unless otherwise contraindicated.

9. After delivery of a suspected or confirmed H1N1 influenza patient, the infant can not be placed in the newborn nursery. They are to be placed in a private room with a nurse present at all times.

10. Precautions are to be taken by the mother until she has been on antivirals for 48 hours and fever free for 24 hours. If the mother and infant are discharged prior to this time, the mother will be instructed to wear a mask when caring for the infant. The infant is to be isolated for one week after delivery to prevent further spread of the virus.

11. There is no treatment for influenza for neonates.

12. The infant can be breastfed with the mother wearing a mask.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Methicillian Resistant Staphylococcus Aureus		7012
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED: BY:**
1/2010	Labor and Delivery, Nursery	ICC

POLICY:
Methicillin Resistant Staphylococcus Aureus (MRSA) positive patients will be isolated.

If the patient delivers, the infant is to be admitted to the newborn nursery as per protocol. Proper handwashing should be stressed to the infant's mother and family members. The mother is to place a clean gown on before the infant is brought into the room. The isolette is not to be taken into the mother's room.

INTRODUCTION:
Staphylococcus aureus readily grows on human skin and mucous membranes. Methicillin-resistant S. aureus (MRSA) is a strain of S. aureus which by definition is resistant to the semi-synthetic penicillins (i.e., methicillin, nafcillin, and oxacillin). As such, it is resistant to all other beta-lactam antibiotics (including other penicillins, cephalosporins, and cephamycins). Additionally, MRSA is often resistant to other classes of antibiotics including aminoglycosides, macrolides,and quinolones. Thus, MRSA is not only methicillin-resistant but also multiply-resistant as well.

Colonization and Infection:
Colonization occurs when a patient has MRSA in or on a body site but has no clinical signs or symptoms of disease. A person colonized with MRSA may be a temporary or a longer term carrier of MRSA. Certain carriers may be shedders of MRSA [e.g., patients with dermatitis or burns]. Infection occurs when MRSA enters a body site and multiplies in tissue causing clinical manifestations of disease. This is usually evident by fever, a rise in the white blood cell count, or purulent drainage from a wound or body cavity. The distinction between colonization and infection is a clinical one. Such a distinction should be determined by the clinician, not by culture results alone.
Colonized and infected patients are the major reservoirs of MRSA. Colonization often occurs in the nares, axillae, chronic wounds, and perineum or around gastrostomy and/or tracheostomy sites. Patients at risk for MRSA colonization are generally debilitated patients who may have prolonged hospitalizations, chronic wounds, or received treatment with multiple antibiotics.

Mode of Transmission:
MRSA is usually transmitted from patient-to-patient via the hands of healthcare workers following direct contact with a person who has a purulent lesion or is an asymptomatic carrier. Colonized workers with dermatitis are especially likely to transmit MRSA to patients. Transmission by airborne route is much less likely to occur except in burn units or dermatology units where aerosolized MRSA may contaminate environmental surfaces.

Reservoirs – Colonized and infected patients are the major reservoir of MRSA. MRSA has been isolated from environmental surfaces including floors, sinks, work areas, tourniquets used for blood drawing, and blood pressure cuffs. Although MRSA has been isolated from environmental surfaces (e. g., floors, medical equipment), such surfaces are not the most likely sources of transmission. However, environmental surfaces should be disinfected routinely to reduce the bacterial load.

CONTROL MEASURES

Contact Precautions:
All MRSA positive and known MRSA colonized patients are to be placed in CONTACT ISOLATION.
Follow Contact Isolation policy and procedures.

Handwashng- is the most effective infection control measure to reduce the risk of transmission of MRSA and other nosocomial pathogens in healthcare settings. Wash hands before patient contact and after touching blood, body fluids, secretion, excretions, and contaminated items, whether or not gloves are worn. Wash hands immediately after gloves are removed, between patient contact, and when otherwise indicated to avoid transfer of microorganisms to other patients or to the environment. It may be necessary to wash hands between tasks and procedures on the same patient to prevent cross-contamination of different body sites (e.g., change gloves after bathing patient and before performing a dressing change at an IV site). Antibacterial hand gels may be used if soap and water are not available if the hands of the healthcare worker are not visibly soiled.

Gloves- gloves provide a physical barrier between potentially infective material and the health care workers hands.

1. Don gloves upon entering the room.
2. During the course of providing care for a patient, change gloves after having contact with infected material that may contain high concentrations of microorganisms (e.g., sputum and wound drainage).
3. Remove gloves before leaving the patient's room and wash hands immediately.
4. After glove removal and handwashing, ensure hands do not touch potentially contaminated surfaces or items in the patient's room to avoid transfer of microorganisms to other patients or environments.
5. Wash hands or use antibacterial hand gel after leaving the patient's room.

Gowns- put on a gown upon entering the room fro the patient on Contact Isolation. A gown is necessary when doing direct patient care, having contact with the environment or items in the patient's room.

Remove the gown and discard into red lined trash container before leaving the patient's room. After gown removal, ensure that clothing does not contact potentially contaminated environmental surfaces in order to avoid transfer of microorganisms to other patients or to the environment.

Masks- wearing a mask to protect the healthcare worker is based on the assumption that personnel are more likely to develop nasal colonization while performing certain patient care activities. Transient nasal carriage has been reported among nurses changing dressings of MRSA patients. However, the value of a mask in reducing transient nasal colonization is not known but if a patient has a productive cough

with MRSA in the sputum, a mask should be worn.

Patient Placement/Cohorting
Place the patient on Contact Isolation in a private room.

When a private room is not available, the patient may be placed in a room with a patient(s) who has MRSA, but no other infection or colonization with a different multiple-antibiotic-resistant organism (i.e., VRE).

Patient Ambulation While in Contact Isolation
A patient placed on Contact Isolation due to MRSA, can ambulate in the hallway under the following guidelines. The patient must be on the appropriate antibiotic(s) for 72 hours. Any lesions, if present, must be covered and any drainage must be contained. The patient is to change into clean clothes or place a gown over clothes and wash hands prior to leaving room. They are also to limit contact with environmental surfaces outside room.

Discontinuation of Contact Isolation Precautions
A patient with MRSA may be taken off Contact Isolation after three sets of cultures taken 24 hours apart are found to be negative for MRSA. These cultures should be taken from each previously infected or colonized site if possible and from the anterior nares. If unable to culture previous sites of infection or colonization, obtain a blood culture along with culture of anterior nares. These cultures should be taken at least 48 hours after all antibiotics have been discontinued.

Cleaning of Patient Care Equipment
Dedicate the use of non-critical patient equipment to a single patient (or cohort of patients infected or colonized with the same pathogen requiring precautions) to avoid patient-to-patient transmission.

Electronic thermometers used with the patient on Contact Isolation should not be shared with other patients. Dedicate a thermometer for single patient use and disinfect when the patient is removed from Contact Isolation, or do not use an electronic thermometer for the patient. Disposable, one time use thermometers are available in all nursing areas.

If use of common equipment or item is unavoidable, than the equipment must be cleaned and disinfected thoroughly before use on another patient.

Linen and laundry- handle all transport and process soiled linen in a manner that prevents exposure and contamination of clothing and avoids transfer of microorganisms to other patients and environments. All linen is to be placed in the blue linen bags and are to be considered contaminated.

All trash containers in a Contact Isolation room are to be lined with a red plastic liner and all trash is to be considered contaminated.

Dishes, Glasses, Cups, and Eating Utensils- no special precautions needed. The combination of hot water and detergent used in institutional dishwashers is sufficient.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CPONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Caring for Patients with RSV		7013
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
	Hospital Wide	

Respiratory Syncytial Virus (RSV) is the most common cause of bronchiolitis (inflammation of the small airways in the lung) and pneumonia in children under 1 year of age in the United States. Almost all children are infected with the virus by their second birthday, but only a small percentage develop sever disease.

People infected with RSV are usually contagious for 3 to 8 days. However, some infants and people with weakened immune systems can be contagious for as long as 4 weeks. RSV can be spread when droplets containing the virus are sneezed or coughed into the air by an infected person. Such droplets can linger briefly in the air, and if someone inhales particles or the partials contact their eyes, mouth, or eye, they can become infected. Transmission occurs from direct and indirect contact.

POLICY:

All patients diagnosed with Respiratory Syncytial Virus (RSV) are to be placed on Contact and Droplet Isolation. The patient is to remain in Contact/Droplet Isolation until discharge.

PURPOSE:

To prevent contamination of clothing of personnel and visitors which could be carries to other parts of the hospital. To protect personnel and visitors from respiratory droplets containing the virus which could result in the spread of the virus.

EQUIPMENT:

Gloves, gown and masks are to be worn when entering the patient’s room.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Care of MDR Acinetobacter Positive Patient		7014
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
	Nursing	

Purpose: To control transmission of multidrug-resistant Acinetobacter (MDR-AB) among patients and to prevent the organism from becoming endemic in the environment at ACMC.

Case Definition: For outbreak investigation/isolation purposes: Any patient with a clinical, or surveillance culture, growing MDR Acinetobacter. MDR Acinetobacter is any isolate that is sensitive (S) to no more than two classes of antibiotics (excluding colistin).

Isolation: Patients should be placed in a Private Room, unless cohorted with another MDR-AB patient. Patients will be placed on Maximum Precautions (gowns, gloves on entering the room plus the added precautions outlined below). Masks will be worn whenever contact with respiratory fluids or secretions can be reasonably anticipated, such as disconnecting ventilator, suctioning or if possibility of splashing or exposure to secretions, i.e., productive cough, emptying ventilator tubing condensation (as per Standard Precautions). Masks will be used at all times if the patient has had a sputum culture positive for MDR-AB. Masks will also be used for all wound dressing changes on these patients.
Any equipment used by ancillary departments i.e., EKG machine or portable X-Ray machine, must be cleaned with an approved hospital disinfectant after use in the MDR-AB infected patient's room.

If it is known that the patient has a MDR AB infection prior to being admitted to a room, all extra or unneeded equipment or supplies in the room are to be removed before bringing the patient to the room.

Removal from isolation: At this time, there are no criteria for removing patients from isolation for MDR-AB. Negative cultures do not indicate that the patient is free from colonization with the organism. This will be reconsidered as we acquire more data and experience controlling MDR-AB.

Environmental cleaning of room:

1. Before cleaning, acinetobacter rooms will be identified by the nursing unit and isolation will be in place during cleaning. The nursing staff is to inform Environmental Services of the need for precautions and type of protection needed during cleaning.
2. Personal protective equipment will be worn according to the instructions on the Isolation sign posted on the isolation cabinet.
3. Use the standard cleaning cart set up.
4. The cart is to remain outside the room. All cleaning clothes, mop heads and mop water is to be changed after use. A dry mop is NOT to be used in isolation rooms. Any equipment used in an isolation room is to be replaced with clean equipment before going to another area.
5. Routine cleaning will be implemented using the prescribed low level disinfectant in the patient care area and bathroom. All areas in the room are to be cleaned.

6. Terminal cleaning will be preformed using the same disinfectant as before. Special attention is to be given to ALL areas and surfaces of the room, including the walls and window shades. This is to be done two (2) times to ensure proper cleaning.
7. All equipment that is not disposable is to be cleaned by the appropriate personnel. All disposable equipment or supplies are to be discarded by the appropriate personnel.
8. The privacy curtain is to be removed and sent to be cleaned and replaced by a clean curtain.
9. The nursing staff is to be notified by Environmental Services when cleaning is completed.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Environmental Cleaning of MDR Acinetobacter Rooms		7015
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
7/10	Environmental Services	ICC

PURPOSE: To control transmission of multi-drug resistant Acinetobacter (MDR-AB) among patients and to prevent the organism from becoming endemic in the environment at ACMC.

PROCEDURE:

1. **Before cleaning:** Acinetobacter rooms will be identified by the nursing unit and isolation will be in place during the cleaning.
2. Personal Protective Equipment will be worn according to the instructions on the Isolation sign posted on the isolation cabinet.
3. Use the standard cart set up.
4. The cart is to remain outside of the room. All cleaning clothes, mop heads and mop water is to be changed. A dry dust mop is NOT to be used in isolation rooms. Any equipment used in an isolation room is to be replaced with clean equipment before going to another area.
5. Routine cleaning will be implemented using the prescribed low level disinfectant in the patient care area and bathroom. All areas in the room are to be cleaned.
6. Terminal cleaning will be performed using the same disinfectant as before. Special attention is to be given to ALL areas of the room, including the walls and window shades. This is to be done (2) two times to ensure proper cleaning.
7. All equipment that is not disposable is to be cleaned by the appropriate personnel. All disposable equipment or supplies in the room are to be discarded by the appropriate personnel.
8. The curtain is to be removed and sent to the cleaners and replaced by a clean curtain.
9. Notify the Nurse when cleaning is complete.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Environmental Cleaning of C Diff Positive Isolation Room		7016
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
7/2010	Housekeeping	

TITLE:
Guidelines for Housekeeping on environmental cleaning of *Clostridium difficile* (C Diff) positive isolation rooms.

PURPOSE:
Hospital acquired infections may occur as the result of exposure to surfaces, equipment and other inanimate objects that have been contaminated with C Diff bacteria. The Environmental Services Department's responsibility is to maintain a thoroughly clean environment including isolation room following current policies and procedures.

POLICY:
1. **Before Cleaning:** *Clostridium difficile* (C Diff) rooms will be identified by the nursing unit and isolation precautions will be exercised during the cleaning process.
2. Personal Protective Equipment will be worn according to the instructions on the Isolation sign posted on the isolation cabinet.
3. Use the standard cart set up.
4. Routine isolation cleaning will be implemented using the prescribed low level disinfectant in the immediate patient care area. The bathroom is to be cleaned with using a 1/10 dilution of Sodium Hypochlorite (bleach). The door to the bathroom should be kept closed. Gross soiling will be cleaned with all purpose cleaner or a quaternary ammonium solution before being disinfected with the sodium Hypochlorite (bleach) solution. All cleaning cloths, mop heads and mop water is to be changed. A dry dust mop is NOT to be used in isolation rooms.
5. Terminal cleaning will be performed using 1/10 dilution of Sodium Hypochlorite (bleach).
6. Once the patient has been removed from isolation due to C Diff, the patient will be moved to another room. Environmental Services will be notified per nursing to perform terminal cleaning of the room.
7. The Sodium Hypochlorite will be prepared DAILY in the Environmental Service Supply area. NO bleach solution will be prepared in the patient area.
8. Caution must be exercised when using Sodium Hypochlorite. Chlorine bleach has high levels of corrosivity (corrosive to common metal), deactivation, and reactivity (reacts with and destroys many common surfaces, i.e., clothing, carpeting, metals, and floor finishes).
9. All reusable equipment removed from the room is to be cleaned with a 1/10 dilution of Sodium Hypochlorite solution or bleach disinfecting wipe.

ASHLEY COUNTY **MEDICAL CENTER**
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILLING NUMBER:**
Reverse Isolation		i.c. 025
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Revised 11/2009	Nursing	ICC

POLICY

A patient is to be placed into Reverse Isolation if the total (#) neutrophil count is below 0.5 unless the Physician indicates the # neutrophil count is down due to severe anemia.

PURPOSE

To protect the patient with decreased resistance against infection of potentially pathogenic organisms.

PROCEDURE

1. The patient is to be placed in a private room.
2. An isolation cabinet is to be placed on the patient's door. A sign is to be posted on the cabinet indicating the type of isolation with the PPE needed and what precautions are to be followed.
3. Disposable stethoscopes and thermometers are to be placed in the room. Manual blood pressure cuffs that are properly cleaned with an antibacterial / germicidal solution are to be used and left in the room if possible until patient discharge and again properly cleaned. If an electronic blood pressure machine is used, it must be properly cleaned with antibacterial / germicidal solution before and after entering the room.
4. The patient is to be informed of the type of isolation being set up and is to be educated on the precautions being taken.
5. Screening of visitors to exclude those with obvious infections (especially colds and flu). Instruct visitors on proper use of protective equipment.
6. Routine patient care with special emphasis on the importance of proper technique.
7. STRICT HAND WASHING procedures should be followed. Wash hands before and after patient care.
8. The patient is to wear a surgical mask when out of the room when know to be neutropenic. This includes the Emergency Room, Out Patient Clinic and Admissions or any other patient care areas.
9. Flowers and plants are not allowed.
10. Low Bacterial diet instituted. (No raw foods)
11. All precautions are to be followed by everyone entering the patient's room.

NOTE: If possible, personnel caring for compromised patients should not be assigned to infected patients.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/ DESCRIPTION:		**FILING NUMBER:**
Administration of TB Skin Test With a Control		7018
EFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
7/2010	Nursing	ICC

POLICY:

Procedure for administrating, reading and interpreting (Mantoux) TB skin test and a control test using Candida Albicans to detect infection with *M. tuberculosis.*

PURPOSE:

1. To ensure that the Mantoux tuberculin skin test and control is applied consistently and correctly to every patient.
2. To ensure that the patient's skin test reactions and control test reactions are read and interpreted correctly.

CONTRINDICATIONS TO TB SKIN TEST ADMINISTRATION:

1. History of previous positive TB skin test.
2. Recent live virus immunization, e.g., measles, mumps, rubella, varicella, yellow fever, or MMR
3. History of BCG.
4. Allergies

PROCEDURE:

1. Inject 0.1ml (5 Tuberculin Units) PPD antigen intradermally keeping bevel of a 26 or 27-gauge needle facing upward. This will produce a 6-10 mm wheal on the volar surface of the forearm in an area free of lesions and away from veins.
2. If a wheal of 6-10 mm is not produced, another test should be done immediately on the same arm at a site at least 5cm or 2in. from original site.
3. Inject 0.1ml Candida Albicans intradermally to the opposite arm using the same procedures as above. Mark arms indicating which is the PPD and which is the control.
4. Advise the patient not to rub or scratch the test sites.
5. Document the tests in the patient's chart.

Note: Follow the same Infection Control procedures as for all injections (including proper hand washing and the use of gloves and a sharps container). When water is not available for hand washing, use an appropriate skin cleansing product.

READING OF THE TEST RESULTS:

1. Reactions to the tests should be done by a trained health care worker 48 hrs after administration.
2. Significant TB skin test reactions may still be measurable after 72 hours and may remain measurable up to one week after administration.
3. Induration (raised area) should be palpated and inspected in both direct and indirect lighting. The diameter of the induration is measured transversely to the long axis of the arm and recorded in millimeters (mm).

Note: Erythema (redness) should not be included in the measurement.

4. Draw a line with a pen toward the induration until the pen is stopped by the raised area. Use the markings to measure induration.

Note: The control with Candida Albicans should be positive which indicates the patient's immune response is adequate to produce an accurate TB skin test result.

<u>Interpretation of the Mantoux TST and Control Results:</u>

TST results between 5 and 9 mm of induration are negative for most HCWs but are positive for those with certain risk factors, including those who:

- are HIV positive,
- have had a recent close contact with someone with active TB disease of the lungs,
- have had an organ transplant,
- are immunosuppressed due to taking prednisone (greater than 15 mg a day for 1 month or longer) or TNF alpha inhibitor drugs such as Enbrel®, Humira®, or Remicade® for treatment of rheumatoid arthritis, Crohn's disease, or other autoimmune disorders, or
- have a current chest x-ray that shows "scarring" or "fibrosis" or "old, healed TB."

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Isolation Precaution Techniques		7019
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2010	Hospital Wide	ICC

LINEN:

In general, soiled linen should be handled as little as possible and with a minimum a agitation to prevent gross microbial contamination of the air and of persons handling the linen. Soiled linens should always be held away from the employee's uniform. Soled linen bags should be securely tied off before transport.

VISITORS:

Visitors should talk with a nurse before entering the room or cubicle of a patient on isolation precautions and, if indicated, should be instructed in the appropriate use of gown, mask, gloves, or other special precautions.

CLEANING ENVIRONMENT AFTER PATIENT DISCHARGE:

Although microorganisms may be present on walls, floors, and table tops in rooms used for patients on isolation precautions, these environmental surfaces, unless visibly contaminated, are rarely associated with transmission of infection to others. In contrast, microorganisms on contaminated patient-care equipment are frequently associated with transmission of infection to other patients when such equipment is not appropriately decontaminated and reprocessed. Therefore, terminal cleaning should primarily be directed toward those items that have been in direct contact with the patient or in contact with the patient's infective material. Disinfectant/ detergent solution used during cleaning should be freshly prepared. Cleaning of rooms (or cubicles) consists of the following:

a. Generally, housekeeping personnel should use the same precautions to protect themselves during terminal cleaning that they would use if the patient were still in the room, however, masks are not needed if they have been indicated previously only for direct or close patient contact.

b. All nondisposable articles should be returned for decontamination and processing. Articles that are contaminated or likely to be contaminated with infective material should be bagged in a red trash liner and labeled before being sent for decontamination and reprocessing.

c. All disposable items should b discarded. Articles that are or likely to be contaminated should be red bagged, labeled, and disposed of in accordance with the hospital's policy on disposal of infectious wastes. No special precautions are indicated for disposal of items that are not or likely not to be contaminated with infective material.

d. All equipment that is not discarded should be cleaned with a disinfectant /detergent solution.

e. All horizontal surfaces of furniture and mattress covers should be cleaned with a disinfectant/ detergent solution.

f. All floors should be mopped with a disinfectant / detergent solution.

g. Routine washing of urine, blinds, and curtains, is not indicated; however, these should be washed if they are visibly soiled.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Isolation Precautions Miscellaneous		7020
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2010	Hospital Wide	ICC

ISOLATON CABINETS:

Pre-stocked isolation cabinets that contain equipment and supplies needed for isolation precautions are available on 2-Center and ICU. These can be placed over the door on 2 Center or placed on the glass door in ICU when needed. Cabinets should be restocked with all necessary supplies after use.

ADMISSION

If a susceptible person has been exposed recently to an infectious disease requiring isolation precautions, the physician should postpone elective admission or prescribe appropriate isolation precautions for a nonelective admission. This situation most likely to occur with children or young adults.

PROPHYLAXIS AND IMMUNIZATION

When used appropriately, prophylactic antimicrobials and active or passive immunizations may prevent or ameliorate the course of infections to which patients or personnel have been exposed. These measures should be considered as adjuncts to isolation precautions in preventing the spread of disease.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Designated Isolation Rooms		7021
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2010	Hospital Wide	ICC

The following rooms are designated Isolation Rooms: Any Private Room on 2-Center or in ICU.

List hospital room numbers which have negative airflow and are vented directly to the outside.
Room 206

This room should be utilized for patients who require AFB or Airborne Isolation.

Portable Negative Air Flow units (3) are available for use at ACMC. They can make any room that has a window that can be opened, a Negative Air Flow room. Engineering will be notified to set these units up if needed.

UNIVERSAL PRECAUTIONS

Combines Standard Precautions and Body Substance Isolation

Applies to all patients regardless of diagnosis or presumed status

Applies to all blood and body fluids except sweat, non-intact skin, mucous membranes

- Wash hands
- Wear gloves
- Mask and eye protection
- Gowns
- Use safety products

AIRBORN PRECAUTIONS

Bacteria/Virus suspended in air/dust particles

Private room or cohort

Keep door closed

Negative air flow discharged outdoors or through HEPA filter

- Masks- Necessary when entering room
- Limit Pt transport- Place a mask on patient
- TB MASK (N-95 RESPIRATOR) REQUIRED FOR ISOLATION

EXAMPLES:

MEASLES
VARICELLA
TB

DROPLET PRECAUTIONS

Contact with mucous membranes with droplets coughed/sneezed

- Private room
- Mask if within3 feet of patient
- Limit transport- mask on patient

EXAMPLES:

Meningitis
Diptheria
Pertussis
Influenza
Rubella
Mumps

CONTACT PRECAUTIONS

Direct or indirect contact

Private room or cohort

Gloves and hand washing

Gown

Limit transport from room

If possible dedicate equipment (or disinfect between patients)

EXAMPLES:

- MRSA
- C, Diff
- VRE
- Impetigo
- Major (non-contaminated) abscess, cellulites, decubitus
- RSV

IMMUNOSUPPRESSED PATIENT

Do not enter room if contagious

Wash hands before and after patient contact

Private room- Keep door closed

No live flowers

No raw fruit or vegetables

The same nurse should not take care of this patient and someone who is contagious!!!!!!!

ISOLATION

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Universal Precautions/Standard Precautions		8001
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 12/2009	Hospital Wide	ICC

POLICY:

It is the policy of this facility to provide precautions to prevent the transmission of Human Immunodeficiency Virus (HIV), Hepatitis B Virus (HBV), Hepatitis C Virus (HCV) and other blood-borne agents between all patients and all healthcare workers whose activities involve contact with patients or with blood or body fluids from patients.

INFORMATION:

Human Immunodeficiency Virus (HIV), the virus that causes acquired Immunodeficiency Syndrome (AIDS), and Hepatitis B Virus (HBV) which causes Hepatitis B is transmitted through sexual contact and exposure to infected blood or blood components and perinatally from mother to neonate.

HIV has been isolated from blood, semen, vaginal secretions, saliva, tears, breast milk, cerebrospinal fluid, amniotic fluid, brain tissue, and urine and is likely to be isolated from other body fluids, secretions, excretions, and tissues of infected persons.

Emidemiologic evidence has implicated only blood, semen, vaginal secretions, and possibly breast milk in transmission of HIV.

Percutaneous or parenteral inoculation and direct contact of cuts, scratches, abrasions, or mucosal surfaces with suspensions of virus or specimens containing live virus are considered potential routes of infection.

Possible transmission of infection via the parenteral route can occur through self-inoculation with needles, scalpels, broken glass, or other sharp objects that contain HIV or HBV and HCV.

Spillage is a possible means of exposure and infection, especially spills accompanied by spraying of infected cell cultures, viral concentrates, and other infectious materials that may come into contact with abraded skin or mucous membranes of the eye, nose, or mouth.

Ingestion and inhalation have not been documented as modes of transmission of HIV.

Since medical history and examination cannot reliably identify all patients with HIV, HBV, or other blood-borne pathogens, blood and body fluid precautions should be consistently used for ALL patients. This approach is referred to as “Universal Precautions/Standard Precautions”.

Implementation of Universal precautions/Standard Precautions for ALL patients eliminates the need for the use of the isolation category of "Blood and Body Fluid Precautions" previously recommended by CDC for patients known or suspected to be infected with blood-borne pathogens. Isolation precautions (e.g., Enteric, AFB) should be used as necessary if associated conditions such as infectious diarrhea or tuberculosis are diagnosed or suspected.

BARRIERS PRECAUTIONS

All healthcare workers must routinely use appropriate barrier precautions to prevent skin and mucous membrane exposure when contact with blood or other body fluids of any patient is anticipated.

The following is an explanation of Barrier Precautions:

USE OF PROTECTIVE ATTIRE AND BARRIER TEHNIQUES

1. Gloves must be worn for contact with oral mucous membranes of ALL patients.

2. Gloves must be worn when touching blood soiled items, body fluids, or secretions, as well as the surfaces contaminated with them.

3. All work must be competed on one patient and the hands must be washed and re-gloved before performing procedures on another patient.

4. Repeated use of a single pair of gloves is not permitted.

5. Surgical masks and protective eyewear or chin-length plastic face shields must be used during dental procedures in which splashing or splattering of blood, saliva, or gingival fluids is likely.

6. Rubber dams, high speed evacuation, and proper patient positioning, when appropriate, should be utilized to minimize generation of droplets and splatter.

7. Reusable or disposable gowns, laboratory coats, or uniforms must be worn when clothing is likely to be soiled with blood or other body fluids. If reusable gowns are worn, they must be washed, using a normal laundry cycle. Gowns must be changes at least daily or when visibly soiled with blood or body fluids.

8. Impervious-backed paper, aluminum foil, or clear plastic wrap may be used to cover surfaces that may be contaminated by blood or saliva and that are difficult or impossible to disinfect. The covering s should be removed (while the healthcare worker is still gloved), discarded, and then replaced (after removing gloves) with clean material between patients.

HANDWASHING AND CARE OF HANDS

1. Hands must always be washed between patient treatment contacts, following removal of gloves, after touching inanimate objects likely to be contaminated by blood or saliva from other patients and before leaving the operatory or patient's room. The

rationale for handwashing after gloves have been worn is that gloves become perforated, knowingly or unknowingly, during use and allow bacteria to enter beneath the glove material and multiply rapidly.

2. Alcohol gel dispensers are located conveniently throughout the hospital. This may be used to clean hands if they are not visibly contaminated.

3. For surgical procedures, an antimicrobial surgical hand-scrub should be used.

4. Extraordinary care must be used to avoid percutaneous injuries during procedures.

5. When gloves are torn, or punctured, they must be removed immediately, hands thoroughly washed, and re-gloving accomplished before completion of the procedure.

6. Healthcare workers who have exudative lesions or weeping dermatitis will not be permitted to provide direct patient care or handle patient-care equipment until the condition is resolved.

USE AND CARE OF SHARP INSTRUMENTS AND NEEDLES

Sharp items (needles, scalpel blades, and other sharp instruments) should be considered as potentially infective and must be handled with extraordinary care to prevent accidental percutaneous puncture.

HANDWASHING

HANDWASHING IS THE SINGLE MOST EFFECTIVE DETERRENT TO THE SPREAD OF INFECTION

Hands and other skin surfaces must be washed immediately and thoroughly if contaminated with blood or other body fluids.

Hands must be washed before applying and immediately after gloves, gowns, or other barrier apparel are removed.

GLOVES

Gloves must be worn for touching blood or other body fluids, mucous membranes, or non-intact skin of all patients.

Gloves must be worn for handling items or surfaces soiled with blood or body fluids.

Gloves must be worn for performing venipuncture and other vascular procedures.

Gloves must be changed after contact with each patient or when they become soiled or wet.

Gloves must be worn for direct contact with all patients and for direct contact with items or surfaces soiled with blood or body fluids, when there are cuts, scratches, or dermatologic lesions on the hands of healthcare workers.
When gloves are torn, cut, or punctured, they must be removed immediately, hands must be washed immediately and thoroughly, and re-gloving accomplished before completion of a procedure requiring gloves.

MASKS AND PROTETIVE EYEWEAR

Mass and protective eyewear or face shields must be worn during procedures that are likely to generate droplets of blood or other body fluids to prevent exposure of mucous membranes of the mouth, nose, and eyes.

GOWNS AND APRONS

Gowns or aprons must be worn during procedures that are likely to generate splashes of blood or other body fluids.

SHARPS

All healthcare workers must take precautions to prevent injuries caused by needles, scalpels, and other sharp instruments or devices during procedures, when cleaning used instruments, during disposal of used needles, and when handling sharp instruments after procedures.

To prevent needlestick injuries, **SAFTEY ENGINEERED DEVICES MUST BE USED WHEN AVAILABLE. Refer to MANDATORY USAGE POLICY. NEEDLES MUST NOT BE RECAPPED, PURPOSELY BENT OR BROKEN BY HAND, REMOVED FROM DISPOSABLE SYRINGES, OR OTHERWISE MANIPULATED BY HAND, IF SAFE NEEDLE IS NOT AVAILABLE.**

Disposable syringes and needles, scalpels, scalpel blades, and other sharp items must be placed in clearly labeled puncture-proof containers located as close as practical to the area in which they were used.

Large-bore reusable needles must be placed in a clearly labeled puncture-resistant container for transport to the reprocessing area.

MOUT-TO-MOUTH RESUSCITIATION

Mouth pieces, resuscitation bags, or other ventilation devices must be strategically located and available for use in areas where the need for resuscitation is predictable.

RESPONSIBILITIES OF HEALTHCARE WORKERS

Extraordinary care must be taken to avoid accidental wounds from sharp instruments contaminated with potentially infectious material and to avoid contact with open skin lesions with material from ALL patients.

All procedures and manipulations of potentially infectious material must be performed carefully to minimize the creation of droplets and aerosols.

All healthcare workers who have exudative lesions or weeping dermatitis must refrain from ALL direct patient care and from handling patient-are equipment until the condition resolves.

Pregnant healthcare workers are not known to be at greater risk of contracting HIV infection then any other healthcare worker. If a healthcare worker develops HIV during pregnancy, the infant is at risk of infection resulting from perinatal transmission. Because of this risk, pregnant healthcare workers must be especially familiar with and strictly adhere to precautions to minimize the risk of HIV and HCV infection.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Precautions for Invasive Procedures		8002
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 12/2009	Hospital Wide	ICC

POLICY

It is the policy of this hospital to provide precautions to prevent transmission of blood-borne agents between all patients and all healthcare workers who perform or assist with invasive procedures.

DEFINITION

An INVASIVE PROCEDURE involves surgical entry from tissues, cavities, or organs, or repair of major traumatic injuries:

1. In a operating or delivery room, emergency department, or outpatient setting, including physician's offices.

2. Cardiac catheterization and angiographic procedures.

3. A vaginal or cesarean delivery or other invasive obstetric procedure during which bleeding may occur.

4. The manipulation, cutting, removal of any oral or perioral tissues, including tooth structures, during which bleeding may occur, or the potential for bleeding exists.

PRECAUTIONS

Universal Precautions / Standard Precautions combined with the precautions listed below must be used by healthcare workers for ALL invasive procedures:

1. All healthcare workers who participate in invasive procedures must routinely use appropriate barrier precautions to prevent skin and mucous-membrane contact with blood or other body fluids of all patients.

2. Gloves and surgical masks must be worn.

3. Protective eyewear or face shields must be worn for procedures that commonly result in the generation of droplets, splashing of blood or other body fluids, or the generation of bone chips.

4. Gowns or aprons made of materials that provide an effective barrier must be worn during invasive procedures that are likely to result in the splashing of blood or other body fluids or the generation of bone chips.

5. All healthcare workers who perform or assist in vaginal or cesarean deliveries must wear gloves and gowns when handling the placenta or the infant until blood and amniotic fluid have been removed from the infant's skin.

6. Gloves must be worn during post-delivery care of the umbilical cord.

7. If a glove is torn or a needlestick or other injury occurs, the glove must be removed and a new glove used as promptly as patient safety permits, the needle or instrument involved in the incident must also be removed from the sterile field.

8. If an incident occurs during an invasive procedure that results in expose of a patient to the blood of a healthcare worker, the patient must be informed of the incident and recommendations for management of such exposures must be followed.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Precautions for Laboratories		8003
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 12/2009	Hospital Wide	ICC

PRECAUTIONS

Laboratory work surfaces must be decontaminated with an appropriate chemical germicide after a spill of blood or other body fluids and when work activities are completed.

Contaminated material used in laboratory tests must be decontaminated before reprocessing or be placed in bags and disposed of in accordance with infectious waste disposal policies.

Scientific equipment that has been contaminated with blood or other body fluids must be decontaminated and cleaned before being repaired in the laboratory or transported to the manufacturer.

All persons must wash their hands after completing laboratory activities and must remove protective clothing leaving the laboratory.

Phlebotomists and laboratory technologists are required to wear gloves for phlebotomy. Handwashing must be done between each phlebotomy.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Precautions for Eye Procedures		8004
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 12/2009	Hospital Wide	ICC

POLICY

It is the policy of this hospital to provide precautions to prevent transmission of HIV and other pathogens that might be present in tears between all patients and all healthcare workers who perform eye examinations or other procedures involving contact with tears.

PRECAUTIONS

Universal Precautions / Standard Precautions combined with the precautions listed below must be used by healthcare workers who participate in eye examinations or other procedures involving contact with tears.

1. Instruments that come into direct contact with external surfaces of the eye must be cleaned and then disinfected by:

   a. A 5-10 minute exposure to a fresh solution of 3% hydrogen peroxide, or

   b. A fresh solution containing 5,000 parts per million (mg/L) free available chlorine a 1:10 dilution of common household bleach (sodium hypochlorite); or

   c. 70% ethanol; or

   d. 70% isopropanol.

   The device should be thoroughly rinsed I tap water and dried before reuse.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Postmortem Handling of Bodies		8005
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2009	Hospital Wide	ICC

Generally, personnel should use the same precautions to protect themselves during postmortem handling of bodies that they would use if the patient were still alive; however, masks are usually not necessary unless aerosols are expected to be generated. State or local regulations may call for additional special precautions for postmortem handling of bodies.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Precautions for Autopsies		8006
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2009	Hospital Wide	ICC

POLICY

It is the policy of the hospital to provide precautions to prevent the transmission of HIV and other blood-borne agents to those healthcare workers who perform or assist in post-mortem procedures.

PRECAUTIONS

In addition to Universal / Standard Precautions, the following precautions must be used by persons performing or assisting in post-mortem procedures.

1. All persons performing or assisting in post-mortem procedures must wear gloves, masks, protective eyewear, gowns, and waterproof aprons.

2. Instruments and surfaces contaminated during post-mortem procedures must be decontaminated with an appropriate chemical germicide.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Precautions for Other Workers		8007
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 12/2009	Hospital Wide	ICC

OTHER WORKERS SHARING THE SAME WORK ENVIRONMNET

HIV and HBV infection is spread by sexual contact with infected persons, percutaneous injury with contaminated sharp object, injection of contaminated blood or blood products, and by perinatal infection.

No known risk of transmission to co-workers, patients, or consumers exists from HIV or HBV-infected workers in other settings (offices, schools, factories, construction sites, etc.).

Workers known to be infected with HIV should not be restricted from work solely based on this finding. Moreover, they should not be restricted from using the telephone, office equipment, toilets, showers, eating facilities, and water fountains.

PRECAUTIONS

1. Equipment contaminated with blood or other body fluids of any worker, regardless of HIV or HBV-infection status, must be removed with disposable absorbent toweling and must be treated appropriately with a chemical germicide.

2. Disposable gloves must be worn during the cleaning and decontamination procedures.

CLEANING AND DECONTAMINATING SPILLS OF BLOOD OR OTHER BODY FLUIDS

1. Chemical germicides that are approved for use as “hospital disinfectants” and are tuberculosidal when used at recommended dilutions can be used to decontaminate spills of blood and other body fluids.

2. Germicides that are mycobacterial are preferred because Mycobacterium represent one of the most resistant groups of microorganisms. Therefore, germicides that are effective against mycobacterium are also effective against other bacteria and viral pathogens.

3. Strategies for decontaminating spills of blood or other body fluids in a patient care setting are different than for spills of cultures of other material in clinical, public health, or research laboratories.

4. In patient care areas, visible material should first be removed and then the area should be decontaminate.

5. With large spills of cultures or concentrated infectious agents in the laboratory, the contaminated are should be flooded with liquid germicide before cleaning, then decontaminated with a fresh germicide chemical.

6. In both settings, gloves should be worn during the cleaning and decontamination procedures.

PRECAUTIONS

1. In patient care areas, visible material must be removed with disposable absorbent toweling or cloth and then the area must be decontaminated with tuberculocidal chemical germicide, prepared according to manufacturer's instructions.

2. In the clinical laboratory, the contaminated area must be flooded with liquid tuberculocidal germicide, then decontaminated with fresh germicidal chemical.

3. Gloves must be worn during the cleaning and disinfecting procedures.

LAUNDRY

Although soiled linen has been identified as a source of large numbers of certain pathogenic organisms, the risk of actual disease transmission is negligible.

PRECAUTIONS

1. Soiled linen must be handled as little as possible and with minimum agitation to prevent gross microbial contamination of the air and of persons handling the linen.

. 2. All soiled linen must be bagged at the location where it was used.

INFECTIOUS WASTE

Infective waste, in general, should either be incinerated or should be autoclaved before disposal in a sanitary landfill. This is often accomplished through a contracted hazardous waste hauling company who is licensed by State and Local health authorities.

PRECAUTIONS

1. Infectious waste must be separated at the point-of origin, collected, transported, stored, and disposed of according to hospital policies for infectious waste.
2. Receptacles with a cover, foot control, and lined with a red infectious waste bag must be available for separation of infectious waste at the point-of-origin.

ASHLEY COUNTY MEDICAL CENTERINFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Handwashing Procedures		8008
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2009	Hospital Wide	ICC

POLICY

Hospital personnel shall wash their hands to prevent the spread of infections:

1. When coming on duty.
2. Before applying or after removing gloves.
3. When the hands are obviously soiled.
4. Between handling of individual patients.
5. Before contact about the face and mouth of patients.
6. Before and after personal use of toilet.
7. After sneezing, coughing, blowing, or wiping nose or mouth.
8. On leaving isolation area or after handling articles from an isolation area.
9. After handling used sputum containers, soiled urinals, catheters and bedpans.
10. Before eating.
11. On completion of duty.

PROCEDURE

1. Turn on water to comfortable temperature.
2. Wet hands up to the wrists.
3. Apply one squeeze of disinfectant soap. Work into a lather, wash all surfaces of the hands and fingers for 10-15 seconds.
4. Rinse well, keeping hands pointing down. Complete removal of soap helps to prevent excoriation of the hands.
5. Dry hands well with paper towels, and then use the paper towel to turn off faucet.
6. Dispose of paper towels properly.

APPENDIX C

Recommendations For Isolation Precautions in Hospitals

The Hospital Infection Control Practices Advisory Committee

A. Rationale for isolation precautions in hospitals

Transmission of infection within a hospital requires three elements: a source of infecting microorganisms, a susceptible host, and a means of transmission for the microorganism.

1. Source
   Human sources of the infecting microorganisms in hospitals may be patients, personnel, or on occasion, visitors, and may include persons with acute disease, persons in the incubation period of a disease, persons who are colonized by an infectious agent but have no apparent disease, or persons who are chronic carriers of an infectious agent. Other sources of infecting microorganisms can be the patient's own endogenous flora, which may be difficult to control, and inanimate environmental objects that have become contaminated, including equipment and medications.
2. Host
   Resistance among persons to pathogenic microorganisms varies greatly. Some persons may be immune to infection or be able to resist colonization by an infectious agent; others exposed to the same agent may establish a commensal relationship with the infecting microorganism and become asymptomatic carriers; still others may develop clinical disease. Host factors such as age; underlying diseases; certain treatments with antimicrobials, corticosteroids, or other immunosuppressive agents; irradiation; and breaks in the first line of defense mechanisms caused by such factors as surgical operations, anesthesia, and indwelling catheters may render patients more susceptible to infection.
3. Transmission
   a) Microorganisms are transmitted in hospitals by several routes, and the same microorganism may be transmitted by more than one route.

From Centers for Disease Control and Prevention, Public Health Service, U.S. Department of Health and Human Services, *Am J Infect Control* 24:24-52, 1996.

There are five main routes of transmission—contact, droplet, airborne, common vehicle, and vector-borne. In this guideline common vehicle and vector-borne transmission is discussed only briefly, since neither play a significant role in typical nosocomial infections.

(1) *Contact transmission*, the most important and frequent mode of transmission of nosocomial infections, is divided into two subgroups: direct-contact transmission and indirect-contact transmission.
   (a) Direct-contact transmission involves a direct body surface-to-body surface contact and physical transfer of microorganisms between a susceptible host and an infected or colonized person, such as occurs when a person turns a patient, gives a patient a bath, or performs other patient-care activities that require direct personal contact. Direct-contact transmission can also occur between two patients, with one serving as the source of the infectious microorganisms and the other as a susceptible host.
   (b) Indirect-contact transmission involves contact of a susceptible host with a contaminated intermediate object, usually inanimate, such as contaminated instruments, needles, or dressings, or contaminated hands that are not washed and gloves that are not changed between patients.

(2) *Droplet transmission*, theoretically, is a form of contact transmission. However, the mechanism of transfer of the pathogen to the host is quite distinct from either direct- or indirect-contact transmission. Therefore, in this guideline droplet transmission is considered a separate route of transmission. Droplets are generated from the source person

primarily during coughing, sneezing, and talking and during the performance of certain procedures such as suctioning and bronchoscopy. Transmission occurs when droplets containing microorganisms generated from the infected person are propelled a short distance through the air and deposited on the host's conjunctivae, nasal mucosa, or mouth. Because droplets do not remain suspended in the air, special air handling and ventilation are not required to prevent droplet transmission (i.e., droplet transmission must not be confused with airborne transmission).

(3) *Airborne transmission* occurs by dissemination of either airborne droplet nuclei (small-particle residue [5μ or smaller in size] of evaporated droplets containing microorganisms that remain suspended in the air for long periods of time) or dust particles containing the infectious agent. Microorganisms carried in this manner can be widely dispersed by air currents and may become inhaled by a susceptible host within the same room or over a longer distance from the source patient, depending on environmental factors; therefore special air handling and ventilation are required to prevent airborne transmission. Microorganisms transmitted by airborne transmission include *Mycobacterium tuberculosis* and the rubeola and varicella viruses.

(4) *Common vehicle transmission* applies to microorganisms transmitted by contaminated items such as food, water, medications, devices, and equipment.

(5) *Vector-borne transmission* occurs when vectors such as mosquitoes, flies, rats, and other vermin transmit microorganisms; this route of transmission is of less significance in hospitals in the United States than in other regions of the world.

b) Isolation precautions are designed to prevent transmission of microorganisms by these routes in hospitals. Since agent and host factors are more difficult to control, interruption of transfer of microorganisms is directed primarily at transmission. The recommendations presented in this guideline are based on this concept.

c) Placing a patient on isolation precautions, however, often presents certain disadvantages to the hospital, patients, personnel, and visitors. Isolation precautions may require specialized equipment and environmental modifications that add to the cost of hospitalization. Isolation precautions may make frequent visits by nurses, physicians, and other personnel inconvenient, and they may make it more difficult for personnel to give the prompt and frequent care that is sometimes required. The use of a multi-patient room for one patient uses valuable space that might otherwise accommodate several patients. Moreover, forced solitude deprives the patient of normal social relationships and may be psychologically harmful, especially to children. These disadvantages, however, must be weighed against the hospital's mission to prevent the spread of serious and epidemiologically important microorganisms in the hospital.

B. Fundamentals of isolation precautions

A variety of infection control measures are used for decreasing the risk of transmission of microorganisms in hospitals. These measures make up the fundamentals of isolation precautions.

1. Hand washing and gloving

a) Hand washing is frequently called the single most important measure to reduce the risks of transmitting organisms from one person to another or from one site to another on the same patient. The scientific rationale, indications, methods, and products for handwashing have been delineated in other publications.[1-9]

b) Washing hands as promptly and thoroughly as possible between patient contacts and after contact with blood, body fluids, secretions, excretions, and equipment or articles contaminated by them is an important component of infection control and isolation precautions. In addition to hand washing, gloves play an important role in reducing the risks of transmission of microorganisms.

c) Gloves are worn for three important reasons in hospitals:

(1) To provide a protective barrier and prevent gross contamination of the hands when touching blood, body fluids, secretions, excretions, mucous membranes, and nonintact skin,[10-12] the wearing of gloves in specified circumstances to reduce the risk of exposures to blood-borne pathogens is mandated by the Occupational Safety and Health

Administration (OSHA) bloodborne pathogens final rule[13]

(2) To reduce the likelihood that microorganisms present on the hands of personnel will be transmitted to patients during invasive or other patient-care procedures that involve touching a patient's mucous membranes and nonintact skin

(3) To reduce the likelihood that hands of personnel contaminated with microorganisms from a patient or a fomite can transmit these microorganisms to another patient; in this situation, gloves must be changed between patient contacts, and hands washed after gloves are removed

d) Wearing gloves does not replace the need for hand washing because:

(1) Gloves may have small inapparent defects or be torn during use,

(2) Hands can become contaminated during removal of gloves[9,14-20]

e) Failure to change gloves between patient contacts is an infection control hazard.[21]

2. Patient placement

a) Appropriate patient placement is a significant component of isolation precautions. A private room is important to prevent direct- or indirect-contact transmission when the source patient has poor hygienic habits, contaminates the environment, or cannot be expected to assist in maintaining infection control precautions to limit transmission of microorganisms (i.e., infants, children, and patients with altered mental status). When possible, a patient with highly transmissible or epidemiologically important microorganisms is placed in a private room with handwashing and toilet facilities to reduce opportunities for transmission of microorganisms.

b) When a private room is not available, an infected patient is placed with an appropriate roommate. Patients infected by the same microorganism can usually share a room provided that:

(1) They are not infected with other potentially transmissible microorganisms

(2) The likelihood of reinfection with the same organism is minimal. Such sharing of rooms, also referred to as cohorting patients, is especially useful during outbreaks or when there is a shortage of private rooms

c) When a private room is not available and cohorting is not achievable or recommended,[22] it is very important to consider the epidemiology and mode of transmission of the infecting pathogen and the patient population being served in determining patient placement. Under these circumstances, consultation with infection control professionals is advised before patient placement. Moreover, when an infected patient shares a room with a noninfected patient, it is also important that patients, personnel, and visitors take precautions to prevent the spread of infection and that roommates are carefully selected.

d) Guidelines for construction, equipment, air handling, and ventilation for isolation rooms have been delineated in other publications.[23-25] A private room with appropriate air handling and ventilation is particularly important for reducing the risk of transmission of microorganisms from a source patient to susceptible patients and other persons in hospitals when the microorganism is spread by airborne transmission. Some hospitals use an isolation room with an anteroom as an extra measure of precaution to prevent airborne transmission. However, adequate data regarding the need for an anteroom are not available. Ventilation recommendations for isolation rooms housing patients with pulmonary tuberculosis have been delineated in other CDC guidelines.[22]

3. Transport of infected patients

a) Limiting the movement and transport of patients infected with virulent or epidemiologically important microorganisms and ensuring that such patients leave their rooms only for essential purposes reduce opportunities for transmission of microorganisms in hospitals.

b) When patient transport is necessary, it is important that:

(1) Appropriate barriers (e.g., masks, impervious dressings) are worn or used by the patient to reduce the opportunity for transmission of pertinent microorganisms to other patients, personnel, and visitors and to reduce contamination of the environment.

(2) Personnel in the area to which the patient is to be taken are notified of the impending arrival of the patient and of the precautions to be used to reduce the risk of transmission of infectious microorganisms.

(3) Patients are informed of ways by which they can assist in preventing the

transmission of their infectious microorganisms to others.

4. Masks, respiratory protection, eye protection, face shields
   a) Various types of masks, goggles, and face shields are worn alone or in combination to provide barrier protection. A mask that covers both the nose and mouth and goggles or a face shield are worn by hospital personnel during procedures and patient-care activities that are likely to generate splashes or sprays of blood, body fluids, secretions, or excretions to provide protection of the mucous membranes of the eyes, nose, and mouth from contact transmission of pathogens. The wearing of masks, eye protection, and face shields in specified circumstances to reduce the risk of exposures to blood borne pathogens is mandated by the OSHA blood borne pathogens final rule.[13] A surgical mask is generally worn by hospital personnel to provide protection against spread of infectious large-particle droplets that are transmitted by close contact and generally travel only short distances (up to 3 feet) from infected patients who are coughing or sneezing.
   b) An area of major concern and controversy over the last several years has been the role and selection of respiratory protection equipment and the implications of a respiratory protection program for prevention of transmission of tuberculosis in hospitals. Traditionally, although the efficacy was not proven, a surgical mask was worn for isolation precautions in hospitals when patients were known or suspected to be infected with pathogens spread by the airborne route of transmission. In 1990, however, the CDC tuberculosis guidelines[26] stated that surgical masks may not be effective in preventing the inhalation of droplet nuclei and recommended the use of disposable particulate respirators despite the fact that the efficacy of particulate respirators in protecting persons from the inhalation of *M. tuberculosis* had not been demonstrated. By definition, particulate respirators included dust-mist (DM), dust-fume-mist (DFM), or high-efficiency particulate air (HEPA) filter respirators certified by the CDC National Institute for Occupational Safety and Health (NIOSH); since the generic term particulate respirator was used in the 1990 guidelines, the implication was that any of these respirators provided sufficient protection.[27]
   c) In 1993, a draft revision of the CDC tuberculosis guidelines[28] outlined performance criteria for respirators and stated that some DM or DFM respirators might not meet these criteria. After review of public comments, the guidelines were finalized in October 1994,[22] with the draft respirator criteria unchanged. At that time, HEPA filter respirators were the only respirators that were:
      (1) Known to consistently meet or exceed the performance criteria outlined in the 1994 tuberculosis guidelines.
      (2) Certified by NIOSH (as required by OSHA). Subsequently, NIOSH revised the testing and certification requirements for all types of air-purifying respirators, including those used for tuberculosis control.[29] The new rule, effective in July 1995, provides a broader range of certified respirators that meet the performance criteria recommended by CDC in the 1994 tuberculosis guidelines. NIOSH has indicated that the N95 (N category at 95% efficiency) meets the CDC performance criteria for a tuberculosis respirator. The new respirators are currently available. Additional information on the evolution of respirator recommendations, regulations to protect hospital personnel, and the role of various federal agencies in respiratory protection for hospital personnel has been published.[27]
5. Gowns and protective apparel
   a) Various types of gowns and protective apparel are worn to provide barrier protection and reduce opportunities for transmission of microorganisms in hospitals. Gowns are worn to prevent contamination of clothing and protect the skin of personnel from blood and body fluid exposures. Gowns especially treated to make them impermeable to liquids, leg coverings, boots, or shoe covers provide greater protection to the skin when splashes or large quantities of infective material are present or anticipated. The wearing of gowns and protective apparel under specified circumstances to reduce the risk of exposures to blood-borne pathogens is mandated by the OSHA blood-borne pathogens final rule.[13]
   b) Gowns are also worn by personnel during the care of patients infected with epidemiologically important microorganisms to reduce the opportunity for transmission of pathogens from patients or items in their environment to other patients or environments; when gowns are worn for this purpose, they are removed before the personnel leave the patient's environment however, and hands are washed. However,

adequate data regarding the efficacy of gowns for this purpose are not available.

6. Patient-care equipment and articles
   a) Many factors determine whether special handling and disposal of used patient-care equipment and articles are prudent or required, including the likelihood of contamination with infective material; the ability to cut, stick, or otherwise cause injury (needles, scalpels, and other sharp instruments [sharps]); the severity of the associated disease; and the environmental stability of the pathogens involved.[10,13,30-32] Some used articles are enclosed in containers or bags to prevent inadvertent exposures to patients, personnel, and visitors and to prevent contamination of the environment. Used sharps are placed in puncture-resistant containers; other articles are placed in a bag. One bag is adequate if the bag is sturdy and the article can be placed in it without contaminating the outside of the bag[33]; otherwise, two bags are used.
   b) The scientific rationale, indications, methods, products, and equipment for reprocessing patient-care equipment have been delineated in other publications.[5,32,34-39] Contaminated, reusable critical medical devices or patient-care equipment (i.e., equipment that enters normally sterile tissue or through which blood flows) or semicritical medical devices or patient-care equipment (i.e., equipment that touches mucous membranes) is sterilized or disinfected (reprocessed) after use to reduce the risk of transmission of microorganisms to other patients; the type of reprocessing is determined by the article and its intended use, the manufacturer's recommendations, hospital policy, and any applicable guidelines and regulations.
   c) Noncritical equipment (i.e., equipment that touches intact skin) contaminated with blood, body fluids, secretions, or excretions is cleaned and disinfected after use according to hospital policy. Contaminated disposable (single-use) patient-care equipment is handled and transported in a manner that reduces the risk of transmission of microorganisms and decreases environmental contamination in the hospital; the equipment is disposed of according to hospital policy and applicable regulations.
7. Linen and laundry
   Although soiled linen may be contaminated with pathogenic microorganisms, the risk of disease transmission is negligible if it is handled, transported, and laundered in a manner that avoids transfer of microorganisms to patients, personnel, and environments. Rather than rigid rules and regulations, hygienic and common-sense storage and processing of clean and soiled linen are recommended.[10,31,40,41] The methods for handling, transporting, and laundering of soiled linen are determined by hospital policy and any applicable regulations.
8. Dishes, glasses and cups, and eating utensils
   No special precautions are needed for dishes, glasses and cups, or eating utensils. Either disposable or reusable dishes and utensils can be used for patients on isolation precautions. The combination of hot water and detergents used in hospital dishwashers is sufficient to decontaminate dishes, glasses and cups, and eating utensils.
9. Routine and terminal cleaning
   The room or cubicle and bedside equipment of patients on Transmission-based Precautions are cleaned using the same procedures that are used for patients on Standard Precautions, unless the infecting microorganism(s) and the amount of environmental contamination indicates special cleaning. In addition to thorough cleaning, adequate disinfection of bedside equipment and environmental surfaces (e.g., bedrails, bedside tables, carts, commodes, doorknobs, faucet handles) is indicated for certain pathogens, especially enterococci, that can survive in the inanimate environment for prolonged periods of time.[42] Patients admitted to hospital rooms previously occupied by patients infected or colonized with such pathogens are at increased risk of infection from contaminated environmental surfaces and bedside equipment if they have not been adequately cleaned and disinfected. The methods, thoroughness, and frequency of cleaning and the products used are determined by hospital policy.

C. Hospital Infection Control Practices Advisory Committee (HICPAC) Isolation Precautions

There are two tiers of HICPAC isolation precautions. In the first, and most important, tier are precautions designed for the care of all patients in hospitals, regardless of their diagnosis or presumed infection status. Implementation of these Standard Precautions is the primary strategy for successful nosocomial infection control. In the second tier are precautions designed only for the care of specified patients. These additional Transmission-based Precautions are for patients known or suspected to be infected by epidemiologically important pathogens spread by airborne or droplet transmission or by

contact with dry skin or contaminated surfaces.

1. Standard precautions
   a) Standard Precautions synthesize the major features of Universal (Blood and Body Fluid) Precautions[10,11] (designed to reduce the risk of transmission of blood borne pathogens) and Body Substance Isolation[12,43] (designed to reduce the risk of transmission of pathogens from moist body substances) and applies them to all patients receiving care in hospitals, regardless of their diagnosis or presumed infection status.
   b) Standard Precautions apply to
      (1) Blood,
      (2) All body fluids, secretions, and excretions *except sweat*, regardless of whether or not they contain visible blood,
      (3) nonintact skin, and
      (4) mucous membranes.
   c) Standard Precautions are designed to reduce the risk of transmission of microorganisms from both recognized and unrecognized sources of infection in hospitals.
2. Transmission-based precautions
   a) Transmission-based Precautions are designed for patients documented or suspected to be infected with highly transmissible or epidemiologically important pathogens for which additional precautions beyond Standard Precautions are needed to interrupt transmission in hospitals. There are three types of Transmission-based Precautions: Airborne Precautions, Droplet Precautions, and Contact Precautions. They may be combined for diseases that have multiple routes of transmission. When used either singularly or in combination, they are to be used in addition to Standard Precautions.
      (1) *Airborne Precautions* are designed to reduce the risk of airborne transmission of infectious agents. Airborne transmission occurs by dissemination of either airborne droplet nuclei (small-particle residue [5 µ or smaller in size] of evaporated droplets that may remain suspended in the air for long periods of time) or dust particles containing the infectious agent. Microorganisms carried in this manner can be widely dispersed by air currents and may become inhaled by or deposited on a susceptible host within the same room or over a longer distance from the source patient, depending on environmental factors; therefore special air handling and ventilation are required to prevent airborne transmission. Airborne Precautions apply to patients known or suspected to be infected with epidemiologically important pathogens that can be transmitted by the airborne route.
      (2) *Droplet Precautions* are designed to reduce the risk of droplet transmission of infectious agents. Droplet transmission involves contact of the conjunctivae or the mucous membranes of the nose or mouth of a susceptible person with large-particle droplets (larger than 5 µ in size) containing microorganisms generated from a person who has a clinical disease or is a carrier of the microorganism. Droplets are generated from the source person primarily during coughing, sneezing, or talking and during the performance of certain procedures such as suctioning and bronchoscopy. Transmission via large-particle droplets requires close contact between source and recipient persons, since droplets do not remain suspended in the air and generally travel only short distances, usually 3 feet or less, through the air. Because droplets do not remain suspended in the air, special air handling and ventilation are not required to prevent droplet transmission. Droplet Precautions apply to any patient known or suspected to be infected with epidemiologically important pathogens that can be transmitted by infectious droplets.
      (3) *Contact Precautions* are designed to reduce the risk of transmission of epidemiologically important microorganisms by direct or indirect contact. Direct-contact transmission involves skin-to-skin contact and physical transfer of microorganisms to a susceptible host from an infected or colonized person, such as occurs when personnel turn a patient, give a patient a bath, or perform other patient-care activities that require physical contact. Direct-contact transmission can also occur between two patients (e.g., by hand contact), with one serving as the source of infectious microorganisms and the other as a susceptible host. Indirect-contact transmission involves contact of a susceptible host with a contaminated intermediate object, usually inanimate, in the patient's environment. Contact

Precautions apply to specified patients known or suspected to be infected or colonized (presence of microorganism in or on patient but without clinical signs and symptoms of infection) with epidemiologically important microorganisms that can be transmitted by direct or indirect contact.

b) A synopsis of the types of precautions and the patients requiring the precautions is listed in the box on p. C-8.

D. Empiric Use of Airborne, Droplet, or Contact Precautions

1. In many instances the risk of nosocomial transmission of infection may be highest before a definitive diagnosis can be made and precautions based on that diagnosis implemented. The routine use of Standard Precautions for all patients should greatly reduce this risk for conditions other than those requiring Airborne, Droplet, or Contact Precautions. Although it is not possible to prospectively identify all patients needing these enhanced precautions, certain clinical syndromes and conditions carry a sufficiently high risk to warrant the empiric addition of enhanced precautions while a more definitive diagnosis is pursued. A listing of such conditions and the recommended precautions beyond Standard Precautions is presented in Table C-1.
2. The organisms listed under the column "Potential pathogens" are not intended to represent the complete or even most likely diagnoses, but rather possible etiologic agents that require additional precautions beyond Standard Precautions until they can be ruled out. Infection control professionals are encouraged to modify or adapt this table according to local conditions. To ensure that appropriate empiric precautions are always implemented, hospitals must have systems in place to routinely evaluate patients according to these criteria as part of their preadmission and admission care.

E. Immunocompromised patients

1. Immunocompromised patients vary in their susceptibility to nosocomial infections, depending on the severity and duration of immunosuppression. They are generally at increased risk for bacterial, fungal, parasitic, and viral infections from both endogenous and exogenous sources. The use of Standard Precautions for all patients and Transmission-based Precautions for specified patients as recommended in this guideline should reduce the acquisition by these patients of institutionally acquired bacteria from other patients and environments.
2. It is beyond the scope of this guideline to address the various measures that may be used for immunocompromised patients to delay or prevent acquisition of potential pathogens during temporary periods of neutropenia. Rather, the primary objective of this guideline is to prevent transmission of pathogens from infected or colonized patients in hospitals. However, users of this guideline are referred to the *Guideline for Prevention of Nosocomial Pneumonia*[44,45] for the HICPAC recommendations for prevention of nosocomial aspergillosis and Legionnaires' disease in immunocompromised patients.

F. Recommendations

1. The following recommendations are categorized as follows:
   a) **Category IA.** Strongly recommended for all hospitals and strongly supported by well-designed experimental or epidemiologic studies
   b) **Category IB.** Strongly recommended for all hospitals and reviewed as effective by experts in the field and a consensus of HICPAC based on strong rationale and suggestive evidence, even though definitive scientific studies have not been done.
   c) **Category II.** Suggested for implementation in many hospitals. Recommendations may be supported by suggestive clinical or epidemiologic studies, a strong theoretic rationale, or definitive studies applicable to some but not all hospitals.
   d) **No recommendation; unresolved issue.** Practices for which insufficient evidence or consensus regarding efficacy exists.
2. The recommendations are limited to the topic of isolation precautions. Therefore they must be supplemented by hospital policies and procedures for other aspects of infection and environmental control, occupational health, administrative, and legal issues, and other issues beyond the scope of this guideline.
   a) Administrative controls
      (1) Education
      Develop a system to ensure that hospital patients, personnel, and visitors are educated about use of precautions and their responsibility for adherence to them. *Category IB*
      (2) Adherence to precautions
      Periodically evaluate adherence to precautions, and use findings to direct improvements. *Category IB*
   b) Standard precautions
   Use Standard Precautions, or the equivalent, for the care of all patients. *Category IB*

C-8 Isolation Systems

Synopsis of types of precautions and patients requiring the precautions*

STANDARD PRECAUTIONS

Use Standard Precautions for the care of all patients.

AIRBORNE PRECAUTIONS

In addition to Standard Precautions, use Airborne Precautions for patients known or suspected to have serious illnesses transmitted by airborne droplet nuclei. Examples of such illnesses include:

1. Measles.
2. Varicella (including disseminated zoster).†
3. Tuberculosis.‡

DROPLET PRECAUTIONS

In addition to Standard Precautions, use Droplet Precautions for patients known or suspected to have serious illnesses transmitted by large-particle droplets. Examples of such illnesses include:

1. Invasive *Haemophilus influenzae* type b disease, including meningitis, pneumonia, epiglottitis, and sepsis.
2. Invasive *Neisseria meningitidis* disease, including meningitis, pneumonia, and sepsis.
3. Other serious bacterial respiratory infections spread by droplet transmission, including:
   a. Diphtheria (pharyngeal)
   b. Mycoplasma pneumonia
   c. Pertussis
   d. Pneumonic plague
   e. Streptococcal pharyngitis, pneumonia, or scarlet fever in infants and young children
4. Serious viral infections spread by droplet transmission, including:
   a. Adenovirus†
   b. Influenza
   c. Mumps
   d. Parvovirus B19
   e. Rubella

CONTACT PRECAUTIONS

In addition to Standard Precautions, use Contact Precautions for patients known or suspected to have serious illnesses easily transmitted by direct patient contact or by contact with items in the patient's environment. Examples of such illnesses include:

1. Gastrointestinal, respiratory, skin, or wound infections or colonization with multidrug-resistant bacteria judged by the infection control program, based on current state, regional, or national recommendations, to be of special clinical and epidemiologic significance.
2. Enteric infections with a low infectious dose or prolonged environmental survival, including:
   a. *Clostridium difficile.*
   b. For diapered or incontinent patients: enterohemorrhagic *Escherichia coli* O157:H7, *Shigella*, hepatitis A, or rotavirus.
3. Respiratory syncytial virus, parainfluenza virus, or enteroviral infections in infants and young children.
4. Skin infections that are highly contagious or that may occur on dry skin, including:
   a. Diphtheria (cutaneous).
   b. Herpes simplex virus (neonatal or mucocutaneous).
   c. Impetigo.
   d. Major (noncontained) abscesses, cellulitis, or decubiti.
   e. Pediculosis.
   f. Scabies.
   g. Staphylococcal furunculosis in infants and young children.
   h. Zoster (disseminated or in the immunocompromised host).†
5. Viral/hemorrhagic conjunctivitis.
6. Viral hemorrhagic infections (Ebola, Lassa, or Marburg).*

*See Table C-2 on p. C-13 for a complete listing of infections requiring precautions, including appropriate footnotes.
†Certain infections require more than one type of precaution.
‡See CDC: *Guidelines for Preventing the Transmission of Tuberculosis in Health-Care Facilities.*[22]

Table C-1 Clinical syndromes or conditions warranting additional empiric precautions to prevent transmission of epidemiologically important pathogens pending confirmation of diagnosis*

Clinical syndrome or condition†	Potential pathogens‡	Empiric precautions
Diarrhea		
Acute Diarrhea with a likely infectious cause in an incontinent or diapered patient	Enteric pathogens§	Contact
Diarrhea in an adult with a history of recent antibiotic use	*Clostridium difficile*	Contact
Meningitis	*Neisseria meningitidis*	Droplet
Rash or exanthems, generalized, etiology unknown		
Petechial/ecchymotic with fever	*N. meningitidis*	Droplet
Vesicular	Varicella	Airborne and contact
Maculopapular with coryza and fever	Rubeola (measles)	Airborne
Respiratory infections		
Cough/fever/upper lobe pulmonary infiltrate in an HIV-negative patient and/or a patient at low risk for HIV infection	*M. tuberculosis*	Airborne
Cough/fever/pulmonary infiltrate in any lung location in an HIV-infected patient and/or a patient at high risk for HIV infection[22]	*M. tuberculosis*	Airborne
Paroxysmal or severe persistent cough during periods of pertussis activity	*Bordetella pertussis*	Droplet
Respiratory infections, particularly bronchiolitis and croup, in infants and young children	Respiratory syncytial or parainfluenza virus	Contact
Risk of multidrug-resistant microorganisms		
History of infection or colonization with multidrug-resistant organisms‖	Resistant bacteria	Contact
Skin, wound, or urinary tract infection in a patient with a recent hospital or nursing home stay in a facility where multidrug-resistant organisms are prevalent	Resistant bacteria	Contact
Skin or wound infection		
Abscess or draining wound that cannot be covered	*Staphylococcus aureus*, group A streptococcus	Contact

*Infection control professionals are encouraged to modify or adapt this table according to local conditions. To ensure that appropriate empiric precautions are always implemented, hospitals must have systems in place to routinely evaluate patients according to these criteria as part of their preadmission and admission care.

†Patients with the syndromes or conditions listed below in this footnote present with atypical signs or symptoms (e.g., pertussis in neonates and adults may not have paroxysmal or severe cough). The clinician's index of suspicion should be guided by the prevalence of specific conditions in the community as well as clinical judgement.

‡The organisms listed under the column "Potential Pathogens" are not intended to represent the complete or even most likely diagnosis, but rather possible etiologic agents that require additional precautions beyond Standard Precautions until they can be ruled out.

§These pathogens include enterhemorrhagic *E. coli* O157:H7, *Shigella*, hepatitis A, and rotavirus.

‖ Resistant bacteria judged by the infection control program, based on current state, regional or national recommendations, to be of special clinical or epidemiologic significance.

(1) Hand washing
   (a) Wash hands after touching blood, body fluids, secretions, excretions, and contaminated items, whether or not gloves are worn. Wash hands immediately after gloves are removed, between patient contacts, and when otherwise indicated to avoid transfer of microorganisms to other patients or environments. It may be necessary to wash hands between tasks and procedures on the same patient to prevent cross-contamination of different body sites. *Category IB*
   (b) Use a plain (nonantimicrobial) soap for routine hand washing. *Category IB*
   (c) Use an antimicrobial agent or waterless antiseptic agent for specific circumstances (e.g., control of outbreaks or hyperendemic infections) as defined by the infection control program. *Category IB* (See Contact Precautions for additional recommendations for using antimicrobial and antiseptic agents.)

(2) Gloves
   Wear gloves (clean nonsterile gloves are adequate) when touching blood, body fluids, secretions, excretions, and contaminated items; put on clean gloves just before touching mucous membranes and nonintact skin. Change gloves between tasks and procedures on the same patient after contact with material that may contain a high concentration of microorganisms. Remove gloves promptly after use, before touching noncontaminated items and environmental surfaces, and before going to another patient, and wash hands immediately to avoid transfer of microorganisms to other patients or environments. *Category IB*

(3) Mask, eye protection, face shield
   Wear a mask and eye protection or a face shield to protect mucous membranes of the eyes, nose, and mouth during procedures and patient-care activities that are likely to generate splashes or sprays of blood, body fluids, secretions, and excretions. *Category IB*

(4) Gown
   Wear a gown (a clean nonsterile gown is adequate) to protect skin and prevent soiling of clothing during procedures and patient-care activities that are likely to generate splashes or sprays of blood, body fluids, secretions, or excretions or cause soiling of clothing. Select a gown that is appropriate for the activity and amount of fluid likely to be encountered. Remove a soiled gown as promptly as possible and wash hands to avoid transfer of microorganisms to other patients or environments. *Category IB*

(5) Patient-care equipment
   Handle used patient-care equipment soiled with blood, body fluids, secretions, and excretions in a manner that prevents skin and mucous membrane exposures, contamination of clothing, and transfer of microorganisms to other patients and environments. Ensure that reusable equipment is not used for the care of another patient until it has been appropriately cleaned and reprocessed and single-use items are properly discarded. *Category IB*

(6) Environmental control
   Ensure that the hospital has adequate procedures for the routine care, cleaning, and disinfection of environmental surfaces, beds, bedrails, bedside equipment, and other frequently touched surfaces and that these procedures are being followed. *Category IB*

(7) Linen
   Handle, transport, and process used linen soiled with blood, body fluids, secretions, and excretions in a manner that prevents skin and mucous membrane exposures and contamination of clothing and avoids transfer of microorganisms to other patients and environments. *Category IB*

(8) Occupational health and blood-borne pathogens
   (a) Take care to prevent injuries when using needles, scalpels, and other sharp instruments or devices; when handling sharp instruments after procedures; when cleaning used instruments; and when disposing of used needles. Never recap used needles or otherwise manipulate them with both hands or any other technique that involves directing the point of a needle toward any part of the body; rather, use either a one-handed "scoop" technique or a mechanical device designed for holding the needle sheath. Do not

remove used needles from disposable syringes by hand; and do not bend, break, or otherwise manipulate used needles by hand. Place used disposable syringes and needles, scalpel blades, and other sharp items in appropriate puncture-resistant containers located as close as practical to the area in which the items were used; and place reusable syringes and needles in a puncture-resistant container for transport to the reprocessing area. *Category IB*

(b) Use mouthpieces, resuscitation bags, or other ventilation devices as an alternative to mouth-to-mouth resuscitation methods in areas where the need for resuscitation is predictable. *Category IB*

(9) Patient placement
Place a patient who contaminates the environment or who does not (or cannot be expected to) assist in maintaining appropriate hygiene or environmental control in a private room. If a private room is not available, consult with infection control professionals regarding patient placement or other alternatives. *Category IB*

c) Airborne precautions
In addition to Standard Precautions, use Airborne Precautions, or the equivalent, for patients known or suspected to be infected with microorganisms transmitted by airborne droplet nuclei (small-particle residue [5 μ or smaller in size] of evaporated droplets containing microorganisms that remain suspended in the air and can be widely dispersed by air currents within a room or over a long distance). *Category IB*

(1) Patient placement
Place the patient in a private room that has

(a) Monitored negative air pressure in relation to the surrounding areas

(b) 6 to 12 air changes per hour

(c) Appropriate discharge of air outdoors or monitored high-efficiency filtration of room air before the air is circulated to other areas in the hospital[22] Keep the room door closed and the patient in the room. When a private room is not available, place the patient in a room with a patient who has active infection with the same microorganism, unless otherwise recommended,[22] but with no other infection. When a private room is not available and cohorting is not desirable, consultation with infection control professionals is advised before patient placement. *Category IB*

(2) Respiratory protection
Wear respiratory protection when entering the room of a patient with known or suspected infectious pulmonary tuberculosis.[22,29] Susceptible persons should not enter the room of patients known or suspected to have measles (rubeola) or varicella (chickenpox) if other immune caregivers are available. If susceptible persons must enter the room of a patient known or suspected to have measles (rubeola) or varicella, they should wear respiratory protection.[29] Persons immune to measles (rubeola) or varicella need not wear respiratory protection. *Category IB*

(3) Patient transport
Limit the movement and transport of the patient from the room to essential purposes only. If transport or movement is necessary, minimize patient dispersal of droplet nuclei by placing a surgical mask on the patient, if possible. *Category IB*

(4) Additional precautions for preventing transmission of tuberculosis
Consult CDC *Guidelines for Preventing the Transmission of Tuberculosis in Health-Care Facilities*[22] for additional prevention strategies.

d) Droplet precautions
In addition to Standard Precautions, use Droplet Precautions or the equivalent for a patient known or suspected to be infected with microorganisms transmitted by droplets (large-particle droplets [larger than 5 μ in size] that can be generated by the patient during coughing, sneezing, talking, or the performance of procedures). *Category IB*

(1) Patient placement
Place the patient in a private room. When a private room is not available, place the patient in a room with a patient(s) who has active infection with the same microorganism, but with no other infection (cohorting). When a private room is not available and cohorting is not achievable, maintain spatial separation of at least 3

feet between the infected patient and other patients and visitors. Special air handling and ventilation are not necessary, and the door may remain open. *Category IB*

(2) Mask
In addition to standard precautions, wear a mask when working within 3 feet of the patient. (Logistically, some hospitals may want to implement the wearing of a mask to enter the room.) *Category IB*

(3) Patient transport
Limit the movement and transport of the patient from the room to essential purposes only. If transport or movement is necessary, minimize patient dispersal of droplets by masking the patient, if possible. *Category IB*

e) Contact precautions
In addition to Standard Precautions, use Contact Precautions, or the equivalent, for specified patients known or suspected to be infected or colonized with epidemiologically important microorganisms that can be transmitted by direct contact with the patient (hand or skin-to-skin contact that occurs when performing patient-care activities that require touching the patient's dry skin) or indirect contact (touching) with environmental surfaces or patient-care items in the patient's environment. *Category IB*

(1) Patient placement
Place the patient in a private room. When a private room is not available, place the patient in a room with a patient(s) who has active infection with the same microorganism, but with no other infection (cohorting). When a private room is not available and cohorting is not achievable, consider the epidemiology of the microorganism and the patient population when determining patient placement; consultation with infection control professionals is advised before patient placement. *Category IB*

(2) Gloves and hand washing
In addition to wearing gloves as outlined under Standard Precautions, wear gloves (clean nonsterile gloves are adequate) when entering the room. During the course of providing care for a patient, change gloves after having contact with infective material that may contain high concentrations of microorganisms (fecal material and wound drainage). Remove gloves before leaving the patient's room and wash hands immediately with an antimicrobial agent or a waterless antiseptic agent.[9,42] After glove removal and hand washing, ensure that hands do not touch potentially contaminated environmental surfaces or items in the patient's room to avoid transfer of microorganisms to other patients or environments. *Category IB*

(3) Gown
In addition to wearing a gown as outlined under Standard Precautions, wear a gown (a clean nonsterile gown is adequate) when entering the room if you anticipate that your clothing will have substantial contact with the patient, environmental surfaces, or items in the patient's room; or if the patient is incontinent or has diarrhea, an ileostomy, a colostomy, or wound drainage not contained by a dressing. Remove the gown before leaving the patient's environment. After gown removal, ensure that clothing does not contact potentially contaminated environmental surfaces to avoid transfer of microorganisms to other patients or environments. *Category IB*

(4) Patient transport
Limit the movement and transport of the patient from the room to essential purposes only. If the patient is transported out of the room, ensure that precautions are maintained to minimize the risk of transmission of microorganisms to other patients and contamination of environmental surfaces or equipment. *Category IB*

(5) Patient-care equipment
When possible, dedicate the use of noncritical patient-care equipment to a single patient (or cohort of patients infected or colonized with the pathogen requiring precautions) to avoid sharing between patients. If use of common equipment or items is unavoidable, then adequately clean and disinfect them before use for another patient. *Category IB*

(6) Additional precautions for preventing the spread of vancomycin resistance
Consult the HICPAC report on preventing the spread of vancomycin resistance for additional prevention strategies.[42]

Table C-2 Type and duration of precautions needed for selected infections and conditions

Infection/condition	Precautions	
	Type*	Duration†
Abscess		
Draining, major[a]	C	DI
Draining, minor or limited[b]	S	
Acquired immunodeficiency syndrome (AIDS)[c]	S	
Actinomycosis	S	
Adenovirus infection, in infants and young children	D,C	DI
Amebiasis	S	
Anthrax		
Cutaneous	S	
Pulmonary	S	
Antibiotic-associated colitis (see *Clostridium difficile*)		
Arthropodborne viral encephalitides (eastern western, Venezuelan equine encephalomyelitis; St. Louis, California encephalitis)	S[d]	
Arthropod-borne viral fevers (dengue, yellow fever, Colorado tick fever)	S[d]	
Ascariasis	S	
Aspergillosis	S	
Babesiosis	S	
Blastomycosis, North American, cutaneous or pulmonary	S	
Botulism	S	
Bronchiolitis (see respiratory infections in infants and young children)		
Brucellosis (undulant, Malta, Mediterranean fever)	S	
Campylobacter gastroenteritis (see gastroenteritis)		
Candidiasis, all forms, including mucocutaneous	S	
Cat-scratch fever (benign inoculation lymphoreticulosis)	S	
Cellulitis, uncontrolled drainage	C	DI

*Type of precautions: *A*, Airborne; *C*, Contact; *D*, Droplet; *S*, Standard; when A, C, and D are specified, also use S. *Continued.*
†Duration of precautions: *CN*, Until off antibiotics and culture negative; *DH*, duration of hospitalization; *DI*, duration of illness (with wound lesions, DI means until they stop draining); *U*, until time specified in hours (Hrs) after initiation of effective therapy; *F*, see footnote number.

Table C-2 Type and duration of precautions needed for selected infections and conditions—cont'd

Infection/condition	Precautions	
	Type*	Duration†
Chancroid (soft chancre)	S	
Chickenpox (varicella) (see F[e] for varicella exposure)	A, C	F[e]
Chlamydia trachomatis		
Conjunctivitis	S	
Genital	S	
Respiratory	S	
Cholera (see gastroenteritis)		
Closed-cavity infection		
Draining, limited or minor	S	
Not draining	S	
Clostridium		
C. botulium	S	
C. difficile	C	DI
C. perfringens		
Food poisoning	S	
Gas gangrene	S	
Coccidioidomycosis (valley fever)		
Draining lesions	S	
Pneumonia	S	
Colorado tick fever	S	
Congenital rubella	C	F[f]
Conjunctivitis		
Acute bacterial	S	
Chlamydia	S	
Gonococcal	S	
Acute viral (acute hemorrhagic)	C	DI

Table C-2 Type and duration of precautions needed for selected infections and conditions—cont'd

Infection/condition	Precautions	
	Type*	Duration†
Coxsackie virus disease (see enteroviral infection)		
Creutzfeldt-Jakob disease	S[g]	
Croup (see respiratory infections in infants and young children)		
Cryptococcosis	S	
Cryptosporidiosis (see gastroenteritis)		
Cysticercosis	S	
Cytomegalovirus infection, neonatal or immunosuppressed	S	
Decubitus ulcer, infected		
Major[a]	C	DI
Minor or limited[b]	S	
Dengue	S[d]	
Diarrhea, acute—infective etiology suspected (see gastroenteritis)		
Diphtheria		
Cutaneous	C	CN[h]
Pharyngeal	D	CN[h]
Ebola viral menorrhagic fever	C[i]	DI
Echinococcosis (hydatidosis)	S	
Echovirus (see enteroviral infection)		
Encephalitis or encephalomyelitis (see specific etiologic agents)		
Endometritis	S	
Enterobiasis (pinworm disease, oxyuriasis)	S	
Enterococcus spp. (see multidrug-resistant organisms if epidemiologically significant or vancomycin resistant)		
Enterocolitis, *Clostridium difficile*	C	DI
Enteroviral infections		
Adults	S	
Infants and young children	C	DI

Continued.

Table C-2 Type and duration of precautions needed for selected infections and conditions—cont'd

Infection/condition	Precautions	
	Type*	Duration†
Epiglottitis, due to *Haemophilus influenzae*	D	U[24 Hrs]
Epstein-Barr virus infection, including infectious mononucleosis	S	
Erythema infectiosum (also see parvovirus B19)	S	
Escherichia coli gastroenteritis (see gastroenteritis)		
Food poisoning		
Botulism	S	
Clostridium perfringens or *Clostridium welchii*	S	
Staphylococcal	S	
Furunculosis—staphylococcal		
Infants and young children	C	DI
Gangrene (gas gangrene)	S	
Gastroenteritis		
Campylobacter spp.	S[j]	
Cholera	S[j]	
Clostridium difficile	C	DI
Cryptosporidium spp.	S[j]	
E. coli		
Enterohemorrhagic O157:H7	S[j]	
Diapered or incontinent	C	DI
Other species	S[j]	
Giardia lamblia	S[j]	
Rotavirus	S[j]	
Diapered or incontinent	C	DI
Salmonella spp. (including *S. typhi*)	S[j]	
Shigella spp.	S[j]	
Diapered or incontinent	C	DI

Table C-2 Type and duration of precautions needed for selected infections and conditions—cont'd

Infection/condition	Precautions	
	Type*	Duration†
Vibrio parahaemolyticus	S[j]	
Viral (if not covered elsewhere)	S[j]	
Yersinia enterocolitica	S[j]	
German measles (rubella)	D	F[v]
Giardiasis (see gastroenteritis)		
Gonococcal ophthalmia neonatorum (gonorrheal ophthalmia, acute conjunctivitis of newborn)	S	
Gonorrhea	S	
Granuloma inguinale (donovaniasis, granuloma venereum)	S	
Guillain-Barré syndrome	S	
Hand, foot, and mouth disease (see enteroviral infection)		
Hantavirus pulmonary syndrome	S	
Helicobacter pyloria	S	
Hemorrhagic fevers (for example, Lassa and Ebola)[i]	C[i]	DI[i]
Hepatitis, viral		
Type A	S	
Diapered or incontinent patients	C	F[k]
Type B-HBsAg positive	S	
Type C and other unspecified non-A, non-B	S	
Type E	S	
Herpangina (see enteroviral infection)		
Herpes simplex (*Herpesvirus hominis*)		
Encephalitis	S	
Neonatal[l] (see F[l] for neonatal exposure)	C	DI
Mucocutaneous, disseminated or primary, severe	C	DI
Mucocutaneous, recurrent (skin, oral, genital)	S	

Continued.

Table C-2 Type and duration of precautions needed for selected infections and conditions—cont'd

Infection/condition	Precautions	
	Type*	Duration†
Herpes zoster (varicella-zoster)		
Localized in immunocompromised patient, or disseminated	A,C	DI[m]
Localized in normal patient	S[m]	
Histoplasmosis	S	
HIV (see human immunodeficiency virus)	S	
Hookworm disease (ancylostomiasis, uncinariasis)	S	
Human immunodeficiency virus (HIV) infection[e]	S	
Impetigo	C	U[24 Hrs]
Infectious mononucleosis	S	
Influenza	D[n]	DI
Kawasaki syndrome	S	
Lassa fever[i]	C	DI
Legionnaires' disease	S	
Leprosy	S	
Leptospirosis	S	
Lice (pediculosis)	C	U[24 Hrs]
Listeriosis	S	
Lyme disease	S	
Lymphocytic choriomeningitis	S	
Lymphogranuloma venereum	S	
Malaria	S[d]	
Marburg virus disease	C[i]	DI
Measles (rubeola), all presentations	A	DI
Melioidosis, all forms	S	
Meningitis		
Aseptic (nonbacterial or viral meningitis) (also see enteroviral infections)	S	

Table C-2 Type and duration of precautions needed for selected infections and conditions—cont'd

Infection/condition	Precautions	
	Type*	Duration†
Bacterial, gram-negative enteric, in neonates	S	
Fungal	S	
Haemophilus influenzae, known or suspected	D	U[24 Hrs]
Listeria monocytogenes	S	
Neisseria meningitidis (menigococcal) known or suspected	D	U[24 Hrs]
Pneumococcal	S	
Tuberculosis[o]	S	
Other diagnosed bacterial	S	
Meningococcal pneumonia	D	U[24 hrs]
Meningococcemia (meningococcal sepsis)	D	U[24 Hrs]
Molluscum contagiosum	S	
Mucormycosis	S	
Multidrug-resistant organisms, infection or colonization[p]		
Gastrointestinal	C	CN
Respiratory	C	CN
Pneumococcal	S	
Skin, wound, or burn	C	CN
Mumps (infectious parotitis)	D	F[q]
Mycobacteria, nontuberculosis (atypical)		
Pulmonary	S	
Wound	S	
Mycoplasma pneumonia	D	DI
Necrotizing enterocolitis	S	
Nocardiosis, draining lesions, or other presentations	S	
Norwalk agent gastroenteritis (see viral gastroenteritis)		
Orf	S	

Continued.

Table C-2 Type and duration of precautions needed for selected infections and conditions—cont'd

Infection/condition	Precautions	
	Type*	Duration†
Parainfluenza virus infection, respiratory in infants and young children	C	DI
Parvovirus B19	D	F[r]
Pediculosis (lice)	C	U[24 Hrs]
Pertussis (whooping cough)	D	F[s]
Pinworm infection	S	
Plague		
Bubonic	S	
Pneumonic	D	U[72 Hrs]
Pleurodynia (see enteroviral infection)		
Pneumonia		
Adenovirus	D,C	DI
Bacterial not listed elsewhere (including gram-negative bacterial)	S	
Burkholderia cepacia in cystic fibrosis patients, including respiratory tract colonizations	S[t]	
Chlamydia	S	
Fungal	S	
Haemophilus influenzae		
Adults	S	
Infants and children (any age)	D	U[24 Hrs]
Legionella	S	
Meningococcal	D	U[24 Hrs]
Multidrug-resistant bacterial (see multidrug-resistant organisms)		
Mycoplasma (primary atypical pneumonia)	D	DI
Pneumococcal		
Multidrug-resistant (see multidrug-resistant organisms)		
Pneumocystis carinii	S[u]	

Table C-2 Type and duration of precautions needed for selected infections and conditions—cont'd

Infection/condition	Precautions	
	Type*	Duration†
Pseudomonas cepacia (see *Burkholderia cepacia*)	S[t]	
Staphylococcus aureus		
Streptococcus, group A		
Adults	S	
Infants and young children	D	U[24 Hrs]
Viral		
Adults	S	
Infants and young children (see respiratory infectious disease, acute)		
Poliomyelitis	S	
Psittacosis (ornithosis)	S	
Q fever	S	
Rabies	S	
Rat-bite fever (*Streptobacillus moniliformis* disease, *Spirillum minus* disease)	S	
Relapsing fever	S	
Resistant bacterial infection or colonization (see multidrug-resistant organisms)		
Respiratory infectious disease, acute (if not covered elsewhere)		
Adults	S	
Infants and young children[c]	C	DI
Respiratory syncytial virus infection, in infants and young children, and immunocompromised adults	C	DI
Reye syndrome	S	
Rheumatic fever	S	
Rickettsial fevers, tickborne (Rocky Mountain spotted fever, tickborne typhus fever)	S	
Rickettsialpox (vesicular rickettsiosis)	S	
Ringworm (dermatophytosis, dermatomycosis, tinea)	S	

Continued.

Table C-2 Type and duration of precautions needed for selected infections and conditions—cont'd

Infection/condition	Precautions	
	Type*	Duration†
Ritter's disease (staphylococcal scalded skin syndrome)	S	
Rocky Mountain spotted fever	S	
Roseola infantum (exanthem subitum)	S	
Rotavirus infection (see gastroenteritis)		
Rubella (German measles) (also see congenital rubella)	D	F[v]
Salmonellosis (see gastroenteritis)		
Scabies	C	U[24 Hrs]
Scalded skin syndrome, staphylococcal (Ritter's disease)	S	
Schistosomiasis (bilharziasis)	S	
Shigellosis (see gastroenteritis)		
Sporotrichosis	S	
Spirillum minus disease (rat-bite fever)	S	
Staphylococcal disease (*S. aureus*)		
Skin, wound, or burn		
Major[a]	C	DI
Minor or limited[b]	S	
Enterocolitis	S[j]	
Multidrug-resistant (see multidrug-resistant organisms)		
Pneumonia	S	
Scalded skin syndrome	S	
Toxic shock syndrome	S	
Streptobacillus moniliformis disease (rat-bite fever)	S	
Streptococcal disease (group A *Streptococcus*)		
Skin, wound, or burn		
Major[a]	C	U[24 Hrs]
Minor or limited[b]	S	

Table C-2 Type and duration of precautions needed for selected infections and conditions—cont'd

Infection/condition	Precautions	
	Type*	Duration†
Endometritis (puerperal sepsis)	S	
Pharyngitis in infants and young children	D	U[24 Hrs]
Pneumonia in infants and young children	D	U[24 Hrs]
Scarlet fever in infants and young children	D	U[24 Hrs]
Streptococcal disease (group B *Streptococcus*), neonatal	S	
Streptococcal disease (not group A or B) unless covered elsewhere Multidrug-resistant (see multidrug-resistant organisms)	S	
Strongyloidiasis	S	
Syphilis		
Skin and mucous membrane, including congenital, primary, secondary	S	
Latent (tertiary) and seropositivity without lesions	S	
Tapeworm disease		
Hymenolepis nana	S	
Taenia solium (pork)	S	
Other	S	
Tetanus	S	
Tinea (fungus infection dermatophytosis, dermatomycosis, ringworm)	S	
Toxoplasmosis	S	
Toxic shock syndrome (staphylococcal disease)	S	
Trachoma, acute	S	
Trench mouth (Vincent's angina)	S	
Trichinosis	S	
Trichomoniasis	S	
Trichuriasis (whipworm disease)	S	

Continued.

Table C-2 Type and duration of precautions needed for selected infections and conditions—cont'd

Infection/condition	Precautions	
	Type*	Duration†
Tuberculosis		
Extrapulmonary, draining lesion (including scrofula)	S	
Extrapulmonary, meningitis[o]	S	
Pulmonary, confirmed or suspected or laryngeal disease	A	F[w]
Skin-test positive with no evidence of current pulmonary disease	S	
Tularemia		
Draining lesion	S	
Pulmonary	S	
Typhoid (*Salmonella typhi*) fever (see gastroenteritis)		
Typhus, endemic and epidemic	S	
Urinary tract infection (including pyelonephritis), with or without urinary catheter	S	
Varicella (chickenpox)	A, C	F[e]
Vibrio parahaemolyticus (see gastroenteritis)		
Vincent's angina (trench mouth)	S	
Viral diseases		
Respiratory (if not covered elsewhere)		
Adults	S	
Infants and young children (see respiratory infectious disease, acute)		
Whooping cough (pertussis)	D	F[s]
Wound infections		
Major[a]	C	DI
Minor or limited[b]	S	
Yersinia enterocolitica gastroenteritis (see gastroenteritis)		

Table C-2 Type and duration of precautions needed for selected infections and conditions—cont'd

Infection/condition	Precautions	
	Type*	Duration†
Zoster (varicella-zoster)		
Localized in immunocompromised patient, disseminated	A, C	DI[m]
Localized in normal patient	S[m]	
Zygomycosis (phycomycosis, mucormycosis)	S	

[a]No dressing or dressing does not adequately contain drainage.
[b]Dressing covers and adequately contains drainage.
[c]Also see syndromes or conditions listed in Table C-1.
[d]Install screens in windows and doors in endemic areas.
[e]Maintain precautions until all lesions are crusted. The average incubation period for varicella is 10 to 16 days with a range of 10 to 21 days. After exposure, use varicella zoster immune globulin (VZIG) when appropriate, and discharge susceptible patients if possible. Place exposed susceptible patients on Airborne Precautions beginning 10 days after exposure and continue until 21 days after last exposure (up to 28 days if VZIG has been given). Susceptible persons should not enter the room of patients on precautions if other immune caregivers are available.
[f]Place infant on precautions during any admission until 1 year of age unless nasopharyngeal and urine cultures are negative for virus after age 3 months.
[g]Additional special precautions are necessary for handling and decontamination of blood, body fluids and tissues, and contaminated items from patients with confirmed or suspected disease. See latest College of American Pathologists (Northfield, Illinois) guidelines or other references.
[h]Until two cultures taken at least 24 hours apart are negative.
[i]Call state health department and CDC for specific advice about management of a suspected case. During the 1995 Ebola outbreak in Zaire, interim recommendations were published.[46] Pending a comprehensive review of the epidemiologic data from the outbreak and evaluation of the interim recommendations, the 1988 guidelines for management of patients with suspected viral hemorrhagic infections[47] will be reviewed and updated if indicated.
[j]Use Contact Precautions for diapered or incontinent children <6 years of age for duration of illness.
[k]Maintain precautions in infants <3 years of age for duration of hospitalization; in children 3 to 14 years of age, until 2 weeks after onset of symptoms; and in others, until 1 week after onset of symptoms.
[l]For infants delivered vaginally or be C-section and if mother has active infection and membranes have been ruptured for more than 4 to 6 hours.
[m]Persons susceptible to varicella are also at risk for developing varicella when exposed to patients with herpes zoster lesions; therefore, susceptibles should not enter the room if other immune caregivers are available.
[n]The *Guideline for Prevention of Nosocomial Pneumonia*[44,45] recommends surveillance, vaccination, antiviral agents, and use of private rooms with negative air pressure as much as feasible for patients for whom influenza is suspected or diagnosed. Many hospitals encounter logistic difficulties and physical plant limitations when admitting multiple patients with suspected influenza during community outbreaks. If sufficient private rooms are unavailable, consider cohorting patients, or at the very least, avoid room-sharing with high risk patients. See *Guidelines for Prevention of Nosocomial Pneumonia*[44,45] for additional prevention and control strategies.
[o]Patient should be examined for evidence of current (active pulmonary tuberculosis. If evidence exists, additional precautions are necessary (see tuberculosis).
[p]Resistant bacteria judged by the infection control program, based on current state, regional, or national recommendations, to be of special clinical and epidemiologic significance.
[q]For 9 days after onset of swelling.
[r]Maintain precautions for duration of hospitalization when chronic disease occurs in an immunodeficient patient. For patients with transient aplastic crisis or red cell crisis, maintain precautions for 7 days.
[s]Maintain precautions until 5 days after patient is placed on effective therapy.
[t]Avoid cohorting or placement in the same room with a CF patient who is not infected or colonized with *B. cepacia*. Persons with CF who visit or provide care and are not infected or colonized with *B. Cepacia* may elect to wear a mask when within 3 feet of a colonized or infected patient.
[u]Avoid placement in the same room with an immunocompromised patient.
[v]Until 7 days after onset of rash.
[w]Discontinue precautions only when TB patient is on effective therapy, is improving clinically, and has 3 consecutive negative sputum smears collected on different days, or TB is ruled out. Also see CDC *Guidelines for Preventing the Transmission of Tuberculosis in Health-Care Facilities*.[22]

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Department Policies

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Department Policies-Departments for Review		9001
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2009	Hospital Wide	ICC

1. Administration / Admissions Office
2. Anesthesia
3. Central Sterile Supply
4. Dietary
5. Education / Staff Development
6. Emergency Department
7. Employee Health / Infection Control
8. Housekeeping / Linen
9. Home Health
10. Laboratory
11. Maintenance
12. Material Management
13. Health Information
14. Nursing - General
    OB
    Generations/ Generations Too
    SCU
15. Occupational Therapy
16. Pharmacy
17. Physical Therapy
18. Radiology
19. Respiratory Therapy
20. Rural Health Clinic
21. Social Services
22. Speech Therapy
23. Surgery-Day (Outpatient)
    Surgery Suite
24. UR/QI, Risk Management
25. Volunteers (Auxiliary, Ministerial, Teen Volunteers)
26. Wellness Center

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
General Recommendation Based on JCAHO Standards		9002
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 12/2009	Hospital Wide	ICC

There are written policies and procedures for infection surveillance, prevention, and control for all patient care departments/services.

The written policies and procedures are made known to personnel doing patient care procedures that are associated with potential for infection.

All personnel are competent to participate in infection monitoring, prevention, and control activities and are provided with any necessary orientation, on-the-job and in-service training, and continuing education.

All educational activity is documented.

The Infection Control Committee reviews and approves all policies and procedures related to infection surveillance, prevention, and control program and activities in all departments / services.

Review and approvals are documented in the minutes of the committee.

Annual scheduling of individual departmental policy review will be facilitated by listing control policies and procedures according to the following schedule:

JANUARY

A. Department Policy
   1. Admissions/Administration/BO
   2. Anesthesia
   3. Employee Health/IC
   4. Review Visiting Policy

B. Review Employee Health Plan

C. Visiting Policy

MARCH

A. Department Policy
   1. Wellness Center
   2. Volunteers
   3. UR/Risk Management
   4. Material Management

B. Review Exposure Control Plan

C. Yearly Bloodborne Pathogen Inservice

D. Review QI Plan

E. Review Engineering Control Equipment

MAY

A. Department Policy
   1. OT
   2. PT
   3. ER
   4. LAB
   5. ST

B. Inspect Laundry

C. Review Allocation Statement

JULY

A. Department Policy
   1. Nursing
   2. Radiology
   3. Pharmacy
   4. Maintenance

B. Review Infectious Waste Program

SEPTEMBER

A. Department Policy
   1. Surgery
   2. Central Sterile Supply
   3. Home Health
   4. Social Services
   5. Housekeeping

B. Review Sterilization Decontamination

C. Review Disinfectants and Cleaners

NOVEMBER

A. Department Policy
   1. Respiratory Therapy
   2. Dietary
   3. Health Information
   4. Education
   5. Rural Health Clinic

B. Review General Infection Control Policies

C. Review TB Policy

Each department supervisor will attend the Infection Control Committee meeting and present his/her policies for review and approval on the date specified.

DEPARTMENT POLICIES SPECIFIC

Administration / Admitting Office

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Administration/Admitting Office General		1101-a
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 1/10	Administrative	ICC

1. INTRODUCTION

Personnel working in administration and business office areas do not have as much contact with patients as personnel in treatment and diagnostic areas. With the exception of staff who work in the Admitting Office. (See Admitting Office Policies and procedures). Many times personnel are unaware of an infection the patient may have. All office personnel are oriented and in-serviced on the nature of HAI and ways of preventing or controlling them. Office staff is taught not only to understand infections and their spread, but also to know their role in infection control.

2. PERSONNEL

Employees must comply with Employee Health Policies. Hand washing is essential after using the toilet, after completing work, after patient contact, and before eating.

3. TRAFFIC CONTROL

Office personnel should stay in their designated areas as much as possible. If office personnel must go into patient areas, they should wash their hands before returning to their area.

4. HOUSEKEEPING

Housekeeping performs daily cleaning of Business Office and Administration areas. Trash is bagged and taken to the dumpster. There is no biohazardous waste in the Business Office or Administration.

5. EDUCATION

Personnel receive infection control information during their orientation period and ongoing annually thereafter in infection control updates. No specific infection control programs for Administration and Business Office is necessary due to their lack of direct patient contact.

6. REPORTING

Employee Health should report clustering of illness or outbreaks related to employment. The appearance of similar symptoms in more than three individuals will be investigated for a common source of infection. Infections among employees are reported through records of employee absences due to illness.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION		**FILING NUMBER:**
Admissions/ER Clerks		1101-b
EFFECTIVE DATES:	**APPLIES TO:**	**APPROVED BY:**
Revised 1/2010	Admissions	ICC

1. Purpose

To provide policies relevant to Admissions Department (including ER clerks) for Infection Control.

2. Personnel

Employees must comply with Employee Health Policies. Hand washing is essential after using the toilet, after completing work, after patient contact and before eating. Employees are encouraged to get Hepatitis B Vaccine.

3. Orientation

Personnel will attend orientation for new employees on the importance of Infection Control, personal hygiene and their responsibility in the Infection Control Program and will annually review the aspects of Infection Control along with all hospital employees. Orientation will include information on Bloodborne Pathogens and Tuberculosis Control.

4. Fit-testing

Admissions clerks will be included in the yearly MANDATORY fit-testing of N-95 respirators.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Visiting Policy		1101-c
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
2/2011	Hospital wide	ICC

I Purpose- To ensure that all visitors of patients of Ashley County Medical Center enjoy visitation privileges consistent with patient preferences and subject to the Hospital's Justified Clinical Restrictions.

II Scope- This policy applies to the Hospital, its physicians and clinical staff members and all Hospital personnel involved in the decision-making process with respect to patient visitation.

III Definitions-

A. Justified Clinical Restrictions- means any clinically necessary or reasonable restriction or limitation imposed by the Hospital on a patient's visitation rights which restriction and limitation is necessary to provide safe care to patient and other patients. A Justified Clinical Restriction may include, but need not be limited to one or more of the following: (i) a court order limiting or restraining contact; (ii) behavior presenting a direct risk or threat to the patient, Hospital staff, or others in the immediate environment; (iii) behavior disruptive of the functioning of the patient care unit; (iv) reasonable limitations on the number of visitors at any one time; (v) patient's risk of infection by the visitor; (vi) visitor's risk of infection by the patient; (vii) extraordinary protections because of a pandemic or infectious disease outbreak; (viii) mental health treatment protocols requiring restricted visitation; (ix) patient's need for privacy or rest; (x) when a patient is undergoing a clinical intervention or procedure and the treating health care professional believes it is in the patient's best interest to limit visitation during the clinical intervention or procedure.

B. Patient- means anyone admitted to the Hospital as an in-patient, out-patient or observation patient of the Hospital.

C. Support Person- means a family member, friend or other individual who is at the Hospital to support the patient during the course of the patient's stay at the Hospital and may exercise the patient's visitation rights on patient's behalf if patient is unable to do so. Such individual may but need not be an individual legally responsible for making medical decisions on the patient's behalf.

IV Policy

A. Statement of Patient Visitation Rights. Prior to care being provided, the Hospital shall inform each patient at the time he or she is informed of his or her other rights (or his or her Support Person, where

appropriate) in writing of; (i) patient's visitation rights; (ii) patient's right to receive the visitors whom he or she designates, including, but not limited to, a spouse, a domestic partner (including a same sex domestic partner), another family member, or a friend;
(iii) patient's right to withdraw or deny such consent at any time; and
(iv) Justified Clinical Restrictions which may be imposed on a patient's visitation rights. All visitors designated by the patient (or Support Person where appropriate) shall enjoy visitation privileges that are no more restrictive than those that immediate family members would enjoy.

B. **Selection of Visitors.** The Hospital shall accept verbal confirmation from a patient of individuals who should be admitted as visitors of the patient and individual who should be denied visitation rights. The Hospital may record such information in the patient's records for future reference. In the event the patient is a minor, the legal parent of the minor shall be given the opportunity to verbally designate the individuals permitted to visit the minor patient.

C. **Selection of a Support Person.** A patient may verbally designate a Support Person to exercise the patient's visitation rights on his or her behalf, should the patient be unable to do so. Upon such designation by a patient, the legal status of the relationship between the patient and the designated Support Person shall be irrelevant. This designation of an individual as the patient's Support Person however does not extend to medical decision making. In the event the patient is unable to exercise his or her patient visitation rights, the Hospital shall recognize the Support Person's verbal directive as to who should be admitted as visitors of the patient and individuals who should be denied visitation rights with respect to such patient.

D. **Incapacitated Patients.** In the event a patient is unable to select visitors due to incapacitation and such patient has not designated a Support Person to exercise the patient's visitation rights, the Hospital may consider the following non-exhaustive forms of proof to establish the appropriateness of a visitor or to designate a Support Person for the incapacitated patient when two or more individuals claim to be the incapacitated patient's Support Person capable of exercising the patient's visitation rights; (i) an advanced directive naming the individual as a support person, approved visitor, or designated decision maker (regardless of the State in which the directive is established); (ii) shared residence; (iii) shared ownership of a property or business; (iv) financial interdependence; (v) marital/relationship status; (vi) existence of a legal relationship (may be a legal relationship recognized in another jurisdiction, even if not recognized in the Hospital's jurisdiction, including: parent-child, civil union, marriage, or domestic partnership); (vii) acknowledgement of a committed relationship (e.g., an affidavit); or (viii) written documentation of a

patient's chosen individual(s) even if it is not a legally recognized advanced directive.

E. Justified Clinical Restriction on Patient's Visitation Rights. The Hospital may impose Justified Clinical Restrictions on a patient's visitation rights. When restricting visitation rights, the Hospital shall explain to the patient (or Support Person as applicable) the reasons for the restrictions or limitations on the patient's visitation rights and how the Hospital's visitation policies are aimed at protecting the health and safety of all patients.

The Hospital shall not restrict, limit or otherwise deny visitation privileges on the basis of race, color, national origin, religion, sex, gender identity, sexual orientation or disability.

V. Grievance. If any patient of the Hospital believes that his or her patient visitation rights have been violated, they may file a complain using the Hospital's internal grievance system.

Anesthesia

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Anesthesia		1102
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 1/2010	Anesthesia	ICC

PURPOSE

Anesthetists have contact with respiratory mucosa and secretion. In addition, these professionals mix and administer a variety of intravenous medications to patients during times of severe compromise of natural resistance. Finally, they control physiology in patients during acute recovery from anesthesia. The nature of these activities mandates careful control of infection hazards.

The policies and procedures outlined here should give guidelines for personnel working in anesthesia services.

RESPONSIBLILITIES

1. Anesthesia Providers

    a. Assure compliance with hospital infection control policies.

    b. Prepare and revise guidelines on care of infected patients and prevention for approval by the Infection Control Committee.

    c. Maintain a safe health status appropriate to an anesthesia service.

    d. Monitor maintenance and cleaning of anesthesia equipment.

    e. Universal / Standard precautions to be observed.

2. Infection Control Nurse / Epidemiologist

    a. Collaborates with the Anesthesia Service in education programs.

    b. Assists in formulation of infection control guidelines.

    c. Periodically assess the adherence to the infection control guidelines.

    d. Investigates outbreaks and single episodes of infections in surgical patients.

3. Infection Control Committee

a. Review and approve policies and procedures.

b. Review results of environmental cultures and follow-up as necessary.

PERSONNEL

1. Employee Health

a. Anesthesia Providers should comply with employee health program.

b. An Anesthesia Provider with and elevated temperature, draining lesion or possible contagious disease should not have direct patient contact.

c. Eating and drinking must be restricted to lounge or office areas.

d. Infection Control Nurse shall be notified of contagious diseases.

2. Dress Code

All persons who enter Surgery or Delivery Room Suites (during delivery) must wear the approved surgical scrub uniform.

a. Cap or hood as head cover.

b. High efficiency mask to fully cover mouth and nose, changed after each case or when moist. It should not be hung around neck outside of or in suite.

3. Handwashing

a. Hands and lower arms should be scrubbed prior to first case and between cases, using friction, soap, and running water.

b. Alcohol base products may be used between patients as an alternative to soap and water.

4. Education

Anesthesia Providers should participate in periodic in-service on infection control methods. Attendance should be documented.

PATIENTS

1. Intravenous and arterial lines

a. Skin should be prepped with one-minute alcohol scrub.

b. Following insertion of I.V. needle or cannula, the site is covered by an occlusive dressing.

c. I.V. supplies should be disposable and discarded after one use.

d. Used needles should be placed in an impervious container which is sealed shut and disposed of when full in contaminated materials container.

2. Anesthesia Providers will wear sterile gloves when administering regional anesthesia.

3. Isolation

a. Patients with known infection, including tuberculosis, should have a complete disposable circuit, including C O absorbers. Equipment and supplies must be discarded after use by double bagging and labeling for incineration.

b. Isolation technique approved for the Operating Room should be followed according to type of isolation as per hospital policy.

EQUIPMENT

Disposable equipment should be used where possible. Any disposables must be discarded after one-time use.

Cleaning of anesthesia equipment is the responsibility of O R Staff and / or Anesthesia Provider.

1. Face masks, breathing bags, corrugated tubing and connectors should be disposable. Reusable items should be cleaned after use using the following process:

   a. Pre-rinsed with cold water.

   b. Washed with detergent, water and scrub brush. Manipulate tubing to eliminate air pockets.

   c. Rinsed, dried.

   d. Soaked in germicide for 15 minutes. Fill bag completely with solution.

   e. Rinse in sterile water three times, dried.

   f. Stored in anesthesia machine.

2. Laryngoscope blades, after use

   a. Rinsed in cold water.

   b. Washed with detergent and water. Rinsed, dried.

c. Soaked in germicide 15 minutes, rinsed (or refer to manufacturer's recommended sterilization procedure).

d. Stored on anesthesia cart.

3. Endotracheal tubes

   Disposable tubes are discarded after one use. All tubes should be kept sterile before use. Only disposable ET tubes are used.

4. Airways are disposable and are discarded after one use.

5. Suction tips and tubing should be disposable.

   a. Suction catheters should be discarded after one-time use.

   b. Suction tubing and bottles should be changed after each use.

6. Soda-lime containers should be

   a. Changed when color change indicates need.

   b. The bacterial filter is part of the breathing circuit and is discarded after each use.

7. Anesthesia machines

   a. Once weekly, clean machine according to instructions of manufacturer.

8. Anesthesia carts

   a. Wipe outside surfaces with germicide as needed.

   b. The entire cart should be cleaned periodically, inside and out, the drawers emptied and wiped with detergent germicide.

9. Blood pressure cuffs

   a. Soiled cuffs should be wiped with germicide solution.

   b. Disposable covers should be properly disposed of if used; bladder of cuff and tubing should be wiped with germicide when cover off.

10. Medications

    a. Single-dose vials should be used whenever possible.

    b. Multiple-dose vials should be dated when opened. Follow aseptic technique and Pharmacy policy for outdating.

CONTROLS

1. Reports of respiratory infections in surgical patients should be sent to Anesthesia Services and review documented.

Central Sterile Supply

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTOL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Central Sterile Supply		1103
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed10/2010	Central Sterile Supply	ICC

PURPOSE:

Infection control guidelines for sterile processing and sterile supply storage provide standardized policies and procedures for receiving, processing, storing and issuing various kinds of materials, including items sterilized in the hospital, items purchased pre-sterilized, and equipment requiring cleaning and repairing before use.

Since SPD is recognized as a high–risk area within the hospital, rigid standards for construction, personnel, and products must be maintained.

PERSONNEL:

EMPLOYEE HEALTH:

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1. Employees must comply with the Hospital Employee Health Program.

2. Personnel should not work if they have skin, respiratory or gastrointestinal infection.

3. Eating, drinking, and smoking must not be permitted in department.

4. Standard precautions will be observed.

Personal Hygiene:

Handwashing- Hands and fingernails must be washed upon arrival to department. Hands must be washed before leaving the area, after each visit to the toilet, and as needed after each contaminated process. Fingernails should be kept short. Nail polish should not be worn.

Dress Code:

1. Hair should be kept clean. While in the department, hair must be kept completely covered by a disposable cap which must be changed each day.
2. Each employee should change into clean scrub clothes provided daily by the hospital.
3. Attire for decontamination room includes scrub suit, plastic apron, disposable gloves, mask, and protective eyewear on the face mask.
4. Disposable shoe covers may be worn by anyone entering the clean side of the department.

ENVIRONMENTAL CONSIDERATIONS:

Purpose:

To insure strict control over traffic within Sterile Processing Department.

Procedure:

1. The following personnel are permitted in the Sterile Processing Department:
    a. Sterile Processing Department Supervisors
    b. Repairman
    c. Engineering Department Employees
    d. Nursing Supervisors, Head or Charge Nurse on duty, OR staff.
2. The decontamination area, Endo room and the Supervisor's office are the only areas where persons in street clothes are permitted. Persons entering any other area shall be appropriately dressed. Appropriate dress is defined under "Dress Requirements".
3. Physical access to the department is limited by keeping all exterior doors locked when not present.
4. Service personnel will check in with the Supervisor on arrival, and will be escorted by the supervisor to the problem area.
5. External shipping containers are removed prior to delivery into the Sterile Processing Department on all supplies from the Purchasing Department.
6. Doors to the decontamination area, processing area, and equipment storage, and sterile storage rooms are kept closed at all times.
7. Linen is handled in the preparation room only.
8. Prior to leaving the decontamination area/or in preparation to entering the processing areas or sterile storage rooms, all personnel are required to wash their hands. Hands are to be washed utilizing a no-touch technique in order to avoid re-contaminating the hands.

Storage:

Sterile packages are stored in a clean, dry, dust-proof area.

1 Ceiling height should be at least 18" above stored materials, providing a clearance for light fixtures, ceilings, or sprinkler heads.
2. No sterile items should be stored under plumbing valves and traps and shall be at least 12" from the floor, unless in a closed cabinet.
3. The sterile storage area should be arranged to expedite stock rotation.
4. Relative humidity should be controlled at 25 to 50%.
5. The lighting system should provide 2-3 watts per net square foot.
6. All storage areas for sterile supplies must be free of insects and vermin.

Cleaning

1. Equipment used for cleaning the Sterile Processing Department should be used only in Sterile Processing.
2. No dry-dusting or dry-mopping should be permitted.
3. Shelves, walls and ceiling, and vents and filters should be cleaned as necessary, and on an established, documented schedule.
4. Floors should be wet-mopped daily and as often as necessary.
5. Sinks should be cleaned a minimum of one time per shift and as often as necessary.

SYSTEM CONTROLS:

A. Administrative

1. Autoclave indicating tape: Indicating type autoclave tape, indicating labels, or indicating printed legends shall affixed to or printed on all hospital-assembled packages intended for sterilization. Tape, label, or legend must be examined after sterilization and also before use to ensure that it indicates adequate exposure to the outdating. Expired items will be returned to manufactures.

B. Process Control

1. Recording charts and tapes: Temperature and pressure gauges are examined by the sterilizer operator at the beginning of each sterilizer cycle. Where recorders are provided, operator must be sure that:

a. Pen is marking lines or reorder chart.
b. Recording chart is marked with date and sterilizer identification.

Before any materials are removed from the sterilizer, the chart must be examined to ensure correct temperatures and time readings.

2. Chemical indicators (sterilizer controls): A temperature-accurate chemical indicator shall be used at the center of each package of hospital-assembled material and among materials which are heat-sterilized without packaging. The indicator shall remain in the package or among the materials until the time of use when the person opening the package shall carefully examine the indicator for correct pellet melting or color change on paper type indicators.

C. Biological

Biological indicators: Each steam sterilizer used for terminal processing of patient care goods will be tested weekly by use of Attests. Positive culture results (indicating sterilization failure) must be immediately reported to the Infection Control Committee.

D. Policies and procedures that may present an infection hazard will be submitted to the Infection Control Committee for review before adoption.

E. Regular prevalence walks will be conducted by the Infection Control Practitioner.

F. Environmental cultures may be ordered by the Infection Control Practitioner to establish standard or delineate an outbreak.

STERILIZATION (General Factors Relating to Sterilizing Techniques):

A. There must be conscientious, dependable, skilled personnel.

B. Methods of preliminary cleaning, assembling, and packaging of supplies must be standardized and conform to correct procedure for sterilization.

C. Sterilizers must be properly loaded.

D. Sterilizers must be of an approved type with demonstrated reliability.

E. The materials must have adequate exposure periods that will ensure complete penetration of the load and destruction of microbial life within a liberal margin of safety. Documentation is essential.

STERILIZATION CONTROLS

A. Automatic time-temperature control: This is built into many, but not all autoclaves. Some manufacturers install a built-in safety control that allows, after initial setting by personnel, a complete and automatic autoclave cycle without further manual assistance. Frequent inspection and service by a trained person is most important, as the control is subject to occasional mechanical failure. Documentation of temperature and time parameters are available on print out tape and noted visually on autoclave screen.

B. Autoclave tape: This method of indicating whether an item has been autoclaved. Autoclave tape, available in types for heat, steam, or gas autoclaves, is used on packages only to indicate that they have been exposed to the physical conditions of an autoclave cycle

C. Biological tests:

1. Once a week a biological indicator is placed in each sterilizer and placed on file with the daily records.

2. Unistrip indicators are placed in all packages and trays that are to be steam sterilized.

LENGTH OF TIME SUPPLIES MAY BE CONSIDERED STERILE:

Under normal conditions, a package wrapped in muslin made up of two layers will remain sterile for a period of four weeks. Articles with a low turnover rate and in plastic wrappers or bags after sterilizations should be considered sterile unless

damaged or opened. Supplies that are put in steri-peel are sterile unless damaged or opened. Supplies that are wrapped in Dennison Wrap are sterile for one month. Commercial packages of undated sterile items are considered sterile until opened, unless the integrity of the package is breached.

CARE OF PORTABLE EQUIPMENT

The Nursing Support Department has several types of portable equipment. The care of the equipment requires skill, a desire to provide service, and a sincere interest in the improvement of patient care. Frequently, emergency requests are received. It is vitally important that the equipment be in perfect working condition and safe to use. Mechanical and electrical equipment may be more of a hazard than an aid. Preventive maintenance requires time, effort, and consistent attention, but the end results are service and savings, both rewarding benefits.

All reusable parts, such as bottles, connectors, and tubing, should be washed and sterilized. If the part is heat sensitive, gas sterilization may be used, e.g., all suction equipment made of heat-sensitive plastics or electrical equipment.

SPECIFIC PROCEDURES FOR CLEANING PORTABLE EQUIPMENT:

Cleaning:

In cleaning areas, remove all parts that have been in direct contact with the patient. Wash in suitable detergent and sterilize.

All accessible surfaces should be washed with a mild detergent solution such as Buckeye Sanicare Quat-256. Use a damp cloth, beginning at the top, and work downward. Casters should be cleaned last.

A chemical disinfectant is then applied to all surfaces. Air dry.

Residual may be removed with a damp cloth rinsed in clear water.
Dry with a soft cloth to prevent rusting or corrosion. Rubbing will restore original luster to finish.

Inspecting and Testing:

Inspect equipment for cleanliness. Test all electrical and mechanical equipment for working condition. Check cords, plugs, and connections.

Assembly:

Replace used accessories. Seal ends of connecting tubing and connectors with bag; secure with rubber band.

Equipment:

1. Latex and rubber goods, such as catheters, hot water bottles, and ice collars.

2. Instruments

3. Special trays

Used Equipment:

Used equipment is returned by Nursing and is placed on counter on dirty side of CS sink. Surgical instruments should be cleaned of blood, tissue and secretions (prior to their arrival to CS). From here, it is picked up and carried to the clean-up area of the Nursing Support Service. From here, it is thoroughly processed for reuse.

Special consideration must be given to contaminated equipment on the nursing units and specialty areas. This includes all equipment used by patients having or suspected to have a contagious disease which may be the source of cross-infection.

Only reusable items should be received by Nursing Support Service. Disposables are bagged for disposal on the unit.

Inspection:

Inspect unit for cleanliness and good working condition. Electric cord should be examined for defects. Make sure wires are attached securely to plug. Pump and gauge should be tested. Check casters to insure they operate smoothly.

PROCEDURE FOR INSTRUMENTS- MANUAL METHOD:

Cleaning:

1. Open instruments and rinse in cold water to remove gross blood and soil. Remove knife blades and discard in receptacle.

2. Clean promptly after use. If instruments are exposed for a long period of time, soak in warm detergent solution.

3. Rinse with hot tap water.

4. Let instruments soak in instrument milk at 15 minutes if they appear to need this.

5. Dry while instrument are still hot.

Assembly:

Inspect instruments for cleanliness and working condition.

PROCEDURE FOR INSTUMENTS/GENERAL USE UTENSILS-WASHER/DECONTAMINATOR

1. Instruments are transferred into washer/decontaminator trays on dirty side of CS.

2. Follow manufacturers recommendation Re: type cycle required for instrument cleaning.

3. Remove clean instruments from trays after wash/decontamination cycle is complete on the clean side of CS.

4. Prepare clean instruments for sterilization in autoclave.

Dietary

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Dietary		1104
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 12/2010	Dietary	ICC

PURPOSE:

To develop and maintain clean and sanitary work areas, storage areas and equipment for the handling of supplies in accordance with state and local health department standards.

To develop written standards and work procedures for daily operations. Procedures for preparation and serving of food must be such as to minimize contamination by microorganisms and chemicals that may result in food poisoning.

To develop written standards and procedure for cleaning and sanitizing trays and tableware after use in patient and personnel meal service. Service in isolation rooms should be planned in cooperation with the Infection Control Committee and the Nursing Service.

To develop procedures that complies with the local health department regulations for storage, handling and disposal of garbage and refuse.

To develop programs for the training of personnel in food preparation procedures and personal cleanliness and care in compliance with regulations established by the Infection Control Committee and the employee health service.

PERSONNEL:

Employee Health:

Health policies must be in compliance with federal, state, and local laws.

Food service employees should participate in the hospital employee health program.

Employees should not report to work if they have upper respiratory infections, nausea or diarrhea. Any illness should be promptly reported to the supervisor.

Employees may not work in food areas if they have infected cuts or open lesions on the skin.

Chronic carriers of shigella or salmonella must not be permitted to work in dietary services.

Food handlers with diarrhea should be removed from duty until asymptomatic and stool cultures are negative for enteric pathogens.

Personal Hygiene:

Toilet and hand washing facilities should be provided in the Dietary Department. Hand washing facilities should be provided at convenient locations within the department.

It is the responsibility of each employee to bathe or shower, use a deodorant, have clean hair, and keep it neat. Fingernails must be kept clean, short, and unpolished.

To prepare for work each employee must wear clean uniform and cover hair completely with hairnet or cap (men). Mustache and sideburns should be trimmed. Beards must be covered.

Employees should avoid scratching head or other body parts, smoothing hair or mustache, picking at face, eyes or nose, coughing or sneezing near food or dishes. Employees must use disposable tissues.

Hands must be washed thoroughly with soap and water and nailbrush before reporting to work; after handling soiled articles; after each visit to the toilet; after smoking, touching face, mouth, nose, hair, money, or raw food.

Employee should handle plates and other utensils so as not to touch food-containing surface before and after food is eaten. If food must be touched by hand, disposable gloves must be used and discarded if anything other than food touches the hand.

Food must not be tasted with the ladle or spoon used in food preparation or service. Utensils used for tasting must be washed between tastes, or proper techniques should be used.

When lifting empty containers from the steam table, other food containers should be covered to prevent water from dripping into food.

Food should be kept covered except when serving.

Smoking is not permitted in food preparation or service areas.

Employee Education:

The above information should be included in the job orientation for each employee. Each new employee might also be given instructions which include points of personal hygiene, safety in food handling, and basic instructions regarding hazardous food handling practice.

Annual in-service education should be included hygiene, sanitation, and hand washing techniques. Periodic educational programs on infection control practices should be presented and documented with program objectives, summary, and date program was presented.

PATIENT SERVICE:

1. The use of food brought into the hospital by patient's family should be discouraged. Under certain circumstances, such as a serious or terminal illness, the attending physician may write an order allowing an exception to be made. If so, the food must be eaten immediately and not stored.

2. Food must be stored in each unit in a refrigerator used for no other purpose. Refrigerators should be cleaned weekly. Employee food must not be stored with patient supplies.

3. Refrigerator temperature must be checked three times daily (AM, noon, PM) and maintained at 40F or below.

4. All food stored in refrigerator in each unit should be covered and labeled and dated, or in prepackaged containers.

5. Leftover food should be discarded after 48 hours.

6. Containers of juice should be rotated to the front daily. Thawed juices should be well labeled with date and time opened and <u>discarded after one use.</u>

7. Food trays must be delivered to the floor in an enclosed cart. PRN orders of food should be covered in transit.

8. Baby food, baby formula and tube feedings formulas should be commercially prepared in individual servings.

9. Individual portions of food or food products not consumed by the patient should be discarded. Foods used to give medication should not be saved for additional use, e.g. applesauce cups.

10. Isolation Trays

    a. Disposable trays are needed for patients in ISOLATION.

    b. Patients on burn protection/ neutropenic precautions should not receive uncooked food.

<u>FOOD SUPPLY AND STORAGE:</u>

1. Food should be obtained only from supplies that have met the requirements of the Sate Public Health Inspection.

2. Food should be inspected upon delivery for damage, infestation or spoilage.

3. Food should be stored on shelves at least 6" above floor level and away from walls to provide for proper cleaning.

4. Floor drains should have traps to prevent backflow.

5. Fruits, vegetables, dairy products, meat and poultry should be stored at temperatures between 33- 45 (7.2C).

6. Containers of juice should be rotated to the front daily. Thawed juices should be well labeled with date and time opened and discarded after use.

7. Food trays should be delivered to the floor in an enclosed cart. PRN orders of food should be covered in transit.

8. Baby food, baby formula and tube feeding formula should be commercially prepared in individual servings.

9. Individual portions of food or food products not consumed by the patient should be discarded. Foods used to give meds should not be saved for additional use, e.g., applesauce cups.

10. Isolation Trays

    a. No special trays are needed for patients in ISOLATION.

    b. Patients on burn protection/neutropenic precautions should not receive uncooked food.

FOOD SUPPLY AND STORAGE:

1. Food should be obtained only from supplies that have met the requirements of the State Public Health Inspection.

2. Food should be inspected upon delivery for damage, infestation or spoilage.

3. Food should be stored on shelves at least 6” above the floor level and away from walls to provide for proper cleaning.

4. Floor drains should have traps to prevent backflow.

5. Fruits, vegetables, dairy products, meat and poultry should be stored at temperatures between 33*-45* F (7.2*C). Temperatures should be checked and recorded daily.

6. Hot food should be held at 140*F (60*C) or higher and cold foods at 45*F (7.2*C) or lower.

7. Stuffing or dressings require thorough cooking because they are likely to be vehicles for food borne infections; they should be baked separately from poultry, never within the cavity.

8. Prepared food should not be handled unless packaged.

9. Food coming from broken packages or swollen cans, or food with an abnormal appearance or odor should be returned to the vender for credit or discarded and not be served.

10. Food should be prepared and served with clean tongs, scoops, forks, spoons, spatulas, or other suitable implements so as to avoid manual contact of prepared foods.

11. Individual portions of food should not be served but once.

12. All meat salads, poultry salads, potato salads, egg salads, cream filled pastries and other potentially hazardous foods shall be prepared from chilled products and refrigerated below 45*F immediately after preparation.

13. No raw eggs are to be served.

14. Leftovers must be dated, labeled, covered, cooled to 40* and stored (within1/2 hour) in a refrigerator, not at room temperature.

15. Any item or food that is dropped on the floor must be discarded if it cannot be properly sanitized. If a pot holder is dropped on the floor, it must go to the laundry.

16. Hand utensils, cups, glasses, and dishes in such a way as to avoid touching surfaces with which food will come into contact. Use tongs when serving rolls, pickles and other finger foods. Cakes and pies should be served with a spatula.

EQUIPMENT:

1. Separate cutting boards should be used for raw meat, fish, and poultry; for cooked meat, fish and poultry; and for raw fruits and vegetables. Cooked foods are not cut on the same board as raw products. Wooden boards should not be used; fiberglass is preferred.

2. Plastic ware and china should be discarded after chipping, cracking, or losing glaze.

3. Silverware should be stored in such a way as to ensure contact with handles only.

4. Food grinders, choppers, slicers and mixers should be cleaned and sanitized after use.

5. Single-service utensils, containers and implements must be discarded after one use.

6. In dishwashing machines, all dishes must be washed at a temperature of at least 150*F and rinsed at a temperature of 180*F.

When dished are washed manually, they should be washed in water at a temperature of 110*F to 120*F with an adequate amount of soap or detergent, and then sanitized at 180*F for at least half a minute or in a solution containing an effective sanitizing agent. Dishes must be air dried after the final sanitizing rinse.

Dishwashers are to be cleaned daily.

A separate group of people from those who loaded the machine should unload to prevent contamination. If it possible, the person should wash hands thoroughly and don a clean apron before handling clean dishes.

7. Food carts should be sanitized daily and wiped out after each meal.

8. Refrigerators and freezers should be cleaned weekly.

9. Ranges and grills should be cleaned daily.

10. Disposable items should be discarded after one use.

11. Vents over grills should be cleaned at least quarterly.

CAFETERIA:

1. Steam Table
   a. Should maintain hot food at 140*F or above.
   b. Care should be taken to avoid splashing or dripping when food trays are changed.
   c. Should be cleaned daily.
   d. Sneeze guard should be used.

2. Cold Tables
   a. Refrigerated to keep food below 45*F.
   b. Unwrapped food should be protected from contamination by sneeze guards.

3. Food may not be replaced or exchanged once it is taken from table.

4. Smoking is not permitted in the food line.

5. Cold tables should be cleaned after each meal.

6. Ice machines should be of a type that eliminates contamination during ice manufacture, storage, and dispensing.

7. All dining tables are to be cleaned with a germicide, rinsed, and dried after every meal served.

ICE:

Ice for consumption is produced in bulk in food department and dispensed through ice machines.

1. If an ice scoop must be used, it must be kept in a sterile container, never inside the machine. Ice must not be scooped with hands or glass container. Once daily the tray and scoop must be washed.

2. Ice storage chests must be cleaned on a regular basis.

3. The outside of the machine and storage chest should be cleaned daily.

4. Food must not be stored in ice machine or chests.

INSECT AND VECTOR CONTROL:

1. Eradication and prevention of infestations by rodents and insects should be maintained by Maintenance Department through contract with exterminator.

2. Unscreened windows must not be opened.

CLEANING:

1. Daily and PRN, the floors should be wet-mopped by designated personnel. The mop should be used for one day, and then sent to laundry. Buckets should be emptied, washed and stored dry between uses.

2. Quarterly, the floors of the department will be machine scrubbed by designated personnel.

3. Trash should be:

   a. Collected in lined, plastic covered containers to prevent leakage of waste.
   b. Emptied frequently.

4. All work surfaces, utensils, and equipment should be cleaned and sanitized after each use.

5. Ranges and grills should be cleaned daily.

6. Toilets and hand washing facilities must be cleaned daily.

ENGINEERING:

1. Lighting, ventilation and humidity should be adequate to prevent moisture condensation and growth of molds.

2. Floor drains, if necessary, should be equipped with traps to prevent backflow.

3. All openings to outside should be rodent-proof and insect-proof.

4. Hand washing facilities should be installed outside the toilet area in an easily observed area.

CONTROLS ON SYSTEM:

1. Bacteriological examination should be done only as needed to evaluate cleaning procedures or to investigate specific problems.

2. All preventive and corrective maintenance should be documented.

3. Records of proper temperature for refrigerator, freezers, and dishwashing equipment should be kept and available to Food Service Department Director.

4. Menus for patients and staff should be kept for a minimum of 30 days, as a possible aid in tracing a source of contamination.

OUTSIDE VENDORS:

Annually, or with change of contract, outside vendors should be provided a statement regarding their responsibilities in checking the temperature, cleanliness, and perishable product codes during each service for items supplied by them.

Education / Staff Development

ASHLEY COUNTY MEDICCAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Education/Staff Development		1105
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 1/2010	Education/ Staff Development	ICC

I. PURPOSE:

To provide policies to the Staff Development Department for Infection Control.

II. POLICY:

A. Personnel:

Personnel comply with existing Employee Health Policies. All policies of the Nursing Department apply to the Staff Development Department.

B. Orientation:

Orientation is held for all new employees as to the importance of infection control, personal hygiene, and their responsibility in the Infection Control Program. In addition to the general infection control orientation program, specific orientation which is specific for their own department is conducted by the Department Head or his/her designee for those departments which have direct patient contact. The outline of specific items to be covered in the department infection control orientation is supplied to the department by Infection Control Practitioner. The orientation schedule is updated annually in conjunction with each Department Head. The Infection Control Practitioner conducts depart-specific orientation for Nursing Personnel.

C. Annual Review of Infection Control:

Every hospital employee is required to have at least annual review of general aspects of the Infection Control Program. Department-specific infection control programs are held at least annually for all direct patient care departments, Central Supply, Engineering, Food Service, Housekeeping, and Pharmacy.

D. Documentation:

Documentation is maintained of all infection control general orientation and annual general infection control programs by the Infection Control Department.

E. Policies and Procedures:

The Infection Control Practitioner serves as a consultant in infection control and instructs personnel in various aspects of infection control. Policies and procedures which in various aspects, such as isolation precautions, insertions and maintenance of invasive devices, dressing changes, hand washing, handling excretions/secretions, Universal Precautions, etc. receive approval by the Infection Control Practitioner during revision and before implementation. Consultation with the Infection Control Committee may be used if a question arises.

F. Quality Assurance Activities:

Results of surveillance and other infection control activities and any problems identified are reported regularly to the IC and CQI Committee.

Emergency Department

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL MANUAL

TITLE/DESCRIPTION:		**REFERANCE# 2507**
EMERGENCY DEPARTMENT		1106-a
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Revised 7/2011	Nursing	ICC

PURPOSE:

To provide procedures that will promote the maintenance of a safe environment for both patients and employees, and to provide appropriate care for patients consistent with limiting the potential for spread of infection.
The Emergency Department as the interface between the extra-hospital and the intra-hospital environments is a focal point for a wide variety of patients with known and unknown forms of contagious illness.
For this reason, personnel working in the hospital Emergency Rooms have a potential for infection acquisition significantly higher than that of other hospital personnel. General awareness of the potential for infection exposure in the Emergency Department should be encouraged in all personnel. In addition, procedures to assure proper care of patients consistent with limiting the potential for spread of infection should be instituted.

RESPONSIBILITIES

1. Physician Department Head
    a. Assist in the development and review of all policies and procedures within the department and submit for approval to the emergency department committee and document in minutes.
    b. Train and supervise other emergency room physicians in infection control.
    c. Recommend revision of general guidelines as needed for approval by the Infection Control Committee.
    d. Review infection control studies for any patient or employee infection that may have occurred in the department.
2. Hospital Department Head
    a. Responsible for proper patient care and equipment safety.
    b. Maintain a clean and safe environment for the patient.
    c. Assure that personnel comply with infection control guidelines within the department and throughout the hospital.
    d. Assist in presenting infection control programs for the department and document employee attendance/participation.
    e. Develop and review all policies and procedures for the department.
    f. Review guidelines as needed for approval by the Emergency department committee and the Infection Control Committee.
    g. Infection Control Nurse is responsible to report all communicable diseases to ASHD.
3. Infection Control Practitioner

a. Assist in formulation of infection control guidelines.
b. Periodically assess compliance with these guidelines.
c. Present infection control education progress when necessary.
d. Study outbreaks of infection related to the department.
e. Is responsible to report all communicable diseases.

4. Infection Control Committee
   a. Review, revise, and approve policies for infection control.
   b. Review reports of infection and necessary follow-up. Document in committee minutes.

Personnel:

1. Emergency Department employees with contagious illnesses should not be permitted to work in direct patient care. Employees must comply with hospital Employee Health Program.
2. Recommended immunization for this area might be:
   a. Tetanus
   b. Influenza
   c. Hepatitis B Vaccine
   d. Proof of 2 MMR vaccines
3. Accidental Exposure
   In the event that personnel are accidentally exposed to infectious illness, exposure should be reported promptly to the Infection Control Nurse, who should coordinate the preparation of a contact list and document appropriate follow-up for each involved person. Follow hospital exposure policy.
4. Hand Washing
   Hand washing with germicidal detergent should be done when reporting for duty, in preparation for sterile procedures, when caring for isolation patients, and prior to leaving the unit.
   The method is: soap, rigorous rubbing, and running water. Hands should be washed between all patient contacts.

Patients:

1. A triage system should be utilized to select those patients with the greatest likelihood of having communicable diseases. Modified isolation procedures would include placing such patient in an examining room promptly, apart from other patients, interviewing such patient, and admitting or discharging him as expeditiously as possible. If he is admitted, the appropriate isolation measures instituted immediately.
2. Although an Emergency Department cannot detect all patients with communicable illness, the following principles will minimize risk to other patients, visitors, and personnel by controlling infection according to their known mode of transmission.
   a. Respirator-Patients with respiratory symptoms, which include a productive cough, should be segregated and screened for possible tuberculosis or influenza via an appropriate history relevant to such diagnosis. If the possibility of tuberculosis or other communicable respiratory infection exists (see “Infection Control Manual Isolation Procedures”), the patient should promptly be placed in an examining room and wear a mask until a definite diagnosis is established, or until proper respiratory isolation is instituted upon hospital admission

or discharged home. In addition, paper tissues should be provided to the patient with a receptacle for disposal to encourage aseptic elimination of sputum.

a. Meningitis- A patient suspected of having meningococcal meningitis should be promptly placed on respiratory isolation.
b. Diarrhea and Hepatitis- Patients with suspected hepatitis or diarrhea should be promptly admitted or immediately discharged, once examination is completed and blood and/or stool smear culture obtained. Hand washing and prompt disposal of soiled material should be adequate protection for personnel. Simple housecleaning and maintenance of a good waste flushing system is sufficient to provide adequate protection against spread of enteric pathogens.
d. Skin disorders- Patients with suspected illnesses such as varicella, herpes zoster, rubella, rubeola and other viral examthems should be separated from other patients, placed in an examining room, and expeditiously examined. Thereafter, immediate admission or discharge should be effected. Hand washing and proper disposal of soiled items will always minimize risk to personnel.
e. Scabies, pediculosis or other vermin- Delouse patients when necessary. Wash patients with Nix lotion. Discard clothing by bagging securely and advise family to launder clothes separately in hot water with detergent and bleach (depending on type of fabric). The room in which the patient with such a diagnosis is treated, must not be used again until completely and thoroughly cleaned by housekeeping. The cleaning should include spraying for vermin, washing all furniture and changing the cubicle curtain. The line, including the cubicle curtain, should be bagged as isolation linen and clearly labeled as such. Personnel who had direct contact with the patient should shower and change clothes as soon as possible.
f. Patients with bleeding problems should always be handled as appropriate for the individual case. Material and equipment soiled by blood should be treated with Universal Precaution.
g. Clothing- Patients with communicable infections should have their clothing bagged and handled as specified in the Isolation Manual.

3. Lacerations
    a. Wash all wounds thoroughly with a germicidal detergent in sterile basin and flush thoroughly with sterile saline.
    b. Remove any debris in or around laceration using sterile technique. Using clippers, clip hair with disposable blade one (1) inch around laceration, except eyebrows, with sterile disposable razor.
    c. Cover wound with sterile gauze until physician sees patient.
4. Puncture Wounds
    a. Soak wound with germicidal detergent for twenty (20) minutes, rinse thoroughly with sterile saline, and then dry area with sterile gauze.

5. Open Fractures
    a. Cover with wet to dry sterile gauze until seen by physician.
6. Incision and Drainage
    a. Use disposable instruments when available.
    b. Disposable instruments, dressings, etc., must be discarded as infectious

waste. (RED BAG)

c. Reusable instruments must be placed in a Central Supply Red Contamination bag and to sent Surgical Central Supply for decontamination, cleaning, and sterilization.

d. Stretcher and Mayo stand must be stripped and cleaned with germicidal solution.

e. Linen must be placed in a bag impervious to leaks and sent to laundry.

7. Infected Wounds
   a. Major wound infections, including those draining large amounts, should be handled as outlined in the Isolation Manual under Contact Precautions.
   b. Minor wound infections, such as stitch abscesses, need only secretion precautions (see Isolation Manual).
8. Burn Cases
   a. Place on dry clean sheets.
   b. Use sterile equipment.
   c. Extensive, non-infected burns- follow Protective Isolation Procedures (see Isolation Manual).
   d. Burns that are infected, except those infected with Staphylococcus aureus or group A Streptococcus that are not adequately contained by dressings must be cared for according to Contact Precautions (see isolation Manual).
   e. Strict Isolation must be maintained for patients with major burns infected with Staphylococcus aureus or group A Streptococcus (see Isolation Manual).
9. Eye Cases
   a. Flush eye with sterile saline or ophthalmic irrigating solution.
   b. Use sterile eye patch.

<u>Traffic Control and Patient Placement</u>

1. Hospital employees and other persons not directly involved in patient care or Emergency Service function should not enter the Emergency Department.
2. To minimize transmission of infections, patient should be taken to an examination room as soon as possible after presenting to the department. A friend or relative may stay with the patient, but must remain in the room as no visiting with other patient or wandering about the department should be allowed.
3. It is appropriate to place a patient in isolation who has fever, cough, rash or any symptom that indicates the possibility of a contagious disease.

<u>Precautions to be exercised in the care of known infected patients:</u>

1. Patients with a known history of active tuberculosis should be managed using A.F.B precautions as outlined in the Hospital Isolation Manual. Patients should be required to wear a clean, dry mask while in the Emergency Department.
2. A patient with jaundice should be managed with the assumption that he/she has viral Hepatitis unless the physician documents that this is not the case. Personnel should wear gown and gloves when in contact with blood/body excretions. If the patient uses the bedpan, it should be cleansed in the hopper, placed in a plastic bag, and sent to the floor with the patient. It should never be used for another patient since we use

disposable bedpans. Disposable bedpans are disposed of in Red Bags.

3. Patients with meningitis should be managed with the assumption that that they have meningococcal meningitis. Patients reporting to the Emergency Room with fever, stiff neck and headache, especially those with diffuse petechial rash, should be managed as if they have meningococcal meningitis. Refer to Respiratory Isolation section of Isolation Manual for particulars.
4. Any patients suspected of having German measles (Rubella), measles (Rubeola), or chicken pox (varicella) who enters the Emergency Department should be seen and discharged as soon as possible.
5. In the case of diphtheria, contact isolation techniques must be followed and all personnel must be checked for immunity.

Isolation Procedures

1. Any patient suspected of or diagnosed as having a communicable disease should be placed in a cubicle or room.
2. All unnecessary equipment must be removed prior to placing patient in the exam room.
3. One nurse should be assigned to this patient and should not be allowed to work with other incoming patients until said patient is discharged or admitted.
4. An isolation pack should be available at all times in a cubicle or room. This pack should consist of gowns, gloves, masks, and plastic bags for bagging, and disposable thermometer .
5. The following technique should be observed
    a. Hand washing must be observed before and after contact with patient.
    b. Dispose of all excretions, etc., in the hopper.
    c. After the transfer of the patient, the stretcher or bed must be thoroughly washed with a germicidal solution. For transportation technique, follow instructions in Isolation Manual.
    d. After the transfer, all equipment in the patient area should be cleaned with a germicidal solution.
    e. All contaminated linens should be wrapped and marked for proper handling.
    f. All specimens should be considered and must be handled with care to avoid risk. Lids should be tightly closed. All specimens from Isolation should be bagged in a clear plastic bag and labeled “ISOLATION”.
    g. Notify Housekeeping.
    h. Communication

        It is very important to communicate with other departments to inform them that isolation is in use. If the patient is admitted to the hospital, it is the responsibility of the Emergency Department Nurse to inform the unit of the planned admission and the need to set up isolation. If X-rays are ordered, the Radiology Department must be informed that the patient is in isolation and the need to observe Isolation Technique. The Emergency Department will provide Radiology personnel with gowning equipment and instructions.

Supplies

Clean supplies should be kept in designated cupboards or carts. Also, each exam room should be equipped with clean supplies, which should be kept in cupboards or drawer. These must be closed at all times. All articles should be properly packaged in plastic or paper.

Sterile Supplies

Sterile supplies should be kept in cupboards. The doors to the cabinet must be kept closed. Sterile supplies must be dated for expiration and wrapped in a plastic wrap. The Head Nurse is responsible for having sterile supplies checked for outdates once each month. Supplies with an expiration date less than 30 days past time of checking should be pulled and returned to the surgery department to be sterilized.

Disposable Articles

Disposables should not be reused but should be discarded after single use.
Example: Suction canisters, tubing, catheters, masks, disposable blades for clippers, emesis basins, isolation thermometers and all disposable CPR equipment.

Needles and Sharps

Dispose of needles and sharps by placing into contaminated materials container. When the container is full, housekeeping will replace.

Soiled Linen

This should be placed in a covered laundry bag in Emergency Department. The bags should be tied closed before leaving soiled utility room for holding before transporting to soiled linen holding area.

Oxygen Humidifiers

Water in humidifiers, but with tubing for each patient, can be safely used until expiration date of the humidifier is reached or the container becomes empty.

Multi-dose Vials

Vials need to be dated and initialed. They will be discarded after 28 days from opening.

Cleaning Equipment

1. Stretcher- Clean with germicide once each week. Wipe mattresses daily with same solution and as needed.
2. Stethoscopes and other patient care supplies:
   Clean earplugs with alcohol after each use. Blood pressure cuffs are wiped daily with germicide. Covers are sent to laundry after each isolation case. Disposable earpieces for otoscopes should be used. If non-disposable ear-pieces are used, they should be cleaned with alcohol after each use.
3. Cubicle Curtains- Are to be changed frequently- when soiled and after each isolation case.
4. Wheelchairs- Are to be cleaned weekly and when soiled, with germicide.
5. Refrigerator- cleaned weekly. The refrigerator must contain a thermometer and the temperature be maintained between 36 degrees – 46 degrees F for drugs. Temperature should be less than 40 degrees F if used for food storage (Medicare Regulations).
6. Contaminated Articles- Are to be cleaned using a germicidal solution, then covered (or bagged) and labeled prior to taking the article to decontamination.
7. Soap dispensers are maintained by Housekeeping personnel.
8. Ambubags- Disposable- bagged for contamination. Disposable face shields used for CPR should be discarded after each patient.
9. Airways- Disposed after use. Non-disposables to be washed, packed and auto-claved after each use.
10. Disposables- to be discarded after each use.

11. Mobile care stations (COWS), including held hand tablets, are to be cleaned daily with disinfectant on the night shift.

The carts are NOT to be taken into any room set up for an isolation patient. Hand held tablets that are taken into isolation rooms are to be cleaned thoroughly with a disinfectant after use to prevent the spread of infection.

Surgical Instruments

These should be washed in a germicidal solution, rinsed and sent to Decontamination for sterilization.

Antiseptics and Disinfectants used in Emergency Department

Bucheye Sanicare Quat-256
Betadine for skin prep
Hibiclens
Bleach 1:10 for blood spills
Isosorb for large spills of blood or body fluids
Instruments are sent to sterile decontamination for disinfection

Handling Waste Products

1. Liquid waste, including isolation waste, should be disposed of by emptying into the hopper or commode and flushing. (This assumes that public sewerage systems are adequate to provide sufficient dilution and treatment of organism as verified by the agency responsible sewerage systems.)
2. Uncontaminated solid waste should be placed in trash containers.
3. Infectious solid waste should be bagged in color coded (red bags) or labeled containers and disposed of in a timely manner in accordance with the hospital's Hazardous Materials and Waste Program.

Handling Specimens

All specimens should be considered hazardous and should be handled with caution to prevent contaminating hands and surfaces. Lids should be tightly closed. All specimens are considered potentially contaminated and Universal Precautions apply to the handling of all specimens.

Special/Sterile Procedures

Sterile procedures such as catheterization, insertion of intravenous needle, dressings and any other sterile procedure, should be performed by well-trained personnel, using aseptic technique and following the procedure as outlined in Nursing Procedure Manual.

1. Suture, lacerations, etc.
   Must not be opened until MD arrives and indicates that he is ready for procedure to begin.
2. Surgical Specimens
   Must be placed in appropriate containers prior to sending to Laboratory.
3. Surgical Stands
   washed with germicide solution after each use.
4. Septic Surgery
   a. Septic surgery cases such as I & D of abscess or staph infection should be done in the minor surgery rooms.

b. Gloves must be worn during the procedure and proper hand washing technique observed before and after procedure.
c. The surgery table should be cleaned after the procedure with a germicidal solution.
d. The instruments used must be disinfected and cleaned as with any type of minor surgery, as noted earlier in this manual.
e. Contaminated linens must be placed in the linen hamper.
f. Contaminated waste must be bagged in color-coded bags and handled as infectious waste according to hospital policy.

Reporting Communicable Diseases

It should be the responsibility of Emergency Department personnel (physician or nurse) to report communicable diseases to the State Health Department. This may be done by giving the information to the Infection Control Nurse.

Housekeeping

1. All horizontal surfaces except ceiling should be washed with germicidal detergent solution (preferably a phenolic detergent) daily and when soiled. Grossly soiled walls should be washed as needed and are also done on a routine schedule by Housekeeping Department.
2. Routine daily cleaning of floors using the double bucket method is necessary (see Housekeeping section)
3. Terminal cleaning of room used for isolation should be done according to the Isolation Procedure Manual.
4. Sinks, commodes and hoppers must be cleaned daily with a freshly prepared phenolic detergent solution.
5. Blood, body fluids, and secretions should be wiped up with a germicide or bleach soaked cloth immediately. These cloths should be discarded in a impervious bag. Gloves should be worn when handling blood and other body fluids.
6. Beds should be stripped and cleaned with a germicide solution between patient use. Soiled linen should be removed carefully to reduce bacteria contamination, and placed at once in linen bags.
7. Strict rodent and pest control must be exercised.

Controls

The Emergency Department Committee should review all studies conducted by the Infection Control Practitioner and/or committee and document results and recommendations in their minutes.

ANTISEPTICS AND DISINFECTANTS

Hand Cleaner in low risk areas……...Cormatic/Ultima Antiseptic Soap

Hand Cleaner Supplement…… ……Bacti-Stat or Purell

PT Whirlpool…….....Buckeye Supergard

Floor Cleaner……Buckeye Sanicare QUAT-256

Surface Cleaner……Buckeye Sanicare QUAT-256

Clean up Blood and Body Fluids…… ……...Buckeye Supergard & 1:10 Bleach

Large Spills……Sprinkle with Isosorb

Odor Counteractant……...Buckeye Aerosol

Bathroom Cleaner…….Buckeye Sanicare QUATE-256 & Sparkle

Surgical Prep……..Chlorhexidine or Betadine or Hibiclins

OB Prep……..Betadine or Hibiclins

Cleaning Floors in Surgery & OB…… …….Buckeye Supergard

Disinfectant Spray…… ……...Buckeye Sanicare QUAT-256

Glass Cleaner…… ……...Buckeye Star Spray Concentrate

Surgery Disinfectants……Cidex Opa; Glutaraldahyde

USE OF PLASTIC BAGS

Red ……..Hazardous/Infectious Waste

White or Black or Gray……...Trash

Blue……Dirty Linen

Clear…….....Reject Linen

Yellow…… ……Chemotherapy Waste

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Routine Immunizations		1106-b
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2009	Hospital Wide	ICC

POLICY:

Routine immunizations will not be given to non-employees in the Emergency Department.

PROCEDURE:

If a patient presents themselves to the ED wanting to get a ROUTINE IMMUNIZATION (Hepatitis B, Hepatitis A, etc.) inform these patients we do not do these in the emergency room. Suggest that they go to their family doctor or the local health department. If their family doctor does not keep the serum in stock the doctor can write a prescription for the serum, the patient can get it filled at a pharmacy then return the Doctor's office for the injection. This way a person's record of immunization will be in one central location.

Employee Health / Infection Control

ASHLEY COUNTY MEDICCAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Employee Health / Infection Control		1107
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 1/2010	Hospital Wide	ICC

Purpose:

To provide policies relevant to the Employee Health / Infection Control Department for Infection Control

Policy:

Personnel- Personnel comply with the existing Employee Health Policies. All policies of the Nursing Department apply to the Employee Health / Infection Control Department.

Orientation- Personnel will attend orientation for new employees on the importance of infection control, personal hygiene and their responsibility in the Infection Control Program and will annually review the aspects of infection control along with all hospital employees.

Documentation- Documentation is maintained for all Infection Control general orientation and annual programs by the Infection Control Nurse. Department Heads maintain documentation as well for programs for their employees which are Infection control Department specific.

The Infection Control Practitioner / Nurse serves as a consultant in Infection Control and instructs personnel in various aspects of Infection Control. Policies and Procedures which have Infection Control aspects such as dressing changes, handwashing, handling excretions, Universal Precautions, etc., receive approval by the Infection Control Practitioner / Nurse during revision and before implementation. Consultation with the Infection Control Committee may be used if a question arises.

Quality Assurance Activities:

Results of any surveillance on other Infection Control activities and any problem identified are reported regularly to the Medical Staff through the Infection Control Committee Chairperson.

Health Information

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Health Information		1108
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Revised 11/2009	Medical Records	ICC

PURPOSE:

The Medical Records Department is responsible for compilation of statistics related to infection control monitoring and providing information to the Infection Control Committee. Employees in this department follow employee health policies.

POLICY:

1. All Medical Record employees must comply with employee health policies.

2. Hand washing is essential after using toilet, after completing work, after patient contact, and before eating.

3. Medical records accurately reflect, in the final diagnosis or list of complications, all infections occurring hospitalization.

4. The Director of the Medical Records Department, or designee, may be a member of the Infection Control Committee. If requested, records of patients who have acquired hospital infections are brought to the Infection Control Committee by the Director of Medical Records Department if needed for review.

Housekeeping

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Housekeeping		1109-a
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 9/2010	Housekeeping	ICC

TITLE: Guidelines for Infection Control in the Environmental Services Department.

PURPOSE: HAI may occur as the result of exposure to contaminated surfaces, equipment, air, dust, and other inanimate objects. The Environmental Service Department's responsibility is to maintain a thoroughly clean environment throughout the hospital. Reducing the pathogens on the many fomites in the hospital helps protect visitors, medical staff, patients, and hospital employees. Moreover, aesthetically pleasing surroundings can improve mental attitudes and speed patient's recovery. A complete hospital-wide cleaning program increases the awareness of other employees of the necessity of good sanitary practices as well.

TEXT:

A. Responsibilities:

1. Environmental Services Director

   a. Supervise all activities pertaining to housekeeping.

   b. Evaluate products used in Environmental Service and submit information to Infection Control Committee for approval.

   c. Member of Infection Control Committee (or designee is member of Infection Control Committee).

   d. Establishes and reviews procedures used in housekeeping.

   e. Provide educational programs for each new employee and to all employees periodically. These programs are documented by subject and attendance.

2. Infection Control Nurse/Coordinator

a. Assist Environmental Services Director in evaluating products, procedures, and policies pertaining to infection control.

b. Assist in programs on the role of Environmental Service in infection control.

c. Accompany Director on rounds periodically to observe whether proper techniques are being used.

3. Infection Control Committee

a. Establish and review infection control standard for Environmental Services.

b. Evaluate and approve cleaning products.

Infection Control Policy:

Agents and protocols for hand washing, surgical scrubs, antiseptic skin prep, and surgical preps must be approved and reviewed annually by the Infection Control Committee.

Equipment, supplies and protocols for sterilization, disinfection, and decontamination must be approved and reviewed annually by the Infection Control Committee.

STANDAD POLICY AND/OR PROCEDURE

TITLE: Mandatory Use of Gloves During All Cleaning Procedures

PURPOSE: Prevention of HAI, cross-contamination, and employee infections is of paramount importance in hospital cleaning procedures. Wearing of gloves also protects E/S staff from skin irritations from cleaning agents.

A. Prior to cleaning in all patient care areas, E/S staff will be responsible to don gloves. Latex type exam gloves or heavier flock lined rubber gloves shall be utilized, determined by the supervisor, dependant upon the degree of soiling. Latex free gloves will be provided if the employee has a latex allergy.

B. Gloves are to be worn during all cleaning procedures in all patient care areas.

C. Gloves are to be changed immediately following cleaning of any unit in a patient care area where a patient's condition may warrant additional protective measures as stipulated by nursing service personnel.

D. Thorough hand washing shall follow removal of gloves after performing any procedure requiring use of gloves.

E. Annual surveys compiled by the Environmental Services supervisory staff indicate compliance with this policy. The results of the annual survey are forwarded to the Infection Control Department as part of the Environmental Services Department Quality Assurance Program.

Hands must be washed:

1. During performance of normal duties.

2. After sneezing and coughing.

3. After going to the bathroom.

PROCEDURE:

THOROUGH HAND WASHING IS THE SINGLE MOST IMPORTANT FACTOR IN PREVENTING THE SPREAD OF DISEASE.

Jewelry may not be worn. The only exception is a plain wedding band. Bacteria becomes lodged in the sets or stones of the ring. Fingernails should be clean and well-trimmed. By complying with these two requirements, you will decrease the opportunity for bacteria to accumulate under the fingernails, which in turn can be spread to other persons. Proper hand care prevents hangnails and skin abrasions from occurring. As you know, breaks in the skin enable germs to enter your body and also harbor germs.

Stand in a comfortable position, slightly, but maintain good body alignment. Avoid contaminating yourself by contact with the sink. Prevent splashing of water and getting yourself wet. Bacteria multiply rapidly in most surroundings.

Wet hands. Use friction (strong rubbing movements) and rotary(circular motions). Friction and rotary action dislodges bacteria from your hands. Wash the palms and back of each hand first. Wash fingers, thinking of them as having 4 sides. Cleanse under fingernails.

Rinse well. Water should be directed so that it flows from the wrist down to the fingers.

<u>POLICY:</u>

HAI may occur as a result of exposure to contaminated surfaces, equipment, air, dust and other inanimate objects; therefore, the Environmental Services Department will maintain a thoroughly clean environment throughout the hospital.

Responsibility:

Director, Environmental Services:

1. Supervise all activities concerning cleaning practices in the hospital.

2. Assess skills of the personnel.

3. Evaluates products used in Environmental Services.

4. A consult to the Infection Control Committee.

5. Review possible role of fomites in infection control.

6. Provide educational programs for Environmental Services personnel and document their attendance.

Nurse Coordinator

1 Assist Director of Environmental Services in evaluating sanitation practices.

2. Plan with director for environmental cultures and their evaluation (as needed).

3. Assist in programs on role of personnel in Infection Control.

Infection Control Practices:

PATIENT AREAS

1. Daily routine

   a. Empty and clean all waste baskets.

   b. Dust all areas above shoulder height with highduster,(i.e. T.V's, lights, doors, etc.,).

   c. Dust-mop all tile areas with treated dust mop.

   d. Wet- mop all tile areas with germicidal solution.

e. Clean all sinks, commodes, tubs and showers with germicidal cleaner.

f. Clean all glass, (mirrors, doors, etc.).

g. Clean all ledges, horizontal surfaces, furniture, etc. with germicidal solution.

h. Straighten all furniture, (lobbies, offices).

i. Report any repairs needed to Engineering or supervisor.

j. Vacuum all carpeted areas.

k. Project work as assigned by supervisor.

NUSERY

1. Daily wet-mop.

2. Trash cans are emptied and relined with plastic liners as needed.

3. Monthly cleaning or as indicated.

a. All equipment is removed from nursery by nursery personnel.
b. Wash walls, lights and ceiling with germicidal solution.
c. Wash all glass and mirrors with glass cleaner.
d. Clean all sinks and chrome fixtures with germicidal solution.
e. Clean blinds with germicidal solution.
f. Wet-mop floor with germicidal solution.

NOTE: Equipment and counter tops are nursery personnel responsibility.

BIRTHING ROOMS

1. All linen and trash removed and placed in appropriate containers.

2. All equipment is washed with germicidal solution and placed in workable form.

3. Floor is wet mopped with germicidal solution.

NOTE: Birthing Bed is made ready by OB personnel.

Window and Cubicle Curtains

1. Laundered when soiled.

2. Isolation Room. (See III, B, I)

ISOLATION ROOMS:

Cleansing

1. Remove valences and cubicle curtains (except when isolation was hepatitis, salmonella, etc., or on recommendation of Infection Control.

2. Proceed with normal room cleaning.

3. Notify supervisor when room is completed for inspection.

NOTE: Nursing Service is responsible for stripping the room of all soiled linen.

NOTE: Environmental Services supervisor will notify admitting that the room is ready for occupancy.

Miscellaneous:

PERSONNEL

1. Personnel will have annual TB test as required by hospital policy.

2. Personnel should be free of active infections.

Dress Code

1. Approved Environmental Service uniform is to be worn at all times.
2. Personnel entering isolation areas will dress in disposable gown, mask and gloves, regardless of isolation.

3. Personnel entering specialty areas (i.e. OR, OB, Nursery) will adhere to the department's dress code.

Trash Pick-up and Disposal

1. All contaminated waste receptacles will be red with a plastic red liner. They will be located in all the soiled utility rooms. This will only contain regulated medical waste, and will be picked up daily or as needed and transported to the hospital RED BAG room.

2. All other waste will be collected at the same timed listed above, and disposed of in the hospital's dumpsters.

3. Contaminated Sharps containers that are half full or more upon terminal cleaning of room will be removed, capped and taped, and placed in the soiled utility room for regular pick-up. A replacement container will be installed at that time. Pick-up times for transport of sharps containers from soiled utility rooms to re bag room, is daily or as needed.

CONTROLS

Environmental Services will maintain and make available to all personnel product safety data on all chemicals used.

CARPET CARE

Corridors

1. Vacuum all corridors daily.
2. Remove and clean all stains.

LARGE SPILLS

1. Corridors/Horizontal Surfaces
   a. Attempt to remove as much of the spill as possible using a clean, white towel. If needed, remove as much of the spill as possible using a wet/dry vacuum. Otherwise, allow to air dry.

   b. Contaminated spills, such as blood or body fluids are cleaned by applying Superguard.

STAINS

1. Depending on type of stain, remove as much as possible with a clean, white cloth, blot, do not rub.

2. Use appropriate cleaner for stain.

LINEN SERVICE:

Responsibility

Linen, in this institution, is processed by Broadway Linen. This department is responsible for the proper handling (within the hospital) of clean and soiled linen, safe transport of the same, protection of the linen employees from work associated infections, proper covering of clean and soiled linens and sanitary vehicles.

Infection Control Practices

1. Personnel
   a. No eating, drinking or smoking in linen storage areas.
   b. Linen handlers will wash hands after handling contaminated linen.

2. Clean Linen
   a. An adequate inventory of clean linen is maintained.
   b. Clean linen is transported to the hospital in clean carts and is wrapped in plastic.
   c. Linen is separated and stored according to type.
   d. Special linen (i.e. OR, CSR, etc.) are separated and sent to the appropriate areas.
   e. All linen storage areas are cleaned daily.

3. Soiled Linen
   All soiled linen is placed into linen carts (blue plastic bags)

4. Environmental Cultures
   a. Routine surface cultures are not done.
   b. Personnel cultures will be done as needed.

5. Visitors
   There will be no visitors in linen areas without supervisor's authorization.

6. Housekeeping
   a. Linen areas will be kept clean.
   b. Carts and equipment cleaned daily.
   c. All work areas cleaned daily.

SANDARD POLICY AND/OR PROCEDURE

TITLE: Discharge Units Cleaning Procedure

TEXT:

A. Remove all articles from the room that may have been used by the patient and/or not normally found in the room. (Nursing will be responsible for all equipment/supplies not normally found in a patient room).

B. Disinfect ALL of the bed, inside and outside of the overbed table and bedside table and the closet.

C. Bring clean linen into the room:
   2 Flat Sheet
   1 Fitted Sheet
   1 Pillow Case
   1 Bedspread

   Make the bed (following cleaning); Bottom sheet tucked in at the head of the bed. Top sheet and spread tucked in at the foot of the bed.

D. Do those steps (of the 7-Step Cleaning Procedure) necessary to have the room meet desired quality standards?

Note: Rooms with discharges occurring early in the day will require the complete 7-Step cleaning since they would not yet have been cleaned.

Rooms with discharges occurring on the second shift should have been cleaned on the first shift. Therefore, it is not unreasonable to expect that less should be done to the rooms to meet standard.

Examples:

1. Trash may or may not need emptying.
2. No high dusting should be necessary except area over head of patient bed.
3. Supplies should not need restocking.
4. Only those surfaces most in contact with patient would require damp dust disinfecting.

E. Empty Infectious Waste can (Step One of The Seven Steps of Cleaning)

F. #7 inspection/review should always be done to ensure the room meets standards.

G. Report completed check-out to your Unit Supervisor.

STANDARD POLICY AND/OR PROCEDURE

TITLE: Seven Step Cleaning Procedure

Text:

1. WASTE CONTAINERS- Empty trash into trash bag receptacle on cart. Clean inside and outside of containers with disinfectant detergent solution. Reline container as needed.

2. HIGH DUST- All horizontal surfaces above shoulder height. Start at door and work systematically around room and return to door. To include induction units, TV's, pipes and/or ledges, windows, drapes and blinds, lights, corners, and door frames.

3. FLOOR DUSTING-Start at farthest corner and work back to doorway. Be sure dust mop is positioned properly on floor (leading edge). Use the "S" stroke. Do under half the bed from one side and the other half from the other side. Move bedside table or other furniture when necessary to dust next to baseboards.

4. DAMP WIPE- Use either a bucket of prepared disinfectant solution which must be changed every three rooms or more if necessary or spray bottle of solution. The latter assures fresh solution for each article. Disinfect all surfaces (top, bottom, sides) below shoulder height. Spot wash walls around switches, door knobs, etc. Any spots smaller than a handprint are wall washing. Remember bacteria like to hide so use care to disinfect all "problem" areas. For example: the bottom side of arms on chairs, the

under side of feeding tables, drawer fronts and handles.

5. BATHROOM CLEANING- Thoroughly clean the bathroom fixtures. Using trigger sprayer with disinfectant solution, saturate all bathroom fixture surfaces (top, bottom, and sides). Also, spray splash areas around basin and commode. Wipe all surfaces soap scum, mineral deposits, etc. Dry all chrome and/or stainless steel surfaces with a paper towel to leave them shiny and eliminate unsightly water spots. Bowl cleaner should be used ONLY to remove rust stains or mineral buildup. Clean pipe cover under sink. To clean mirrors use glass cleaner. Restock paper supplies, etc.

6. WET MOP- Mop entire floor including bathroom. Start at farthest corner and work back to door using "S' stroke. Be sure to clean baseboards and corners.

7. REVIEW YOUR WORK- If you or your loved ones were a patient would you want them in this room? Also, note any discrepancies such as repairs needed or furniture missing. Make note on your daily schedule sheet and report these to your Supervisor.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Environmental Cleaning of C Diff Positive Isolation Room		1109-b
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
7/10	Housekeeping	ICC

TITLE:
Guidelines for Housekeeping on environmental cleaning of *Clostridium difficile* (C Diff) positive isolation rooms.

PURPOSE:
Hospital acquired infections may occur as the result of exposure to surfaces, equipment and other inanimate objects that have been contaminated with C Diff bacteria. The Environmental Services Department's responsibility is to maintain a thoroughly clean environment including isolation room following current policies and procedures.

POLICY:

10. **Before Cleaning:** *Clostridium difficile* (C Diff) rooms will be identified by the nursing unit and isolation precautions will be exercised during the cleaning process.
11. Personal Protective Equipment will be worn according to the instructions on the Isolation sign posted on the isolation cabinet.
12. Use the standard cart set up.
13. Routine isolation cleaning will be implemented using the prescribed low level disinfectant in the immediate patient care area. The bathroom is to be cleaned with using a 1/10 dilution of Sodium Hypochlorite (bleach). The door to the bathroom should be kept closed. Gross soiling will be cleaned with all purpose cleaner or a quaternary ammonium solution before being disinfected with the sodium Hypochlorite (bleach) solution. All cleaning cloths, mop heads and mop water is to be changed. A dry dust mop is NOT to be used in isolation rooms.
14. Terminal cleaning will be performed using 1/10 dilution of Sodium Hypochlorite (bleach).
15. Once the patient has been removed from isolation due to C Diff, the patient will be moved to another room. Environmental Services will be notified per nursing to perform terminal cleaning of the room.
16. The Sodium Hypochlorite will be prepared DAILY in the Environmental Service Supply area. NO bleach solution will be prepared in the patient area.
17. Caution must be exercised when using Sodium Hypochlorite. Chlorine bleach has high levels of corrosivity (corrosive to common metal), deactivation, and reactivity (reacts with and destroys many common surfaces, i.e., clothing, carpeting, metals, and floor finishes).
18. All reusable equipment removed from the room is to be cleaned with a 1/10 dilution of Sodium Hypochlorite solution or bleach disinfecting wipe.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Environmental Cleaning of MDR Acinetobacter Rooms		1109-c
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
7/10	Environmental Services	ICC

PURPOSE: To control transmission of multi-drug resistant Acinetobacter (MDR-AB) among patients and to prevent the organism from becoming endemic in the environment at ACMC.

PROCEDURE:

10. **Before cleaning:** Acinetobacter rooms will be identified by the nursing unit and isolation will be in place during the cleaning.
11. Personal Protective Equipment will be worn according to the instructions on the Isolation sign posted on the isolation cabinet.
12. Use the standard cart set up.
13. The cart is to remain outside of the room. All cleaning clothes, mop heads and mop water is to be changed. A dry dust mop is NOT to be used in isolation rooms. Any equipment used in an isolation room is to be replaced with clean equipment before going to another area.
14. Routine cleaning will be implemented using the prescribed low level disinfectant in the patient care area and bathroom. All areas in the room are to be cleaned.
15. Terminal cleaning will be performed using the same disinfectant as before. Special attention is to be given to ALL areas of the room, including the walls and window shades. This is to be done (2) two times to ensure proper cleaning.
16. All equipment that is not disposable is to be cleaned by the appropriate personnel. All disposable equipment or supplies in the room are to be discarded by the appropriate personnel.
17. The curtain is to be removed and sent to the cleaners and replaced by a clean curtain.
18. Notify the Nurse when cleaning is complete.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Housekeeping Glossary		1109-d
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED:**
Reviewed 9/2010	Housekeeping	ICC

ACIDITY- The level of acid strength in a particular product.

ACID- A compound having a PH (see PH) between 0 and 7,and having thoseproperties by which the product reacts as an acid, e.g., reacts with alkali(see alkali) and is commonly used for descaling, derusting, and deoxidizing (as on aluminum) type operations.

ALKALINITY- The level of alkali in a particular compound.

ALKALI- A bacteria with PH (see PH) of 7 to 14. Reacts with acids to form salts as well as with fatty material to form soaps. Commonly used for heavy degreasing operations such as hood and over cleaning, as well as removing buildup of soaps scum from surfaces.

ASPHALT TILE- A mixture of synthetic (man-made) fibers, lime rock, mineral fillers and coloring. Asphalt binds the mixture together.

BACTERIA- One-celled microscopic organisms that may be harmless and useful, or dangerous and deadly. Note that bacteria becomes dangerous when misplaced, e.g., harmless (intestinal) bacteria will become quite dangerous when on skin surfaces or on food.

BACTERICIDAL- Ability to kill bacteria. Characteristic of germicidal cleaners.

BIODEGRADABLE- The ability of a substance to be decomposed by microorganisms. Specifically, the rate at which detergents, pesticides and other compounds are chemically broken down by bacteria and/or natural environmental factors.

BROWN SPOTTING- A wet/dry vacuum motor that uses two kind of air; working (or vacuum) and cooling air.

C.F.M.- Cubic Feet per Minute. Describes the amount of air movement generated by a vacuum motor. When combined with waterlift, offers an accurate efficiency rating for wet/dry vacuum.

CLEANER-DISINFECTANT- A chemical mixture of disinfectant and detergent which when used will clean surfaces and kill micro-organisms simultaneously.

CLEANING AGENTS- Products that remove soil when used according to manufacturer's instructions.

CURING - A chemical process of aging usually referring to concrete seals and floor finishes. Indicates the required time for proper chemical reactions to occur before traffic should be allowed on the surface.

DEODORANTS- A product for destroying or eliminating offensive odors, but does not necessarily indicate disinfecting or germ-destroying properties. Disinfectants and disinfecting cleaners are usually considered deodorants by virtue of their germ-destroying properties.

DETERGENT- By strict definition, this term includes all chemicals that are capable of cleaning, including soaps. Popular usage has made it nearly synonymous with synthetic detergents.

DILUTION- The reduction of a concentration of one product by the addition of a carrier. This carrier commonly refers to either water or a solvent used to dilute a product per manufacturer's instructions before use.

DISINFECTANT- A chemical agent that destroys more than 99% of the disease-bearing micro-organisms ordinarily on inanimate objects; however, a disinfectant usually does not destroy bacteria spores or virus.

EMULSIFIED- A stable mixture of two liquids normally not mixable.

ETCH- To pit a surface by applying suitable chemical solution. Usually refers to the use of acid on concrete surfaces to increase surface area and thereby improve adhesion by subsequent seal coatings.

FLASH POINT- The temperature at which sufficient vapors of potentially flammable product have accumulated in the atmosphere to present a fire or explosion hazard. Usually measured by Tagliabeau open or closed cut methods.

SECONDARY FILTERS- On a two-motor upright carpet sweeper, that filter which covers and protects the working air motor from loose dirt particles which may escape from the primary filter bag.

SLURRY- A temporary suspension of insoluble solid or immiscible liquids in a carrier base. Usually referring to the suspension of dirt in a cleaner stable long enough for adequate rinsing. May

also refer to the thick, grey, soapy mixture created when stripping a floor.

SOAP- A cleaning agent that is a mixture of natural ingredients; alkalies plus animal or vegetable fats and oils.

SOIL BARRIER- Chemical treatment of carpet, after shampooing, that retards spotting and resoiling. Reduces the frequency of set carpet cleaning and improves vacuuming efficiency.

SOLIDS- The residue or percentage weight of material that is left after volatile materials have been evaporated. Not a measure of concentration, since some materials can be completely dried off with heat, even though they are 100% pure chemicals.

SPRAY BUFFING- An intermediate floor finish program procedure that removes black and scuff marks while improving or maintaining the gloss of the finish.

STERILIZATION- A 100% kill, destroying all germs and mold and making viruses inactive.

SUSPENSION- The action of the cleaning agent that holds insoluble dirt particles suspended in the cleaning solution, keeping them from being redeposited on a clean surface.

TERRAZZO- A concrete mortar base, into which small chips of multi-colored marble or granite, are embedded. The entire surface is then ground and polished.

TOXIC- Any substance which has the capacity to produce bodily injury through injection, inhalation, or absorption through the skin.

USE-DILUTION- The proper measurement of chemical and dilutent as specified by the manufacturer to achieve the most efficient results. Especially important in the use of germicides and germicidal cleaners as it specifies the level of material, approved by the government through testing, to achieve the proper and desired sanitizing or disinfecting effects.

ANTISEPTICS AND DISINFECTANTS

Hand Cleaner in low risk areas……...Cormatic/Ultima Antiseptic Soap

Hand Cleaner Supplement…… ……Bacti-Stat or Purell

PT Whirlpool…….....Buckeye Supergard

Floor Cleaner……Buckeye Sanicare QUAT-256

Surface Cleaner……Buckeye Sanicare QUAT-256

Clean up Blood and Body Fluids…… ……...Buckeye Supergard & 1:10 Bleach

Large Spills……Sprinkle with Isosorb

Odor Counteractant……...Buckeye Aerosol

Bathroom Cleaner…….Buckeye Sanicare QUATE-256 & Sparkle

Surgical Prep……..Chlorhexidine or Betadine or Hibiclins

OB Prep……..Betadine or Hibiclins

Cleaning Floors in Surgery & OB…… …….Buckeye Supergard

Disinfectant Spray…… ……...Buckeye Sanicare QUAT-256

Glass Cleaner…… ……...Buckeye Star Spray Concentrate

Surgery Disinfectants……Cidex Opa; Glutaraldahyde

USE OF PLASTIC BAGS

Red ……..Hazardous/Infectious Waste

White or Black or Gray……...Trash

Blue……Dirty Linen

Clear…….....Reject Linen

Yellow…… ……Chemotherapy Waste

Home Health

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILLING NUMBER:**
Home Health General Guideline		1110-a
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 10/2010	Home Health	ICC

PURPOSE: Prevention of infection and control of communicable disease in the home.

RESPONSIBILITY: Home Health Care Personnel

POLICY: General guidelines and practices in the Infection Control Manual apply to the Home Health Care Department where applicable. However, since the main sphere of patient care is in the patient's home, there are obviously some modifications.

INFECTION CONTROL POLICIES: Prevention of infection and control of communicable disease in the home is an important aspect of Home Health Care. The Home Health Care nurse (s) must always be alert to ways to prevent infection, be knowledgeable in the signs and symptoms of communicable disease in a patient.

HANDWASHING: Hand washing is one of the most important factors in the prevention of spreading disease. Home Health Care personnel should wash their hands before and after each contact with a patient. Liquid antiseptic hand wash solution is carried in the Home Health Care bag for use when soap and water is not available.

EQUIPMENT: Blood pressure cuffs and stethoscopes will be sanitized between patients with spray antimicrobial.

EMPLOYEE HEALTH: Employees must comply with hospital employee health guidelines.

Home Health Care personnel should report to their director any respiratory illness, abscesses or draining skin lesions, diarrhea or any other infection that may be transmitted by direct patient contact. The Home Health Care Director will make alternative assignments for ill employees or ask them not to report to work if necessary.

INSERVICE ON INFECTION CONTROL: Home Health Care Employees will attend Infection Control inservices made available by the hospital.

HOSPITAL AQUIRED INFECTION CONTROL: Home Health Care nurse (s) will report any immediate post-hospital infections they are aware of to the Infection Control nurse for her to follow-up and collect data on nosocomial infections.

ASEPTIC TECHNIQUE: Any procedure the Home Health Care nurses do in the home that requires aseptic technique, as in inserting catheters, or changing dressings on wounds, will be carried out under strict aseptic technique. Sterile dressing and supplies are obtained from Purchasing and stored in the Home Health Care Supply closet. Stock is rotated and kept free of dust and dirt. Disposable items are used for one patient only. These are not resterilized for future use.

GENERAL INFECTION CONTROL GUIDELINES

Sterile gloves are used for wound care unless the physician says clean technique is adequate.

Paper gowns or plastic aprons will be worn if clothing is likely to become soiled.

Highly contagious diseases- personnel will use mask and gown if indicated.

Home Health Aids use disposable gloves for aspects of care as directed by the RN director.

Standard/Universal Precautions are to be used by all personnel.

Upon admission to Home Health Services, general infection and safety control measures will be reviewed with the patient and/or caregivers. This will be completed during the first several days and will include decontamination (using one part bleach to five parts water) and disposing of infectious waste in regular trash. A handout will be left in the patient's home.

If at all possible the same nurse will not care for a patient with an infected wound and a patient with a clean wound at the same time.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILLING NUMBER:**
Home Health Infectious Diseases		1110-b
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
10/2010	Home Health	ICC

Purpose: To maintain quality patient care while using aseptic technique and maintaining Universal Precautions.

Policy: TO PROTECT THE CAREGIVER

Hand hygiene should be performed after each patient contact. Keep hands away from mouth and face. Prevent direct contact with body fluids including saliva, feces, semen, mucous, perspiration, and blood.

Hands need not be gloved for handling clothing and articles not soiled. Gloves are not needed to touch intact skin. Gloves should be worn during patient care contacts such as bathing, suctioning, and wound care that may expose caregivers to patient body fluids. Take precautions when dealing with secretions (e.g., diarrhea, vomitus, urine). Masks should be worn while caring for patients with active, productive cough if the patients are unable to cover their mouths and use tissues.

Home Health aides will place heavily soiled linens into double plastic bags that are to be sealed until they are laundered with hot water, detergent and bleach, then machine dried on a high setting. Dishes should be washed with hot water and soap.

Caregivers should not touch their mouths or bodies while providing patient care.

People who do not have AIDS may use same bathroom as someone who with AIDS. However, good sanitary practices are necessary: e.g., not spilling excretement on toilet seat, cleanse bathroom regularly. Wash hands after use of facilities.

TO PROTECT PATIENT
Hand hygiene should be performed before patient contact.

Masks should be worn if the caregiver has infectious symptoms, such as a cough, cold or sore throat.

Family, friends and visitors should be cautioned about exposing the patient to infections, and should observe the same hand washing and masking procedures that caregivers observe.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILIING NUMBER:**
Home Health Universal/ Standard Precautions		1110-c
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed10/2010	Home Health	ICC

PURPOSE: Prevent infections that are transmitted by direct or indirect contact with infective blood or body fluids.

POLICY:

1. The following guidelines are to be used by all personnel to prevent skin and mucous membrane exposure when contact with blood or body fluids of any patient is anticipated.

    A. Wear gloves for touching blood and body fluids, mucous membranes, or non-intact skin of all patients, for handwashing items or surfaces soiled with blood or body fluids, and for performing venipuncture and other vascular access procedures. Hands are to be washed after removing the gloves.
    B. Wear mask and protective eyewear during procedures that are likely to generate droplets of blood or other body fluids to prevent exposure to mucous membranes of the mouth, nose and eyes.
    C. Wear gowns or aprons during procedures that are likely to generate splashes of blood or other body fluids.

2. Hands and other skin surfaces are to be washed immediately and thoroughly if contaminated with blood or other body fluids.
3. To prevent injuries caused by needles and other sharp instruments:

    A. Avoid recapping needles, removing needles from syringes after use, or otherwise manipulating needles by hand. Safety needles and needless IV system will be used when available.
    B. Place disposable syringes and needles, scalpel blades and other sharp instruments in puncture resistance container for disposal. Puncture resistant containers are provided in patient homes by Home Health if needed.
4. Needlesticks are to be reported to the supervisor immediately and ACMC Needlestick policy will be followed.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCRRDURES MANUAL

TITLE/DESCRIPTION:		**FILING NIMBER:**
Home Health Employee Related Infections		1110-d
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 10/210	Home Health	ICC

PURPOSE: Prevention of spread of infection from employee to employee/patients/visitors.

RESPONSIBILITY:

1. Home Health Director

2. Infection Control Coordinator

POLICY:

Information to their supervisor : The employee infection report should be completed and promptly sent to the Infection Control Coordinator.

Work restrictions: Employees may not work in the Home Health environment during the known period of communicability for:

Infectious Process	Duration of restriction
Chicken Pox	Until vesicles have dried and crusted
Rubella (German Measles)	Until rash is cleared, minimum of 5 days. Persons are probably able to transmit the disease for 5 days after the onset of the rash.
Hepatitis A	Minimum of 7 days after the onset of icterus; liver function studies improving; and clinical improvement. Patients with Hepatitis A shed virus in greatest quantities just before the onset of illness. They may be less infectious once illness begins.
Hepatitis B	Clinical improvement; liver function studies improving. The period of communicability is thought to be during the latter half of the incubation period until one week after the onset of jaundice.
Hepatitis C	Given our present knowledge, the work restrictions should be the same as for Hepatitis B.

Measles (Rubella)	Until rash is cleared, minimum of 7 days. Persons are probably able to transmit the disease for 4 days after the onset of the rash.
Scabies	Until clinically able to work.
Sore throat/Pharn-gitis due to Group A (Beta Hemolytic Step-tococci)	Until 24 hour after appropriate antibiotic.
Tuberculosis	Until release obtained from physician. (Usually after receiving therapy for 2 weeks and clinical improvement).
Conjunctivitis	Until seen by a physician and/or ophthalmic antibiotic in use for at least 12 hours and drainage has stopped.
Seasonal Influenza	Until 5 days after the onset of symptoms.

PRE-EMPLOYMENT HEALTH DATA BASE

All employees are required to complete a health data base at the time of employment and before starting work. The data base includes the following:

1. TB skin test, PPD (unless employee gives history of recent testing or a positive skin reactor). Proof of recent testing required. If a new employee does not have a documented Negative TB test within the last twelve months, a 2-step method of TB testing will be followed. The second test will be performed 1 to 2 weeks later.

2. Proof of two (2) MMR vaccinations must be provided. If only one MMR vaccine is documented, the employee can get a second MMR vaccine at the local Health department.

3. Proof of Hepatitis B series. If not previously vaccinated the employee will be encouraged to start the series of three injections or sign a declination form refusing the vaccine to be put in the employees' file.

4. Chest X-ray if skin test positive or copy of recent X-ray.

5. Drug screen.

Each year near the anniversary of employment, the tuberculin skin test will be repeated. If a person is a positive reactor a questionnaire is answered. If symptoms exist, a chest X-ray will be done. Yearly chest X-ray is not required

Laboratory

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES

TITLE/DESCRIPTION:		**FILING NUMBER:**
Lab		1111-a
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 5/2010	Lab	ICC

PURPOSE:

To describe precautions and procedures that must be followed when dealing with known or potential biohazardous agents, to protect employees from disease and to prevent the diagnostic laboratory from being a source of disease for patients and community.

RESPONSIBILITY:

1. Physician Department Head

    a. Assist in development and review of all policies and procedures within the department, and submit for approval to the appropriate hospital committee and document in minutes.

    b. Train and supervise other Laboratory physicians in infection control.

    c. Recommend revision of general guidelines, as needed, for approval by the Infection Control Committee.

    d. Review infection control studies for any employee infection that may have occurred in the department.

2. Hospital Department Head

    a. Responsible for proper equipment safety within the department.

    b. Maintain a clean and safe environment.

    c. Assure that personnel comply with infection control guidelines within the department and throughout the hospital.

    d. Assists in presenting infection control programs for the department.

    e. Revise guidelines as needed for approval by the hospital and the Infection Control Committee.

3. Infection Control Practitioner

    a. Assist in formulation of infection control guidelines.

b. Periodically assess compliance with these guidelines.

c. Present infection control education programs when necessary.

d. Study outbreaks of infection related to the department.

4. Infection Control Committee

a. Review, revise and approve policies for infection control.

b. Review report of infection and necessary follow-up. Document in committee minutes.

PERSONNEL:

1. Employee Health

a. Laboratory personnel must participate in the Employee Health Program.

b. Employees must not work in direct patient contact if they have skin, respiratory or gastrointestinal infection.

c. Employees should notify supervisor in case of accident, injury, exposure or illness.

d. Employees with open cuts should not handle contaminated blood or specimens.

e. Employee should follow all infection control policies in the department.

f. Standard precautions will be observed.

2. Personal Hygiene

a. Hair longer than shoulder length must be worn in such a way that it will not obscure vision and will not be a hazard around automated equipment and open flames.

b. Clean uniforms should be worn each day.

c. Employees must wash hands before leaving lab area.

d. Standard precautions will be observed by all personnel.

FOOD AND DRINKS:

1. Food, candy, gum or beverages for human consumption should not be taken into or consumed in any area where work with biohazardous materials is conducted.

2. Employees wearing contaminated laboratory clothing should not enter lunchroom.

3. Refrigeration equipment in lunchroom should be used only for storage of lunches; storage of food supplies should not extend beyond one working week. No food should be stored in any refrigerator containing biomedical materials.

4. There should be no food dispensing machines in any area of a biohazardous unit.

5. Employees should wash their hands before using any lunch room area.

SMOKING:

1. Ashley County Medical Center is a non-smoking facility.

2. Smoking is prohibited on hospital grounds.

EMPLOYEE EDUCATION:

1. All personnel should receive training in isolation techniques.

2. Policies and Procedures of department should include infection control measures. Employees should review policies and procedures annually.

3. Phlebotomists should be trained in antiseptic skin prep technique.

4. All personnel should know how to handle spills of contaminated materials.

OPEERATION OE EQUIPMENT:

1. No employee should operate any equipment that he/she is not authorized and trained to use. No employee should operate new or unfamiliar equipment until the supervisor has been contacted for instruction and authorization.

2. Equipment known or suspected of being faulty should not be operated. Mechanically unsafe equipment should be tagged and reported to the supervisor.

3. Portable electric fans are undesirable in biohazardous areas.

BOOKS AND JOURNALS:

1. Every effort should be made to limit the number of books and journals held in biohazardous areas. Books and journals should not be taken in laboratory rooms where biohazardous agents are being used. Before removal of books or journals from a biohazardous area, appropriate decontamination should be accomplished.

2. Books on loan from outside libraries should never be taken into biohazardous areas.

IDENTIFICATION AND CONTROL OF BIOHAZARD AREAS:

Traffic Control:

1. Admission of individuals not assigned to any posted area should be only reasons of business; they should be accompanied by a member of the Laboratory staff and don appropriate attire according to hospital policy.

2. Biohazard areas signs should be left in place.

3. When maintenance personnel enter a biohazardous area, the supervisor must ensure that all precautions are understood and that any unnecessary hazards in the area are secured or decontaminated. All equipment to be serviced shall be rendered free of infectious organisms prior to servicing.

4. Laboratory coat worn in biohazard area should not be worn outside of the area.

Signs, Marking, and Color Code:

1. All precautionary and safety signs should conform to :

   a. Occupational Safety and Health Standards, published in the Federal Register, Wednesday, October 18, 1972, Volume 37, Number 202, Part II, Paragraph 1910.45, entitled “Specifications for Accident Prevention Signs and Tags.”

   b. American National Standards Institute – Standard 235.1 – 1972 Accident Prevention Signs.

   c. American National Standards Institute – Standard 253.1 – 1971 Marking of Physical Hazards.

2. The NIH Biohazard Sign (Form NIH 645-4) should be used to identify all restricted biohazardous areas.

3. All incubators, refrigerators, and similar storage spaces for biohazardous materials should bear a Biohazard symbol. When incubators, refrigerators, etc., are so marked and are no longer being used for storage of infectious materials, the markings should be removed and the equipment decontaminated.

Pipettes:

1. No mouth pipetting allowed in the laboratory.

2. No infectious mixtures should be prepared by bubbling expiratory air through a liquid by means of a pipette.

3. Non- disposable, contaminated pipettes should be placed horizontally in a pan containing enough disinfectant for complete immersion. Cylinders used for vertical discard are not recommended. The pan and pipettes should be autoclaved as a unit and replaced by a clean pan with fresh disinfectant.

4. If a vertical pipette cleaning system is available, non-disposable pipettes should be placed only in cylinders containing sufficient fluid to completely immerse the entire pipette.

Syringes:

1. Disposable syringes used with biohazardous materials should be the LUER_LOK type or equivalent to assure that the needle cannot separate during use.

   Needles, syringes, and sharps are to be discarded in “Contaminated” needle boxes.

Centrifuges and Shakers:

1. Before centrifuging, tubes should be checked for cracks; the inside of the trunnion cups should be inspected for rough walls caused by erosion or adhering matter, and pieces should be carefully removed from the rubber cushion. A germicidal solution added between the tube and trunnion cup not only disinfects the outer surfaces of both, but also provides cushion against shocks that might otherwise break the tube. Metal or plastic tubes (other than nitrocellulose) should be used whenever possible.

2. Decanting from centrifuge tubes should be avoided. If necessary, the outer rim should be wiped with a disinfectant after decanting so that the material on the lip cannot spin off as an aerosol. The centrifuge tube should never contain liquid within 0.5 cm. of the rim, so that a rim wet with culture is avoided.

Water Baths

Water baths used to inactivate, incubate or test biohazardous materials should contain a disinfectant. Adequate changes of disinfectant should be made.

Refrigerators, Deep Freeze and Dry Ice Chests:

Refrigerators, deep freezer and dry ice chests should be checked, cleaned out, and defrosted periodically to remove any ampules, tubes, etc., containing biohazardous materials that may have broken during storage. Rubber gloves are recommended during cleaning. All materials, especially infectious or toxic, stored in refrigerators or deep freezers should be labeled with scientific name, date stored, and initials of the individual storing the material. Do not store flammable solutions in non-explosive-proof refrigerators.

Test Tube Techniques:

Tubes containing biohazardous materials should be manipulated with extreme care. Studies have shown that simple procedures such as removing a tube cap or transferring an inoculum can create a potentially hazardous aerosol.

Manipulation of biohazardous material should be conducted in safety cabinets or under safety hood. Tubes and racks of tubes containing biohazardous material should be clearly marked. Whenever possible, safety test tube trays should be used in place of conventional test tube racks to minimize spillage from broken tubes. A safety test tube tray is one having a solid bottom and sides deep enough to hold all liquids should a test tube break.

Work Habits:

Self-inoculation may be prevented by keeping the hands and items such as pencils away from the mouth, nose, eyes, and face. Avoid application of make-up and insertion of contact lenses. All specimens should be handled as contaminated. Contamination from splashing is minimized by wearing a face shield and mask.

Serum and Blood Specimen Hazard:

Diagnostic serum specimens carry a risk of infection with serum hepatitis and should be handled carefully.

Disposable Gloves:

These should be worn when handling visibly contaminated specimen containers, AB cultures, stool cultures and during any cleaning procedures.

PROCEDURES FOR DISPOSAL OF CONTAMINATED MATERIAL:

1. Locations

   a. All contaminated or suspicious specimens, including cultures and culture material (serums, pipettes, swabs, etc.) should be placed in a biological bag and waste baskets marked as Biolohazardous Waste>

   b. All biohazard waste baskets will be emptied by housekeeping for proper infectious waste disposal.

2. Disposal

   a. All materials should remain in 1 waste container to await daily pick-up through the Housekeeping Department.

      1. Urine specimens may be drained into regular sink and the waste flushed with liberal amounts of water.

      2. Stools are not normally autoclaved due to tendency to release gas and splatter. Dispose into biohazardous waste.

MICROBIOLOGY:

1. Swabs and Pipettes

   All contaminated swabs and pipettes should be discarded in the biohazard container.

2. Culture Specimen and Plates

   Culture specimens and plates should be discarded in the biohazard container.

3. Hand washing

   All personnel must routinely scrub hands with germicidal soap following handling of culture material, performing microbiology procedure, and before leaving the work area.

4. Pipettes

   Only sterile, disposable pipettes should be used.

5. Countertops

   Countertops should be cleaned daily with a phenolic germicide solution.

6. Disposable Gloves

   Disposable gloves must be worn when handling all specimens; especially, AFB cultures, stool specimens, during any cleaning procedure or tissue grinding, if container is labeled isolation, and handling any culture material when the outside of the container appears to be contaminated.

7. Inoculation

   AFB or other known hazardous inoculation, stool inoculation, O & P procedure, and tissue grinding and inoculation procedures must be performed under the hood in the microbiology room.

8. Tissue Grinding Instruments

   Tissue grinding instruments must be autoclaved before washing and being sent to Decontamination.

9. Blood Culture Needles

   Blood culture needles should be discarded in a sharps container.

PATHOLOGY: (if performed at ACMC)

1. Clothing

   Personnel should wear clean uniform daily.

2. Tissue Fragments

   Tissue fragments should be collected, bagged, and stored in the cooler until they can be incinerated. Tissues for histological examination should be placed in a container of 10% Formalin.

HISTOLOGY:

1. Disinfection of Cutting Board

   When frozen section specimens are processed, the cutting board and all instruments should be cleaned immediately with full strength bleach, flooded with copious amounts of water, and dried with disposable paper towels.

2. The Cryostat

   The Cryostat should be cleaned with absolute alcohol and dried with disposable paper towels.

3. Frozen Procedure

   Upon completion of the frozen procedure, specimens should be placed in 10% Formalin.

4. Hand Scrub

   Personnel involved with the frozen procedure must use germicide solution on the hands.

5. Gloves

   Personnel assisting with gross examination of specimen must wear disposable gloves, gowns, aprons, masks, face shields or safety glasses should be made available.

6. Gross Cutting Board

   Gross cutting board, weighing scales, and all other instruments must be cleaned immediately following use with phenolic germicide.

7. Specimens

   Following gross examination, specimens should be returned to their Formalin containers and stored according to department policy.

8. Cutting Blades

   Disposable cutting blades should be collected in a sharps container.

9. Disposable Gloves

   Disposable gloves should be discarded in the biohazard container.

10 Routine Surgical Specimens

   Routine surgical specimens should be brought to the lab in containers containing 10% Formalin.

CHEMISTRY:

1. Countertops

   Countertops should be cleaned with germicide solution at least daily.

2. All Biohazard Specimens

   All biological specimens and containers should be discarded in biohazard containers to be removed by housekeeping.

HEMATOLOGY, URINALYSIS, AND SEROLOGY:

1. Countertops

   Countertops should be cleaned with germicide solution at least daily.

2. Blood, Biologic and CSF Specimens

   Blood, Biologic and CSF specimens should be discarded in the biohazard container.

ISOLATION:

Isolation technique must be followed when collecting specimens from isolated patients.

Laboratory shall be notified of the type of isolation when patient is isolated.

Laboratory technician’s tray must not be brought into room. Tourniquet and vacutainer holder are left in room. Take only disposable supplies needed into the room.

All specimens are to be taken to Laboratory immediately after collection. Specimen containers such as urine, sputum, stool, blood, wound cultures, etc., should be placed in clear bag, sealed and labeled “ISOLATION”.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Lab / Blood Bank		1111-b
EFFCTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 5/2010	Lab	ICC

INTRODUCTION:

Blood Bank employees have direct contact with patient's blood and blood products and, therefore, run a high risk of acquiring infection, especially hepatitis B.

Unsafe handling of blood may be hazardous to patients.

PERSONNEL:

1. Employee Health

    a. Personnel with infections should not have direct patient or donor contact.

    b. Personnel must comply with employee health program.

    c. Hepatitis B vaccine should be encouraged for all employees.

2. Hygiene

    a. Clean uniforms must be worn while on duty.

    b. Drinking, eating and smoking, applying make-up / contact lenses is prohibited anywhere in Blood Bank Laboratory.

    c. Mouth pipetting is prohibited.

    d. Hands should be washed before entering and leaving test area.

    e. Spills of blood should be cleaned up immediately with Safeguard.

3. Continuing Education

    a. All personnel should receive training in aseptic and isolation technique.

    b. All personnel must participate in in-service classes concerning new developments in collection, processing and storage of blood.

    c. Records of continuing education should be maintained.

TRAFFIC CONTROL

Only authorized persons should enter Laboratory area.

BLOOD BANK:

1. Units of Blood

   Even though all blood and blood products are tested for infectious agents such as hepatitis B, C HIV, and syphilis by Lifeshare Blood Center, universal precautions should be observed.
   Units are to be stored @ 1-6* C and checked daily for hemolysis and signs of microbiological contamination.

2. Outdated Units of Blood

   Outdated units of blood and empty bags are placed in the biohazard container.

3. Countertops

   Countertops should be cleaned with a germicidal agent at least daily.

4. All Specimens

   All specimens should be discarded in the biohazard container after 7 days.

PATIENTS:

1. All blood and body products should be handled as if contaminated.

2. All donor blood is tested for hepatitis, HIV, syphilis, and West Nile Virus by Lifeshare Blood Center.

3. In an emergency situation, if the patient receives blood before it has been tested for HBsAG and the test is later positive, the recipient's physician must be notified.

   If a donor later develops hepatitis or later reports close exposure to hepatitis before donating blood, the recipient should be considered for prophylactic based treatment based on hospital policy and physician discretion.

4. All cases of post-transfusion hepatitis with clinical signs of acute liver dysfunction occurring from two weeks to six months after transfusion should be thoroughly investigated. A follow-up should be made on donors suspected in the case.

TRANSFUSION COMMITTEE:

1. Should monitor all actual or possible transfusion reactions for possible infection.

2. Infection Control Practitioner may be a member of the committee and be responsible for presenting data on post-transfusion infections.

3. Monitor justification for transfusions and their appropriateness.

DONORS: (Currently all blood is donated through Lifeshare Blood Center)

Standards for donor selection should be based on the current American Association of Blood Banks.

Maintenance

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Maintenance		1112
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 8/2009	Maintenance	ICC

1. Maintenance personnel are to wash their hands before and after entering a patient's room with soap and water or use alcohol gel.

2. Maintenance personnel are to check with the Charge nurse or the OR nurse before entering the Birthing Room, Nursery, Post-Partum Room, Isolation Room or OR.

3. Maintenance personnel are to wear scrub suit, cap, mask, and shoe covers in the OR and the Birthing Room. They are to wear a scrub suit in the Nursery or a Post-Partum Room if the baby is Rooming-in.

4. Maintenance personnel are to follow the designated Isolation Precaution when entering patient's room who has an infectious illness.

5. Equipment is to be thoroughly cleaned before it is taken into the Birthing Room, the Nursery or the OR.

6. Air handling units that serve the patient areas are equipped with two sets of filters; one set is located in the intake duct, the other set in the discharge duct.

7. Coils in ducts are cleaned with a vacuum cleaner annually and cooling coils are washed with a detergent once a year.

8. Drip pans in patient rooms are cleaned with Chlorox on a quarterly basis.

9. Vacuum breakers are inspected quarterly.

10. Return air grills are cleaned with One Stroke quarterly.

11. Blue (ultraviolet) light in the ER are inspected monthly.

Materials Management

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/ DESCRIPTION:		**FILING NUMBER:**
Material Management		1113
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 08/2009	Hospital Wide	ICC

PURPOSE:

To describe policies for storing and issuing items purchased.

Pre-sterilized items are stored and distributed in such a way as to maintain sterility of contents.

PERSONNEL:

Employee Health:

1. Employees comply with pre-employment and annual health screening.

2. Employees do not work if they have skin, respiratory or gastro-intestinal infection.

Employee Education:

1. All new employees must attend an orientation program on infection control. In-service is provided on infection control. Attendance is required.

STORAGE:

1. Supplies are stored on shelves until needed for distribution. Stock is rotated so items which are first in are first out.

2. Sterile supplies from manufacturers are left wrapped. Stock is rotated. Packaging is inspected to assure it is intact before using.

3. Any item that is wet or leaking is considered contaminated and is removed from inventory.

4. Supplies may not be stored closer than 18” from the ceiling.

EXPIRATION DATES:

1. Expiratory dates are checked at the time mobile supply carts are restocked

Prior to daily exchange of unit supply. Each department is responsible for checking expiration dates monthly.

2. Commercially-packaged sterile items that do not list an expiration date are considered sterile until opened if package integrity has not been breached.

RECALL:

1. In the event that materials or items are recalled by manufacturer because of malfunction, questionable sterility, or any other reason it is the responsibility of the department manager to:

   a. Check all inventory if recalled items are in stock.
   b. Mark items and send to shipping department where they will be returned to manufacturer or destroyed.
   c. Notify the Infection Control Practitioner and Risk Management.

CLEANING:

The storeroom area is located so as to decrease dust contamination. Supplies are stored on shelves high enough to allow for mopping.

1. Storeroom:

   a. Floors are given routine care with a disinfectant.

   b. Shelves are damp-dusted with germicide when stock is rotated.

   c. Disinfectant used in the department is hospital grade.

2. Exchange Cart Area:

   a. Floors are damp-mopped daily with disinfectant.

   b. Shelves are damp-dusted weekly with disinfectant.

   c. Exchange cart shelves should be damp-dusted daily.

RODENT AND INSECT CONTROL:

1. Monthly inspection of the department is made by the contracted company for pest control

2. Empty cartons are removed from department daily.

OFF-HOURS ACQUISITION OF SUPPLIES:

After hours access to the department is to occur only in an emergency situation. Security will accompany the individual and make certain materials taken are written on record. Material Manager is on cal seven days a week, 24 hours a day.

MATERIALS MANAGEMENT:

1. The Material Management Department acts as a clearinghouse for all items purchased in the hospital for patient care. Material Management is provided with a list of disinfectants and antiseptics which have been approved by the Infection Control Committee.

2. The director of Patient Services and Infection Control Practitioner participate in product and equipment evaluation. Criteria for evaluating equipment should include ease and effectiveness of cleaning methods.

3. Infection Control is consulted prior to purchase of all equipment and supplies used for sterilization, disinfection, and decontamination purposes.

4. Annually, the approved list of hospital cleaning, disinfecting and sterilizing solutions is reviewed, updated, and approved by the Infection Control Committee.

Nursing

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER;**
Nursing Service General		1114
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 8/2009	Nursing Service	ICC

PURPOSE:

Nursing personnel have the primary responsibility in daily activities to protect the patient from acquiring an infection. To guide, assist and support the nurse, each unit has readily available:

1. Nursing policy and procedure manual which describes techniques to prevent contamination and spread of organisms.

2. Isolation manual.

The Infection Control Practitioner provides assistance and support to all members of staff upon request. In his/her absence, the shift supervisor is always available as a resource person. Resource materials are available on every Nursing unit and the Intranet and these contain infection control policies and the isolation manual.

1. Nursing personnel observe universal/ standard precautions.

POLICY:

PERSONNEL:

All nursing personnel must comply with the Employee Health Policy.

No employee should endanger the health of the patient or their fellow employees by reporting to work when ill. If illness occurs after coming to work, it is the employee's responsibility to notify the Charge Nurse of the illness, who in turn should notify the Shift Supervisor.

Handwashing:

Handwashing with soap and water, using vigorous scrubbing, is to be done by nursing personnel when coming on duty, before and after patient care, after using bathroom, before and after meals, after combing hair, using a handkerchief or touching face, and before and after assisting with invasive procedures and at the end of the workday.

Education:

Nursing employees receive orientation to infection control procedures and policies. Mandatory annual infection control in-service will be offered to all Nursing Service personnel.

PERSONNELL RESPONSIBILITIES:

Director of Nursing:

A. Directs and supervises the infection control program for the Nursing Department.
B. Ensures training and continuing education for nursing personnel to keep current in newer techniques and policies in infection control.
C. Assures compliance with infection control guidelines.
D. Ensures that all infection control reports are reviewed for trends in infectious processes.
E. Recommends policy revision of guidelines as needed to meet governmental and accrediting requirements.
F. Documents and reports on infection control program as appropriate.

House Supervisor (Nurse Managers):

A. Enforces compliance with infection control guidelines.
B. Reports as appropriate to Infection Control Practitioner or committee.
C. Assists in revision of general guidelines for infection control.
D. Directs and assesses appropriate patient care and uses Universal Precautions.
E. Ensures clean safe environment for the patient.
F. Enforces compliance with infection control guidelines.
G. Reports and refers infectious personnel to Infection Control Practitioner.
H. Assists in data gathering and review for infection control.
I. Assists in education programs for infection control.
J. Ensures the availability of Infection Control Manual / procedures for nursing staff, and revision of policies and procedures pertinent to department.

Infection Control Practitioner:

A. Collaborates with all departments of Nursing Service in the education program.
B. Maintains the master files of all infection control policies and procedures.
C. Updates Infection Control Manual as appropriate.
D. Initiates changes in policies and procedures as appropriate.
E. Assesses practice of infection control.
F. Institutes studies of hospital acquired and epidemic infections.
G. Keeps accurate records of hospital acquired infection rates.
H. Institutes isolation procedure as appropriate.
I. Reports diagnosed or suspected infectious/communicable diseases to the appropriate agencies.

J. Consults with nursing staff regarding disease process.
K. Orders cultures as appropriate.
L. Maintains routine and intermittent surveillance:
    1. Reviews inpatient charts.
    2. Checks cultures daily.
    3. Checks temperature charts daily.
    4. Reviews antibiotic usage.
M. May direct personnel health program.
N. Conducts in-service program to update personnel in infection control program changes.
O. Interprets infection control policy/procedure for staff.
P. Conducts surveillance using objective guidelines and includes follow-up surveillance on all discharged infectious patients.
Q. Authorizes isolation and/or barrier measures.
R. Prepares reports of statistical data for Infection Control Committee and Medical Staff.

Nursing Staff:

A. Implements and practices safe, appropriate care to patients and uses universal precautions.
B. Reports sign/symptoms of infectious process to Infection Control Practitioner.
C. Attends in-service classes on infection control.
D. Collaborates with Nurse Manager or Supervisors and Infection Control Practitioner in studies of infectious diseases.
E. Teaches patient and families.
F. Practices personal cleanliness as an obligation to patient and personnel.
G. Complies with policy and procedures of employee health program for the protection of the patient and staff.
H. Implements appropriate isolation procedures as needed.
I. Recognizes the necessity of routine handwashing as the most important procedure in preventing spread of HAI.

VISITORS:

Visitors with infections should be restricted.

Visitors to patients in isolation must be instructed in precautionary attire and supervised by the nursing staff in carrying out handwashing technique and in proper use of gown, gloves, masks (as required by isolation method).

PATIENT:

Admitting:

See Admitting Section for bed assignment policies.

Isolation:

See Isolation Manual for procedures and technique for isolation patients.

Burn Patients:

Burn patients are classified as major and minor. Isolation precautions and infection control techniques for major burn wounds may involve the use of strictly enforced, frequent handwashing, sterile gowns and masks. Since it is not possible to “isolate” a major wound by use of dressings, a private room or special burn center may be indicated for such patients.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Nursing-General Special Procedures		1114-b
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 8/2009	Nursing	ICC

SPECIAL PROCEDURES:

Some procedures have potential for both benefit and infection. Because of the potential of infection, such procedures warrant special emphasis as to technique in providing care. This section does not duplicate specific procedures, which should be provided in the nursing procedures manual; rather it will address points of emphasis that should be used to lessen the risk of infection.

PREVENTION AND CONTROL OF CATHETER-RELATED URINARY TRACT INFECTIONS (UTI):

The most common site of HAI is the urinary tract; approximately 40% of all hospital-acquired infections occur at this site. Nearly 75% of patients with HA urinary tract infection (UTI) have undergone some form of urologic instrumentation—often urinary catheterization—prior to their infection.

In most patients, catheter-associated bacteriuria is benign and resolves after removal of the catheter or catheter removal plus antibiotic therapy. However, urinary catheterization is the predisposing factor most frequently associated with gram-negative septicemia.

Cross-contamination of urinary catheters (i.e., passive transmission of bacteria from patient to patient on the hands of personnel) is an important mode of transmission for these and other organisms.

Non-sterile disconnection of the distal catheters and proximal drainage tube for catheter irrigation, specimen collection, or disconnection by accident has been recognized as a frequent mode of catheter contamination.

Catheter care procedures used by hospitals have a profound effect on the risk of bacteriuria in catheterized patients. Aseptic catheter insertion is of obvious importance. An iodophor prep can be utilized without local reaction in most antibacterial activity.

Based on our current knowledge of HA UTI, the following recommendations for urinary catheter care can be made:

Please see Appendices for:

1. CDC Guidelines for Prevention of Catheter-associated Urinary Tract Infections. U.S. Department of Health and Human Services, Centers for Disease Control, Atlanta, GA, 1981. (Appendix 604608)

2. CDC Guidelines for Prevention and Control of Intravascular Infections: intravenous Therapy-related, U.S. Department of Health and Human Services, Centers for Disease Control, Atlanta, GA, 1989 (Appendix 604609)

3. CDC Guidelines for Prevention of Infections due to Intravascular Pressure Monitoring Systems. U.S. Department of Health and Human Services, Centers for Disease Control, Atlanta, GA, 1981. (604610)

4. CDC Guidelines for Prevention of Nosocomial Pneumonia. U.S. Department of Health and Human Services, Centers for Disease Control, Atlanta, GA, 1982. (Appendix 604612)

5. CDC Guidelines for Prevention of Surgical Wound Infections. U.S. Department of Health and Human Services, centers for Disease Control, Atlanta, GA, 1985 (Appendix 604612)

PREVENTION AND CONTROL OF INFECTIONS IN SURGICAL WOUNDS:

Pre-operative scrub and shower with surgical scrub should be done.

INFECTIOUS BODIES – POST MORTEM:

Recommendations for Care of the Body After Death From Infectious Disease:

General Information:

* Infection control is of prime importance in the care of the body after death when the deceased patient has had an infectious disease.

* When taking care of a deceased patient that has had an infectious disease, handwashing is the most important means of preventing the spread of the infection.

* Notify Funeral Home attendant of any Blood borne/Communicable disease the patient may have had.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIEA AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Nursing-General Collection of Specimens		1114-c
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 9/2009	Nursing	ICC

NURSING PROCEDURES FOR COLLECTING SPECIMENS FOR CULTURES AND SENSITIVITY:

Policy:

1. Any suspected or verified infectious process should be cultured for possible growth of invading organisms.

2. A physician, nurse and lab personnel may obtain a specimen for culture and sensitivity after washing hands thoroughly.

3. A physician's order for obtaining a specimen for culture and sensitivity is not required prior to collection if the specimen comes from a draining wound or a diarrhea stool. The physician must be notified of the suspected infectious process and that a specimen was sent to the lab for analysis.

   Diarrhea stool caused by administration of antibiotic therapy should be cultured according to hospital policy.

   Post-surgical wounds less than one day should not be cultured, as a general rule.

   Suspected Infectious Process: Elevated temperature, redness and swelling around site, local tenderness, purulent and foul-smelling drainage and odor.

Guidelines:

1. Sufficient quantity of specimen must be provided to permit a thorough study.

2. A sample should be representative of the infectious process (sputum, not saliva; pus from underlying lesion, not sinus tract; swab from depth of wound, not from its surface).

3. Care must be taken to avoid contamination of the specimen by using sterile equipment and aseptic precautions.

4. The specimen must be taken to the Laboratory and examined promptly.

5. A meaningful specimen must be secured before antimicrobial drugs are administered.

6. Promptly label each container with patient's identification, source of specimen, date and time of collection, and the test requested.

7. Include clinical diagnosis and any other pertinent information on the Bacteriology Requisition.

Transport of Specimen to Laboratory:

1. Urine:

   a. Catheterized specimen

      1. Follow procedure for catheterizing male or female.

      2. Obtain a specimen from an in-dwelling catheter; using the specimen port (which has been wiped with isopropyl alcohol) then urine is collected with a sterile needle and syringe. Clamp foley immediately before specimen port so that urine can accumulate for specimen. Unclamp following aspiration.

   b. Mid-stream

      1. Male

         * Clean meatus with sterile water or saline solution or cloth in mid-stream urine kit.
         * Start urine stream.
         * Collect urine directly into a sterile container after the start of a continuous stream.

      3. Female

         * Cleanse vulva with sterile water or saline solution or cloth in mid-stream urine kit.
         * Spread labia.
         * Start urine stream.
         * Collect urine directly into a sterile container after the start of a continuous stream.

2. Wound

   a. Wash hands thoroughly; use clean gloves to remove the patient's dressing.

   b. Cleanse the skin area around the wound and the edges of the wound itself with 70% alcohol solution.

c. Using a sterile swab, obtain material for culture from the wound or wound drainage. (If there is no opening, there is no need to culture the skin area.)

d. Place swab into its container immediately without contaminating the swab or container. An aspirated specimen (liquid pus or drainage) is placed in a sterile container or tube with a screw top. The container or tube should be filled no more than halfway and tightly capped.

e. Wash hands and, with a new set of sterile gloves, replace dressing.

3. Puncture Fluids (pleural, peritoneal, or synovial spaces):

Specimen is aspirated by a physician using aseptic technique and sterile container.

4. GI Tract:

a. Feces for exam

1. First morning specimen is best.
2. Avoid mixing with urine.
3. Avoid stools where barium or mineral oil has been used.
4. Collect diarrhea stool.
   Collect stool in bedpan for adult.
   Collect stool from diaper of the infant.

b. Feces for bacterial culture

1. Insert swab into rectal opening and swab.
2. Return swab to its container.

5. Respiratory:

a. Throat

1. Visualize the back of the throat using a flashlight.
2. Depress tongue with blade.
3. Swab posterior pharyngeal wall.
4. Return swab to its sterile container.

b. Sputum

1. Induce cough.

* Early morning specimen is best.
* Induce coughing in order to produce sputum from lower bronchial tree.
* Use wide mouth bottle with screw cap (sterile container) except with acid-fast (use Falcon Collector).

2. Suction technique

* Add “sterile trap setup” to suction catheter in order to collect sputum directly into a sterile container.
* Follow the procedure “tracheal suctioning” in order to collect the sputum under sterile conditions.

6. Eye:

a. Swab affected area.

b. Return swab to its sterile container.

7. Cerebral Spinal Fluid:

The specimen will be obtained by a physician performing a lumber puncture under strict sterile conditions.

Check to see that each tube is clearly marked 1-2-3; the cap securely fastened and placed in a bio-hazard bag for transport.

8. Blood:

All blood cultures are to be done by a physician or lab personnel only. (Follow laboratory procedures for collection of the specimen-aerobic and anaerobic.)

WASTE DISPOSAL:

Specimens should be considered to be contaminated and should be handled in a manner that avoids risk of contamination. Gloves should be worn. Hands should be washed immediately after removing gloves.

Liquid wastes should be disposed of in hoppers or commode and flushed.

Solid waste should be placed in trash container. Solid waste from isolation patients should be bagged in the patient’s room in a red bag. Housekeeping personnel should transport RED BAG waste to storage room to remain until picked up by contracted land-fill.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Nursing-General Equipment & Supplies		1114-d
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Revised /2011	Nursing	ICC

EQUIPMENT AND SUPPLIES:

Disinfecting supplies and equipment must be done prior to return to the Decontamination Department to ensure the safety of persons handling and transporting the articles. This applies to air mattresses, K-thermia pads, commode chairs and all equipment brought out of isolation rooms.

Separate carts should be used to transport clean and soiled items.

Needles and sharps should be considered hazardous infectious waste and disposed of in containers designed to ensure against accidental needle punctures by those transporting trash.

The most important part of the care of the thermometer is the cleaning process.

* Wash hands before and after the procedure. Handwashing reduces the number of organisms on the hands.

* Wipe the thermometer, using a soft tissue and a twisting motion from the cleanest to the dirtiest area. The soft tissue comes in contact with all the surfaces, making it easy to remove any adhered organic material.

* Clean the thermometer with two cotton pledgets moistened with soap and water. The soap assists in removing organic material.

* Wipe the thermometer thoroughly, using a twisting motion with an alcohol-soaked pledget. The disinfectant used with friction assists in reducing the number of microorganisms on a clean object.

Stethoscope, ear plugs, and diaphragm should be cleaned with alcohol after each use.

Disposable supplies should always be discarded after use, never reused.

Refrigerator thermometers should be checked daily. Refrigerator temperature should be maintained between 35*F and 45* F.

Food should be covered and discarded upon expiration.

Water Pitchers:

Water pitchers should be kept covered when not in use. Quarter bags are to be filled with ice ands dispensed individually to ice pitchers in patient rooms.
The opening should be large enough to allow proper cleaning.

Tube Feeding:

Tube feeding formula single-use units should be used. Unused portions should be discarded. Sterile supplies stored on units should be checked monthly for expiration dates. Feeding tubes should be dated and discarded every 24 hours. Tubing should be flushed with water at the end of each feeding to cleanse tube.

Equipment:

Wheelchairs and transport stretchers should be washed weekly and when soiled. Other patient equipment, such as traction equipment and I.V. poles, should be washed between patients.

Mobile Care Stations (COWS):

Mobile care stations (COWS), including the hand held tablet, are to be cleaned daily with a disinfectant on the night shift.

The carts are NOT to be taken into any room that is set up for an isolation patient. Hand held tablets that are taken into isolation rooms are to be cleaned thoroughly with a disinfectant after use to prevent spread of infection.

Multi-Dose Vial (MDV):

“The practice of discarding multi-dose medication vials is an expensive and generally unnecessary practice. Little, if any, increase in risk is incurred by receiving medication from a multi-dose vial. Our preliminary observations indicate that, provided aseptic technique is maintained and no visible contamination develops, MDVs may safely be used until empty or until 28 days after opening or until the manufacturer’s expiration date, whichever comes first. This policy should result in a reduction of the cost of hospital care.”

Reusable Patient Drugs:

Policy and Procedure

1. Pharmacy policy discourages keeping medication at the bedside.
2. Medication such as eye drops, ear drops, nose drops or spray should not be left at the bedside.
3. Proper handwashing between patients and before and after instillation combined with proper instillation techniques would eliminate the need of leaving these medications at the bedside.

4. Applicators for inserting vaginal cream or suppositories should be washed after each use and placed in patient's bedside table.

Housekeeping:

Beds and all patient room furniture should be washed thoroughly with detergent germicide by Housekeeping staff after patient is discharged.

Beds of long-term patients should be washed every two weeks.

Patient's bathrooms, floors and all horizontal surfaces should be cleaned daily.

Bedside curtains and draperies should be washed when soiled.

Walls should be washed when grossly soiled and at least annually.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Nursing-Pediatrics		1114-e
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 8/2009	Nursing	ICC

INTRODUCTION:

The Pediatric Department houses patients whose ages range from newborn through teenage. The younger patient's immuno-responses are underdeveloped and, therefore, more susceptible to infection.

Many patients are admitted with symptoms which may or may not be symptoms of infectious diseases.

The population has much higher rate of respiratory infection diseases than adult admission for any service.

In order to prevent cross-contamination when both adults and pediatric patients are on the same unit, the following policies will apply:

1. Pediatric patients with any infection will not be allowed to play outside their room.

2. Private rooms will be used for all patients.

3. To the extent possible, hospital personnel will be assigned either to adults or children. If assigned to both, both populations should be free of infection.

4. Thorough handwashing between all direct patient contact is essential.

PERSONNEL:

Employee Health:

Members of the staff in the first trimester of pregnancy must not care for patients with rubella or suspected rubella.

Female personnel are recommended to have rubella titer at the time of employment, with vaccine suggested to those who require it.

All children admitted with fever of undetermined origin, skin lesions, and suspected communicable disease should be segregated in private room until diagnosis is determined.

RSV positive infants/children will be admitted to rooms preferably on same side of the hall.

Patients with diarrhea should be placed on excretion precautions and patients with respiratory congestion should be placed on secretion precautions until infectious process has been eliminated as a cause of symptoms.

Surgical patients should not room with medical patients.

Close communication must be maintained with admitting office when determining bed assignments.

Premature infants should have minimal contact with unsterile items.

Skin of incontinent patients should be washed well with soap and water when diapers are changed to prevent skin rash and possible infection. Diapers should be kept dry.

VISITORS:

Parents should be allowed to visit at any time. They must not be allowed to visit from room to room. They should be instructed in handwashing technique. Coats and accessories should be left out of isolation units.

SUPPLIES:

1. Respiratory equipment, croupettes, and isolettes should be cared for and cleaned according to procedures approved by the Respiratory Therapy Department.

2. Disposable nipples and bottles should be used. Handle nipple so as to prevent contamination.

   Commercially prepared formula should be used. Any nursery formulas prepared in the hospital should be cultured weekly.

   Dishes and silverware should be sent to the Food Service Department for cleaning.

3. Diapers should be disposed of in covered containers which are emptied at least once a shift.

Toy Policy:

1. Individual pediatric patients may be offered toys to play with for the duration of their hospitalization.

2. Precaution patients are not routinely offered hospital toys, but may use toys from home.

Note: If "stuffed" toys are necessary for a precaution child's emotional security, patient's toy from home may be offered. These toys should be bagged and washing instructions sent home upon discharge.

Procedure for Cleaning Hospital Toys

1. Purpose: To properly clean toys after each patient use.

2. Equipment: Approved germicide disinfectant and water.

3. Procedure: After child's discharge:

   a. Nursing staff will gather toys into a plastic bag and place them on dirty utility room counter.
   b. Nursing staff will notify Housekeeping Department to clean toys.
   c. Housekeeping staff will clean toys with germicidal detergent.
   d. Gloves should be worn.
   e. All surfaces should be washed using friction. Friction is essential for proper cleaning.
   f. Housekeeping will place toys in a clean bag and return them to the nurses to be placed is a designated storage cabinet.
   g. Toys may also be sent to the kitchen in a mesh bag to be washed in the dishwater. Nursing staff is to check with kitchen personnel prior to sending toys down.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Nursing- Obstetrics General		1114-f
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 9/2009	Nursing	ICC

INTRODUCTION:

Because many microorganisms are potentially dangerous to the newborn, precautions must be taken to prevent exposure of the infant to microbes. The infant has poor immune response developed and is particularly susceptible to enteric, respiratory, and cutaneous infections.

Infection control policies for the department should be in compliance with local Health Department regulations.

PERSONNEL:

1. Employee Health:

   a. All personnel must be free of active skin lesions, colds, diarrhea, or other kinds of infections.

   b. Employees must comply with employee health policies.

2. Employee Education:

   Employees must demonstrate knowledge of infection control methods. Orientation to infection control in the department should include dress code, handwashing techniques and policies, sterile technique, and isolation procedures.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Nursing- Obstetrics Labor and Delivery		1114-g
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 7/2011	Nursing	ICC

PERSONNEL:

1. Dress Code- Clean uniforms should be worn daily.

    a. Personal protective equipment is to be worn in all deliveries. (e.g.; goggles, gloves and disposable plastic shields)

    b. All personnel required to report to surgery are to follow the surgical dress code. Disposable scrubs will be provided to wear over their personal uniforms.

2. Handwashing – Proper hand washing must be performed prior to beginning shift, between each patient contact and after completion of shift.

VISITORS:

The decision to allow family members into the delivery area should be made by the Obstetrician in accordance with hospital policy. The following regulations should be observed:

1. Family members must comply with personnel dress code.

2. No family member with a known infection may enter area.

3. Family member must remain at head of delivery table.

4. Hand washing technique approved for personnel should be used.

TRAFFIC CONTROL:

1. Delivery area doors must be kept closed to corridor.

2. No unauthorized personnel must enter area.

3. Protective eyewear must be worn during delivery.

4. Uniforms must be covered with a lab coat or a long-sleeved cover gown when leaving the OB unit to assist in other departments.

5. All attending providers and employees involved in the delivery must perform proper hand washing.

6. Wash hands with soap provided at each sink before and after each treatment and from one patient to another.

7. Vaginal exams are always done with sterile gloves.

8. Avoid creating aerosols of air with germs. Example: Do not shake bed linens.

9. After each patient, the birthing room and adjoining bathroom should be thoroughly cleaned by housekeeping with a germicidal detergent.

BIRTHING ROOMS:

1. Purpose- To provide an alternative, safe means of labor and delivery other than the traditional delivery suite.

   Special Points: - To provide an alternative, safe means of labor and delivery other than the traditional delivery suite.

   "Family –centered delivery practices probably are no more likely to result in maternal or neonatal infections than in standard obstetrical and newborn care." National Nosocomial Infections Study Report, C.D.C., November 1979, p. 38.

2. Patient is admitted to the birthing room by physician order.

3. Routine admission orders are carried out.

4. No known infected patient is allowed to use the birthing room without written physician order for proper precautions.

5. Adequate lighting and temperature control are provided.

6. Attending physician utilizes the standard pre-delivery hand scrub, consisting of a minimum five minute scrub with antiseptic soap.

7. Attending physician's attire consists of shoe covers, scrub suite or uniform, and sterile gloves.

8. Personnel assisting will wear a clean uniform with a plastic apron.

PATIENT WITH AN INFECTION:

1. Obstetrical patients in active labor and with known or suspected infection process, e.g., undiagnosed fever, discharging skin lesion, fever due to infectious process, may be:

    a. Admitted to private labor room with toilet and handwashing facility where appropriate isolation technique may be carried out.

    b. Delivered and recovered in the birthing room. Terminal cleaning following the delivery should be done.

2. The decision of the OB Committee Chairman and/or Infection Control Committee must be final in regard to isolation.

SOLID WASTE:

Placentas should be bagged in plastic zip lock bag then bagged in red biohazard bag and sent to the lab to be saved for one week then disposed as medical waste per hospital policy.

Biohazard waste is defined and processed according to Rules and Regulations Pertaining to the Management of Regulated Medical Waste from Hospitals and other Health Care Facilities. March, 1995 as written in the Infection Control Manual.

EQUIPMENT AND SUPPLIES:

1. All instruments, sterile linens, basin sets, etc., should be processed, packaged, sterilized, and stored according to procedures for Sterile Processing Department. Sterile items must be checked for outdates. Packs should be rotated.

Disposable supplies must be thrown away after use on one patient.

2. All respiratory therapy equipment used in the department must be maintained following approved procedures for Respiratory Therapy Department.

3. All linens used in delivery should be placed in closed laundry bag and sent to soiled linen room.

4. Labor and recovery bed linens should be bagged in room when patient is moved to another bed.

5. Warming closets should be cleaned weekly.

6. Flash sterilizer should be cleaned according to manufacturer’s specifications.

7. Mobile care stations (COWS), including held hand tablets, are to be cleaned daily with disinfectant on the night shift.

The carts are NOT to be taken into any room set up for an isolation patient. Hand held tablets that are taken into isolation rooms are to be cleaned thoroughly with a disinfectant after use to prevent the spread of infection.

HOUSEKEEPING:

1. Birthing bed, lights, and equipment must be cleaned with detergent germicide following each delivery and daily.

2. Floors should be mopped daily and between patients with detergent germicide. Mop heads should be changed between deliveries.

3. Scrub sinks should be cleaned daily with detergent germicide.

4. Walls should be washed when grossly soiled and at least monthly.

5. Cleaning equipment should only be used in the Obstetric Department.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICY AND PROCEDURE MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Care of patient with suspected or Confirmed H1N1 Influenza A		1114-h
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
11/2009	OB	ICC

POLICY:
ACMC Labor and Delivery employees will follow CDC recommendations for protecting healthcare workers and patients from exposure to seasonal influenza and H1N1 Influenza A.

PURPOSE:
Healthcare workers in the Labor and Delivery department will learn to care for patients with seasonal influenza and confirmed or suspected H1N1 Influenza A and their infants.

PROCEDURE:

13. All OB patients are to be screened for influenza symptoms upon admit during the seasonal influenza season and/or during an influenza pandemic.

14. If influenza symptoms are present and the patient is not in active labor, the patient is to be moved to the med-surg unit.

15. If the patient is in active labor and has symptoms of influenza, the patient is to be placed in isolation. Seasonal influenza requires droplet isolation and H1N1 influenza requires airborne isolation along with droplet isolation with an N-95 respirator.

16. A surgical mask is to be placed on the patient until isolation set up is complete.

17. All employees caring for the patient are to wear an N-95 respirator.

18. Engineering is to be called and a negative air pressure unit requested for the patient's room. If a unit is not available, the patient is to be placed into a room and the door is to be closed at all times.

19. Visitors are to be restricted to one per patient and must be free of illness or influenza symptoms. No children under 12 are to be allowed into the Labor and Delivery department.

20. It is recommended by the CDC to place all OB patients with suspected or confirmed H1N1 influenza on Tamiflu as soon as possible unless otherwise contraindicated.

21. After delivery of a suspected or confirmed H1N1 influenza patient, the infant can not be placed in the newborn nursery. They are to be placed in a private room with a nurse present at all times.

22. Precautions are to be taken by the mother until she has been on antivirals for 48 hours and fever free for 24 hours. If the mother and infant are discharged prior to this time, the mother will be instructed to wear a mask when caring for the infant. The infant is to be isolated for one week after delivery to prevent further spread of the virus.

23. There is no treatment for influenza for neonates.

24. The infant can be breastfed with the mother wearing a mask.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Methicillin Resistant Staphylococcus Aureus		1114-i
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED: BY:**
1/2010	Labor and Delivery, Nursery	ICC

POLICY:
Methicillin Resistant Staphylococcus Aureus (MRSA) positive patients will be isolated.

If the patient delivers, the infant is to be admitted to the newborn nursery as per protocol. Proper handwashing should be stressed to the infant's mother and family members. The mother is to place a clean gown on before the infant is brought into the room. The isolette is not to be taken into the mother's room.

INTRODUCTION:
Staphylococcus aureus readily grows on human skin and mucous membranes. Methicillin-resistant S. aureus (MRSA) is a strain of S. aureus which by definition is resistant to the semi-synthetic penicillins (i.e., methicillin, nafcillin, and oxacillin). As such, it is resistant to all other beta-lactam antibiotics (including other penicillins, cephalosporins, and cephamycins). Additionally, MRSA is often resistant to other classes of antibiotics including aminoglycosides, macrolides,and quinolones. Thus, MRSA is not only methicillin-resistant but also multiply-resistant as well.

Colonization and Infection:
Colonization occurs when a patient has MRSA in or on a body site but has no clinical signs or symptoms of disease. A person colonized with MRSA may be a temporary or a longer term carrier of MRSA. Certain carriers may be shedders of MRSA [e.g., patients with dermatitis or burns]. Infection occurs when MRSA enters a body site and multiplies in tissue causing clinical manifestations of disease. This is usually evident by fever, a rise in the white blood cell count, or purulent drainage from a wound or body cavity. The distinction between colonization and infection is a clinical one. Such a distinction should be determined by the clinician, not by culture results alone.
Colonized and infected patients are the major reservoirs of MRSA. Colonization often occurs in the nares, axillae, chronic wounds, and perineum or around gastrostomy and/or tracheostomy sites. Patients at risk for MRSA colonization are generally debilitated patients who may have prolonged hospitalizations, chronic wounds, or received treatment with multiple antibiotics.

Mode of Transmission:
MRSA is usually transmitted from patient-to-patient via the hands of healthcare workers

following direct contact with a person who has a purulent lesion or is an asymptomatic carrier. Colonized workers with dermatitis are especially likely to transmit MRSA to patients. Transmission by airborne route is much less likely to occur except in burn units or dermatology units where aerosolized MRSA may contaminate environmental surfaces.

Reservoirs – Colonized and infected patients are the major reservoir of MRSA. MRSA has been isolated from environmental surfaces including floors, sinks, work areas, tourniquets used for blood drawing, and blood pressure cuffs. Although MRSA has been isolated from environmental surfaces (e. g., floors, medical equipment), such surfaces are not the most likely sources of transmission. However, environmental surfaces should be disinfected routinely to reduce the bacterial load.

CONTROL MEASURES

Contact Precautions:
All MRSA positive and known MRSA colonized patients are to be placed in CONTACT ISOLATION.
Follow Contact Isolation policy and procedures.

Handwashng- is the most effective infection control measure to reduce the risk of transmission of MRSA and other nosocomial pathogens in healthcare settings. Wash hands before patient contact and after touching blood, body fluids, secretion, excretions, and contaminated items, whether or not gloves are worn. Wash hands immediately after gloves are removed, between patient contact, and when otherwise indicated to avoid transfer of microorganisms to other patients or to the environment. It may be necessary to wash hands between tasks and procedures on the same patient to prevent cross-contamination of different body sites (e.g., change gloves after bathing patient and before performing a dressing change at an IV site). Antibacterial hand gels may be used if soap and water are not available if the hands of the healthcare worker are not visibly soiled.

Gloves- gloves provide a physical barrier between potentially infective material and the health care workers hands.

6. Don gloves upon entering the room.
7. During the course of providing care for a patient, change gloves after having contact with infected material that may contain high concentrations of microorganisms (e.g., sputum and wound drainage).
8. Remove gloves before leaving the patient's room and wash hands immediately.
9. After glove removal and handwashing, ensure hands do not touch potentially contaminated surfaces or items in the patient's room to avoid transfer of microorganisms to other patients or environments.
10. Wash hands or use antibacterial hand gel after leaving the patient's room.

Gowns- put on a gown upon entering the room fro the patient on Contact Isolation. A gown is necessary when doing direct patient care, having contact with the environment or items in the patient's room.

Remove the gown and discard into red lined trash container before leaving the patient's room. After gown removal, ensure that clothing does not contact potentially contaminated environmental surfaces in order to avoid transfer of microorganisms to other patients or to the environment.

Masks- wearing a mask to protect the healthcare worker is based on the assumption that personnel are more likely to develop nasal colonization while performing certain patient care activities. Transient nasal carriage has been reported among nurses changing dressings of MRSA patients. However, the value of a mask in reducing transient nasal colonization is not known but if a patient has a productive cough with MRSA in the sputum, a mask should be worn.

Patient Placement/Cohorting
Place the patient on Contact Isolation in a private room.

When a private room is not available, the patient may be placed in a room with a patient(s) who has MRSA, but no other infection or colonization with a different multiple-antibiotic-resistant organism (i.e., VRE).

Patient Ambulation While in Contact Isolation
A patient placed on Contact Isolation due to MRSA, can ambulate in the hallway under the following guidelines. The patient must be on the appropriate antibiotic(s) for 72 hours. Any lesions, if present, must be covered and any drainage must be contained. The patient is to change into clean clothes or place a gown over clothes and wash hands prior to leaving room. They are also to limit contact with environmental surfaces outside room.

Discontinuation of Contact Isolation Precautions
A patient with MRSA may be taken off Contact Isolation after three sets of cultures taken 24 hours apart are found to be negative for MRSA. These cultures should be taken from each previously infected or colonized site if possible and from the anterior nares. If unable to culture previous sites of infection or colonization, obtain a blood culture along with culture of anterior nares. These cultures should be taken at least 48 hours after all antibiotics have been discontinued.

Cleaning of Patient Care Equipment
Dedicate the use of non-critical patient equipment to a single patient (or cohort of patients infected or colonized with the same pathogen requiring precautions) to avoid patient-to-patient transmission.

Electronic thermometers used with the patient on Contact Isolation should not be shared with other patients. Dedicate a thermometer for single patient use and disinfect when the patient is removed from Contact Isolation, or do not use an electronic thermometer for the patient. Disposable, one time use thermometers are available in all nursing areas.

If use of common equipment or item is unavoidable, than the equipment must be cleaned and disinfected thoroughly before use on another patient.

Linen and laundry- handle all transport and process soiled linen in a manner that prevents exposure and contamination of clothing and avoids transfer of microorganisms to other patients and environments. All linen is to be placed in the blue linen bags and are to be considered contaminated.

All trash containers in a Contact Isolation room are to be lined with a red plastic liner and all trash is to be considered contaminated.

Dishes, Glasses, Cups, and Eating Utensils- no special precautions needed. The combination of hot water and detergent used in institutional dishwashers is sufficient.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Nursing – Obstetrics Post-Partum		1114-j
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 7/2009	Nursing	ICC

PERSONNEL:

1. Personnel may not work in the unit with symptoms of skin lesions, colds, or other infections.

   Employee health policies must be complied with.

2. Dress Code
   Clean uniform must be worn daily.

3. Handwashing
   Hands must be washed between all patient contacts.

VISITORS:

1. Visitors with active infections or communicable diseases will be excluded from entering the OB Department.

2. All visitors must wash hands and wear a cover gown if having contact with newborns.

3. All visitation will be at the discretion of the nurse on duty and/or the Physician.

PATIENT:

1. Patients with known infectious illnesses should not be admitted to the Obstetric Department if there is a reasonable alternative.

2. Patients with suspected infections (undiagnosed fever, discharging skin lesions, purulent vaginal discharge, and other pelvic infection) should be managed in private rooms with separate toilet and handwashing facilities, with appropriate isolation precautions, until cultures or other clinical findings demonstrate that there is no hazard.

3. Admission policy of non-obstetric patients.

   Beds on Obstetric Unit may be used fro non-obstetric patients if:

a. Only clean non-infectious patients are admitted. (Each hospital should specify types of patients who can be admitted in accordance with local health department regulations.)

b. Non-obstetric patients are admitted to separate rooms from obstetric patients.

c. Obstetric Unit visiting rules apply to non-obstetric patients.

d. Compliance with state Health Department regulations is maintained.

4. Patient care techniques approved for the Nursing Department should be followed in post-partum area.

5. Patients should remain in unit except for necessary trips to diagnostic departments.

6. Mothers should be taught handwashing and infection control techniques.

EQUIPEMENT AND SUPPLIES:

1. All equipment used between patients must be disinfected and/or sterilized according to hospital policy.

2. Individual disposable sitz bath units are preferred.

3. All non-disposable sterile supplies and trays should be checked weekly for expiration dates.

HOUSEKEEPING:

1. Patient room furniture should be cleaned with germicidal detergent between patients.

2. Floors and horizontal surfaces should be damp dusted when infant is not in mother's room.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Nursery		1114-k
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 9/2009	Nursing	ICC

PERSONNEL:

1. Employee personnel must comply with department and hospital employee health policies. (See Labor and Delivery section)

2. Dress Code:

   All personnel working in department should wear clean uniforms daily.

3. Nails must be kept clean and short.

4. No jewelry of any type should be worn.

5. Handwashing facilities should be available in each nursery. Hands must be washed before handling each infant or his equipment. A day's initial handwashing should consist of a two-three minute surgical scrub.

VISITORS AND TRAFFIC CONTROL:

1. Visitors and unauthorized personnel must not enter the nurseries.

2. Doors to the nurseries should be kept closed.

3. Parents of premature infants may enter the special care nursery if they adhere to the hospital's dress code and the handwashing procedure.

PATIENT:

1. Personnel should observe all infants for signs f infection, including drainage from eyes, skin lesions, umbilical cord, signs of sepsis, diarrhea, and initiate appropriate isolation precautions.

a. Cultures should be obtained by nursery personnel of any unexplained drainage according to hospital policy.
b. Infant should be segregated from other infants promptly by the nursery personnel when there is suspicion of infection, by placing infant in observation nursery or isolette for at least 24 hours, after which it may be returned to the central nursery by order of the attending physician or Infection Control Committee designee.

2. Infants requiring isolation should not be admitted to an open unit, but should be separated from other infants by rooming-in with the mother.

3. Infants born outside of the hospital may not be admitted to the newborn nursery, but follow the rooming-in policy.

Infants born in other facilities, that are infection free and transported via isolettes, can be admitted to the newborn nursery if accepted by a physician.

4. Infant should not be taken to the mother if she has an oral temperature over 101*F, purulent skin lesions, diarrhea, breast abscesses, or other signs of infection unless it is determined to be noninfectious by the OB physician.

5. Any suspected infections should be reported promptly to the Infection Control Practitioner. If more than two occur during a week, the local health department should be notified, the nursery closed to further admissions, and terminally cleaned.

6. Mothers should be instructed to be aware of infection. Physicians should report any signs of infection in newborns which show up after discharge. Printed instruction sheet should be available and documented.

7. The umbilical cord must be clamped or tied with sterile material. Hospital policy should be developed for cord care, using 70% alcohol, antimicrobial ointment, or antimicrobial dyes.

8. Erythromycin ophthalmic ointment should be available in individual ampules and should be applied to the conjunctivae of the infant at birth.

9. Daily hexachlorophene baths are not recommended as a routine procedure.

10. Infants should be placed in bassinets with adequate space between. There must be at least a 24 square feet area for each infant station.

11. Transport of the infant:

If an infant must be taken from the nursery to another department, a closed isolette should be used fro transport.

12. Cover gowns should be used by personnel or visitors.

EQUIPMENT AND SUPPLIES:

1. There must be no common bathing tables or common equipment used between infants.

2. All incubators, bassinets, and equipment must be washed and decontaminated between infants.

3. Nebulizers should be changed daily and refilled with sterile water.

4. Disposable equipment and supplies should be used when possible.

5. Mobile care stations (COWS), including held hand tablets, are to be cleaned daily with disinfectant on the night shift.

6. A meaningful specimen must be secured before antimicrobial drugs are administered.

7. Properly label each specimen with patient's identification, source of specimen, date and time of collection, and the test required.

8. Include clinical diagnosis and any pertinent information on the Bacteriology requisition.

TRANSPORT OF SPECIMENS TO LABORATORY:

1. All specimens should be presumed infectious.

2. Specimens should be placed in a leak-proof, screw-capped or stoppered container.

3. Container should be double-bagged in plastic with the ends of the bag sealed.

SPECIMEN COLLECTION PROCEDURE:

Urine:

a. Catheterized specimen
    1. Follow procedure for catheterizing female or male.

    2. Obtain a specimen from an in-dwelling catheter, using the specimen port (which has been wiped with isopropyl alcohol) then urine is collected with a sterile needle and syringe. Clamp foley immediately before specimen port so that urine can accumulate for specimen. Unclamp following aspiration.

b. Voided specimen
    1. Apply wee bag as directed by manufacturer.
    2. Place wee bag with urine in labeled urine specimen cup. Place specimen cup into biohazard bag for transport to the laboratory.

Wound:

a. Wash hands thoroughly; use clean gloves to remove the patient's dressing.

b. Cleanse the skin area around the wound and the outer edges of the wound itself with 70% alcohol solution.

c. Using a sterile swab, obtain material for culture from the wound or wound drainage. (If there is no opening, there is no need to culture the skin area.)

d. Place swab into its container immediately without contaminating the swab or container. An aspirated specimen (liquid pus or drainage) is placed in a sterile tube or container with a screw top. The tube should be filled only halfway and tightly capped.

e. Wash hands and, with a new set of sterile gloves, replace dressing.

3. PUNCTURE FLUIDS (PLEURAL, PERITONIAL, OR SYNOVIAL SPACES):

Specimen is aspirated by a physician using aseptic technique and sterile container.

4. GI TRACT:

A. Feces for exam

1. First morning specimen is best.
2. Avoid mixing with urine.
3. Avoid stools where barium or mineral oil has been used.
4. Collect diarrhea stool in diaper of infant.

B. Feces for bacterial culture

1. Insert swab into rectal opening and swab.
2. Return swab to its sterile container.

5. RESPIRATORY:

A. Throat

1. Visualize the back of the throat using a flash light.
2. Depress tongue with tongue blade.
3. Swab posterior pharyngeal wall.
4. Return swab to its sterile container.

B. Sputum

1. Induce cough

- Early morning specimen is best.
- Induce coughing in order to produce sputum from lower bronchial tree.
- Use wide mouth bottle with screw cap (sterile container) except with Acid-fast (Use Falcon collection).

2. Suction technique

- Add "sterile trap set-up" to suction catheter in order to collect sputum directly into a sterile container.
- Follow the procedure "tracheal suctioning" in order to collect the sputum under sterile conditions.

6. EYE:

A. Swab affected area.

B. Return swab to its container.

7. CEREBRAL SPINAL FLUID:

The specimen will be obtainer by a physician or CRNA performing a lumbar puncture under strict sterile conditions.

Check to see that each tube is clearly marked 1-2-3; the cap securely fastened and placed in a zip lock bag for transport.

8. BLOOD:

All blood cultures are to be done by a physician or lab personnel only. (Follow Laboratory procedure fro collection of the specimen- aerobic and anaerobic.)

WASTE DISPOSAL:

Specimens should be considered to be contaminated and should be handled in a manner that avoids risk of contamination. Gloves should be worn. Hands should be washed immediately after removing gloves.

Liquid wastes should be disposed of in hoppers or commode and flushed. Solid wastes should be placed in trash container. Solid waste from isolation patients should be bagged in patient room. Housekeeping personnel should transport RED BAG waste to storage room until it is picked up by contracted land-fill.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Nursing -Special Care Unit		1114-l
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Revised 7/2011	Nursing	ICC

Patients in intensive care areas are more susceptible to infection because all major infection barriers are not left intact. Many have traumatic or surgical wounds. Intravenous lines, urinary catheters, and endotracheal tubes are frequently used. Secretions pool when patients are recumbent. Many units are open wards and traffic flow is high in limited space. Resistant bacterial strains develop as local ICU flora.

The Special Care Committee should review data on infections monthly. The committee and/or Director of the unit should participate in formulating and approving infection control policies for the unit.

PERSONNEL:

1. Employee Health- Personnel must not work if they have an active infection: upper respiratory, skin infection, diarrhea, etc.

   Personnel must comply with employee health regulations.

2. Education- Infection control in-service programs are required programs for ICU staff. Proficiency in performing invasive procedures such as tracheal suction, I.V. line placement, catheterization, dressing changes should be demonstrated using sterile technique by all employees.
3. Dress Code- Clean uniforms should be worn daily. Sweaters should not be worn in unit. Scrub clothes should be completely covered with lab coat when leaving unit.
4. Hand washing- Hands should be washed. Follow Hand washing Procedure before and after each patient contact.
5. Employees should not eat or drink in unit except in designated areas.

PATIENTS:

The Special Care Committee should determine admission and bed placement policies for patients.

1. The Special Care Committee should determine list of diagnosis which may not be admitted to unit.

2. Other diseases may be admitted to the unit, but should be subject to isolation precautions as defined in Isolation Manual.

3. A private room should be designated to house an infected patient for his/her protection, as well as for the other patients. If a private room is unavailable, the patient should be placed as far from the other patients as possible and his area of care set up as an isolation unit. Principles of asepsis must be practiced. All rooms in SCU are private.

4. Isolation might be ordered by the attending physician, IC Director or Chief of Service, or Infection Control Committee or its designee (ICN).

5. There should be a distance of at least three feet maintained between beds.

6. Tracheotomies and end tracheal tubes should be handled as open surgical wounds. Suctioning must be a sterile procedure.

7. Closed urinary drainage system must be used. Foley catheter care should be done according to approved procedure.

8. Special Procedure:

   a. Hyper alimentation must be done according to procedures outlined in nursing service policy section.

   b. Swan Gins catheter, CVP line, and temporary pacemaker dressing should be changed every 48 hours using aseptic technique or as often as ordered by attending physician.

      Topical antibiotic ointment should be applied to the insertion site daily. Sterility of the proximal lead of the need be maintained for approximately 15 cm. in anticipation of the need for lead repositioning. The appearance of the insertion site should be noted.

   c. I.V. care procedures should be performed as outlined in the nursing Department procedure section.

9. Cardiopulmonary arrest during isolation—first priority should be given to prompt resuscitation of the patient. Proper attire should be attained as soon as possible. Following the arrest procedure, personnel involved should change clothes and scrub hands and arms thoroughly.

VISITORS AND TRAFFIC CONTROL:

1. Hospital employees and persons not directly involved in the care of patients should not be allowed in the unit.

2. Visitors should be restricted in number.

3. Visitors with signs of respiratory or other infections should not visit in the unit. If the visit is considered essential for patient care, the visitor may be allowed to visit wearing gown, mask. Or garb appropriate to type of infection.

EQUIPMENT AND SUPPLIES:

1. Respirators should be maintained by the Respiratory Therapy Department. Condensation collecting in tubing should be emptied into plastic-lined waste basket, the liner then tied closed and discarded into trash. (See respiratory therapy section)

2. All sterile supplies, equipment, and trays in the department should be checked monthly for outdates to determine need for resterilization. It is the responsibility of the Charge Nurse to se that this is done.

3. Only items necessary for patient care should be kept in the unit. No flowers or plants should be allowed in the unit.

4. Stethoscopes should be cleaned with germicide between patients.

5. Mobile care stations (COWS), including held hand tablets, are to be cleaned daily with disinfectant on the night shift.

   The carts are NOT to be taken into any room set up for an isolation patient. Hand held tablets that are taken into isolation rooms are to be cleaned thoroughly with a disinfectant after use to prevent the spread of infection.

CONTROLS:

1. Culture of any suspicious drainage from in-dwelling I.V. catheters should be made.

2. Environmental cultures should be done only in response to a problem.

HOUSEKEEPNG:

1. Wastepaper basket liners should be changed daily or as needed. Dressings should be discarded into impervious red bag which should be immediately secured closed.

2. Germicide should be used in this high-risk area.

3. Floors and other horizontal surfaces should be cleaned daily with germicide. Mopping solution should be changed frequently.

4. Beds, including mattresses, should be thoroughly cleaned between patients.

ENVIRONMENT:

1. Sinks should be located throughout the unit. No aerators should be on water faucets.
2. Bedpan hoppers should not be in open ward.
3. Areas for clean and dirty storage should be separate.
4. Negative-Air flow units are available to make negative-air flow rooms

Pharmacy

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Pharmacy		1115-a
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Revised 7/2011	Pharmacy	ICC

INTRODUCTION:

The Pharmacy dispenses intravenous fluids and parenteral admixtures, which it compounds under laminar flow hood. Policies and procedures are designed to prevent the preparation, dispensing and administration of contaminating or outdated medications, which could be a hazard for patients, resulting in hospital acquire infections.

RESPOSIBILITIES:

1. Pharmacy and Therapeutics Committee Chairman

    a. Assist in development and review of all policies and procedures within the department and submit for approval to the Pharmacy and Therapeutics (P&T) Committee and document in minutes.

    b. Recommend revision of general guidelines as needed for approval by the Infection Control Committee.

    c. Review infection control studies for any patient or employee infection that may have occurred in the department.

2. Hospital Department Head

    a. Maintain a clean and safe environment within the department.

    b. Assure that personnel comply with infection control guidelines within the department and throughout the hospital.

    c. Assist in presenting infection control programs for the department and document employee attendance/participation.

    d. Develop and review all policies and procedures for the department.

    e. Revise guidelines as needed for approval by the Pharmacy and Therapeutics Committee.

PERSONNEL:

1. Personnel must comply with employee health program. Any employee off duty with illness of three or more days should be cleared by the personnel health service before returning to work.

   Any employee with an active infection should not handle IV fluids or other medications.

2. Hygiene

   a. Employees should wear clean uniform or lab coat to work.

   b. Hands should be washed thoroughly before handling medications and frequently while at work.

   c. There should not be any eating, smoking, or drinking in the Pharmacy.

3. Education

   a. Employees should participate in orientation in infection control.

      Periodic in-service in infection control measures shall be required.

   b. The handling of sterile products requires a comprehensive knowledge of aseptic technique, and no person should attempt to work with such products until properly trained. All persons working with sterile products must be familiar with all products, procedures, techniques, equipment and facilities required and available , so as to prepare the most efficacious product possible. Aseptic technique of all employees preparing IV admixtures will be maintained on a yearly basis.

PATIENTS:

1. IV medications should be given according to prescribed technique for IV care.

2. A Pharmacy patient profile is used to monitor drug compatibilities.

3. Pharmacy should be notified of possible reactions to IV medications.

4. Pharmacist should investigate with Infection Control Practitioner any outbreaks of infection that may be the result of contaminated medications.

5. The Pharmacist will participate in data gathering for antibiotic usage studies.

EQUIPMENT AND SUPPLIES:

1. Utensils, counting trays, spatulas and packaging equipment should be washed with detergent at least daily, and more often if needed.

2. All medications dropped on the floor or contaminated in any way are to be discarded.

3. When pouring liquid medications, care should be taken that lips of bottles do not touch. Liquid spilled on side or counter surfaces should be cleaned off.

4. The dispensing are should be kept uncluttered and clean at all times.

5. Unit dose vials should be used when possible. When using multiple dose vials, the smaller volumes are used; the vial may be dated when mixed; the vial is properly stored and the vial is properly disposed of. Also, in conjunction with infection control, multi-dose injectable vials are good 28 days as long as there is no evidence of cloudiness or particulate matter. This includes vaccines, insulins and skin tests. Long acting insulins will look cloudy. The initial entry into MDV must be dated with the date the vial was opened.

6. All compounding of stock solutions and prescriptions should be done using aseptic technique.

7. All sterile preparations should be prepared under laminar flow unit, which must be cleaned with 70% alcohol at the beginning of each shift.

8. Sterile water for injection is used to reconstitute parenteral medications. Distilled water is used to reconstitute oral medications.

9. Syringes and needles should be disposed of in impervious contaminated materials container.

UNIT DOSE SYSTEM:

1. In providing the patient with oral medications, the Pharmacy uses a unit dose system to provide the patient with a capsule, pill, or liquid individually wrapped to protect it from contamination and handling. This enables the patient to receive medication under protected conditions. Most medications are already in unit dose. Those that are not are prepackaged daily with utmost care to assure cleanliness. The counters are wiped down each week with germicide throughout the Pharmacy.

GENERAL INFORMATION:

1. At least once yearly, the air flow grids of laminar flow hood are completely dismantled and the entire hood is thoroughly cleaned with an antiseptic.

2. Once a month, the cassette drawers, rolling carts, and delivery baskets are cleaned with an antiseptic.

3. The Pharmacy and Therapeutic Committee and the Infection Control Committee work jointly on the clinical use of antimicrobials. (See Drug Utilization Committee.)

4. Antibiograms, showing which organisms are present and their susceptibilities, are provided to the Pharmacy for use in their department.

5. Quarterly, the IV hoods and the chemo hood filters are cleaned and replaced if needed.

6. Quarterly, the Omnicell filters and cabinets are cleaned. The filters will be replaced as needed.

7. The IV Laminar Flow Hood and the chemotherapy hood are to be inspected by Scan every 6 months for compliance.

HOUSEKEEPING:

1. Countertops should be wiped down with detergent germicide daily.

2. Floors and horizontal surfaces should be cleaned daily by Housekeeping staff.

3. Shelves should be kept as dust-free as possible.

4. Trash should be removed from department daily.

5. Needle box should be emptied before completely full.

DRUG RECALLS:

Any drug recalled from the market either by the manufacturer or the FDA will be processed immediately. The present stock in the Pharmacy will be checked, in addition to any patient's medication used on the floor.

The Pharmacy will check floor stocks (crash carts, stock medication in nursing areas, and omnicells, etc.) from the master lists kept in the Pharmacy. If any of the listed drugs are being recalled, the floor stock will be checked for the implicated lot numbers. The Pharmacy patient profiles will be reviewed for any drug involved in a recall; and if the drug is found to be presently prescribed, each patient's medication drawer will be checked for the lot numbers implicated. Any medications obtained from other hospitals and local pharmacies will be checked for implicated lot numbers.

All correspondence concerning drug recalls will be filed with the Chief Pharmacist for future reference. Should a patient be taking a drug when it is recalled, the attending physician will be contacted concerning the situation. The Pharmacy will make note that the patient was taking the drug when recalled and file with a recall letter.

ANTIBIOTICS:

The medical staff must determine guidelines for antibiotic use and whether antibiotic use in particular patients is appropriate through the Drug Usage Evaluation function.

The role of the Infection Control Practitioner may be to assist in collecting data. Information obtained from surveillance of infection in the hospital must be correlated, both with results of anti-microbial sensitivity patterns and drug usage.

The Infection Control Practitioner can detect emergence of a resistant strain of microorganism and can determine the percentage of organisms sensitive to various microbials and report this information to the Infection Control Committee. The spread of an organism by reviewing sensitivity patterns to microbials can be used.

Detection of discrepancies between the antibiogram and drugs selected for use may be reported to the medical staff member responsible for infection control.

GUIDELINES FOR UTILIZATION OF LAMINAR FLOW HOOD:

1. Laminar Flow Hood

   a. The laminar flow hood remains on continuously except for filter changes and other required maintenance.

   b. Prefilters should be changed or cleaned at least quarterly, or more frequently if necessary due to working conditions. A schedule should be maintained for the purpose of recording the data the filters are changed.

   c. The static pressure gauge should be checked periodically to determine that the air flow velocity of the hood is within the recommended range. The HEPA filter should be inspected, air flow rate checked and necessary repairs made every twelve months.

   d. All intravenous admixtures are prepared in the laminar flow hood. All operations or manipulations are carried out in such a manner as to minimize the possibility of contamination of the admixture.

   e. To further reduce the potential for error, only one type of IV solution should be prepared at a time in the hood. Only those materials necessary for the preparation of a given sterile product are permitted in the functional areas of the laminar hood. The hood should be kept free of any unnecessary bottles, vials, etc.

   f. Precautions should be taken to reduce the possibility of contamination. It has been shown that people are one of the greatest sources of particulate matter and hence bacterial contamination. Fingernails should be kept short and clean. Hands and under fingernails should be scrubbed hourly with soap and a brush.

g. The laminar flow hood should be cleaned at the beginning of each shift with an antiseptic solution.

h. Introduction of non-sterile objects into the hood should be avoided whenever possible. Traffic in the hood areas should be kept to a minimum.

i. All work in the hood should be performed six inches or more back from the front edge of the hood counter. The first six inches of the work counter in the hood are most easily contaminated, due to the convection current from non-sterile room air.

j. Do not store objects to the front of the hood in front of the HEPA filter unit. This creates turbulent air currents which interrupt the laminar flow and increase the chance of contamination from non-sterile objects in the hood or contamination by room air. Objects that must be stored in the hood should be done so along the side of the work surface area.

k. When working in the hood, all manipulations should be performed in a manner which will not allow anything to come between the HEPA filter and surfaces meant to be kept sterile. The syringe, needle, hands, etc., should be kept “downstream” from the IV being prepared.

l. If there is any doubt that a sterile product may have been contaminated, avoid all doubt by discarding the product and starting over.

m. The IV room is to be maintained in an orderly manner. Countertops are to be wiped down daily with a germicide or 70% alcohol, trash to be removed at least twice daily. All surfaces will be kept free of extraneous materials; no shipping cartons are to enter the IV room. Traffic in the IV room should be kept at a minimum. All surfaces are to be made of materials that can be wiped down and cleaned.

2. Aseptic Technique

a. Only one solution is prepared at a time, and always in the laminar flow hood. All products necessary for preparing the admixture should be assembled in the hood prior to the actual mixing. Prepare the admixture.

b. The removable seal of parenteral solutions should be carefully removed, the seal patted with a 70 % alcohol swab to initial puncture of the rubber seal. A patting motion with cellulose fibers. When entering the rubber stopper with the needle, entry is made with the beveled side of the needle up and with slight downward pressure. This technique is used to avoid chipping or coring of the rubber seal.

c. Drug additives should be injected into these containers by carefully piercing the additive port IV container.

d. The technique used in attaching the needle to the syringe is important to avoid contamination. Working under the hood, the syringe is uncased from its package and set perpendicular to the working surface by utilizing the flat end of the plunger. The needle casing is opened by breaking the seal and the cap removed. If the seal is loosened, the needle is to be discarded and the procedure repeated with a new needle.

The sterility of the needle cannot be assured if the seal has been previously broken. The needle is attached to the syringe sheath and serves as wrench for both attaching and removing the needle. If this procedure is followed, the needle will remain sterile.

e. The contents of ampules and multi-dose vials are always withdrawn by using a syringe. Only one needle and syringe are used for each operation, and then discarded. No needle and syringe are left in a multiple dose vial. No needle and syringe are reused for more than one additive.

f. When the additive container is a glass ampule, the neck of the ampule is first swabbed with 70 %alcohol. The ampule is then broken open by placing a sterile gauze pad over the stem of the ampule and snapping it sharply away from the body of the ampule. Check the ampule for lint particles When medication is withdrawn, the needle is placed inside the lip of the ampule, which is turned open and slightly downward. The downward angle of the ampule is increases as the medication is withdrawn until the desired quantity is withdrawn. The ampule is then set aside to be placed with the final product for checking, and the medication is injected into the primary solution. Use of a filter needle either for withdrawal or an addition to a primary solution.

g. When the additive container is a vial, the rubber stopper is patted with a 70 % alcohol swab prior to initial puncture of the rubber stopper with the needle for reconstitution of the additive. The powdered medication is then reconstituted with the proper fluid. When entering the rubber stopper with the needle, entry is made with the beveled side of the needle up and with slight downward pressure. The reconstituted fluid is forced into the vial and the pressure is released by withdrawing and equal volume of air. The vial is shaken vigorously until the drug is in solution. After ensuring there are no “floaters” in the vial, the quantity called for is withdrawn and injected into the primary IV.

h. If adding a premixed solution, it is checked for visible contamination prior to adding it to the primary IV fluid. A two-way transfer needle may be used to add the solution when the entire contents of the vial are to be added to the primary solution and the additive. The rubber seal of the additive is then patted with a 70% alcohol swab. The plastic shield on the two-way needle is snapped and one-half is removed, exposing one of the needles, and is inserted through the rubber seal on the additive container in the same manner as a needle attached to a syringe. The other half of the shield is then

removed and the bottle inverted, and the second needle is inserted in the vial, leave in place, and place the vial to one side of the hood if it will be needed to prepare a later IV for the patient.

i. Use of a plasma aspirating set in the preparation of parenteral nutritional fluids (Hyperalimentation).

The plasma aspirating set is removed from its package, and the valve on the tubing immediately closed to prevent loss of the vacuum through the tubing when the short spike is inserted through the rubber seal at the “inlet” site. None of the fluid to be added may be under a vacuum. If under a vacuum, it must be released. This can be done by piercing the rubber seal with a two-way transfer needle. One is not ready to add the additives and the primary fluid to the evacuated container. Add the larger volumes and the smaller volumes last.

Remove the cover from the long needle and pierce the rubber seal of the additive container. Make the long needle pierce the rubber seal of the additive container. Make sure the tip of the needle is at the bottom of the solution to be added. Open the valve on the tubing to allow the additive solution to be drawn through the tubing into the evacuated container. After all of the additive solution has been added again, close the valve on the tubing. Both the primary fluid and the additives are added to the evacuated container in this manner.

j. After injection of the medication into the primary fluid, the needles safety device is then activated and the needle and syringe is then discarded in the contaminated materials container intended only for needles and syringes, assuring that the cannot be later used.

k. Completed admixtures should have the label affixed in an inverted position over the solution label and leaving the one-line name of the solution exposed to sight. Final black and white examination should be made to prevent the dispensing of admixtures with particulate matter in them, which is part of the final check. Prepare labels in advance, when possible, and check against the doctor’s order and profile card.

l. As items are used, move aside and then check before discarding against the completed preparation.

m. Multi-dose vials will be used only when single dose vials are not available. When an MDV is opened, it should be re-entered aseptically and used within 28 days. The initial entry of a MDV must be dated when opened.

n. Medication dispensed and in syringes (IM, IV, and SQ) is to be prepared using the aseptic techniques as would be used in preparing IV admixtures. The syringes will be capped, and labeled as to drug, patient name, physician, strength, and volume, route of administration, date and pharmacist initials. Medications are to be used within guidelines specified by the manufacturer.

o. Registered nurses who are required to make admixtures will use the same aseptic techniques outside the laminar flow hood as would be used inside the hood. Use of the Baxter Mini-Bag Plus and premixed IV solutions reduce IVs being mixed inside of the IV hood.

LAMINAR FLOW HOOD:

1. A high-particle type of clothing should not be worn in the clean room, particularly within the laminar hood.

2. Care of the laminar flow hood – The laminar flow hood in the Pharmacy Department is to be maintained clean, applying general principles of aseptic technique and utilizing those antiseptics accepted for use within the hospital.

3. CDC Guidelines do not recommend routine cultures of admixture or the environment. Emphasis will be placed on selection and training of personnel, strict attention to aseptic technique and quality control procedures (especially for preparation of preservative-free sterile products and batch production of sterile products).

   However, testing for microbial contamination is suggested in the event that the hospital's HAI rate of a particular hospital organism (possibly introduced by pharmacy personnel) suddenly increases throughout the hospital. Cultures, when required, will be done in the manner and with the frequency prescribed by the infection control committee.

4. Operational- As a matter of course, these guidelines are but a minimum for effective infection contamination control.

   a. Cartons of any type are to be opened within the clean room.

   b. Any article placed within the hood should first be wiped with 70 % isopropyl alcohol to eliminate gross particles.

   c. Hands are to be thoroughly washed with an effective antibacterial solution.

   d. All rubber stoppers, ampuls, caps, etc., are to be sterilized with alcohol prior to manipulation with needle and syringe or IV tubing.

   e. Conversation is to be curtailed unless germane to the procedure at hand.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Pharmacy Cytotoxic Agents Handling Policies		1115-b
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Revised 7/2011	Pharmacy Personnel	P&T Committee

Guidelines for handling antineoplastic agents:

A. Biological Safety Cabinets

1. Preparations of all antineoplastic drugs shall be preformed in a Class II (Vertical Laminar Flow) Biological safety cabinet.

2. The Biological Safety Cabinet must be operated with blower on 24 hours a day, seven days per week.

3. Preparation of drug products shall be preformed only with the viewing window at the required access opening height.

4. A qualified technician should certify the Biological Safety Cabinet every six months, or any time the cabinet is moved.

5. Special aseptic technique and precautions must be utilized because of the vertical airflow.

6. No other IV admixtures should be prepared in the Biological Safety Cabinet at the same time an antineoplastic (cytotoxic) drug is being admixed.

7. If a spill occurring inside the Biological Safety Cabinet is of such magnitude that the HEPA filter of the hood is contaminated the unit must be labeled “Do not use. Contaminated” and the filter must be changed as soon as possible. (See section on spills)

B. 1. ChemPlus Powder-Free gloves must be worn for all procedures involving antineoplastic drugs. (Powdered gloves should never be used.)

Disposable protective garments (i.e. Disposable surgical gown) should be worn for all procedures involving antineoplastics. These garments should have a closed front, long sleeves, and closed cuffs (either elastic or knit). Goggles should also be worn.

2. All used gowns and gloves used in the preparation of antineoplastic agents should be disposed of according to the procedure under “Waste Disposal.”

3. All potentially contaminated garments must not be worn outside the work area.

C. Compounding Techniques for Chemotherapy Agents

1. Hands must be washed thoroughly before gloving and after removal. Wearing gloves is not a substitute for proper hand washing.

2. Care must be taken to avoid puncturing of glove and possible self-inoculation. Gloves may become damaged when ampules are opened; additional protective handling aids should therefore be used, such as sterile swabs in which the disinfected ampules necks are wrapped before being broken.

3. Syringes and IV sets with Luer Lock fittings should be used whenever possible. All syringes and needles used in the course of preparation should be placed in the puncture proof container for disposal without being crushed, clipped, or capped.

4. A sterile plastic lined absorbent drape or pad should be placed on the work surface during mixing procedures. The drape should be exchanged whenever significant spillage occurs, or at the end of each production sequence.

5. Vials should be vented (using a Chemo Dispensing Pin) to eliminate appropriate internal pressure or vacuum.

6. Before opening ampules, care should be taken to insure that no liquid remains in the tip of the ampule. A sterile gauze sponge should be wrapped around the neck of the ampule while opening, to prevent aerosolization.

7. Final drug measurements should be performed prior to removing the needle from the stopper of the vial. A sterile gauze sponge should be placed around the needle and vial top while the needle is removed from the vial closure. Aerosolation of drug products should be prevented at all times.

8. A non-splash collection vessel should be available in the biological safety cabinet to discard excess drug solutions.

9. The external surface of final IV containers should be wiped with alcohol soaked sponges prior to removal from the Biological Safety Cabinet.

10. All containers of antineoplastic agents sent to hospital wards for administration will be accompanied by labels designating these materials as hazardous waste. All containers of antineoplastic agents shall be double bagged in two 4-mil thick zip lock bags.

D. Safe Dosing Guidelines and Procedures

Chemotherapy is dosed according to a strict protocol based on the patient’s surface area or weight. Preprinted protocols are preferred. The following guidelines are to assure that all

parameters for arriving at a dose are correct and accurate, and that sufficient checks (redundant) are in place to assure a correct, safe dose.

1. All chemotherapy orders are to be written and signed by an oncologist.

2. The pharmacist, upon receiving orders, will follow the "Oncology Chemotherapy Prep Flowsheet". The pharmacist will check the patient's weight, height, calculate BSA and verify that the dose written is within protocol limits and safe limits for that agent. Any new orders on chemotherapy patients should be checked by two pharmacists.

3. If the doses calculated by the pharmacist varies by more than or less than 10% of the written order, then the dose is held, the nurse is contacted and the physician notified.

4. Once the doses are correctly verified, then the protocol flowsheet is followed.

E. Administration of Cytotoxic Agents

1. Chem Plus Powder-Free latex disposable gloves should be used in administration activities.

2. Syringes and IV sets with luer lock fittings should be used whenever possible.

3. Special care must be taken in priming IV sets. The distal tip cover must be removed before priming. Priming should be preformed into a single gauze sponge, which is then disposed of appropriately.

F. Disposal of Cytotoxic Agents

1. All disposable items that have potential to come in contact with antineoplastic drugs during compounding or administration must be disposed of in specifically designated containers. (This includes gloves and gowns.) These containers will be puncture resistant biohazard containers.

2. Designated content description labels and a "Biohazard" symbol shall be placed on each disposable container.

3. All hazardous waste containers shall be picked up by waste management service.

4. General cleaning of the work area must be performed using dust containment procedures. (No dry mopping.)

5. The interior of the Biological Safety Cabinet should be cleaned after each production sequence with disposable material, and these materials disposed of as hazardous waste. The cabinet should be cleaned daily with 70% alcohol and decontaminated weekly, whenever spills occur, or when the cabinet requires service or certification. Decontamination should be performed by qualified technicians only. Decontamination should be done as outlined in the Balcor Hood Manual. Removable

work trays, if present, should be removed, and the back of the work tray and the sump below should be included in the cleaning.

G. Personnel Policy Recommendations

All personnel must receive special training in working with antineoplastic agents. (Watch Chemotherapy Film, have technique observed)

1. Eating, drinking, holding a conversation, smoking, application of cosmetics, or similar activities are not permitted during the compounding of drug administration procedures.

2. Access to the compounding area must be limited to only necessary authorized personnel.

3. The personnel working with these agents should be observed regularly by supervisory personnel to ensure compliance.

4. Acute exposure must be documented. The employee must be referred for professional examination.

H. Handling Cytotoxic Agent Spills

1. General Procedures:

   Spills and breakage should be cleaned up immediately by a properly protected person trained in the appropriate procedures. Broken glass should be carefully removed. A spill should be identified with a warning sign so that other persons in the area will not be contaminated.

2. Personnel contamination:

   Overt contamination of gloves or gowns, or direct skin or eye contact should be treated as follows.

   a. Immediate removal of the gloves or gown.

   b. Wash the affected skin area immediately with soap (not germicidal cleaner) and water. For eye exposure, immediately flood the affected eye with water or isotonic eyewash designated for that purpose for at least 5 minutes.

   c. Obtain medical attention immediately.

3. Cleanup of small spills:

   Spills of less than 5 ml or 5 gm outside a hood should be cleaned immediately by personnel wearing gown and double surgical latex gloves and eye protection.

a. Liquids should be wiped with absorbent gauze pads; solids should be wiped with wet absorbent gauze. The spill areas then should be cleaned (three times) using a detergent solution followed by clean water.

b. Any broken glass fragments should be placed in plastic chemotherapy waste disposal container, along with the used absorbent pads and any non-cleanable items.

c. Glassware or other contaminated reusable items should be placed in a plastic bag and washed in a sink with detergent by a trained employee wearing double latex gloves.

4. Storage:

a. Access to chemotherapy areas is limited to authorized personnel only, with sign restricting entry.

b. Chemotherapy drugs will be stored in a designated area on shelves to prevent breakage and contain leakage.

5. Cleanup of large spills:

For spill of amounts larger than 5 ml or 5 gm, spread should be limited by using a chemotherapy spill kit and by gently covering with absorbent sheets or spill control pads or pillows, or if a powder is involved, with damp cloths or towels. Be sure not to generate aerosols. Access to the spill area should be restricted.

a. Protective apparel should be used with the addition of a respirator when there is any danger of airborne powder or an aerosol being generated. The dispersal of CD particles into surrounding air and the possibility of inhalation is a serious matter and should be treated as such.

b. Chemical inactivators, with the exception of sodium thiosulfate, which can be used safely to inactive nitrogen mustard, may produce hazardous byproducts and should not be applied to the absorbed drug.

c. All contaminated surfaces should be thoroughly cleaned with detergent solution and then wiped with clean water. All contaminated absorbents and other materials should be disposed of in the CD disposal bag.

d. Spills in hoods:

Decontamination of all interior hood surfaces may be required after the above procedures have been followed. If the HEPA filter of a hood is contaminated, the unit must be labeled “Do not use- Contaminated”, and the filter must be changed and disposed of properly as soon as possible by trained personnel wearing protective equipment. Protective goggles should be cleaned with an alcohol wipe after the cleanup.

Physical Therapy / Occupational Therapy

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:	FILING NUMBER:
Physical Therapy/ Occupational Therapy	1116

EFFECTIVE DATE:	APPLIES TO:	APPROVED BY:
Revised 2011	Physical Therapy/ Occupational Therapy	ICC

INTRODUCTION:

The Physical Therapy/ Occupational Therapy Department is used to treat patients with and without infections. Precautions and procedures must be outlined to prevent spread of infectious organisms.

PERSONNEL:

1. Employee Health

   a. All persons in direct contact should be free of skin lesions, upper respiratory or other infections.
   b. Persons off duty for more than three days with an infection or illness should be cleared by personnel physical before returning to work.
   c. Personnel should comply with employee health policies.

2. Hand washing

   Hands should be washed thoroughly with soap and water prior to and between patient contacts.
   Sinks should be located conveniently throughout department.

3. Dress Code

   a. Clean uniform should be worn each day. Sweaters should not be worn.
   b. Jewelry, other than wedding band and watch, should not be worn.

4. Continuing Education

   a. Personnel must demonstrate knowledge of isolation technique and participate in periodic classes on infection control held within department.
   All new employees must be oriented in infection control practices.

   b. Standard precautions will be observed.

TRAFFIC CONTROL:

Visitors must not be allowed in treatment area.

Isolation patients should be taken directly to treatment area. They should be scheduled after other patients have left department (usually late morning and late afternoon).

TRANSPORTING ISOLATION PATIENTS:

The type of isolation a patient is on determines the precautions to be taken in caring for the patient.

1. Drape a sheet over the stretcher or wheelchair. The entire area that touches the patient should be covered.
2. Wear gown, mask, gloves as indicated when moving patient.
3. a. Respiratory, A.F.B.
   Patient must wear mask. After patient is masked, the person transporting the patient need not wear a mask.

   b. Drainage/Secretions
   Wound should be covered with clean dressing.

   c. Enteric
   No additional precautions necessary unless patient is incontinent.

   d. Blood/Body Fluids
   Gowns and gloves are indicated if likely to come in contact with fluids.

   e. Contact
   Patients may need to wear a mask if respiratory involvements. Wounds should be covered with clean dressing.

4. Wash stretcher or wheelchair with germicide.

PATIENTS:

1. Isolation Precautions
   a. The nursing unit should notify Physical Therapy/Occupational Therapy Department when a patient requiring therapy is placed in isolation.
   b. Patient requiring strict isolation require special accommodations when treated in the Physical Therapy/ Occupational Therapy Department.
   c. The patient who does not require hydrotherapy treatment should be treated in his/her room.

d. Patient in isolation should be treated with such precautions in Physical Therapy/Occupational Therapy Department as to decrease chances of other patients acquiring infections.

Personnel should follow the same isolation techniques indicated in the Infection Control Manual.
Linen should be placed on stretcher before transporting patient to department.
Patient should not be treated with other patients. Department should be in period of minimal activity.

2. Burn Therapy
   a. Sterile technique is used to debride and to dress wounds.
   b. Stretcher should be covered with a clean sheet before transporting patient.

3. Wound Management
   a. All wounds must be covered before transporting patient to department.
   b. Any unexplained drainage, redness, or swelling of wound should be reported to charge nurse.
   c. Soiled dressings must be placed in a waste container.

4. Procedures to Prevent Cross-Contamination During Specific Physical/Occupational Therapy Treatments
   a. Thorough hand washing, using soap and water between each patient treatment and contact, should be encouraged among all staff members.
   b. For disinfection of exercise mates, tables, and equipment, a disinfectant and a clean cloth is suggested.
   c. When exercise equipment (i.e., weights, sandbags, ambulation devices) is loaned to patients for use on the nursing units, particularly Infectious Disease and Intensive Care units, prior to the equipment being sent from or return to the Physical Therapy/Occupational Therapy Department, any possibilities of cross-contamination should be identified and proper steps taken to disinfect equipment.
   d. For urine and fecal cleanup from floors and equipment, wash or mop areas thoroughly clean with detergent and water solution provided by Housekeeping.
   e. Paraffin Bath- Instruct patients to wash area thoroughly with soap and water prior to immersion in the melted wax. Open wounds are contraindicated for this modality.
   f. Hand-Held Ultraviolet Lamp- Caution noted in treatment of decubitus ulcers and infectious skin lesions. Wash hands before and after treatment. Use gloves to remove and replace any dressings. Care should be taken not to permit lamp to touch contaminated linen or clothing. If cross-contamination is suspected, disinfect lamp with 70 % alcohol prior to further use.

SUPPLIES:

1. Disposable items should be stored in such a manner as to maintain cleanliness, or sterility if required. Disposable items should be discarded after use in proper containers.
2. Reusable items should be rinsed, bagged and sent to Decontamination for processing before resterilization.
3. Stored sterile supplies should be checked weekly for outdates. They should be stored as to maintain integrity of package.
4. Linen
   Used linen should be bagged and picked up by Housekeeping.

EQUIPMENT:

1. Records of preventive maintenance and cleaning of department equipment should be kept by department head. Schedules for such should be developed by department head.

2. Hydrocullator Units
   These should be cleaned monthly, or as needed, to remove residue inside units and to provide germicidal cleaning. The basic cleaning steps should include:

   a. Remove hot packs from unit and drain.
   b. Rinse residue from inside unit.
   c. Wash inside walls and lid with germicide detergent.
   d. Rinse with clean water.
   e. Refill unit with hot water and replace hot packs.

3. Hydrocullator Single Use Cover Towels
   These will be put in dirty linen container after each use...

4. Hydrocullator covers should be laundered monthly.

5. Paraffin Bath
   a. Wash patient’s limb before immersing in paraffin.
   b. Change paraffin as needed when debris collects in bottom.
   c. Drain paraffin, clean inside of unit, replace with new paraffin.

5. Hydrotherapy Unit
   a. Personnel must wear protective gloves when cleaning whirlpools. Clean cloths must be used in each step.
   b. Department Personnel should be responsible for cleaning each unit after each patient use.

Method:

1. Rinse if needed.
2. Vigorously scrub inside walls and rinse with detergent germicide, half-strength. Rinse well with water.
3. Immerse and circulate turbine in detergent solution for five minutes. Rinse well.
4. Fill a bucket with water/bleach solution (1 cup of 5 % sodium hydrochloride solution {household bleach}).
5. Run turbine for 5 minutes.
6. Drain
7. Rinse well with clear water.

6. Water Stretchers and Slings
   These should be cleaned with disinfectant, rinsed and dried.

7. Wheelchairs and Stretchers
   These should be wiped with germicide detergent daily and after transporting patients with known infection.

8. Other Equipment
   Surface should be cleaned with detergent germicide after patient contact.

HOUSEKEEPING:

Horizontal surfaces should be damp-dusted daily. Floors should be mopped daily. Table tops are to be washed daily.

Trash receptacles will be emptied twice daily on Monday through Friday, preferably early morning and early evening.

ENVIRONMENTAL CULTURES:

Cultures should be taken of whirlpool units by therapist at the request of the Infection Control Committee or its designee. Results of cultures are to be reviewed by the committee and acted upon appropriately.

1. Culture drain opening in whirlpool unit.
2. Culture inside of turbine unit.
3. Deliver cultures to Laboratory.

Radiology

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Radiology		1117
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 9/2009	Radiology	ICC

PURPOSE:

To outline procedures to decrease the spread of nosocomial infections in the department. All patients should be considered as a potentially infectious.

PERSONNEL:

Responsibilities:

1. Physician Department Head:

   a. Assist in development and review of all policies and procedures within the department and submit for approval to the Radiology Committee and document in minutes.

   b. Train and supervise other radiologist in infection control.

   c. Recommend revision of general guidelines as needed for approval by the Infection Control Committee.

   d. Review infection control studies for any patient or employee infection that may have occurred in the department.

2. Hospital Department Head:

   a. Responsible for proper patient care and equipment safety.

   b. Maintain a clean and safe environment for the patient.

   c. Assure that personnel comply with infection control guidelines within the department and throughout the hospital.

   d. Assist in presenting infection control programs for the department and document employee attendance / participation.

   e. Develop and review all policies and procedures for the department.

f. Revise guidelines as needed for approval by the Radiology Committee.

3. Employee Health:

a. Radiology personnel should comply with established employee health policies..

b. Personnel with any type of infection must not have contact with patients.

c. Personnel should receive clearance from personal physician after being off duty with illness for three or more days.

4. Personal Hygiene and Handwashing:

a. Radiology personnel will wear a clean uniform daily. A clean laboratory coat must be worn over street clothes.

b. Personnel must wash hands before first patient contact, between patients and after last patient.

5. Employee Education:

a. All employees must participate in an orientation program in infection control, isolation technique within the department, and patient transportation techniques.

b. Continuing education should be provided annually to all personnel on infection control techniques.

6. Universal precautions will be observed.

PATIENTS:

1. Traffic Control:

a. There should be no public visiting in the Department of Radiology. Anyone wishing to visit the department must have prior permission. Visitors may not accompany patients to department (excepting hospital personnel and students responsible for the care of the patient).

b. Unnecessary personnel should be kept out of the room during sterile procedures.

2. Scheduling:

a. Procedures are rescheduled in sequence to keep patient waiting time in t he department to a minimum and to avoid prolonged patient-to-patient contact.

b. Isolation patients should be scheduled at a time to minimize contact with other patients.

3. Procedures:

a. Any procedures requiring anesthesia should be done following policies of Anesthesia Department.

b. Sterile technique should be practiced during all procedures involving the use of sterile invasive materials.

1. Skin puncture procedure (lumbar puncture, etc.)

- The skin surface should be scrubbed for three minutes with an idophor prior to venipuncture.

- The area should then be painted with an appropriate antiseptic.

- The area should be draped with sterile drapes. Sterile gloves should be worn by the doctor performing the procedure.

- Any injected material must be certified sterile.

2. Retrograde cystoscopy

- Sterile skin prep should be done.

- Clean gown and sterile gloves should be worn by physician.

- Cytoscope, dilators and catheters should be disinfected between patients in glutaraldehyde, or preferably, sterilized.

3. Barium enemas should be done with disposable enema bags. Any spills should be wiped up with germicide.

4. Personnel who transport patients should wash hands before and after patient contact.

EQUIPMENT AND SUPPLIES:

1. Portable X-ray equipment should be cleaned daily with germicide solution and more frequently if soiled.

2. If equipment is used in Strict Isolation Room, it must be decontaminated as it leaves room. (See isolation procedures.)

3. Tables should be wiped with disinfectant after any procedures in which body secretions or fluids are handled (at least once daily).

4. Wheelchairs and stretchers should be wiped daily with germicide.

5. Stretchers should be covered with a clean sheet between patients. Pillowcases and blankets should be changed between patients. Pediatric patients will not be hand-carried by transporters.

6. Soiled linens should be bagged in closed linen bag before transporting to Soiled Linen Collection Room.

7. Any non-disposable patient equipment and trays must be washed in detergent-germicide solution before sending to Decontamination. Film cassettes may be placed in pillowcase before contact with patient. Equipment must be cleaned between patient contact.

8. If any equipment is reprocessed in department, it must be done according to procedures used by Sterile Processing Department and approved by the Infection Control Committee.

9. Disposable items should be used when possible. After use, all disposables should be discarded in linen waste containers.

   Disposable items should be considered contaminated when opened and not resterilized.

10. Needles and sharps should be placed in red disposable sharps box.

11. Sterile supplies should be checked weekly for outdates.

12. Clean gowns must be used for each patient.

13. Gloves, aprons, shields used to protect patients from radiation are to be cleaned after each use as recommended by the manufacturer.

HOUSEKEEPING:

Housekeeping Department should damp-mop and wipe all horizontal surfaces and floors in the department on a daily basis, including dressing room, patient toilet, and lounge areas.

ISOLATION PATIENTS:

The X-Ray request (written or verbal) should include information as to the type of isolation, diagnosis and any special precautions in effect.

Schedule:

The isolation patient should be scheduled to avoid any waiting period or unnecessary contact with others.

Transportation of Patients to X-Ray:

1. The mode of transportation will be determined by the patient's condition and isolation procedure.

2. The patient should be gowned in a clean gown.

3. The wheelchair or stretcher should be draped with a clean sheet or bath blanket which is wrapped around the patient.

4. If the patient is on STRICT, RESPIRATORY, or A.F.B. isolation, he should wear a mask out of his room.

5. Patients on Contact, Drainage / Secretion precaution should have a clean dressing which should contain all drainage.

6. The person transporting the patient should remove his gown and mask when leaving the patient's room, and wash hands.

7. Isolation patients should be transported in an unoccupied elevator. Others should be requested to avoid entering an elevator occupied by an isolation patient.

8. All X-Ray personnel having contact with the isolation patient should wear attire required by isolation type.

9. Upon completion of the procedure, gowns and linens should be bagged. Masks, gloves, disposable equipment and supplies should be bagged for trash disposal.

10. The patient should be covered with a clean sheet or blanket and returned to room.

11. Equipment, including wheelchair, stretcher and portable X-Ray equipment in contact with isolation patient, must be cleaned using detergent germicide before reuse.

    X-Ray table used should be wiped down with germicide.

12. X-Ray room should be cleaned according to procedures on patients on STRICT isolation.

13. Toilet facilities used by patients in X-Ray Department should be washed down, with close attention being paid to commode seat and faucet handles.

14. All personnel should wash hands thoroughly following patient contact cleaning procedures.

BURN AND ONCOLOGY PATIENTS:

These patients are susceptible to infection and may acquire sever infection from procedures which are ordinarily not harmful.

1. The floor personnel should notify the department of the type of isolation.

2. The patient must be protected from others. Those caring for the patient should wash hands thoroughly and wear mask, gown and gloves while caring for the patient and when entering patient's room.

3. The patient should not be transported to department unless absolutely necessary. The patient should wear mask and clean gown when leaving the room.

4. The transporting vehicle and exam room equipment should be wiped down before the procedure and before transporting patient.

5. The patient should be taken into Radiology exam room and should be kept away from other patients. The door to the exam room should be kept closed.

OPERATING ROOM AND SPECIAL (INVASIVE) PROCEDURES:

Employees must be knowledgeable of aseptic technique used in the Surgery Suite and follow Operating Room guidelines.

Respiratory Therapy

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Respiratory Therapy General		1118-a
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 12/2009	Respiratory Therapy	ICC

POLICY

The Infection Control policy of the Respiratory Care Department has a goal of the elimination of the transmission of HAI while providing protection to department employees and also meeting CDC (Center for Disease Control) recommendations.

GENERAL POLICY

1. Good hand washing is the first step in controlling infection and shall be performed between patient contact, or use the Purell Hand Sanitizer.

2. Gloves are to be worn and change between patients when coming in contact with body fluids, i.e., suctioning, blood drawing, handling dirty equipment.

3. Goggles, masks, gowns, and gloves should be worn with any patient who is on blood/body fluid isolation when appropriate.

4. Needles are never recapped and shall be disposed of in an appropriate puncture proof container such as Sharps-A Gator. Safety needles must be used when available.

5. Blood specimens are to be transported in a sealed container.

6. Contaminated tissues, gauzes, and patient care supplies are to be disposed of in appropriate trash containers.

7. Eating and drinking shall be limited to employee lounge.

8. Disposable items, i.e., nebulizers and IPPB circuits, are to be changed every 72 hours. They are to be handled in an aseptic manner and stored dry in equipment bags.

9. Heated humidification chambers will be changed every 7 days. Ventilator tubing will be changed every 7 days.

10. Oxygen delivery devices such as masks and cannulas shall be changed as needed. Note* Humidification is not routinely used unless flow is above 5 liters per minute or is specifically ordered.

11. Mechanical items, i.e., ventilators, tents, spirometers, designated for individual patient use, shall be cleaned in between patient use.

12. Items in isolation settings, which are not disposable, shall be bagged per policy and sent for gas sterilization.

13. Blood gas laboratory counter tops and analyzers are to be wiped with disinfectant each shift.

14. Air filters will be used on PFT diffusion valves, BiPap machines, IPPB machines, and ventilators.

15. Unit dose medication will be used whenever possible, when variable dosages are required, the appropriate dose will be drawn up in the RT department using aseptic technique. The multidose vial shall be dated and initialed after opening.

16. Encourage patient use of tissues and proper disposal when coughing following treatment.

EQUIPMENT ROOM

All patients care items shall be brought to the cleaning room in plastic bags and enter the dirty area first to be cleaned. Items should enter through the “clean” counter tops for reassembly and packaging.

Cleaning items shall be transferred to the “clean” counter tops for reassembly and packaging.

Cold liquid sterilant shall be changed according to manufacturer’s recommendation, currently every 28 days.

Disposable wiping cloths and spray disinfectants shall be used when cleaning mechanical items.

Gloves shall be worn during cleaning process. Goggles, aprons, and masks shall be available as required.

Equipment from isolation which can not be liquid immersed shall be packaged, labeled and brought to Central Service for gas sterilization.

COLD STERILANT PROCEDURES

1. Disassemble all equipment on soiled side counter top.

2. Wash parts with instrument cleaner and rinse.

3. Place items in liquid sterilant and set timer for twenty minutes.

4. Rinse items and place in dryer.

5. Reassemble on “clean” counter top.

6. Label, package, and store in appropriate area.

PERSONNEL GUIDELINES

1. Any occurrences of percutaneous exposure (needle stick) must be reported to Employee Health Services.

2. Any occurrence of personnel illness exceeding three consecutive days requires clearance through Employee Health Services prior to returning to work.

3. Heptavax/Recumbivax vaccination is recommended unless medically contraindicated.

TOPIC: MATERIAL SAFETY DATA SHEETS

PURPOSE:

OSHA promulgated the Hazard Communication Standard (commonly referred to as “Right-to –know) for manufacturers in 1983 to reduce the risk workers face when they handle chemicals without knowing their physical and health hazards, safe handling precautions and emergency and first aid procedures. On August 24th, 1987 the standard was expanded to cover non-manufacturers. In the current form, Right To Know ensures that all chemical hazards in the work place are listed. By complying, employers not only meet legal requirements, but they also significantly reduce the risk of chemical related illness in their work places

PROCEDURES:

A MSDS will be maintained for each hazardous chemical in use in the department. Any employee has the right to review these sheets at any time. Duplicate Material Safety Data Sheets, as well as MSDS sheets on hazardous items not specific to the department such as cleaning supplies, white-out, etc. are maintained by the hospital Director of Risk Management.

Material Safety Sheets will be supplied by the Chemical manufacturers or importer, MSDS sheets must be in English and include the following information.

1. The identity of the chemical on the label.

2. Except for trade secrets, the specific chemical name and common names for the hazardous ingredients.

3. Physical and chemical characteristics.

4. Physical hazards.

5. Health hazards.

6. Primary route(s) of entry.

7. OSHA, PEL, ACGIH, TLV, and any other recommended exposure limit.

8. Whether the chemical is listed as a confirmed or potential carcinogen by NTP, IARC, or OSHA.

9. Applicable precautions for safe handling and use.

10. Applicable control measures.

11. Emergency and first aid procedures.

12. Date of preparation or last revision.

13. Name, address, and telephone number of manufacturer, importer, or responsible party.

MSDS Sheets will be reviewed periodically, at least annually, by the Department Director to insure they remain current and complete.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTRO POLICIES AND PROCEDURES

TITLE/DESCRIPTION:		**FILING NUMBER:**
Respiratory Therapy Specific		1118-b
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 12/2009	Respiratory Therapy	ICC

PURPOSE: To decrease occurrence of hospital-acquired infection caused by increased use of all forms of mechanical ventilation.

PERSONNEL: Responsibilities:

1. Physician Department Head:
   a. Assist development and review of all policies and procedures within the department and submit for approval to the Respiratory Therapy Committee and document in minutes.

   b. Train and supervise other respiratory therapist in infection control.

   c. Recommend revision of general guidelines as needed for approval by the Infection Control Committee.

   d. Review infection control studies for any patient or employee infection that may have occurred in the department.

2. Hospital Department Head:
   a. Responsible for proper patient care and equipment safety.

   b. Maintain a safe and clean environment for the patient.

   c. Assure that personnel comply with infection control guidelines within the department and throughout the hospital.

   d. Assist in presenting infection control programs for the department and document employee attendance/participation.

   e. Develop and review all policies and procedures for the department.

   f. Revise guidelines as needed for approval by the Respiratory Therapy Committee.

3. Employee Health:
   a. Employees must comply with the Hospital Employee Health Programs.

b. Personnel should not work if they have skin, respiratory or gastrointestinal infection.

c. Eating and drinking are allowed in the break room.

4. Employee Hygiene:
All technicians must wash hands thoroughly before and after each treatment, after using the bathroom, or handkerchief, before and after eating and after completing working day. Gloves should be worn if contact with respiratory secretions is anticipated.

Hands should be washed, whether or not gloves worn.

PATIENT:

The patient should be instructed to cover mouth and nose when coughing or sneezing, to wash hands and how to dispose of contaminated tissues.

EQUIPMENT AND SUPPLIES:

1. Fluids and Medicine

a. Only sterile fluids should be nebulized in a humidifier. These fluids should be dispensed aseptically, that is, contaminated equipment should not be allowed to enter or touch the fluid while it is being dispensed.

b. After a large container (bottle) of fluid intended for use in nebulizer or humidifier has been opened, unused fluid should be discarded within 24 hours.

c. Either single-dose vials can be used for respiratory therapy. If multi-dose vials are used, they should be stored (refrigerated or at room temperature) according to directions on the vial label or package insert. Vials should be used no longer than the expiration date given on the label.

2. Maintenance of In-Use-Respiratory Therapy Equipment:

a. Fluid reservoirs should be filled immediately before, but not far in advance of, use. Fluid should not be added to replenish partially filled reservoirs; that is, if fluid is not added, the residual fluid should first be discarded.

b. Water that has been condensed in tubing should be discarded and not allowed to drain back into the reservoir.

c. Venturi wall nebulizers and their reservoirs should be routinely changed and replaced with sterilized or disinfected ones every 24 hours or use disposable equipment.

d. Other nebulizers (including medication nebulizers) and their reservoirs are to be changed every 72 hours. Cascade (high volume) humidifiers and their reservoirs should be changed and replaced with sterilized or disinfected ones every 24 hours.

e. Room air humidifiers that create droplets to humidify (and thus are really nebulizers) should not be used.

f. Reusable humidifier reservoirs for use with wall outlets should be cleaned, rinsed out, and then dried daily. (Disposable reservoirs for use with wall oxygen outlets may be safe for long periods, and it is not known whether these need to be routinely changed before they are empty).

g. The tubing (including any nasal prongs) and any mask used to deliver oxygen from a wall outlet should be changed between patients.

h. Breathing circuits (including tubing and exhalation valve) should be routinely changed and replaced with sterilized or disinfected ones every 4 days.

i. When a respiratory therapy machine is used to treat multiple patients, the breathing circuit should be changed between patients and replaced with a sterilized or disinfected one.

3. Disposable Equipment

No pieces of respiratory therapy equipment that are designed for single use (disposable) should be reused.

4. Processing Reusable Equipment

a. All equipment to be sterilized or disinfected should be thoroughly cleaned to remove all blood, tissue, food, or other residue. It should be decontaminated before or during cleaning if it is marked “contaminated” and received from patients in certain types of isolation.

b. Respiratory therapy equipment that touches mucous membranes should be sterilized before use on other patients; if it is not feasible, it should receive high-level disinfection.

c. Breathing circuits (including tubing and exhalation valves), medication nebulizers and their reservoirs, venture wall nebulizers and their reservoirs should be sterilized or receive high\level disinfection.

d. Since coolant chambers for ultrasonic nebulizers are difficult to disinfect adequately, these chambers should be gas-sterilized (ethylene oxide) or have at disinfectant.

e. The internal machinery of ventilators and breathing machines should not be routinely sterilized or disinfected between patients. (Disinfection or

sterilization may be necessary only after a machine is potentially contaminated by extremely dangerous agents, such as Lassa fever virus.)

f. Respirometers and other equipment used to monitor several patients in succession should not directly touch parts of the breathing circuit. Rather, extension pieces should be used between the equipment and breathing circuit and should be changed between patients. If no extension piece is used and such monitoring equipment is directly connected to contaminated equipment, the monitoring equipment should be sterilized or receive high-level disinfection before use on other patients.

g. Once they have been used for one patient, hand- powered resuscitation bags (for example, AMBU bags) should be sterilized or receive high-level disinfection before use on other patients. Category I (There is no data to suggest that these bags need to be changed routinely during use on one patient.) Disposable AMBU bags are used at ACMC.

5. Microbiologic Monitoring

a. In the absence of an epidemic or high endemic rate of nosocomial pulmonary infections, the disinfection process for respiratory therapy equipment should not be monitored by cultures, that is, routinely sampling of such equipment should be done. (This recommendation differs slightly from a previous CDC recommendation. See text of this guideline for a discussion of this recommendation.)

b. Because of the difficulty of interpreting results, routine microbiologic sampling of respiratory therapy equipment while it is being used by a patient is not recommended.

6. Patients with Tracheostomy

a. Tracheostomy should be performed under aseptic conditions in an operating room, except when strong clinical indication for emergency or bedside operation is indicated.

Ashley Health Services
Rural Health Clinic

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ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILLING NUMBER:**
Infection Control		1119-a
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Revised 11/2009	Rural Health Clinic	ICC

PURPOSE:

Promotion of health and wellness for clinic staff. To maintain an environment that inhibits and/or prevents the spread of infection for the protection of patients, personnel and public from the spread of infection.

POLICY STATEMENT:

Employee health policy and procedures are outlined by the hospital and will be followed for clinic staff.

Refer to Ashley County Medical Center Employee Health Policies.

POLICY STATEMENT:

All clinic employees will be oriented to infection control techniques. As part of the orientation, employees will be required to read and return demonstration of knowledge and "universal precautions" as outlined by The Center for Communicable Disease Control. An annual review of infection control techniques is required. Below is a brief outline of specific technique.

1. UNIVERSAL/STANDARD PRECAUTIONS

   All patients are considered to be possibly infected with HIV, Hepatitis B and C. Universal/Standard Precautions are to be followed when coming on contact with ANY patient. Health care personnel should not be excused on their request from providing care to HIV patients. Pregnant personnel are at no increased risk from caring for these patients.

2. HANDWASHING TECHNIQUE

   Hands must be washed before and after patient contact- whether or not gloves have been worn.

Wet hands, add soap. Vigorously rub all surfaces of hands together for 10 seconds. Rinse hands under running water. Dry hands with paper towel and dispose of it. Use another paper towel to turn off faucets. Apply hand cream liberally after frequent handwashing to decrease chapping.

3. ANTIBACTERIAL HAND FOAM OR GELS

Antibacterial / alcohol hands gels or foam can be used to clean hands before and after patient contact if unable to wash hands with soap and water and the hands are not visibly soiled.

Place a small amount of gel or foam in the palm of the hand and rub over all surfaces on front and back of hand until dry.

4. GLOVES

Will be worn when hands are likely to come in contact with body substances, mucous membranes, or non-intact skin. Gloves will be worn by personnel with open lesions and/or dermatitis.

5. APRONS/GOWNS

Will be worn when clothing is likely to be soiled with body substances.

To remove gowns, masks and gloves:

Unfasten waistband of gown. Remove gloves and discard in trash. Wash hands. Unfasten neck band. Remove gown turning it inside out. Roll the gown so that the contaminated part is inside. Discard gown in trash. Remove mask by handling only the ties of the mask. Discard mask in trash and wash hands thoroughly.

6. MASK/EYE PROTECTION

Will be worn when it is likely that mucous membranes (eye, mouth, and nose) will be splashed with body substance. Masks are also worn when needed when a patient is in Respiratory/Strict Isolation.

7. TRASH

A. Trash which has body fluids on it will be placed in a red plastic bag, sealed and discarded <u>at that time</u> in the trash.

B. Trash which <u>does not</u> have body fluids can be put in the patient's regular containers and will be picked up by housekeeping.

8. LINEN

A. Be sure that there are no diapers or blue pads or anything else mixed in with the used linen.
B. All linen is placed in blue bags to be picked up by housekeeping. Soiled linen is not sorted from regular linen.

9. INFECTIOUS WASTE

C. Trash

1) Trash from exam rooms is picked up by housekeeping personnel, or if the container becomes too full in between pick-ups, it is taken out by nursing personnel

2) The trash from Soiled Holding is collected by housekeeping personnel on a routine basis and taken to the hospital for storage in Red Bag room until picked up by contractor.

D. Sharps Containers

Sharps containers SHOULD NOT be allowed to get too full. In-room sharps containers are emptied by housekeeping personnel when they are three-fourths full. Those sharps containers in other areas are to be discarded by personnel in that area.

E. Liquid Waste

Liquid waste (stool, urine, sputum, gastric secretions) may be flushed down the commode, taking care not to splash material upon yourself or surrounding surfaces. Gloves are used. Urine may be disposed down the sink (dirty side).

F. Laboratory

Blood and blood products, microbiotic wastes or any material contaminated by these (slides, culture plates, etc.) are put in a “HAZARDOUS WASTE” container. These items are placed in red bags to be picked up by Housekeeping and stored in the “Red Bag” room until picked up by the contractor.

10. If employee exposure occurs, refer to the Ashley County Medical Center Exposure Control Manual.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILLING NUMBER:**
Proper cleaning /disinfecting of Patient related equipment		1119-b
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Revised 11/2009	Rural Health Clinic	ICC

PURPOSE:
To ensure proper cleaning/disinfecting of patient related equipment (utility tables, exam Tables, IV poles, wheel chairs, stretchers, counter tops, digital thermometers, etc.) And Other environmental surfaces.

POLICY STATEMENT:

The nurse attending the patient will be responsible for proper cleaning and disinfecting of patient related equipment.

General cleaning procedure:

Exam table paper will be changed after each patient, and equipment removed and cleaned. The room will be straightened and cleaned if needed after each patient by the nurse attending the patient. Housekeeping cleans patient rooms daily. Nurses will do a general room cleaning weekly of patient rooms.

Buckeye Superguard will be used to clean/disinfect patient related equipment. This ready to use preparation is an effective bactericide, fungicide, and viricide. Equipment such as EKG machines and electrodes may be cleaned by applying Superguard to a cloth and wiping the surface. This should be done weekly or when visibly contaminated.

Gross contaminated cleaning procedure:

Large spills of blood or body fluid will first be sprinkled with Isosorb. The solidified spill will then be cleaned up and placed in a biohazard bag. For gross bloody (or other body fluid) contamination, a two (2) step process is necessary for decontamination. A one to ten bleach solution should be used first to clean up the gross contaminated area. This should dry and then be followed by a second cleaning with Buckeye Superguard. This should be used according to directions on the bottle. This should also completely dry to get the full effectiveness of the disinfectant.

Instrument cleaning:

Instruments should soak in a bleach solution for no less than 20 minutes. For instruments that need to be sterilized this will be done at ACMC. Disposable instruments should be used as much as possible.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILLING NUMBER:**
Latex Allergy		1119-c
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Revised 11/2009	Rural Health Clinic	ICC

SUBJECT: LATEX ALLERGY

PURPOSE:

To ensure the safety of employees or patients who may have a latex allergy.

POLICY STATEMENT:

All employees will receive latex allergy education at new employee orientation, and will be required to fill out a latex allergy questionnaire.

Powder free gloves are provided for employee use. In the event that an employee has demonstrated a latex allergy, and requires latex free gloves, these will be provided on request .

If a patient has a latex allergy, latex free products will be obtained from the hospital for use in the clinic.

Social Services

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/ DESCRIPTION:		**FILLING NUMBER:**
Social Services		1120
EFFECTIVE DATES:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 9/2009	Social Services	ICC

1. Social workers must comply with employee health policies.

2. They must not work with patients if they have an infection.

3. They must be oriented and demonstrate knowledge of isolation technique.

4. Hands should be washed after visiting patients, after using toilet, before eating, and before leaving work.

5. Isolation precautions are to be followed as posted on patient's door.

6. It is the responsibility of employees to report exposure to or acquisition of an infectious or communicable disease to the department manager. The department manager will be responsible for reporting to the senior management. If the exposure was a result of patient contact, the patient's name and circumstances must be provided. Hospital administration will determine what action should be taken with regard to the individual's specific disease. Appropriate medical staff will be consulted when necessary.

   Action may include leave of action, a change in work assignments or removal from direct patient care. Testing may be required to make that determination. Appropriate medical staff will be consulted when necessary. Refusal of an employee to submit to testing may result in disciplinary action which may include suspension or dismissal.

   INFECTIOUS DISEASES ARE THOSE THAT CAN BE TRANSMITTED PERSON TO PERSON, SUCH AS, BUT NOT LIMITED TO :

   Bacterial Diarrhea, i.e. salmonella / shingella
   Hepatitis A
   Hepatitis non-A, non- B
   Human Immunodeficiency Virus
   Influenza
   Syphilis
   Rubeola (2 wk. or red measles)
   Tuberculosis
   Rubella (3 day or German measles)
   Hepatitis B (including HBsAG carrier)
   Herpes simplex of the finger (whitlow)
   AIDS or AIDS related disease
   Mumps
   Varicella (chicken pox)

Department manager will contact Infection Control for any questions pertaining to incubation period or disease that may require prompt attention.

SPEECH THERAPY

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Speech Therapy		1121
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 9/2009	Speech Therapy	ICC

PURPOSE:
Prevention of infection and control of communicable disease in the home, schools and department of Speech Therapy.

RESPONSIBILITY:
Speech Therapist

POLICY:
General guidelines and practices in the Infection Control Manual apply to the Speech Therapy Department where applicable. However, since the main sphere of patient care is on an outpatient bases outside of the hospital setting, there are obviously some modifications.

HANDWASHING:
Handwashing is one of the most important factors in the prevention of spreading disease. Speech Therapy personnel should wash their hands before and after contact with a patient. Liquid antiseptic hand solution is to be carried with the Speech Therapy personnel for use when soap and water is not available.

EQUIPMENT:
All equipment that has had contact with a patient is to be sanitized between patients with spray antimicrobial.

EMPLOYEE HEALTH:
Employees must comply with hospital employee health guidelines.
Speech Therapy personnel should report any respiratory illness, abscesses or draining skin lesions, diarrhea or any other infection that may be transmitted by direct patient contact to immediate supervisor or the Infection Control Nurse.

INSERVICE ON INFECTION CONTROL:
Speech Therapy personnel must complete yearly e-learning education on infection control.

Surgery

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES

TITLE/DESCRIPTION:		**FILLING NUMBER:**
Surgery Suite		1122-a
EFFECTIVE DATE:	**APPLIES TO:**	**APROVED BY:**
Reviewed 9//2009	Surgery	ICC

PURPOSE:

The Surgical Suite can be a direct source of HAI for the surgical patient. Considering this, it is necessary to have stringent policies and procedures regarding infection control in this area to reduce the possibility of infections. The following guidelines are considered necessary to promote safe and uneventful recovery for the surgical patient.

PERSONNEL:

1. Personnel must comply with hospital employee health guidelines.

2. Personnel having a communicable disease (tonsillitis, furuncle, URI, draining abscess, gastroenteritis, etc.) are not permitted in the Surgical Suite.

3. Eating and drinking are confined to the lounge and office areas.

4. All personnel must demonstrate and practice effective aseptic technique according to Surgery Department policy and procedure manual. In-service classes are held on, at least, an annual basis on infection control methods.

5. Attire:

    a. Only hospital-provided scrubs will be worn in the surgical suite.

    b. Disposable head covers will be worn within the area beyond “RED LINE”.

    c. Protective eyewear will be used during any procedure in which there is likelihood of splashing or aerosolization of blood/other body fluids.

    d. Shoes are to be kept clean. Shoe covers may be worn over street shoes or shoes only in the department may be used.

    e. Masks, covering mouth and nose, are to be worn at all times in individual operating rooms and areas where there are open sterile supplies. Masks are to be changed between cases and as necessary. Masks should not be reused after dangling around neck.

6. Handwashing:

a. Surgical hand scrubs will be accomplished as outlined in the Operating Room Policy and Procedure Manual.

b. Hands will be washed before and after each patient contact.

TRAFFIC CONTROL:

1. Movement and conversation in the operating room should be kept to a minimum.

2. Traffic in and out of the operating rooms should be kept to a minimum.

3. Only approved non-surgical staff members will be allowed in the Surgical Suite (students, approved sales representatives, etc.). These persons must not enter the restricted area until suitably attired.

4. Non-surgical staff members are escorted to the OR dressing room where they are appropriately attired.

5. Visiting from room-to-room is discouraged.

6. Operating room doors will be kept closed when not in use.

7. Visitors will be prohibited from the Surgical Suite except in those cases stated in the Operating Room Policy and Procedure Manual. (To include sales reps and students.)

ENGINEERING:

1. Air should be exchanged a minimum of 25 times per hour in new facilities and a minimum of 12 changes per hour in existing facilities.

2. There should be 80% to 100% fresh air, 95% filtered, supplied to the operating room.

3. Positive air pressure must be maintained in the Operating Suite with flow directed toward the floor.

4. Filters should be changed according to manufacturer's specifications. (Generally monthly).

5. Relative humidity should be maintained over 50%. It should be checked daily and recorded. Records should be maintained.

6. The temperature should be maintained as close to 68*as possible. Records should be maintained.

CONTROL OF INFECTION:

1. Close contact must be maintained between Surgery Supervisor and the Infection Control Practitioner. The Infection Control Practitioner periodically reviews practice during surgery.

2. A written report on all surgical infections should be submitted to the Surgery Supervisor by the Infection Control Practitioner.

3. Unusual clusters or increase in rate of surgical infection should be brought immediately to the attention of the Chairman of the Infection Control Committee.

4. All surgical cases should be classified and a tally report submitted to the Infection Control Practitioner monthly.

5. Environmental cultures and cultures of personnel should be done only when an outbreak is being investigated.

PATIENTS:

1. All surgical cases are considered “contaminated cases”.

2. Transport:

    a. Patients will be transferred to the Surgical Suite by stretcher or bed according to each patient’s condition.

    b. Patients are admitted to the holding area in accordance with the admission procedure.

3. Medications:

    Administration of medications and placement of indwelling intravenous and urethral catheters will be done according to the established procedures of the Nursing Department as approved by the Infection Control Committee.

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4. Preoperative skin preps are accomplished in compliance with the Surgery Department Policy and Procedure Manual.

5. Blood and body fluid precautions:

    a. Gloves will be worn for potential exposure to blood or body fluids, Specifically when starting intravenous fluids and working with soiled sponges, blood or body fluids collections systems.

    b. Besides the normal operating room attire, protective eyewear is

recommended to be worn when splattering of body fluids is expected to occur.

c. Gloves will be worn when caring for newborns delivered in an operating room.

STERILE GOODS AND SUPPLIES

1. All in-house and manufacturer sterilized goods will be checked weekly for expiration dates.

2. Expiration dates and package integrity will be checked prior to opening of goods onto the sterile field.

3. Disposable products will not be reprocessed or reused, unless manufacturer's written instructions for reprocessing are obtained and followed.

4. Surgical gloves should be single-use material that is blood and liquid resistant and is resistant to tears and punctures. Unused disposable gloves will not be resterilized.

5. Irrigating solutions opened for one surgical procedure will be discarded and not be saved for use on further procedures.

6. All supplies will be stored on shelving. No supplies will be stored on the floor.

7. Supplies stored in the restricted area will be removed from the shipping cartons before being stored.

8. Sterilization and disinfection of goods is accomplished according to Surgery Department Policy and Procedure Manual and manufacturer's guidelines.

9. Draping and gowning materials meet standards as set forth by the Association of Operating Room Nurses.

CLEANING FOR THE SURGICAL SUITE:

1. The individual operating room will be cleaned in accordance with the established policy and procedure from the Surgery Department Policy and Procedure Manual after each procedure.

2. The entire suite will be terminally cleaned daily.

3. All used instruments will be taken in a closed and covered container to the decontamination room immediately after use for decontamination, cleaning, and resterilization.

3. Instruments used for a patient in isolation will be placed in a bio-degradable plastic bag before transport to the decontamination room.

MAINTENANCE AND SURVEILLANCE OF STERILIZATION EQUIPMENT:

1. The steam sterilizers in the Surgical Suite will be tested by biological monitors on a weekly basis.

2. Temperature and time strips are checked with each load and documented.

3. Routine and special maintenance of sterilizers is documented by the Biomed Department.

INFECTIOUS WASTE MANAGEMENT IN OPERATING ROOM AND POST ANETSTHESIA CARE UNIT:

Purpose:

To define infection waste and to provide policy for the packaging, storing, and transportation of infectious waste.

Policy:

Infectious waste is defined as written in the Arkansas Department of Health publication RULES AND REGULATIONS PERTAINING TO THE MANAGEMENT OF MEDICAL WASTE FROM GENERATORS AND HEALTH CARE RELATED FACILITIES. (See ic.091 Infectious Waste Management for complete definition).

All persons who handle infectious waste or materials will be provided with appropriate orientation, equipment, and on-the-job training.

Infectious waste will not be placed with regular, non-infectious waste without color-coding and/or labeling. Infectious waste will be segregated from other waste by containing in a disposable red plastic bag which has a minimum of 3.0 ml thickness and is impervious to moisture. Infectious waste contained in disposable bags will be security-tied with a twist tie and disposed of according to hospital policy.

All spills of infectious waste will be cleaned up immediately by personnel wearing disposable clothes and with the use of germicidal solution by personnel who are wearing gloves and protective clothing.

SURGICAL DRAPES AND GOWNS:

1. Surgical drapes and gowns will be made of material that establishes an effective barrier minimizing the passage of microorganisms between sterile and non-sterile areas. Materials should be blood and liquid resistant, resistant to tears and puncture. Unused disposables will not be resterilized.

2. Surgical drapes and gowns should be made of materials that are safe for use in the operating room. Materials should meet or exceed National Fire Association standards. Materials should be nonabrasive, free of toxic ingredients and non-fast dyes, non-glare and be of a color that minimizes distortion from reflected light. They should be lint-free. Drapes should maintain an isothermic environment that is appropriate to body temperature.
   Gowns should allow freedom of movement, facilitate aseptic technique, and prevent heat build-up.

BASIC ASEPTIC TECHNIQUE:

1. Anyone working in the operating room will create and maintain a sterile field at all times. Scrubbed persons wear sterile gown and gloves. Disposable gowns are used and meet the Association of Operating Room Nurses (AORN) standards for aseptic barrier materials.

   a. Scrub Nurses scrub hands according to policy on surgical hand scrub.

   b. The gown worn by the scrub nurse is considered sterile in front from chest to level of sterile field.

   c. The sleeves are considered sterile from above the elbow to the stockinet cuff.

   d. The stockinet cuff is considered unsterile and will be covered by sterile gloves.

   e. The neckline, shoulders, area under the arms and back are considered unsterile.

   f. Self-gowning and gloving are performed from a separate sterile surface.

2. Sterile drapes are used to establish a sterile field.

   a. Each item to be draped will be clean and dry. Sterile drapes are placed on the patient and all furniture and equipment to be included in the sterile field. Drapes, supplies, and equipment are considered unsterile because they are out of sight and their sterility cannot be monitored.

   b. Drapes are handled as little as possible.

   c. In the draping process, the material is held above waist level, in a compact position, draping from operative site to periphery.

   d. In placing drapes, the gloved hands are protected by forming a cuff with the draping material over the gloved hands.

   e. Once placed in position, sterile drapes are not to be moved or shifted.

3. All items used within a sterile field are sterile. Before any item is placed on the sterile field, the unscrubbed person will check the package integrity, chemical process indicator, and if present, the expiration date. If there is a doubt of sterility of an item, consider it contaminated.

4. All items placed onto the sterile field are dispensed by methods that maintain sterility of the item and integrity of the sterile field.

   a. A sterile package is opened from the far side first and the near side last.

   b. All wrapped soils are secured when supplies are presented to the sterile field to avoid contamination of the field.

   c. Sterile items are presented to the Scrub Nurse or placed on the sterile field. Sharp and/or heavy objects are presented to the Scrub Nurse or opened on a separate surface.

   d. The dispensing of solutions to the sterile field:

      * Once a bottle has been recapped, it is considered contaminated. When opened, the entire contents of bottles are poured or the remainder of solution is discarded. Decanter sets are used to deliver I.V. irrigation-type solutions to the sterile field.

      * Basins for irrigating solutions are placed near the edge of the sterile table or the basin is held by the scrubbed person to receive sterile solutions.

      * Basins with irrigation solutions for sterile usage are placed on impervious surfaces.

5. The sterile field is constantly monitored and maintained.

   a. The sterile field is prepared as closely as possible to the scheduled time of use. Covering of the sterile field is acceptable if 2 people using sterile technique cover the table with a sterile sheet, the table is not left unattended and 2 people uncover the table using sterile technique.

   b. Unguarded sterile fields are considered contaminated and are not to be used.

   c. Every team member will observe the events which may compromise the sterile field and initiate the appropriate corrective action.

   d. All cords and tubing for equipment are secured on the sterile field with a non-perforating clamp or clip.

e. Nonsterile equipment brought into the sterile field is covered with sterile drapes.

f. Items of doubtful sterility are considered contaminated and discarded.

g. All personnel move within and around a sterile field in a manner to maintain the integrity of the sterile field.

* Scrubbed persons keep their arms and hands within the parameter of the sterile field.

* Scrubbed team members move from sterile to sterile areas. When changing positions, they turn back to back, or face to face, while maintaining as much distance as possible between each other and avoiding traffic pathways.

* Scrubbed persons stay within the sterile boundaries and are only allowed to leave the sterile boundaries during the usage of x-ray equipment. For personnel safety, the scrubbed persons are escorted to and from the substerile room by the circulator to decrease their exposure to radiation.

* Scrubbed persons are allowed to sit only when a surgical procedure is to be done in a sitting position.

* Unscrubbed team members move from unsterile to unsterile areas, maintaining an awareness of the need of distance from the sterile field.

* Unscrubbed team members approach sterile areas facing them and do not walk between two sterile fields.

* Sterile dressings are applied before the sterile field is discontinued.

IMPLANTABLE ITEMS STERILITY:

A biological monitor indicator will be included in with every implantable item being sterilized.

CHEMICAL DISINFECTION:

To provide a low level of disinfection of surgical equipment and instruments that do not come in contact with sterile tissue. Low-level disinfection is commonly used for scopes that contact mucus membranes.

Chemical disinfection will be used when: (1) a product cannot be safely sterilized by steam or gas means, or (2) in an emergency situation when steam or gas sterilization is not available.

Procedure:

1. Fill soaking pan with glutaraldehyde solution or CIDEX OPA.

2. Place equipment to be disinfected into solution. Soak for 20 minutes. (12 minutes for CIDEX OPA) high level disinfection renders items sterile and requires ten hours of soaking in a glutaraldhyde.

3. Using sterile technique (when applicable) or clean technique, remove item from solution and rinse thoroughly with sterile water, making sure that all chambers are completely rinsed.

   a. Surgical drapes are removed to avoid contamination of the incision.

4. The circulating nurse monitors aseptic practices and guides the team into correcting breaks. Continued breaks in technique are reported to the Supervisor of Surgical Services and the Infection Control Practitioner.

FLASH STERILIZATION:

Minimal time at effective temperature shall conform to the following:

AUTOCLAVE	LOAD	MINIMAL TIME AT TEMPERATURE
Gravity	Nonporous(simple metal instruments)	3 minutes @ 132*C(270*F)
Gravity	Porous(Towels, Rubber, Plastic) Nonporous Mix	10 minutes @ 132*C (270*F)
Gravity	Nonporous with lumens, Deep Grooves, Sliding Parts	10 minutes @ 132*C (270*F)
Gravity/ Prevacuum	Complex Devices, Air-powered Drills	10 minutes @ 132*C (270*F)
Prevacuum	Nonporous	3 minutes@ 132*C (270*F)
Prevacuum	Porous/Nonporous	4 minutes @ 132*C (270*F)

Flash sterilization is more effective in prevacuum steam autoclave as opposed to gravity steam autoclaves.

1. Each load in the flash sterilizer will be documented with the date, time, nurse operating the sterilizer, cycle time, indicator results, and item(s) sterilized.

2. Report all biological results to the Infection Control Committee.

CLASSIFICATION OF WOUNDS:

All surgical wounds are classified as clean, clean contaminated, contaminated, and dirty to provide consistent guidelines for the documentation and the classification of surgical wounds.

PROCEDURE:

The circulating nurse collaborates with the operating surgeon and uses the categories listed below for all surgical patients to assign a wound classification.

The surgical wound classification is documented by the circulating nurse by checking the appropriate classification on the intraoperative record.

Surgical wound classification:

A wound classification is based on a clinical estimation of bacterial density, contamination, and risk of subsequent infection. This listing is now widely accepted as a standard classification of operative wounds. It is recommended for use in collecting information and relating them to sources of contamination and risk of infection.

1. Clean:

   a. Definition: Non-traumatic, uninfected operative wounds in which no inflammation is encountered, there is no break in technique, and neither the respiratory, alimentary or genitourinary tracts nor the oropharyngeal cavities are entered.

   b. Examples: Neurosurgery for intracranial tumors, orthopedic surgery for a torn cartilage of the knee, I.C.L.C., ferm-pop bypass without distal gangrene.

   c. Infection rate: < 1 - 5.4%.

2. Clean contaminated:

   a. Definition: Operations in which the respiratory, alimentary, or genitourinary tracts are entered under controlled conditions and without unusual contamination.

   b. Examples: Elective colon surgery, thoracotomy with pneumonectomy, hysterectomy, tonsillectomy, bladder surgery, cholecystectomy in absence of infected bile.

   c. Infection rate: 2.1% - 9.5%

3. Contaminated:

   a. Definition: Operations associated with:

      1) Open, fresh accidental wounds.
      2) Major breaks in sterile technique or gross spillage from the gastrointestinal tract; or

      3) Acute, nonpurulent inflammation encountered.

   b. Examples: Perforation of the bowel during spleenectomy; colectomy for toxic megacolon; prostatectomy in presence of infected urine; gunshot wound, fresh.

   c. Infection rate: 3.1 – 12.8%

The overall average wound infection rate is from 2.1% - 7.1%

National Nosocomial Infections Surveillance System, Methods and Analysis. July 1996.

CLEANING OF SURGICAL SUITE – DAILY TERMINAL CLEANING:

PROCEDURE:

1. At conclusion of surgical schedule, all furniture in all operating rooms is cleaned with Infection Control Committee-approved disinfectant.

2. Operating lights are cleaned with disinfectant.

3. Used kick-bucket liners are removed, the kick-buckets cleaned with a phenolic cleaner, and liners replaced.

4. Stretchers and surgilifts are cleaned with a phenolic cleaner and allowed to air dry.

5. Walls are high dusted.

6. Scrub sinks and other sinks are cleaned with appropriate cleaner.

7. All floors are dusted and then mopped with a phenolic cleaner.

8. All used linen hampers are removed from suite and clean linen from bags replaced on hampers.

9. Trash cans are emptied and new liners replaced. All trash is removed from Suite.

CLEANING BETWEEN CASES AND HANDLING CONTAMINATED MATERIALS IN THE OPERATING ROOM SUITE:

Each operating room is cleaned after the patient is transferred from the room. All surfaces are either wet- mopped, wet-vacuumed, or wiped with a damp cloth to avoid creating micro-laden aerosolization. All contaminated materials are removed in sealed impermeable bags and labeled "Biohazard".

1. Personnel should wear gloves when cleaning the room.

2. All contaminated solutions will be suctioned in (one or more) suction canisters.

3. Wash operating room furniture and equipment used. Wash overhead lights, and kickbuckets. Wash the walls if soiled.

4. Wet-mop the operating room floor. A clean mop head and solution are used for each room clean-up.

5. Sealed trash bags, linen bags, and suction canisters are removed from the room at the end of room clean-up and taken to the soiled utility cart for removal from the Surgery Suite.

6. All sharps are deposited into sharp containers provided in each OR room.

COLLECTION OF SPECIMEN:

PROCEDURE:

1. After removal, the specimen is handed off to the circulating nurse. The surgeon will identify the specimen so that a correct label can be written.

2. The scrub nurse will place the specimen in a specimen container. Fixative solution is added to the container if no special testing (e.g. frozen section) is required. Specimens are placed in Formalin or saline.

3. The circulating nurse will label the specimen with the patient's name, hospital number, room number, physician's name, and what the specimen is. The pathology request form will be completed with the above information, the preoperative diagnosis, and the pertinent medical information.

4. All specimens, except frozen sections, will be logged in the specimen log book.

5. In procedures when more than one specimen is removed, the specimens will be numbered sequentially as the specimens are received by the circulating nurse.

6. Cultures collected on the field will be handled in a sterile manner to prevent cross-contamination and handed off to the circulation nurse as soon as obtained. The circulating nurse will ensure that the culture is transported immediately to the Laboratory with appropriate requisitions. Any blood or body fluid on the outside of the container must be wiped off before handling by ungloved personnel.

7. All frozen sections will be taken directly to pathology. No preservative is to be added to the container. The pathologist is to communicate his findings directly to the attending surgeon.

OUTPATIENT SURGERY:

1. Patients with a known or suspected communicable disease will receive isolation according to hospital isolation policy. Patients who have a suspected

communicable disease will be examined promptly and either admitted to the hospital or discharged home as soon as possible.

2. The cleaning procedures normally adhered to by Surgical Services Department will be used in the maintenance of the Same Day Surgery Area. All cabinets containing sterile supplies and drugs will be cleaned weekly by the Same Day Surgery nursing staff.

3. The RN in the Outpatient Surgery Department will notify the Infection Control Practitioner of any communicable disease suspected.

4. Disposable items will not be reused.

5. Sterile supplies will be checked monthly for outdates.

6. Patient bed and bedside stand will be cleaned between patients.

7. Temperature probe covers will be disposed of directly into the trash receptacles by each bedside and in the admitting areas.

8. Used needles and syringes will be placed in the sharp disposal receptacles.

9. Handwashing will be observed between patients and as necessity dictates.

10. Dirty linens will be placed in a covered linen receptacle.

11. The post-operative patient will be instructed on the care of their incision and to report any signs of infection to their doctor.

12. Insertion of I.V.s and foley catheters will be done using aseptic technique following the Department of Nursing Procedure.

13. Adequate space will be maintained between patients.

14. Standard precautions will be observed.

LINEN IN THE OPERATING ROOM:

All linen saturated/dripping from the Operating Room is considered infectious and is handled as contaminated linen. Disposable gloves should be worn if there is obvious blood or body fluid present. When soiled linen is removed from the stretcher, O.R. table, or other area, care should be taken to keep soiled linen away from clothing. Soiled linen should be placed in linen hampers. The hands should be washed after handling soiled linen and the scrub suits changed if they become soiled.

Once soiled linen has been bagged according to the above, it can be placed in any large soiled laundry hamper for storage or transport to laundry.

STERILE SUPPLIES AND OUTDATES:

1. Sterile supplies are checked prior to dispensing and checked weekly for outdates by the Surgical Department or the Sterile Processing Department.

2. Any in-house processed items are returned to the Sterile Processing Department according to procedure.

3. Recommendations from the manufacturers are followed for prepackaged items.

4. All sterile supplies are to be kept clean, dry, and stored on shelves or carts.

RE-USE OF DISPOSABLE PRODUCTS:

No products designated as “disposable” by the manufacturer shall be reprocessed or reused unless specific sterilization guidelines are provided in writing from the manufacturer.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICY AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Surgery/Endoscopy		1122-b
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 10/2009	Surgery	ICC

INTRODUCTION:

Guidelines are presented in this section for use and care of endoscopy and other special pieces of equipment so that they will not be a source of infection for the patient.

Whether the procedures are performed in the operating room, emergency room, or special procedures lab, guidelines should the same.

Standard precautions will be observed.

PERSONNEL:

1 Employee Health:

Employees assisting in the special procedures lab with illness such as gastrointestinal upset or a severe upper respiratory infection will not be permitted to work in direct patient care. Personnel must comply with employee health policies.

2. Handwashing:

Handwashing with germicide should be done before reporting for duty, in preparation for sterile procedures, when caring for isolation patients, and prior to leaving the unit. In between patient contacts, soap should be used.

3. Standard Precautions:

Standard precautions must be observed with all patients.

VISITORS AND TRAFFIC CONTROL:

Casual visitors should not be permitted in the special procedure lab. Hospital employees and other persons not directly involved in the patient's care or assisting in a special procedure will not be permitted in the restricted area.

To minimize transmission of infections, patients will be brought directly from their room to the special procedure lab, or if on outpatient basis, will be checked in and be directed to stay in the outpatient area until called for.

PATIENTS:

1. Nursing units should notify the special procedures lab of any patient on isolation precautions.

2. Isolated patients should be handled during the period of least activity.

3. Appropriate isolation precautions will be maintained according to isolation manual.

EQUIPMENT AND SUPPLIES:

Clean and sterile supplies:

Clean supplies should be kept in designated cupboards and drawers.

Sterile supplies should be wrapped and dated for expiration. These must be checked no less than once weekly for expiration dates.

Sterile supplies must be stored in designated storage area that can be environmentally controlled and monitored at all times.

Disposable Articles:

Disposable articles should never be reused, but must be discarded after single use. Example: suction canisters, tubing, catheters, emesis basins, items for proctoscopy, etc.

Needles and Sharps:

Dispose of needles and sharps by placing them into contaminated materials container. When container is full, the lid should be closed and box taken to the appropriate department for disposal.

Soiled Linen:

Soiled linen should be placed in a plastic bag at site of collection, the top twisted shut and loop tied. The bag may then be carried to the linen hopper.

Handling Waste Products:

a. Liquid waste, including isolation liquid waste, should be disposed of by applying Isosorb to solidify, then placing in RED BAGS.

b. Uncontaminated solid waste should be placed in trash containers.

Exam tables should be wiped down with detergent germicide between patients.

EQUIPMENT:

Lack of epidemiological studies makes definition of infectious risks related to endoscopy difficult. The differences in uses, types and designs of endoscopic instruments, as well as their complex and fragile composition, makes these instruments difficult to clean, disinfect or sterilize. Frequently, these instruments are used with chronically or acutely ill patients whose susceptibility to disease transmission is higher.

* Endoscopes which can be totally cleaned and disinfected are optimal.

* Insertion tubes and all channels should be brushed then meticulously cleaned using an enzymatic detergent. This should be done immediately after each use to prevent drying of secretions.

* Nonimmersible sections of endoscopes should be carefully cleaned with alcohol-moistened pads.

* Endoscopes are sterilized using Steris (paracetic acid) Appropriate monitors (chemical and biological) are used to confirm parameters are met.

* If sterilization is not possible, high-level disinfection of the endoscopic insertion tube and all channels is the minimum acceptable procedure between patients. Air, water, and Co2 channels and openings are especially difficult to clean and should be given careful attention.

* Germicides registered with EPA as “sterilant/disinfectant” agents are appropriate.

* Adequate rinsing must follow disinfection to prevent possible residual toxic effects of the disinfectant.

SGA Journal, Summer, 1988,pg. 22-26.

After cleaning, and prior to storage, the insertion tube and inner channels must be thoroughly air-dried.

* Store instruments in closed/covered area to prevent contamination between use.

* EtO sterilization is usually not practical, but, if used, cleaning as described above and adequate aeration is essential.

* Diagnosed or suspected HIV or Hepatitis B infections are not a contraindication to endoscopy. Dedicated instruments for these patients are not recommended.

* Cleaning of accessories such as biopsy forceps is extremely difficult and may be assisted by use of ultrasonic cleaning. Use germicide or EtO as recommended by the manufacturer. If available, disposable accessories are recommended.

* Moisture proof disposable drapes are suggested for procedures, carts and equipment.

* Mobile care stations (COWS), including held hand tablets, are to be cleaned daily with disinfectant on the night shift.

  The carts are <u>NOT</u> to be taken into any room set up for an isolation patient. Hand held tablets that are taken into isolation rooms are to be cleaned thoroughly with a disinfectant after use to prevent the spread of infection.

<u>HOUSEKEEPING:</u>

*. Wipe down carts, sinks, stretchers, etc., between each use with a an EPA-registered tuberculocidal "hospital disinfectant".

* Clean blood and/or blood-contaminated body fluid spills with freshly prepared 1:10 solutions of household bleach or with "hospital disinfectant" solution. Wear gloves and use disposable towels to clean the spill. Transport contaminated linen in labeled leak-proof bags. Transport with minimal handing.

* Use standard precautions.

* Wash hands when entering and leaving the endoscopy area, upon removal of gloves, and between each endoscopy procedure.

* Proper ventilation should be provided in the area where disinfection is done.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Outpatient Surgery		1122-c
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 10/2009	Outpatient Surgery	ICC

PURPOSE:

1. To keep personnel informed of their role in Infection Control.
2. To comply with established policies and procedures.
3. Maintain universal precautions.

RESPONSIBILITY:

Ashley County Medical Center Healthcare Providers.

POLICY:

Nursing units where there are patients with disease and personnel who can transmit disease are areas where infection control procedures need to be employed. All personnel are to be informed of their role in infection control in the hospital and comply with procedures and policies established by the Infection Control Committee.

Personnel:

1. Good handwashing is the most important factor in controlling the spread of infection. All personnel are to wash their hands with soap and running water when reporting on duty, before and after each direct patient contact, and after using the restroom.
2. All employees are to have their annual T.B. skin test done as required by the hospital.
    a. Personnel having active infections are to contact Nursing Service office for special assignment if necessary to prevent direct patient contact.
4. All personnel are to change surgical dressings with appropriate technique, be it aseptic or sterile technique as ordered per physician.
5. Collect soiled dressing in red bag at bedside and dispose in hazardous waste receptacle.

<u>PURPOSE:</u>

1. To assist in gathering baseline data for the Infection Control Committee.

2. To provide information for determining the kinds and frequency of nosocomial infections.

    a. To assist the Infection Control Committee to know where investigations, and\or control measures are needed.

PROCEDURE:

1. A hospital infection control report will go to the Infection Control Nurse attached to all positive culture lab reports.

2. Using these forms the Infection Control Nurse will further pursue the type of infection and any investigations or changes in nursing policy that may be indicated.

3. Reporting notations abnormal lab findings on our monthly QA screen.

THE HANDLING OF SUCTION COLLECTION EQUIPMENT:
ONE DAY SURGERY

ROLE/SCOPE: See General Nursing

RESPONSIBILITY: Nursing

PURPOSE: To minimize contamination of the environment and prevent risks of infection to the patient and personnel from suction procedures.

POLICY: THESE SPECIAL PRECAUTIONS ARE USED:

1. Hands should be washed after handling suction equipment. Gloves must be worn.

2. Careful transportation of aspirated material through patient care area.

3. Place all disposable contaminated supplies in a plastic bag for transportation.

4. Clean reusable suction equipment with a germicidal solution at the end of each patient use.

5. Patients with tracheostomy tubes, endotracheal tubes, aseptic technique will be used as in the unit procedure manual.

6. All suction catheters used for nasopharynx and oropharynx suctioning will be discarded after patient discharge.

SKIN AND WOUND INFECTIONS IN ONE DAY SURGERY:

PURPOSE:

To follow the guidelines for performing surgical prep to prevent nosocomial infections.

RESPONSIBILITY:

Nursing

POLICY:

Purulent drainage from any surgical wound should be considered a nosocomial infection. Surgical prep, especially shaving, should be done the morning of the scheduled surgery. When skin is shaved 24 hours before surgery, micro abscesses may form which are disseminated as the surgeon cuts through the skin.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION		**FILING NUMBER:**
Post Anesthesia Care Unit		11122-d
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 10/2009	PACU	ICC

PURPOSE:

To provide guidelines designed to minimize the risk of transmission of infection from patient to patient during the immediate post-operative period, without compromising the quality of care provided. In order to achieve this purpose, each case is determined on an individual basis.

Refer to Anesthesia and Surgical Suite sections of the manual.

Patients who have anesthesia are more susceptible to respiratory infections. Incisions are always a potential site for a wound infection. Patients also have intravenous units and many have urethral catheters.

Universal precautions will be observed.

PERSONNEL:

Responsibilities:

1. Physician Department Head

    a. Assist in development and review of all policies and procedures within the department, submit for approval to the Anesthesia or Surgery Committee, and document in minutes.

    b. Train and supervise other anesthesiologist and/or nurse anesthetists in infection control.

    c. Recommend revision of general guidelines, as needed, for approval by the Infection Control Committee.

    d. Review infection control studies for any patient or employee infection that may have occurred in the department.

2. Hospital Department Head

    a. Responsible for proper patient care and equipment safety.

b. Maintain a safe and clean environment for the patient.

c. Assure that personnel comply with infection control guidelines within the department and throughout the hospital.

d. Assist in presenting infection control programs for the department and document employee attendance/participation.

e. Develop and review all policies and procedures for the department.

f. Revise guidelines as needed for approval by the Anesthesia or Surgery Committee.

3. Employee Health

Personnel must adhere to employee health program and to policies outlined in the Surgical Suite section of this manual

4. Dress Code

Clean scrub clothes are worn by all persons working in PACU.

5. Handwashing

a. Hands must be washed between patient contacts with approved scrubbing compound.

b. Personnel must wear gloves when handling wound drainage or secretions.

TRAFFIC CONTROL:

Persons not involved in the care of PACU patients should not enter the area.

PATIENTS:

Sterile procedures must be done using aseptic technique as outlined in the Nursing Procedure Manual.

Sterile technique must be used when handling dressings.

Tracheal suction must be done using sterile gloves. Disposable suction catheter must be used only once and then discarded.
Cath-in-sleeve suction catheter may be used again at the discretion of personnel.

Adequate space (at least three feet) should be provided between patients. Cubicles are preferred.

EQUIPMENT:

1. All disposable equipment should be discarded after use on one patient. Disposable suction equipment should be used for one patient only after use, contents and equipment should be discarded in the trash.

2. I.V. sets should be dated. I.V. fluids must be aseptically prepared. Disposable O2 equipment, tubing, etc., should be used for one patient only and, unless taken with patient to his/her room, should be discarded in the trash.

3. Ventilating equipment (Ambubag) should be discarded in the trash. Disposable equipment is used for only one patient.

4. Stretchers, carts, pillows and mattresses should be washed between patients.

5. Mobile care stations (COWS), including held hand tablets, are to be cleaned daily with disinfectant on the night shift.

   The carts are NOT to be taken into any room set up for an isolation patient. Hand held tablets that are taken into isolation rooms are to be cleaned thoroughly with a disinfectant after use to prevent the spread of infection.

LINEN:

Soiled linen should be placed in a bag when removed from the stretcher in the patient's room. The bag should be closed and placed on the bottom shelf of the stretcher and returned to PACU where it is then placed in the soiled linen hamper.

Clean linen should be stored on closed cart or in closed cupboard.

Stretchers should be washed daily with detergent germicide and as needed. Mattresses and pillows should be wiped with germicide between patients.

SOLID WASTE DISPOSAL:

Contaminated waste from isolation patients or wound dressings should be placed in a RED bag. All other waste such as paper should be placed in waste cans with plastic liners. When full, the liner should be removed, the bag tied, and placed with other bags into a larger bag which should be taken by Housekeeping to the hospital's main trash collection facility.

CHECKING FOR OUTDATED STERILE SUPPLIES:

Sterile supplies should be checked for expiration dates.

HOUSEKEEPING:

Floors should be wet mopped by Housekeeping daily and more frequently when visible soiling has occurred.
Sinks should be cleaned daily with germicide.

ISOLATION PROCEDURE IN THE PACU:

The physician should determine the appropriate location for isolation patients during the recovery period. ISOLATION TECHNIQUE APPROPRIATE TO DIAGNOSIS MUST BE FOLLOWED REGARDLESS OF THE LOCATION. See Isolation Procedures section of Infection Control Manual.

The possible alternatives are:

1. The patient may be kept in the Operating Room (O.R.) attended by the Anesthetist and O.R. personnel until reacted, then taken to room.

   (Method of choice for burn debridement)

   a. The door to the room should be kept closed.

   b. The O.R. room and the stretcher used to transport patient should be cleaned following “terminal isolation cleaning procedure” after use.

   c. O.R. personnel should change uniform (scrub suit) prior to re-entry into the O.R. suite.

2. The patient may be transferred directly from O.R. to patient room with PACU personnel attending patient until the physician or anesthetist determines that the patient is fully reacted.

   a. The stretcher used to transport the patient must be cleaned by Housekeeping using “terminal isolation cleaning technique”. This is done in the isolation anteroom or in the corridor immediately outside the isolation room.

   b. Personnel may wish to change scrub suit before re-entering the PACU area, attended by PACU personnel, who should stay with patient during recovery and transfer to the room.

      a. The door must remain closed.
      b. Other personnel must not enter the room unless necessary. If entry is necessary, the gowning procedure must be followed.

      c. When the patient is ready for transfer to the nursing unit, the isolation unit should be stripped of all linen and trash (which should be bagged according to procedure), the patient moved out, the room closed, and

Housekeeping notified of the need for “terminal isolation room cleaning” The stretcher should be cleaned by Housekeeping prior to re-entry into PACU.

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d. Change of scrub suit is not required prior to re-entry into PACU.

COMMUNICATION:

It is the responsibility of the floor staff to inform O.R. and PACU personnel of all information needed concerning the isolation or infectious status of patients coming to their department. The information should be timely (well ahead of time), and factual, e.g., the diagnosis, the extent of drainage (or diarrhea), the organism, if cultured, and any other information that will be of benefit to the receiving department.

O.R. personnel are responsible for informing R.R. personnel of the physician’s choice of location for immediate post-operative care in the transfer documentation and verbally.

PACU personnel are responsible for notifying the nursing unit of any decision made concerning eventual location of the patient during the recovery period in the transfer documentation and verbally.

UR / Risk Management

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Other Departments UR/QI/RM/Safety		1123
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 5/2010	Other Departments	ICC

POLICY:

1. All hospital staff must comply with employee health policies.

2. Hands must be washed after visiting patients, after using toilet, before eating, and before leaving work.

3. Staff must be oriented to isolation techniques. Posted isolation measures on patient room doors must be read and carried out prior to entrance when entry is necessary. Staff shall also check with Nursing Service, if necessary. It is advisable that staff work with family or other responsible party whenever possible if patient is in isolation.

4. Standard precautions are followed by all hospital personnel.

5. All staff will attend New Employee Orientation which includes Blood borne Pathogens and TB Control and Annual Mandatory Inservices.

6. All employees must report all personal illness to the Infection Control Department via the designated form as soon as possible.

Volunteers

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICY AND PROCEDURE MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Volunteers		1124
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Revised 5/2010	Volunteers	ICC

INTRODUCTION:

Volunteers are not trained members of the medical team and therefore must have a thorough orientation in handwashing, in transporting patients and in a basic understanding of infection and how it is spread.

PERONNEL:

1. Employee Health:

   Volunteers should not work if they are ill or show symptoms of infection, e.g., cold, diarrhea, skin infection.

   They should report illness to the volunteer coordinator.

   Volunteers are required to have annual TB skin tests or respiratory questionnaires.

   Influenza vaccine will be offered to volunteers when all other hospital employees are receiving it.

2. Handwashing:

   Hands must be washed.

   a. Between handling patients, after handling any piece of equipment, trash, etc.

   b. After using toilet

   c. Before eating

   d. After sneezing and coughing

   e. Upon completion of duties

3. Dress Code:
   a. Clean clothing must be worn when coming on duty.

b. Shoes should be clean

TRAFFIC CONTROL:

1. Volunteers should stay in their assigned area as much as possible during their shift.

2. They should know which areas of the hospital should not be used for through traffic.

3. When transporting patients, supplies or equipment, they should take the most direct route and follow established infection control guidelines.

4. Volunteers may assist in visitor control.

PATIENTS:

1. Volunteers should no be asked to transport isolation or suspected isolation patients.

2. The volunteer should not go into rooms which are posted for isolation. The nurse should inform the volunteer of restricted rooms. If there is doubt, he/she should ask the nurse.

3. Infection control guidelines are to be followed at all times.

GIFT SHOP:

1. Any foods sold must be individually wrapped.

2. Proper maintenance and cleaning of equipment and supplies is to be maintained at all times.

3. Procedures are to be followed concerning proper storage, handling and disposal of garbage.

Wellness Center

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Wellness Center		1125
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 9/2009	Wellness Center	ICC

PERSONNEL:

1. Employee Health

   All staff will comply with employee health policies.

2. Employee Education:

   All employees will participate in orientation which should include general infection control policy, blood borne pathogens and TB control.

3. Hand washing:

   Hands must be washed after using the toilet, before eating and between client contacts.

Policy:

A. Linen- All dirty towels (any towel which has touched a client) will be put in a hamper and removed nightly from the dressing area.

B. All equipment coming in contact with a client will be cleansed nightly with a germicide solution.

Misc.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Sterilization and Disinfection		1126-a
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 10/2009	Hospital Wide	ICC

GUIDELINES

STERILIZATION:	Destroys:	All forms of microbial life including high number of bacterial spores.
	Methods:	Steam under pressure (autoclave), gas (ethylene oxide), dry heat, or immersion in EPA – approved chemical "sterilant" for prolonged period of time, e.g., 6-10 or according to manufacturers' instructions. Note: Liquid chemical "sterilants" should be used only on those instruments that are impossible to sterilize or disinfect with heat.
	USE:	For those instruments or devices that penetrate skin or contact normally sterile areas of the body, e.g., scalpels, etc. Disposable invasive equipment eliminates the need to reprocess these types of items
High – Level Disinfection:		
	Destroys:	All forms of microbial life except high numbers of bacterial spores. (Including Mycobacterium tuberculosis)
	Methods:	Hot water pasteurized (80 – 100 ° , 30 minutes) or exposure to an EPA – registered "sterilant" chemical as above, except for a short time (10-45 minutes or a directed by the manufacturer).
	Use:	For reusable instruments of devices that come into contact with mucous membranes, (e.g., laryngoscopes blades, endotracheal tubes, etc.).

Intermediate-Level Disinfection:		
	Destroys:	Vegetative bacteria, most viruses, and most fungi, but does not kill bacterial spores.
	Method:	EPA-registered “hospital disinfectant” chemical germicides that have a label claim for tuberculacidal activity; commercially available hard-surface germicides or solutions containing at least 5000 ppm free available chlorine (a 1:100 dilution of common household bleach—approximately ¼ cup bleach per gallon of tap water.
	Use:	For those surfaces that come into contact only with intact skin, e.g., stethoscopes, blood pressure cuffs, splints, etc., and have been visibly contaminated with blood or bloody body fluids. Surfaces must be pre-cleaned of visible material before the germicidal chemical is applied for disinfection.
Low-Level Disinfection:		
	Destroys:	Most bacteria, some viruses, some fungi, but not Mycbacterium tuberculosis or bacterial spores.
	Methods:	EPA-registered “hospital disinfectants” (no label claim for tuberculocidal activity).
	Use:	These agents are excellent cleaners and can be used for routine housekeeping or removal of soiling in contamination.
Environmental Disinfection:		
		Environmental surfaces which have become soiled should be cleaned and disinfected using any cleaner or disinfectant agent which is intended for environmental use. Such surfaces include floors, woodwork, ambulance seats, countertops, etc.
IMPORTANT		To assure effectiveness of any sterilization or disinfection process, equipment and instruments must first be thoroughly cleaned of all visible soil. (Lumens of scopes should be brush cleaned.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Recommendations for Cleaning, Disinfecting, & Sterilizing Patient Care Equipment		1126-b
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 10/2009	Hospital Wide	ICC

Cleaning

1. All objects to be disinfected or sterilized should first be thoroughly cleaned to remove all organic matter (blood and tissue) and other residue.

2. Indications for Sterilization and High-Level Disinfection:

    a. Critical medical devices or patient-care equipment that enter normally sterile tissue or the vascular system or through which blood flows should be subjected to a sterilization procedure before each use.

    b. Laparoscopes, arthroscopes, and other scopes that enter normally sterile tissue should be subjected to a sterilization procedure before each use; if this is not feasible, they should receive at least high-level disinfection.

    c. Equipment that touches mucous membrane, e.g., endoscopes, endotracheal tubes, anesthesia breathing circuits, and respiratory therapy equipment, should receive high-level disinfection.

3. Methods of Sterilixation:

    a. Whenever sterilization is indicated, a steam sterilizer should be used unless the object to be sterilized will be damaged by heat, pressure, or moisture or is otherwise inappropriate for steam sterilization. In this case, another acceptable method of sterilization should be used. Steris System 1 is used at ACMC.

    b. Flash sterilization [270° F(132°F) for three minutes in a gravity displacement steam sterilizer] is not recommended for implantable items.

    c. Chemical sterilizer (Steris 20) is an automated process utilized for instruments that will not tolerate the heat associated with stem autoclave.

4. Biological Monitoring Sterilizers:

    a. All sterilizers should be monitored at least once a week with commercial preparations of spores intended specifically for that type of sterilizer (i.e., Bacillus stearothermophilus for steam sterilizers and Bacillus Subtilis for ethylene oxide and dry heat sterlizers).

b. Every load that contains implantable objects should be monitored. These implantable objects should not be used until the spore test is found to be negative at least 48 hours.

c. If spores are not killed in routine spore tests, the sterilizer should immediately be checked for proper use and function and the spore teat repeated. Objects, other than implantable objects, do not need to be recalled because of a single positive spore test unless the sterilizer or the sterilization process is defective.

d. If spore tests remain positive, use of the sterilizer should be discontinued until it is serviced.

5. Use and Preventative maintenance:

Manufacturer's instructions should be followed for use and maintenance of sterilizers.

6. Chemical indicators:

Chemical indicators that will show a package has been through a sterilization cycle will be present inside wrapped packs. Chemical indicator tape will be used on all wrapped packs.

7. Use of Sterile Items:

An item should not be used if its sterility is questionable, e.g., its package is punctured, torn, or wet.

8. Reprocessing Single-Use Disposable Items:

a. Items or devices that cannot be cleaned and sterilized or disinfected without altering their physical integrity and function should not be reprocessed.

b. Reprocessing procedures that results in residual toxicity or compromise the overall safety or effectiveness of the items or devices should be avoided.

Object and Classification	Example	Method	Comment
Patient Care Objects			
Critical: Sterilized in the hospital	Surgical instruments and devices; trays and sets	1. Thoroughly clean objects and wrap or package for sterilization 2. Follow manufacturer's instructions for the use of each sterilizer or use recommended protocol. 3. Monitor time-temperature charts. 4. Use commercial spore preparation to monitor sterilizers. 5. Inspect package for integrity and for exposure of sterility indicator before use. 6. Use before maximum safe storage time has expired if applicable.	Sterilization processes are designed to have a wide margin of safety. If spores are not killed, the sterilizer should be checked for proper use and function; if spore tests remain positive, discontinue use of the sterilizer until properly serviced. Maximum safe storage time of items processed in the hospital varies according to type of package or wrapping material used; follow manufacturer's instructions for use and storage time.
Purchased as sterile	Intravenous fluids; irrigation fluids; normal saline; trays or sets	1. Store in safe, clean area. 2. Inspect package for integrity before use 3. Use before expiration date if one is given. 4. Culture only if clinical circumstances suggest infection related to use of the item.	Notify the Food and Drug Administration, local and state health departments, and CDC if intrinsic contamination is suspected.
Semi-critical	Respiratory therapy	1. Sterilized and follow a protocol	Bacterial spores may survive after high-level disinfection,

Should be free of vegetative bacteria. May be subjected to high-level disinfection rather than sterilization process	equipment and instruments that will touch mucous membranes	for high-level disinfection. 2. Bag and store in safe and clean area. 3. Conduct quality control monitoring after any important changes in the disinfection process.	but these usually are not pathogenic. Microbiologic sampling can verify that a high-level disinfection process has resulted in destruction of vegetative bacteria; however, this sampling is not routinely recommended.
<u>Non-Critical:</u> Usually contaminated with some bacteria	Bedpans, crutches, rails, EKG leads	1. Follow a protocol for cleaning or, if necessary a low-level disinfection process.	
Water-produced or treated	Water used for hemodialysis fluids	1. Assay water and dialysis fluids monthly. 2. Water should not have more than 200 bacteria/m; and dialysis fluids not more than 2000 bacteria/m.	Gram-positive water bacteria can row rapidly in water and dialysis fluids and can place dialysis patients at risk of pyrgenic reactions or septicemia. These water sources and pathways should be disinfected routinely.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Infectious Waste		1126-d
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 10/2009	Hospital Wide	ICC

INTRODUCTION:

There is no epidemiologic evidence to suggest that most hospital waste is any more infective than residential waste. Moreover, there is no epidemiologic evidence that hospital waste disposal practice have caused disease in the community. Therefore, identifying wastes for which special precautions are indicated is largely a matter of judgment about the relative risk of disease transmission. Aesthetic and emotional consideration may override the actual risk of disease transmission, particularly for pathology waste.

Since a precise definition of infective waste is based on the quantity and type of etiologic agents present is virtually impossible, the most practical approach to infective waste management is to identify those wastes that represent a sufficient potential risk of causing infection during handling and disposal and for which some special precautions appear prudent. Hospital wastes for which special precautions appear prudent include microbiology, or blood-saturated wastes. Moreover, the risk of either injury or infection from certain sharp items contaminated with blood also needs to be considered when such items are disposed of.

CONTROL MEASURES:

Solid waste from the microbiology laboratory can be placed in steam- sterilizable bags or pans and steam-sterilized in the laboratory. Alternatively, it can be transported in sealed, impervious RED plastic bags to be transported to contracted landfill, a single bag is probably adequate if the bag is sturdy (not easily penetrated) and if the waste can be put in the bag without contaminating the outside of the bag; otherwise, double-bagging is indicated. All slides or tubes with small amounts of blood can be packed in sealed, impervious containers and sent for proper disposal or steam sterilization in the hospital. Exposure for up to 90 minutes at 250° F (121°F) in a steam sterilizer, depending on the size of the load and type container, may be necessary to assure an adequate sterilization cycle. After steam sterilization, the residue can be safely handled and discarded with all other non-hazardous hospital solid waste. All containers with more than a few milliliters of blood remaining after laboratory procedures and/or bulk blood may be steam sterilized, or the contents may be carefully poured down a utility sink or drain or toilet.

WASTE:

Disposables that can cause injury, such as a scalpel blades and syringes with needles, should be placed in puncture – resistant containers. Ideally, such containers are located where these items are used. Syringes and needles can be placed intact directly into the rigid containers for safe storage until terminal treatment. To prevent needlestick injuries, needles should not be recapped, purposely bent, or broken by hand. When some needle-cutting devices are used,

blood may be aerosolized or splattered onto environmental surfaces; however, currently no data are available from controlled studies examining the effect, if any, of the use of these devices on the incidence of needle-transmissible infections.

RECOMMENDATIONS:

1. Identification of Infective Waste:

   a. Microbiology laboratory wastes, blood and blood products, pathology waste, and sharp items (especially needles) should be considered as potentially infective and handled and disposed of with special precautions.

   b. Infective waste from patients on isolation precautions should be handled and disposed of according to the current edition of the Guideline for Infection Precautions in Hospital. (This recommendation is not categorized since the recommendations for isolation precautions are not categorized.)

2. Handling, Transport, and Storage of Infective Waste:

   a. Personnel involved in the handling and disposal of infective waste should be informed of the potential health and safety hazards and trained in the appropriate handling and disposal methods.

   b. If processing and/or disposal facilities are not available at the site of infective waste generation (i.e., laboratory, etc.) the waste may be safely transported in sealed impervious containers to another hospital area for appropriate treatment.

   c. To minimize the potential risk for accidental transmission of disease or injury, infective waste awaiting terminal processing should be stored in an area accessible only to personnel involved in the disposal process.

3. Processing and Disposal of Infective Waste:

   a. Infective waste, in general, should either be incinerated or should be autoclaved prior to disposal in a sanitary landfill.

   b. Disposable syringes with needles, scalpel blades, and other sharp items capable of causing injury should be placed intact into puncture-resistant containers located close to the areas in which they were used as is practical. To prevent needlestick injuries, needles should not be recapped, purposely bent, broken, or otherwise manipulated by hand.

   c. Bulk blood, suctioned fluids, excretions, and secretions may be carefully poured down a drain connected to a sanitary sewer. Sanitary sewers may also be used for the disposal of other infectious wastes capable of being ground and flushed into the sewer. (Special precautions such may be necessary for

certain rare diseases or conditions such as Lassa Fever), or ISOSORB may be added to canister to congeal contents then this will be placed in a RED BAG.

d. Waste dripping or saturated with blood should be disposed of in biohazard bags.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Infectious Waste Management		1126-e
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 10/2009	Hospital Wide	ICC

PURPOSE:

To describe the procedures for the identification, packaging, storage, transportation, and disposal of infectious wastes generated within the confines of the hospital.

To ensure that there is minimal risk to patients, staff, public, and the environment.

GENERAL INFORMATION:

1. Infectious waste is defined as any waste, solid, or liquid that is capable of producing an infection. These wastes are characterized by the known or suspected presence of pathogens.

2. All persons required to handle infectious wastes or material will be provided with appropriate orientation, equipment, and on-the-job training.

3. Each department that generates or handles infectious waste will use these policies and procedures that contain information regarding the identification, safe handling, packaging, storage, transportation, and disposal of these wastes. The policies and procedures in this manual will be reviewed annually, and approved by the Infection Control Committee.

4. The Infection Control Nurse, in conjunction with the Infection Control Committee Chairman, has authority to enforce hospital policies on infection control matters in the event of an emergency.

IDENTIFICATION:

1. Infectious waste will be defined as written in the Arkansas Department of Health publication RULES AND REGULATIONS PERTAINING TO THE MANAGEMENT OF MEDICAL WASTE FROM GENERATORS AND HEALTH CARE RELATED FACILITIES.

    a. **Pathological waste-** All human unfixed tissues, organs and anatomic parts, other than intact skin, which emanate from surgeries, obstetrical procedures, dental procedures, autopsies and laboratories. Such waste shall be exclusive of bulk formaldehyde and other preservative agents.

b. **Liquid or semi-liquid blood-** such as human blood, human blood components and/or products made from human blood (e.g., serum, plasma) and other potentially infectious materials, to include regulated human body fluids such as semen, vaginal secretions, cerebrospinal fluid, pleural fluid, synovial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood and all body fluids where it is difficult or impossible to differentiate between body fluids, not to include urine and feces, which cannot be discharged into the collection system of a public owned treatment works (POTW) within the generating facility.

c. **Contaminated items-** to include dressings, bandages, packing, gauze, sponges, wipes, personal protective equipment, cotton rolls and balls, etc., which cannot be laundered or disinfected and from which blood, blood components, or regulated body fluids drip freely, or which would release blood or regulated body fluids in a liquid or semi-liquid state if compressed or are caked with dried blood or regulated body fluids and are capable or releasing these materials during handling.

1. Contaminated disposable, single-use gloves such as surgical or examination gloves shall not be washed or decontaminated for reuse and are to be handled as a contaminated item.

2. Protective coverings such as plastic wrap and aluminum foil used to cover equipment and environmental surfaces following their contamination are considered a contaminated item.

3. All patient care items from hospital isolation rooms and end-stage renal dialysis units, or from patients with communicable diseases such which cannot be laundered and which are contaminated with regulated body fluids or blood or potential infectious material, must be considered a contaminated item.

d. **Microbiological waste** which includes, but is not limited to, cells and tissue cultures, culture medium or other solutions and stocks of infectious agents, organ cultures, culture dishes, devices used to transfer, inoculate and mix cultures, paper and cloth which has come in contact with specimens or cultures and discarded live vaccines.

e. **Contaminated sharps-** which include, but is not limited to, any contaminated object that can penetrate the skin, e.g. hypodermic needles, intravenous tubing with needles attached, syringes with attached needles, clipper blades used in surgery, scalpel blades, Pasteur pipettes, capillary tubes, broken glass from laboratories, and dental wires. (Potential breakable container(s) of blood, regulated body fluid, microbiological waste, or infectious material must be treated as contaminated sharps when disposed of.)

2. The classification of infectious waste will be reviewed / revised annually by the Infection Control Committee.

PACKAGING, STORAGE, AND TRASNPORTATION:

1. Infectious waste will not be placed in a trash chute or compacted.

2. Infectious waste will be segregated from other waste by containing in disposable red bags which are a minimum of 3.0ml. thick and impervious to moisture.

3. Infectious waste contained in disposable red bags are described above may be placed in sturdy plastic hampers. These hampers will not be allowed to become so full that the lid cannot be closed. The tops of the hampers are taped with 2" red adhesive tape. Optionally, the universal biohazard symbol may be used to identify biohazardous waste in lieu of a color coded plastic bag.

4. Needles and sharps will be contained in disposable rigid puncture-proof containers which can either be taped closed or sealed with a tight fitting lid. Housekeeping will check these and replace when ¾ full. Rigid containers are placed in red bags.

5. Transportation is done in reusable collection containers which are used only for waste collection. Each reusable collection container is washed after use by the Housekeeping staff near the loading dock.

6. All spills of infectious waste will be cleaned up with a disinfectant (Tuberculocide / Viralcide) immediately. The persons cleaning the spills should wear gloves and a cover gown, if necessary. All spillage should be contained in sealed red bags and disposed of properly. ISOSORB is available to congeal spills of a large nature.

7. Any spillage, or injury from handling infectious wastes will be reported through the Hospital Incident Reporting System.

8. Infectious waste will be transported from areas where generated to the storage are (awaiting pick-up) fully enclosed in the collection container by the most direct route that minimizes exposure to patients, visitors, staff, and community.

ON-SITE DISPOSAL:

1. Treatment or on-site disposal of infectious waste shall be by one of the following methods.

   a. Discharge into the sewer system.

      (example- suctioned fluids, waste in liquid apparatus, bodily discharges, dialysis liquid, etc.)

   b. Sterilization (Autoclaving)

      (example- cultures, stocks of etiologic agents, and other laboratory wastes.)

c. Chemical disinfection:

(example- dialysis equipment, specimen spills prior to cleaning, etc.)

2. Compactors or grinders will not be used to process infectious wastes.

3. After disposing of solid infectious wastes, the reusable container will be thoroughly washed and decontaminated with a germicide solution, then allowed to air dry before reusing.

OFF-SITE DISPOSAL:

1. In the event infectious waste cannot be disposed of onsite, it will be collected, transported, and stored in the manner previously described in preparation for delivery to the container provided and maintained by the contractor.

2. The contractor will pick up and transport the infectious waste in a leak-proof, fully enclosed container, to a site approved by all regulatory bodies for handling and disposing of infectious wastes.

3. It is the responsibility of the contractor to maintain all valid permits relevant to disposing of infectious wastes. Current permit on file.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Equipment Brought From Home		1126-f
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2009	Hospital Wide	ICC

Equipment brought in to the hospital by a patient will be treated under Hospital Infection Control Policies.

1. Patients may be permitted to bring medical Equipment from home to the hospital only if that equipment is absolutely necessary for their treatment and only if it cannot be obtained by Ashley County Medical Center.

2. Equipment brought to the hospital from home will be treated under hospital Infection Control Policies.

    a. This equipment will follow policy regarding cleaning, sterilization, tubing changes, etc.

    b. The Department for which the equipment is being used will be responsible for following infection control policies.

3. Any equipment brought to the hospital will have to undergo an electrical safety check as described per Safety Policy.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Contract Services		1126-g
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2009	Hospital Wide	ICC

PURPOSE:

Prevention of infection and control of communicable disease in employees working in our hospital through a contract service.

POLICY;

1. Employees must not work in direct patient contact if they have skin, respiratory or gastrointestinal infection.

2. Employee will follow all infection control policies for the department they are contracted through.

3. Standard precautions (formally Universal Precautions) will be followed by all personnel.

4. Contract Service is responsible for educating their employees in Blood Borne Pathogens, TB Control and Infection Control.

5. Hands must be washed between handling patients, after using the toilet before and after eating and before leaving the work area.

6. All contract service should follow Federal and State guidelines, i.e., OSHA Regulations.

This policy will be presented to and reviewed by the Contract Service when the contract is initiated. A signed copy of this policy will be placed with the contract.

Appendix

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL P[OLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING BY:**
Appendix Common Pathogens		1201
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2005	Hospital wide	ICC

Below is a list of common pathogens. A more detailed reference handbook is available through Eli Lilly and Company: A Clinician's Dictionary Guide to Bacteria. This is provided at no cost as a professional service.

CLOSTRIDIUM:

Genus of large, anaerobic, spore-containing, gram-positive rods from the family Bacillaceae. Most are soil saprophytes; some are part of the normal intestinal flora. More than 150 species exist. Those associated with disease can be divided into four groups.

A. Gas gangrene
B. Botulism
C. Tetanus
D. Other human wounds and infections

ENTEROBACTOR:

Genus of gram-negative rods from the tribe klebsielleae and family Enterobacteriaceae. Present in soil, water, dairy products, and the human intestinal tract. Most infections have been hospital acquired and associated with altered host resistance.

A. E. aerogenes has caused urinary tract infections, endocarditis, pneumonia, and bacteremia.

B. E. agglomerans is part of normal skin flora. Has been implicated in wound infections, urinary tract infections, bacteremia, meningitis, brain abscess, and septicemia from contaminated intravenous fluids. Generally considered to be opportunistic.

C. E. cloacae has produced osteomyelitis and suppurative arthritis, and has been a contaminate of intravenous fluids.

ENTEROCOCCUS:

Include three species of group D streptococci residing in the human intestine:

A. S. faecailis
B. S. durans
C. S. faecium

Enterococcus are part of the normal flora of the intestines, but may cause disease when removed from this habitat into the bloodstream, urinary tract, or meninges. Occasionally associated with "food poisoning." Frequently isolated from wounds. An emerging nosocomial pathogen. Antimicrobial susceptibility studies should be performed, because susceptibilities to drugs vary widely.

ESCHERICHIA:

Genus of gram-negative rods of the family Enterobacteriaceae. Widely distributed in nature and in the human intestinal flora, and is frequently used as indicator of fecal contamination of water. It is the most frequent cause of urinary tract infections (cystitis, pyelitis, and pyelonephritis). May also cause puerperal sepsis, cholecystitis, appendicitis, peritonitis, pneumonia, emphysema, sinusitis, septicemia, endotoxic shock, wound infections, abscesses, summer diarrhea, diarrhea of travelers, and epidemic diarrhea of the newborn.

KLEBSIELLA:

Genus of short gram-negative rods of the family Enterobacteriaceae. Has been isolated from several animals and inanimate objects. May be part of the normal flora or pathogenic.

A. K. pneumoniae is part of the normal flora of the nose, mouth, and intestines. Tends to be more invasive than the closely related Enterobacter organisms and may cause lesions in almost every part of the body; pneumonia, chronic lung abscesses, upper respiratory tract infections, sinusitis, endocarditis, septicemia, meningitis, gastroenteritis, peritonitis, liver and biliary tract disease, wound infections, uterine and vaginal infections, salpingitis, and skin and urinary tract infections. In children, may cause severe enteritis. Debilitated persons and cirrhotics are especially susceptible to respiratory infections by this organism.

NEISSERIA:

Genus of gram-negative cocci usually appearing in pairs and containing both saprophytic and pathogenic species. They may be isolated from the mouth, intestines, genitourinary tract, joints, blood, and spinal fluid.

A. N. flavescens is part of the normal nasopharyngeal flora. Has caused epidemics of meningitis and cases of septicemia.

B. N. gonorrhoeae (gonoccus) is the etiologic agent of gonorrhea and may cause cystitis, proctitis, vulvovaginitis, urethritis, cervicitis, salpingitis, prostatitis, stomatitis, conjunctivitis, septicemia, epididymitis, bartholinitis, arthritis, osteomyelitis, tenosynovitis, endocarditis, meningitis, skin lesions, pharyngitis, and ophthalmia in the newborn.

C. N. meningitidis (meningococcus) may be present in the nasopharynx by asymptomatic carriers where it serves as the source of dissemination. It may cause meningitis, both endemic and epidemic. Puerpuric skin lesions may also develop, and hemorrhagic, and

necrosis of the adrenal glands may result in Waterhouse-Friderichsen syndrome. Lesions may also occur in the lungs (pneumonia), myocardium, endocardium, pericardium joints, ears, nasopharynx , and eyes.

PROTEUS:

Genus of gram-negative rods from the family Enterobacteriaceae. They may be found in soil, water, and sewage. These organisms are part of the normal fecal flora, but may produce infection when remote from the site. Increased numbers of Proteus organisms are present in stools from persons receiving oral antibiotics. They may cause chronic urinary tract infections, pneumonia, gastroenteritis, and bacteremia.

A. P. mirabilis is the Proteus species most frequently isolated from human sources. Usually considered saprophytic, but may be a human pathogen. Has been isolated from abscesses, tissue infections, and persons with gastroenteritis.

B. P. morganii is a cause of summer diarrhea in children, and has been isolated from hospital-acquired infections. May cause bacteremia, genitourinary tract infections, and occasional purulent lesions.

C. P. rettgeri has been isolated from hospital acquired abscesses and infections of the urinary tract and from persons with gastroenteritis and septicemia.

D. P. vulgaris may be present as normal flora and is regarded as a secondary invader. Also has been isolated from abscesses and wounds from tissues in gastroenteritis and peritonitis.

PSEUDOMONAS:

Genus of gram-negative rods from the family Pseudomonadaceae. Widely distributed in nature in soil, water, sewage, and air. Many species are plant pathogens, but some cause human infections (predominantly in debilitated individuals, such as those with neoplasms, sever burns, or on prolonged antimicrobial therapy).

A. P. aeruginosa (pyocyanea) has worldwide distribution and is a common inhabitant of soil. Frequently present as part of the normal intestinal and skin flora. Considered as opportunistic pathogen. Acts as a pathogen when out of its normal habitat, especially after instrumentation or catheterization. May infect wounds (in which it produces a blue-green pus) and may cause urinary tract infections (usually after instrumentation or catheterization), necrotizing pneumonia, emphysema, endocarditis after open-heart surgery, diarrhea, otitis externa, liver abscesses, meningitis, eye infections(especially after surgery or injury), and septicemia. Often contaminates burns, draining sinuses, and decubitus ulcers. Infections are more inclined to develop in patients receiving antibiotics.

B. P. mallel (Antionbacillus mallel, malleomyces mallel) is the causative organism of glanders (horse disease), occasionally transmitted to many by direct contact or

inhalation. Produces pneumonia, which may be transmitted from man to man. When man is infected, the organism may be isolated from pus, sputum, or blood.

C. P. spseudomallei is the etiologic agent of emeliodosis, which may be present as a chronic lung disease or overwhelming septicemia, or may be asymptomatic. Abscesses may develop in the viscera, bone, or skin. May be transmitted to man by arthropod vectors or contaminated food or water.

RICKETTSIA:

Genus of minute, gram-negative, intracellular coccobacilli that are transmitted by arthropods (except Coxiella burnetei) and produce disease characterized by rash and fever.

A. R. mosseri (R. typhi) causes endemic (murine) typhus, which tends to be similar to, but milder than epidemic typhus. The reservoir is rats or rodents, and transmission is by rat fleas.

B. R. prowazekil is transmitted by lice and is the agent of epidemic typhus (classic typhus), which is characterized by fever, prostration, and rash starting on the trunk region. The reservoir is man.

C. R. rickettsii causes Rocky Mountain Spotted Fever. Transmission is by tick bites, foxes, and man. The rash starts peripherally, in contrast to that of endemic and endemic typhus.

SALMONELLA:

Genus of non-lactose fermenting gram-negative rods from the family Enterobacteriaceae. Capable of producing a wide range of symptoms, including mild enteritis, “food poisoning” or gastroenteritis, and a rapidly fatal septicemia.

All Salmonella species (except S. typhi) can cause all types clinically, and all are contracted orally by transmission from contaminated milk, water, turtles, carriers, and such foods as eggs, ice cream, meringue pies, shell fish, and undercooked chicken, fish, and pork. Cholecystectomy may be necessary to eliminate the chronic carrier state.

A. S. choleraesuis may produce a typhoidal type disease (septicemic) with acute gastroenteritis and enteric fever. Dissemination may result in pneumonia, meningitis, endocarditis, osteomyelitis, and abscesses. The natural host is the pig.

B. S. derby is a species frequently responsible for “food poisoning” or gastrointestinal type illness.

C. S. typhi (S. typhosa) is the causative agent of typhoid fever, which begins as a septicemic disease. Blood cultures are often positive during the first week or two. Stool cultures become positive after ten days. “Rose spots” rash may occur in 10 to 15 days. Serious complications include intestinal hemorrhage from ulceration,

peritonitis, brain abscesses, meningitis, osteomyelitis, pneumonia, endocarditis, and abscesses in various organs.

D. S. typhimuriummost frequently produces food poisoning or a gastrointestinal illness, but may also produce a typhoidal type of disease, with septicemia and widespread dissemination resulting in occasional endocarditis, meningitis, pneumonia, abscesses, and osteomyelitis.

SERRATIA:

Genus of gram-negative rods from the family Enterobacteriaceae now being isolated with frequency in the laboratory.

A. S. liquidefaciens has been isolated from the intestinal tract, respiratory tract, blood, and urine.

B. S. marcescens is widely distributed in nature in soil and water. Formally thought to be harmless; red-pigmented stains were once used as aerosols to study settling and drifting of bacteria in air currents. May, however, produce serious pulmonary infections, emphysema, septicemia, endocarditis, urinary tract infection, meningitis, post-operative wound infection, otitis media, balanitis, omphalitis, chronic skin granulomas, and allergic reactions, and may be a secondary invader of old abscesses. May cause hospital epidemics.

STAPHYLOCOCCUS:

Genus of gram-positive cocci from the family Micrococcaceae. Some are considered to be part of the normal flora of the skin, mucous membranes, and respiratory and gastrointestinal tracts, and are also common in the air and environment. Because of the great number of resistant strains, all staphylococcal infections require antimicrobial susceptibility tests on isolates.

A. S. aureus characteristically produces “pimples”, adscesses, or “boils”. Also causes carbuncles, impetibo, wound infections, pyelitis, cystitis, food “poisoning”, pneumonia, emphysema, osteomyelitis, arthritis, puerperal sepsis, meningitis, septicemia, brain abscesses, endocarditis, enteritis, and suppuration in almost any organ. Methacillin-resistant strains are rapidly emerging nosocomial pathogens.

B. S. epidermis commonly causes “stitch” abscesses. It has caused septicemia, bacterial endocarditis, and urinary tract infections. It is an emerging nosocomial pathogen with high antibiotic resistance.

STREPTOCOCCUS:

Genus of gram-positive cocci from the family Streptococcaceae that tend to be arranged in chains. Widely distributed in nature in water, dust , vegetation, and milk and other dairy

products. Capable of producing disease in almost every organ of man. There are several classifications of this genus, as follows:

A. Group A streptococci include almost all of the hemolytic strep pathogenic for man. May cause erysipelas, scarlet fever, acute glomerulonephritis, rheumatic fever, suppurative infections of the throat, ear, sinuses, and mastoids, tonsillitis, pharyngitis, acute endocarditis, and epidemic sore throat from contaminated milk.

B. Group B streptococci have been recovered from cervical and vaginal cultures of asymptomatic pregnant females and urethral cultures of their asymptomatic husbands. May cause postpartum sepsis, urinary and female genital tract infections, pharyngitis, osteomyelitis, endocarditis, septicemia, meningitis, and intrauterine fetal infections, the most common cause of neonatal sepsis.

C. Group C streptococci are occasionally responsible for epidemic sore throat through contaminated milk and for puerperal fever.

D. Group D. streptococci may cause subacute bacterial endocarditis and urinary tract and wound infections. Rapidly emerging nosocomial pathogen. See Enterococcus.

E. Group F streptococci have been associated with tonsillitis.

F. Group R streptococci have been isolated from persons with meningitis.

G. Group A beta hemolytic streptococci produce infections in man that include septicemia, tonsillitis, scarlet fever, puerperal sepsis, pneumonia, impetigo, erysipelas, cellulites, nasophryngitis, peritonsillar abscess, acute glomerculonephritis, acute bacterial endocarditis, and rheumatic fever.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES

TITLE/DESCRIPTION:		**FILING NUMBER:**
Guidelines for prevention of Surgical Wound Infections		1202
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2005	Hospital Wide	ICC

INTRODUCTION:

Surgical wound infections are the second most frequent nosocomial infection in most hospitals and are an important cause of morbidity, mortality, and excess hospital costs.

WOUND CLASSIFICATIONS:

Wounds can be classified according to the likelihood and degree of wound contamination at the time of operation. A widely accepted classification scheme is listed below:

Clean Wounds:

These are uninfected operative wounds in which no inflammation is encountered and the respiratory, alimentary, genital, or uninfected urinary tracts are not entered. In addition, clean wounds are primarily closed and , if necessary, drained with closed drainage. Operative incisional wounds that follow nonpenetrating (blunt) trauma should be included in this catagory if they meet the criteria.

Clean-Contaminated Wounds:

These are operative wounds in which the respiratory, alimentary, genital, or urinary tract is entered under controlled conditions and without unusual contamination. Specifically, operations involving the biliary tract, appendix, vagina, and oropharynx are included in this category, provided no evidence of infection or major break in technique is encountered.

Contaminated Wounds:

These include open, fresh, accidental wounds, operations with major breaks in sterile technique or gross spillage from the gastrointestinal tract, and incisions in which acute, nonpurpulant inflammation is encountered.

Dirty or Infected Wounds:

These include old or traumatic wounds retained deveitalized tissue and those that involve existing clinical infection or perforated viscera. This definition suggests that the organisms causing postoperative infection were present in the operative field before the operation.

RECOMMENDATIONS:

1. Preparation of the Patient Before Operation:

   a. If the operation is elective, all bacterial infections that are identified, excluding ones for which the operation is performed, should be treated and controlled before the operation.

   b. If the operation is elective, the hospital stay before the operation should be short as possible.

   c. If the operation is not urgent and the patient is malnourished, the patient should receive internal or parenteral nutrition before the operation.

   d. If the operation is elective, the patient should bathe (or be bathed) the night before with an antimicrobial soap.

   e. 1) Unless hair near the operative site is so thick that it will interfere with the surgical procedure, it should not be removed.

      2) If hair removal is necessary, it should be done either by clipping or using a depilatory rather than shaving.

   f. The area around and including the operative site should be washed and an antimicrobial preoperative skin preparation applied from the center to the periphery. This area should large enough to include the entire incision and an adjacent area large enough for the surgeon to work during the operation without contacting unprepared skin. (Persons responsible for selecting commercially marketed antimicrobial preoperative skin preparations can obtain information about categorization of products from the Center for Drugs and Biologics, Division of OTC Drug Evaluation, FDA. In addition, information published in the scientific literature, presented at scientific meeting, documented by manufacturers, and obtained from other sources deemed important may be considered).

   g. For major operations involving and incision and requiring use of the operating room (OR), the patient should be covered with sterile drapes in such a manner that no part of the patient is uncovered except the operative field and those parts necessary for anesthesia to be administered and maintained.

2. Preparation of the Surgical Team:

   a. Everyone who enters the OR during an operation should at all times wear a high-efficiency mask to fully cover the mouth and nose and a cap or hood to fully cover hair on the head and face.

   b. Everyone who enters the OR should wear shoe covers.

c. 1) The surgical team, that is those that will touch the sterile surgical field, sterile instruments, or an incisional wound, should scrub their hands and arms to the elbows with an antimicrobial surgical hand scrub preparation before each operation. Scrubbing should be done before every procedure and take at least five minutes before the first procedure of the day. (Persons responsible for selecting commercially marketed surgical hand scrubs can obtain information about categorization of products from the Center for Drugs and Biologics, Division of OTC Drug Evaluation, FDA. In addition, information published in the scientific literature, presented at scientific meetings, documented by manufacturers, and obtained from other sources deemed important may be considered).

2) Between consecutive operations, scrubbing times of two to five minutes may be acceptable.

d. 1) After the hands are scrubbed and dried with sterile towels, the surgical team should don sterile gowns.

2) Gowns used in the OR should be made of reusable or disposable fabrics that have been shown to be effective barriers to bacteria, even when wet.

e. 1) The surgical team should wear sterile gloves. If a glove is punctured during the operation, it should be changed as promptly as safety permits.

2) For open bone operations and orthopedic implant operations, two pairs of sterile gloves should be worn.

3. <u>Preparation and Maintenance of Operating Room Environment:</u>

a. OR ventilation should include a minimum of 20 air exchanges per hour, of which at least 4 should be fresh air. All inlets should be located as high above the floor as possible and remote from exhaust outlets of all types. All air, recirculated or fresh, should be filtered (at least 90% efficiency) before it enters the OR. The surgical suite should be under positive pressure relative to the surrounding area.

b. All OR doors should be kept closed except as needed for passage of equipment, personnel, and the patient; the number of personnel allowed to enter the OR, especially after an operation has started, should be kept to a minimum.

c. The OR should be cleaned between surgical operations.

d. Routine microbiologic sampling of the air or environmental surfaces should <u>not</u> be done.

e. Use of tacky or antiseptic mats at the entrance to the OR is not recommended for purposes of infection control.

f. Surgical instruments and supplies should be sterilized as outlined in the current edition of the CDC Guidelines for Handwashing and Hospital Environmental Control.

4. Operative Technique:

a. The surgical team should work as efficiently as possible in order to handle tissues gently, prevent bleeding, eradicate dead space, minimize devitalized tissues and foreign material in the wound, and reduce the length of the operation.

b. Incisional wounds that are classified as "dirty and infected" should not ordinarily have skin closed over them at the of an operation, that is, they should not ordinarily be closed primarily.

c. Operative Technique:

a. If drainage is necessary for an uninfected wound, a closed suction drainage system should be used and placed in an adjacent stab wound rather than the main incisional wound.

5. Wound Care:

a. Personnel should wash their hands before and after taking care of a surgical wound.

b. Personnel should not touch an open or fresh wound directly unless they are wearing sterile gloves or use no-touch technique. When the wound has sealed, dressings may be changed without gloves.

d. Dressings over closed wounds should be removed or changed if they wet or if the patient has signs or symptoms suggestive of infection, for example, fever or unusual wound pain. When the dressing is removed, the wound should be evaluated for signs of infection. Any drainage from the wound that is suspected of being infected should be cultured and smeared for Gram stain.

6. Prophylactic Antimicrobials:

a. Parenteral antimicrobial prophylaxis is recommended for operations that 1) are associated with a high risk of infection or 2) are not frequently associated with infection but, if infection occurs, are associated with sever or life-threatening consequences, for example, cardiovascular and orthopedic operations involving implantable devices.

b. Antimicrobial selected for use for prophylaxis should have been shown to be safe and effective for prophylaxis of operative wound infections in well-designed, controlled trials whose results have been published.

c. Parenteral antimicrobial prophylaxis should be started shortly before the operation and should be promptly discontinued after the operation. (For cesarean sections, prophylaxis is usually given intraoperatively after the umbilical cord is clamped.)

7. Protection of Patients from Other Infected Patients or Personnel:

a. Patients with potentially transmissible wound or skin infections should be placed on isolation precautions, according to the current addition of the CDC Guidelines for Isolation Precautions in Hospitals. (This recommendation is not categorized, since the recommendations for isolation precautions are not categorized.)

b. Personnel with potentially transmissible conditions, for example, Herpes simplex infections of fingers and hands, group A streptococcal disease , or S. aureus skin lesions, should be managed according to the current edition of the CDC Guidelines for Infection Control in Hospital Personnel. (Thie recommendation is not categorized since it refers to several recommendations that have been categorized elsewhere.)

c. Routine culturing of personnel should not be done.

8. Surveillance and Classification:

a. At the time of operation or shortly after, all operations should be classified and recorded as clean, clean-contaminated, or dirty and infected (see text for definitions).

b. The person in charge of surveillance of surgical patients should gather the information necessary to compute the classification-specific wound infection rates for all operations in the hospital. These rates should be computed periodically and made available to the Infection Control Committee and the department of surgery.

c. Procedure-specific wound infection rates should be computed periodically for the hospital and all active surgeons so that they can compare their own rates with those of others; the rates can be coded so that names do not appear.

d. Increases in wound infection rates should be evaluated. If an outbreak is confirmed, appropriate epidemiologic studies should be initiated.

e. An effort should be made to contact discharged patients to determine the infection rate for the 30 days after operation.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURE MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Prevention & Control of Intravascular Pressure Monitoring Infections		1203
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2005	CCU/Surgery	ICC

INVASIVE PRESSURE MONITORING:

Many complications of invasive pressure monitoring have been described in the medical literature. Infectious complications have resulted in significant morbitity and even death in the patients being monitored. Because these complications might be preventable with appropriate care of the equipment and patient, special attention must be given to using correct techniques.

RECOMMENDATIONS:

1. Indications for use:

   Invasive pressure monitoring should be used only in clinical situations in which information gathered by this technique can clearly influence decisions in patient management.

2. Assembly:

   a. Disposable components that are preassembled and sterile-packaged by the manufacturer should be used when possible.

   b. Pressure-monitoring systems should be assembled in the simplest arrangement possible. Sterile items, including disposable domes and lines, should be kept in their sterile wrapping until needed. These items and the transducer should not be assembled hours or days before the time of actual need even if this is to prepare for a possible emergency. Most important, systems should never be filled with flush solution and stored (since even a few microorganisms inadvertently introduced into the solution at the time of assembly can rapidly multiply during storage).

   c. In disposable domes and transducers, the space between the transducer and dome membrane should be left dry or, if fluid is required, the space should be filed with normal saline, bacteriostatic water, or 70% alcohol (if the manufacturer states that it will not damage the dome or transducer); glucose containing solutions should not be used since they are known to support the growth of many microorganisms.

3. Flushing Lines:

a. Patency of pressure-monitoring cannulas should be maintained through the use of a closed flush system rather than an open system that requires use of a syringe and stopcock.

b. Flush solutions,i.e., those whose main purpose is to maintain patency of the cannula and which infuse very slowly or are given as intermittent boluses, should not contain glucose for the reasons stated above.

4. Handwashiong:

a. Hospital personnel should wash their hands before inserting a pressure-monitoring canula or manipulating a pressure-monitoring system, such as to draw a blood specimen.

b. An antiseptic handwashing agent is preferred, but soap and water can be used.

c. 1) Sterile should be worn for insertion of central cannulas for pressure monitoring (for example, pulmonary artery and central venous cannulas) and for peripheral cannulas requiring a cutdown.

2) Sterile gloves should be worn for insertion of other intravascular cannulas used for pressure monitoring.

5. Insertion and Maintenance:

Recommendations for insertion and maintenance of intravascular pressure-monitoring systems are similar to those recommended for intravenous cannulas.

a. The site chosen for cannula insertion should be scrubbed with an antiseptic prior to insertion of the cannula.

b. Tincture of iodine (1%-2%) is preferred for the insertion site, but chlorhexidine, iodophors, or 70% alcohol can be used. The antiseptic should be applied liberally and allowed to remain for at least 30 seconds before insertion.

c. Neither aqueous benzalkonium-like compounds nor hexachlorophene should be used to scrub the insertion site

d. A topical antibiotic or antiseptic ointment should be applied at the insertion site immediately after cannula insertion especially for insertions by cutdowns.

e. Central and cutdown cannulas should be inserted withaseptic technique and sterile equipment. Gloves and drapes are usually required to achieve this objective.

f. The cannula should be secured to stabilize it at the insertion site.

g. A sterile dressing should be applied to cover the insertion site. The dressing, and not tape, should cover the wound unless the tape is sterile.

h. The date of insertion should be recorded in a place where it can be easily found. (The date may be recorded in the medical record, and of feasible, on the dressing or tape.)

i. Patients with intravascular devices should be evaluated at least daily for evidence of cannula-related complications. This evaluation should include gentle palpation of the insertion site through the intact dressing. If the patient has an unexplained fever or there is pain or tenderness at the insertion site, the dressing should be removed and the site inspected.

j. For peripheral cannulas that must remain in place for long periods, the insertion should be inspected and dressed with a new sterile dressing at 48-72 hours. Thereafter, the site should be inspected and dressed regularly (the optimal frequency of dressing cannula sites in this situation is not known).

k. For central cannulas that must remain in place for prolonged periods, the insertion site should be inspected with a new sterile dressing every 48-72 hours.

l. Antibiotic or antiseptic ointment, if used, should be applied with each dressing change.

6. Calibration:

During calibration of a pressure-monitoring system,contact should not occur between the sterile fluid column in the cannula and tubing and nonsterile solutions or equipment.

7. Obtaining Specimens:

a. Ideally, pressure-monitoring systems should be maintained as closed systems. Stopcocks, if used, should be covered.

b. Arterial pressure-monitoring systems should be used primarily to monitor blood pressure and to obtain specimens for arterial blood-gas analysis. Routine blood specimens, if they are to be drawn from the arterial line, should be drawn at the same time as those for blood-gas analysis, if possible, to keep the number of manipulations to a minimum.

c. Care should be taken to ensure that all specimens be obtained aseptically; for example, syringes chilled in ice should not be allowed to contaminate the stopcocks or sampling ports.

8. Replacing Intravascular Monitoring Systems in Patients Requiring Prolonged Monitoring:

a. The container of flush solution should be changed every 24 hours.

b. The chamber dome, administration tubing, and continuous flow device (if used) should be replaced at 72 hour intervals. (It is not known whether the transducer needs periodic disinfection or sterilization during prolonged use on a single patient.)

c. Under special circumstances, such as following the reflux of blood into the tubing or dome or following the countershock (which could damage the protective membrane of some disposable domes), replacement of the tubing and dome is desirable.

d. Peripheral arterial cannulas should be left in place no longer than 4 days (II) if other sites for cannula insertion are available.

e. Central cannulas for pressure monitoring that are inserted through a peripheral vein should be removed in 48-72 hours. (These cannulas may occasionally have to be used for longer than 48-72 hours if another insertion site cannot be found. The proper frequency for changing pressure-monitoring cannulas inserted through a subclavian or juglar approach is not known.)

f. Cannulas for pressure monitoring should not be replaced over a guide wire if this is done solely for infection control.

g. Intravascular pressure-monitoring systems should be removed when they are no longer medically indicated and promptly discontinued or placed at another site if the initial site becomes infected or if the monitoring system is suspected as the source of clinical sepsis or Bacteremia.

9. Processing Transducers Before Reuse:

a. Disposable components of the pressure-monitoring system should not be resterilized and reused.

b. 1) After use, transducers (including transducer heads and reusable domes) should be cleaned, disinfected (high-level) with a chemical agent or sterilized with ethtlene oxide, and stored in a manner to prevent recontamination before use on the next patient. (The manufacturers of the transducer and reusable dome should ask for recommendations about classes of disinfectants that will not injure the equipment and about proper methods of cleaning, sterilizing, and storing components.)

2) Sterilization with ethylene oxide is recommended unless the manufacturer states that this method is not satisfactory.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLCIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Guidelines for Prevention of Hospital Acquired Pneumonia		1204
EFFECTIVE DATE;	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2004	Respiratory Therapy	ICC

INTRODUCTION:

Pneumonia accounts for 10%-20% of all hospital associated infections and is the third most common HAI after urinary tract and surgical wound infections. In, addition, pneumonia is the HAI most frequently related to death. Because of its frequency and high case- fatality rate, up to 50% in some reports (3-5), HA pneumonia constitutes a major infection control problem.

RECOMMENDATIONS:

1. Perioperative Measures for Prevention of Postoperative Pneumonia:

   a. Patients who will receive anesthesia and will have an abdominal or thoracic operation or who have substantial pulmonary dysfunction, such as patients with chronic obstructive lung disease, a musculoskeletal abnormality of the chest, or abnormal pulmonary function tests, should receive preoperative and postoperative therapy and instruction designed to prevent postoperative pulmonary complications such as pneumonia. The therapy and instruction, which are recommended below in 1b thru 1g should be given by a person trained to administer them.

   b. Whenever appropriate, preoperative therapy should include treatment and resolution of pulmonary infections, efforts to facilitate removal of respiratory secretions (for example, by use of bronchodilators and postural drainage and percussion), and discontinuance of smoking by the patient.

   c. Preoperative instructions should include discussions of the importance in the postoperative period of frequent coughing, taking deep breaths, and ambulating (as soon as medically indicated). During the discussions, the patient should demonstrate and practice adequate coughing and deep breathing.

   d. An incentive spirometer should be used for preoperative instruction in deep breathing and for postoperative care.

e. Postoperative therapy and instruction should be designed to encourage frequent coughing, deep breathing, and, unless medically contraindicated, moving about in the bed and ambulating.

f. If conservation measures (mentioned in 1e above) do not remove retained pulmonary secretions, postural drainage and percussion should be done to assist the patient in expectorating sputum.

g. Pain that interferes with coughing and deep breathing should be controlled, for example, by use of analgesics, appropriate wound support for abdominal wounds (such as tightly placing a pillow across the abdomen), and regional nerve blocks. (Caution: narcotics may reduce the urge to cough and breath deeply).

h. Systemic antibiotics should not be routinely used to prevent postoperative pneumonia.

2. Handwashing:

Hands should be washed after contact with respiratory secretions whether or not gloves are worn. Hands should be washed before and after contact with a patient who is incubated or has had a recent tracheostomy. (See Guidelines for Hospital Environmental Control: Antiseptics, Handwashing, and Handwashing Facilities.)

3. Fluids and Medication

a. 1) Only sterile fluids should be nebulized or used in a humidifier. These fluids should be dispensed aseptically; that is contaminated equipment should not be allowed to touch the fluid while it is being dispensed.

2) After a large container (bottle) of fluid intended for use in nebulizer of humidifier has been opened, unused fluid should be discarded within 24 hours.

b. Either single-dose or multi-dose vials can be used for respiratory therapy. If multi-dose vials are used, they should be stored (refrigerated or at room temperature) according to directions on the vial label or package insert. Vials should be used no longer than the expiration date given on the label.

4. Maintenance of In-Use Respiratory Therapy Equipment:

a. 1) Fluid reservoirs should be filled immediately before, but not far in advance of, use. Fluid should not be added to replenish partially filled reservoirs; that is if fluid is to be added, the residual fluid should first be discarded.

2) Water that has condensed in tubing should be discarded and not

allowed to drain back into the reservoir.

b. 1) Venturi wall nebulizers and their reservoirs should be routinely changed and replaced with sterilized or disinfected ones every 24 hours.

2) Other nebulizers (including medication nebulizers) and cascade (high volume) humidifiers and their reservoirs should be changed and replaced with sterilized or disinfected ones every 24 hours.

3) Room air humidifiers that create droplets to humidify (and thus are really nebulizers) should not be used.

c. Reusable humidifier reservoirs for use with wall oxygen outlets should be cleaned, rinsed out, and then dried daily. (Disposable reservoirs for use with wall oxygen outlets may be safe for long periods, and it is not known whether these need to be routinely changed before they are empty.)

d. The tubing (including any nasal prongs) and any mask used to deliver oxygen from a wall outlet should be changed between patients.

e. Breathing circuits (including tubing and exhalation valve) should be routinely changed and replaced with sterilized or disinfected ones every 4 days.

f. Respiratory therapy equipment that is designed for single use (disposable) should not be reused.

5. Disposable Equipment

No pieces of respiratory therapy equipment that are designed for single use (disposable) should not be reused.

6. Processing Reusable Equipment:

a. All equipment to be sterilized or disinfected should be thoroughly cleaned to remove all blood, tissue, food, or other residue. It should be decontaminated before or during cleaning if it is marked "contaminated" and received from patients in certain types of isolation.

b. Respiratory therapy equipment that touches mucous membranes should be sterilized before use on other patients; if this is not feasible, it should receive high-level disinfection.

c. Breathing circuits (including tubing and exhalation valves), medication nebulizers and their reservoirs, venture wall nebulizers

and their reservoirs, and cascade humidifiers and their reservoirs should be sterilized or receive high-level disinfection.

d. Since coolant chambers for ultrasonic nebulizers are difficult to disinfect adequately, these chambers should be gas-sterilized (ethylene oxide) or have at least 30 minutes of contact time with a high-level disinfectant.

e. The internal machinery of ventilators and breathing machines should not be routinely sterilized or disinfected between patients. (Disinfection or sterilization may be necessary only after a machine potentially contaminated by extremely dangerous agents, such as Lassa fever virus.)

f. Respirators and other equipment used to monitor several patients in succession should not directly touch parts of the breathing circuit. Rather, extension pieces should be used between patients. If no extension pieces are used and such monitoring equipment is directly connected to contaminated equipment, the monitoring equipment should be sterilized or receive high-level disinfection before use on other patients.

g. Once they have been used for one patient, hand-powered resuscitation bags (for example, AMBU bags) should be sterilized or receive high-level disinfection before use on other patients. (There are no data to suggest that the bags need to be changed routinely during use on one patient.

7. Microbiologic Monitoring:

a. In the absence of an epidemic or high endemic rate of nosocomial pulmonary infections, the disinfection process for respiratory therapy equipment should be monitored by cultures, that is routine sampling of such equipment should not be done. (This recommendation differs slightly from a previous CDC recommendation. See text of this guide for a discussion of this recommendation.)

* Use of trade names is for identification only and does not constitute endorsement by the Public Health Service, U.S. Department of Health and Human Services.

b. Because of the difficulty in interpreting results, routine microbiologic sampling of respiratory therapy equipment while it is being used by a patient is not recommended.

8. Patients with Tracheostomy:

a. Tracheostomy should be preformed under aseptic conditions in an operating room, except when strong clinical indications for emergency or bedside operation intervene.

b. Until as recent tracheostomy wound has had time to heal or form granulation tissue around the tube, “no-touch” technique should be used or sterile gloves should be worn on both hands for all manipulation at the tracheostomy site.

c. 1) When a tracheostomy tube requires changing, a sterile tube or one that has received high-level disinfection should be used.

2) Aseptic technique, including the use of sterile gloves and drapes, should be used when a tube is changed.

9. Suctioning of Respiratory Tract:

a. Risk of cross-contamination and excessive trauma increases with frequent suctioning. Thus suctioning should not be done routinely but only when needed to reduce substantial secretions, which may be indicated by increased difficulties or easily audible “gurgling” breathing sounds.

b.. Suctioning should be performed using “no-touch” technique or gloves on both hands. (Although fresh gloves are not needed.)

c. A sterile catheter should be used for each series of suctioning (defined as a single suctioning or repeated suctioning done with only brief periods intervening to clear or flush the catheter).

d. If tenacious mucous is a problem and flushing of the catheter is required, sterile fluid should be used to remove secretions from it; fluid that becomes contaminated during use for one series of suctioning should then be discarded.

e. 1) Suction collection tubing (up to the canister) should always be changed between patients.

2) Suction collection canisters when used on one patient need not be routinely changed or emptied.

3) Unless used in short-term care units (recovery or emergency rooms), suction collection canisters should be changed between use on different patients.

4) If used in short-term care units, suction collection canisters need not be changed between patients but should be changed daily.

5) Once they are changed, reusable suction collection canisters should be sterilized or receive high-level disinfection.

f. With portable suction devices, which may discharge contaminated aerosols, high-efficiency bacterial filters should be used between the collection bottle and vacuum source. (When used with wall suction units, such filters have not been shown to be useful for infection control.)

10. Protection of Patients from Other Infected Patients and Staff:

a. Patients with potentially transmissible respiratory infections should be isolated according to the current edition of Isolation Technique for Use in Hospitals. (This recommendation is not categorized. A new edition of the isolation manual is being developed.)

b. Personnel with respiratory infections should not be assigned to the direct care of high-risk patients; for example, neonates, young patients, patients with chronic obstructive lung disease, or immunocompromised patients.

c. If an influenza epidemic is anticipated, a prevention program should be started for all patient care personnel and high-risk patients. This program could include use of influenza vaccine and antiviral chemoprophylaxis.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURE MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Prevention of Urinary Catheter-Associated Infections		1205
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2005	Nursing	ICC

RECOMMENDATIONS:

1. Personnel:
   Only persons (e.g., hospital personnel, family members, or patients themselves) who know the correct technique of aseptic insertion and maintenance of the catheter should handle

2. Catheter Use:
   Urinary catheters should be inserted only when necessary and left in place only for as long as necessary. They should not be used solely for the convenience of patient-care personnel.

3. Handwashing:
   Handwashing should be done immediately before and after any manipulation of the site or apparatus.

4. Catheter Insertion:
   a. Catheters should be inserted using aseptic technique and sterile equipment.
   b. Gloves, drapes, sponges, an appropriate antiseptic solution for periurethral cleaning, and a single-use packet of lubricant jelly should be used for insertion.
   c. As small a catheter as possible, consistent with good drainage, should be used to minimize urethral trauma.
   d. Indwelling catheters should be properly secured after insertion to prevent movement and urethral traction.

5. Closed Sterile Drainage:
   a. A sterile, continuously closed drainage system should be maintained.
   b. The catheter and drainage tube should not be disconnected unless the catheter must be irrigated.

6. Irrigation:
   a. Irrigation should be avoided unless obstruction is anticipated (e.g., as might occur with bleeding after prostate or bladder surgery); closed continuous irrigation may be used to prevent obstruction. To relieve obstruction due to clots, mucus, or other causes, an intermittent method of irrigation may be used. Continuous irrigation of the bladder with

antimicrobials has not proven to be useful and should not be performed as a routine infection prevention measure.

b. The catheter-tubing junction should be disinfected before disconnection.
c. A large-volume sterile syringe and sterile irrigant should be used and then discarded. The person performing irrigation should use aseptic technique.

7. Specimen Collection:
   a. If small volumes of fresh urine are needed for examination, the distal end of the catheter, or preferably the sampling port if present, should be cleansed with disinfectant, and urine the aspirated with a sterile needle and syringe.
   b. Larger volumes of urine for special analysis should be obtained aseptically from the drainage bag.

8. Urinary Flow:
   a. Unobstructed flow should be maintained.
   b. To achieve free of urine: 1) the catheter and collecting tube should be kept from kinking; 2) the collecting bag should be emptied regularly using a separate collecting container for each patient (the draining spigot and nonsterile collecting container should never come in contact); 3) poorly functioning or obstructed catheters should be irrigated or, if necessary, replaced; and 4) collecting bags should always be kept below the level of the bladder.

9. Meatal Care:
   Twice daily cleaning with povidone-iodine solution and daily cleansing with soap and water have been shown in two recent studies not to reduce catheter-associated urinary tract infection. Thus, daily meatal care with either of these two regimens cannot be endorsed.

10. Catheter Change Interval:
    Indwelling catheters should not be changed at arbitrary fixed intervals.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING NUMBER:**
Prevention & Control of Intravascular Infections		1206
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/05	Nursing	ICC

INTRAVENOUS ADMINISTRATION:

Intravenous (IV) therapy is an integral part of modern patient care and is given to 30%-50% of hospitalized patients, especially those who are seriously ill. An IV system offers a ready means of direct access to a patient's vascular system for hemodynamic monitoring and for administering agents that cannot be administered as effectively by other means.

RECOMMENDATIONS:

1. Indications for Use:

   Intravenous (IV) therapy should be used only for definite therapeutic or diagnostic indications.

2. Choice of Cannulas for Peripheral Infusions:

   a. Plastic cannulas are acceptable for routine peripheral IV infusions if and only if the hospital can be sure that cannulas are replaced every 48-72 hours, such as can be done by an IV team.

   b. Otherwise, stainless steel cannulas should be used for routine peripheral IV infustions, and plastic cannulas should be reserved for those clinical settings when a secure route for vascular access is imperative.

3. Handwashing:

   a. Hospital personnel should wash their hands before inserting an IV cannula.
   b. Soap and water is adequate for handwashing for most insertions, but an antiseptic should be used before insertion of central cannulas and cannulas requiring a cutdown.
   c. Sterile gloves should be worn for insertion of central cannulas requiring a cutdown.

4. Choice of Site:

   In adults, the upper extremity (or if necessary, subclavian and jugular sites) should be used in preference to lower extremity sites for IV cannulation. All

cannulas inserted into a lower extremity should be changed as soon as a satisfactory site can be established elsewhere.

5. Site Preparation:

   a. The IV should be scrubbed with an antiseptic prior to venipuncture.
   b. Tinture of iodine (1%-2%) is preferred, but chlorhexidine, iodophers, or 70% alcohol can be used. The antiseptic should be applied liberally and allowed to remain in contact for at least 30 seconds prior to venipuncture.
   c. Neither aqueous benzalkonium-like compounds nor hexachlorophene should be used to scrub the IV site.

6. Procedures Accompanying Insertion:

   a. A topical antibiotic or antiseptic ointment may be applied at the IV site immediately after cannula insertion, especially for insertions by cutdown.
   b. The cannula should be secured to stabilize it at the insertion site.
   c. A sterile dressing should be applied to cover the insertion site. The dressing, and not tape, should cover the wound unless the tape is sterile.
   d. The date of insertion should be recorded in a place where it can be easily found. (The date may be recorded in the medical record and, if feasible, also on the dressing or tape.)

7. Maintenance of IV Sites:

   a. Patients with intravenous devices should be evaluated at least daily for evidence of cannula-related complications. This evaluation should include gentle palpation of the insertion site through the intact dressing. If the patient has an unexplained fever or there is pain or tenderness at the insertion site, the dressing should be removed and the IV site inspected.
   b. For peripheral cannulas that must remain in place for prolonged periods, the IV site should be inspected and dressed with new sterile dressings at 48-72 hour. Therefore, the site should be inspected and dressed regularly (the optimal frequency of dressing cannula sites in this situation is not known).
   c. Antibiotic or antiseptic ointment, if used, should be reapplied with each dressing change.

8. Replacement of Peripheral Cannulas:

   If prolonged IV therapy with a peripheral cannula (including heparin-lock devices and peripheral cannulas inserted by a cutdown) is indicated, the cannula should be changed and a new cannula inserted every 48-72 hours provided no IV-related complications requiring cannula removal are encountered before this. Cannulas inserted without proper asepsis; for example, those inserted in an emergency, should be replaced at the earliest

opportunity. (Peripheral cannulas may occasionally have to used for longer than 48-72 hours if another peripheral site cannot be found.)

9. Special Procedures for Central Cannulas (those whose tops lie in the large central vessels);

   a. Central cannulas should be inserted with aseptic technique and sterile equipment. Gloves and drapes are usually required to achieve this objective.
   b. All central cannulas should be removed when they are no longer medically indicated or if they are strongly suspected of causing sepsis.
   c. Central cannulas that are inserted through a subclavian or jugular approach, except those used for pressure-monitoring, need not be changed routinely. (The proper frequency for changing cannulas that are used for pressure-monitoring—for example, those used to measure pulmonary artery or central venous pressure—is not known.)
   d. Central cannulas that are inserted through a peripheral vein should be treated as peripheral cannulas (see appropriate recommendations above).
   e. For central cannulas that must remain in place for prolonged periods, the insertion site should be inspected and dressed with a new sterile dressing every 48-72 hours.

10 Maintenance of Administration Sets:

   a. IV administration tubing, including “piggy-back” tubing, should be routinely changed every 72 hours.
   b. Tubing used for hyperalimentation should be routinely changed every 24 hours.
   c. Tubing should also be changed after the administration of blood, blood products, or lipid emulsions.
   d. Between changes of components, the IV system should be maintained as a closed system as much as possible. All entries into the tubing, as for administration of medications, should be made through injection ports that are disinfected just before entry.
   e. Flushing or irrigating of the system to improve flow should be avoided.
   f. Blood specimens should not be withdrawn through IV tubing except in an emergency or when immediate discontinuation of the cannula and tubing is planned.

11 Changing Parts of the IV System for Infection or Phlebitis:

   a. The entire IV system (cannula, administration set, and fluid) should be changed immediately if purulent thrombophlebitis, cellulites, or IV-related bacteremia is noted or strongly suspected.
   b. For phlebitis without signs of infection, the cannula should be changed.

12 Culturing for Suspected IV-Related Infections:

a. If any system is to be discontinued because of suspected IV-related infection such as purulent thrombophlebitis or bacteremia, the skin at the skin-cannula junction should be cleaned with alcohol and the alcohol allowed to dry before cannula removal, and the cannula should be cultured using a semiquantitative technique. (2.3).

b. 1) If any system is discontinued because of suspected fluid contamination, the fluid should be cultured (5) and the implicated bottle saved.

2) If an IV system is discontinued because of suspected IV-related bacteremia, the fluid should be cultured.

3) If contamination of fluid is confirmed, the implicated bottle and the remaining units of the implicated lot should be saved, and the lot numbers of fluid and additives should be recorded.

4) If intrinsic contamination (contamination during manufacturing) is suspected, the local health authorities, CDC, and the U.S. Food and Drug Administration should be notified immediately.

13 Quality Control During and After Admixtures:

a. Parenteral and hyperalimentation fluids should be admixed (compounded) in the pharmacy unless clinical urgency requires admixture in patient-care areas (see Guidelines for Hospital Environmental Control: Pharmacy).

b. Personnel should wash their hands before admixing parenterals.

c. All containers of parenteral fluid should be checked for visible turbidity, leaks, cracks, and particulate matter and for manufacturer's expiration date before admixing and before use. If a problem is found, the fluid should not be used and should be sent to (or remain in) the pharmacy.

d. In the pharmacy, a laminar-flow hood should be used for admixing parenteral fluid.

e. Single-use (single-dose) containers (vials) should be used for admixture whenever possible. When multiple-use containers intended for intravenous use are opened, they should be marked with the date and time that the container is entered. The product label or package insert should be consulted to determine if refrigeration of the container is necessary. (The proper storage temperature is product-specific and

is determined by many factors such as stability of ingredients and optimal activity of antibacterial preservatives; bacteria survival in some containers may be enhanced by refrigeration (17). Unless an expiration date is stated on the product label or package insert, it is not known if multiple-use containers, once entered, should be discarded after a specific or arbitrary length of time.)

f. A distinctive supplementary label should be attached to each admixed parenteral stating, as a minimum, the additives and their dosage, the date and time of compounding, the expiration time, and the person who did the compounding.

g. All admixed fluids should be refrigerated or started within six hours of admixing.

h. If necessary, admixed parenterals may be stored in the refrigerator for up to a week before, use, provided refrigeration is continuous and begins immediately after admixing. Other factors, such as stability of ingredients, may dictate a shorter storage time. (This recommendation is intended to prevent waste of parenterals that are admixed for immediate use but, unexpectedly, cannot be used.)

i. Once started, all parenterals should be completely used or discarded within 24 hours.

j. Infusions of lipid emulsions should be completed within 12 hours of starting.

14 IV Filters:

Using IV in-line filters is not recommended as a routine infection control measure.

15 IV Teams:

Using professional, specially trained IV teams that insert and maintain IV cannulas may decrease the risk of IV-related infections.

ASHLEY COUNTY MEDICAL CENTER
INFECTION CONTROL POLICIES AND PROCEDURES MANUAL

TITLE/DESCRIPTION:		**FILING DATE;**
Guidelines for Management of HIV and other Blood Borne Infectious Diseases		1207
EFFECTIVE DATE:	**APPLIES TO:**	**APPROVED BY:**
Reviewed 11/2005	Hospital Wide	ICC

Acquired immunodeficiency syndrome (AIDS) should be regarded as a major health care concern. It is an infectious diseases which is generally widespread, incurable, and misunderstood. The fear of AIDS is often disproportionate to the risk of acquiring the diseases.

AIDS is a diseases caused by the human immunodeficiency virus (HIV), formally called the human T-lymphotropic virus type III/lymphadenopathy-associated virus (HTLV-III/LAV). HIV infects lymphocytes. The body substances containing the greatest amount of virus are blood, semen, and vaginal secretions. The virus is transmitted through sexual contact, percutaneous exposure, perinatal exposure, by absorption through mucous membranes and through nonintact mucous membranes and skin. It is not spread through ordinary social, occupational, or household contacts of nonsexual nature.

In the health care setting, the risk of acquiring or transmitting HIV infection by patients or health care workers (HCW) is related to the degree of percutaneous contact or mucous membrane contamination with blood or other high risk body substances. The same precautions used to prevent transmission of Hepatitis B virus (HBV) and other blood-borne diseases are adequate to prevent the spread of HIV, as it is less hardy and is present in fewer numbers than the HBV.

PURPOSE:

These recommendations for the management of AIDS were approved by the Infection Control Committee, a multidisciplinary group, to promote standardization and improvement of AIDS management at ACMC. These recommendations provide a consolidation and summary of important topics, clarification or resolutions for some controversial issues, and a list of the most significant references. As such, the recommendations are not meant to be all inclusive, but must be used in combination with the listed references.

1. UNIVERSAL BLOOD AND BODY FLUIDS PRECAUTIONS

   A. Universal blood and body fluids precautions should be promptly implemented for ALL patients. There are no additional precautions for patients with communicable blood-borne disease, including patients with AIDS, patients with HIV-positive blood, and patients undergoing work-up for AIDS.
      1. All body substances from any individual should be considered infectious because every individual is a potential disease carrier, and the undiagnosed case represents the greatest risk of transmission.

2. If the patient has other infections that require additional precautions, these precautions also should be implemented following CDC guidelines.

B. Hands should be washed routinely after care of the patient and immediately if soiled with blood or body fluids. Note that hand washing is the only precaution necessary for many patient contacts.

C. Gloves are recommended for all direct contact with a body substance or with items soiled with such. This is especially important if the HCW has fresh cuts or breaks in the skin. Note that gloves are an adjunct, not a substitute, for handwashing.

1. Reusable, rubber, household or janitorial gloves are Recommended for cleaning spills involving blood and other body substances. Alcohol (70%) and other common hospital disinfectants are effective against the virus.

D. Needles and sharps should be handled with extreme care and with minimal manipulation to prevent accidental punctures. Do not recap, bend, break, or remove needles from syringes. The unsheathed needle and syringe should be placed directly into a labeled, rigid, puncture-resistant container which is located as close as possible to the area where it is used, preferably in the patient's room.

E. Gowns are recommended only if soiling with a body substance is likely.

F. Masks and goggles (and face shields) should be used wherever aerosolization or splattering of a body fluid is likely, e.g., delivery rooms, operating rooms, emergency rooms, endoscopy rooms, pathology and other laboratories, code carts, wound irrigation areas, etc. (See Section II)

G. For isolation purposes, a private room is not usually necessary, and patients need not be restricted to their rooms. Exceptional conditions are patients with poor hygiene, other transmittable diseases like tuberculosis, patients who are uncooperative, or patients who present risk of dispersing aerosols or splatters of body substances into the environment.

H. Resuscitation equipment should be strategically placed and readily available. HCWs should be trained in CPR classes on the use of resuscitation equipment.

I. All laboratory specimens should be placed in leak-proof containers which are uncontaminated on the outside. The use of a bag for specimens is optional.

J. Infective wastes (microbiology waste, pathology waste, blood and blood products, and contaminated sharps), in general, should be incinerated before disposal. Bulk blood, suctioned fluids, excretions, and secretions may be carefully poured down a drain connected to a sanitary sewer. For disposal of needles and sharps, see section I,D.

While any item that has contact with a body substance is potentially infective, it is not practical or necessary to treat all such waste as infective since biologic degradation and dilution effect rapidly reduce infectivity of blood viruses.

K. After death, bodies of persons with AIDS, HIV infection, or certain other reportable communicable diseases (anthrax, brucellosis, viral hepatitis (types B,D, and C(non-A, non-B), plague, Q fever, rabies, Rocky Mountain spotted fever, syphilis, tuberculosis, tularemia, or viral hemorrhagic fever) must be tagged with a card no smaller than 5x10 cm stating:

"Communicable Disease—Blood and Body Fluid Precautions Required" prior to being transported for autopsy or to the mortuary.

II. PRECAUTIONS DURING OPERATIVE, OBSTETRICAL, DENTAL, OR OTHER INVASIVE PROCEDURES AND TRAUMA CARE

A. HCWs who perform or assist in invasive procedures must follow the precautions listed below that are directed at preventing the transmission of any bloodborne disease between HCWs and clients.

B. Appropriate precautions listed in Section I should be followed during invasive procedures, with special attention to handwashing, gloving, use of other barrier precautions (gowns, masks, goggles) when excess soiling or splattering potential exists, prevention of injuries due to needles and sharps, and being free of exudative lesions or weeping dermatitis.

C. Gloves must be worn when touching mucous membranes or nonintact skin of patients. If gloves are torn or a needlestick or other injury occurs, the gloves must be changed, the contaminated needle or instrument must be removed from the field, and the site of the injury must be cleaned vigorously as promptly as possible.

D. HCWs should promptly report any inadvertent exposure of a patient to the blood of a HCW or exposure of a patient to the blood of a HCW or exposure of a HCW to the blood of a patient during an invasive procedure. (See Section VI.)

E. HCWs with evidence of any illness that might compromise their ability to adequately and safely perform invasive procedures should be evaluated medically to determine

whether they are physically and mentally competent to perform invasive procedures. Note that a confirmed positive HIV antibody test alone, just as is for HBV, is not a contradiction to performing or assisting with invasive procedures.

F. All HCWs who perform or assist in invasive procedures must be educated in the appropriate precautions to prevent the transmission of HIV and other bloodborne diseases, including hepatitis B. Suggested methods of education include the use of written handouts delineating desired practices, annual follow-up, and documentation of HCWs knowledge of and agreement to follow precautions.

III. PRECAUTIONS FOR OTHER DEPARTMENTS AND SERVICES

A. Food services should follow recommended standards and practices of good personal hygiene and sanitation. There is no evidence that HIV is spread through food or water; thus, no special precautions are indicated for dishes, and food-service personnel should not be restricted in their work because of serum antibodies to HIV (positive HIV tests).

B. Routine sterilization, disinfection, housekeeping, and waste disposal procedures recommended for use in hospitals are more than adequate to prevent the transmission of the HIV virus.

IV. PATIENT CONFIDENTIALITY

A. Promote confidentiality for AIDS patients without compromising the safety of HCWs by ensuring that proper precautions are clearly understood.

B. No departmental or computerized lists of AIDS or HIV antibody-positive patients should be permitted. Such lists may promote inappropriate techniques and false security in HCWs who should follow appropriate blood and body substance precautions with ALL patients.

C. Reporting of confirmed AIDS cases and all HIV infections to the CDC- in a confidential manner can be obtained from local or state health departments.

D. Confidential test results should only be released by telephone to the physician or Director of Epidemiology. When telephone reports are given, the reporter should take appropriate precautions and be absolutely sure of the identity of the caller and his/her right to receive the information.

V. HIV ANTIBODY AND ANTIGEN TESTING

A. The presence of demonstrated antibody to HIV is considered an indication that infection is present and the potential to transmit the virus exists.

B. The ELISA test is currently recommended for initial HIV antibody testing. The Western Blot test should be used to confirm repeatedly positive ELISA tests. New and improved antibody and antigen tests may replace these in the future.

C. There should be no mandatory antibody screening, except for screening of donated blood or other tissues or organs, specifically defined exposures (Section IV), and before certain medical procedures as defined by Board of Health guidelines.

D. Each agency should develop policies for HIV antibody testing of patients, specifically any agency-unique requirements for consent and confidentiality. The following guidelines should be followed:

1. Patient consent for HIV antibody testing as an adjunct to diagnosis is recommended. The consent may be the original signed permit for care or a specific verbal or written consent for testing, depending on state regulations.

2. HIV antibody test results on patients should be placed in the patient's medical record, but results should not be accessible by computer. Preliminary results from screening tests should not be placed on charts until confirmed, but should be reported to the patient's physician and the Infection Control Practitioner and/or charge nurse.

3. HIV antibody test results should be handled with the utmost confidentiality. If used, precautions, as described in Section IV, G, should be followed.

VI. MANAGEMENT OF ACCIDENTAL EXPOSURES TO BLOOD/BODY SUBSTANCES

A. All exposures of HCWs or clients to body substances should be reported promptly by the HCW, following agency-specific practices. Exposure is defined as parenteral (needlestick or other penetrating puncture of the skin with a used needle or other item, mucous membrane (splatter/aerosols into eyes, nose, or mouth), or significant contamination of an open wound or non-intact skin with a body substance.

B. General recommendations:

1. It the right and responsibility of the agency to protect the health of the employees and patients and to properly inform them of the risk of significant infection to which they are exposed for both ethical and legal reasons.

2. Agency-specific protocols should be developed for post-exposure management that clearly specifies procedures for determining the need for testing, assuring confidentiality, and specifying individual responsibility and authority and that respects both the person with the infection and the person who might be exposed to the infection. Responsibility for post-exposure management (including assessments, determining risks, counseling, and record keeping) should be clearly delegated to the Infection Control Practitioner, Infection Control Committee Chairperson, or other authorized person.

The agency may wish (if applicable to state regulations) to add to the hospital admission consent form a statement which informs the patient that, in the event of certain exposures of an employee to the patient's blood or body fluids, blood may be drawn or other procedures used in testing for the presence of certain infections in the patient which could represent a danger to the employee(s) such as HIV, hepatitis B, tuberculosis, syphilis, etc. In the case that a patient is unable to provide consent, the usual protocol for providing medical care to this patient should be followed.

3. The following recommendations for HIV exposure are the same in principle as for other potentially infectious disease exposures:

   a. When indicated, post-exposure HIV antibody testing of both the source and the exposed individual is strongly recommended.

   b. If an employee refuses HIV testing, the agency may ask that the employee sign a statement that testing was offered to the employee who refused.

   a. The source person and his physician should be informed of the incident, be made knowledgeable of the procedures (including those which describe how confidentiality is maintained), and concur with the need for testing. Post-exposure HIV antibody test results on patients should be handled according to the hospital policies for maintaining confidential records (see section V,D.). For example, the results may be placed in the medical record only with patient consent or remain a confidential infection control record.

   b. Post-exposure HIV test results on employees may be placed in the Employee Health Record only if it is kept separate from the personnel files and is handled s highly confidential; otherwise, it should remain a confidential infection control record.

C. Protocols for post-exposure management should be based on the following procedural guidelines and coordinated with the attending physician.

   1. The source individual should be assessed clinically and epidemiologically to determine the risk or likelihood of HIV, HBV, or other blood-transmissible infections.

   2. The attending physician and the source patient (or legal representative if the individual is temporarily or otherwise incompetent) should be informed of the exposure, understand that the test results will be kept confidential, and concur with the need for testing (see Section VI, B, 3, c).

3. If the source has no clinical evidence of infection, is HIV antibody-negative, and has no history of high-risk behavior, no further follow-up of source or exposed individual is indicated.

4. If the source has evidence of possible HIV infection, a confirmed positive HIV antibody test, a history of high-risk behavior, cannot be tested, or refuses to be tested, then;

   a. The exposed individual should be evaluated clinically for evidence of HIV infection, and HIV antibody testing should be recommended as soon as possible after the exposure. Refusal to submit a specimen should be documented. (See Section VI, B 3 b.) AZT prophylaxis should be considered within eight hours of exposure.

   b. If the exposed individual's baseline test is negative for antibody, he or she should have testing for HIV antibody eight weeks following exposure. Virtually all seroconversions will have occurred during this period. Additional testing no later than six months following exposure may be done based on the individual's need to know and the risk of exposure to others.

   c. Both the source and the exposed individual should be counseled.

5. Post-exposure counseling should be given within two weeks of exposure and should include information on the potential risks of infection and specific measures to prevent transmission.

6. If the source individual cannot be identified, follow-up should be based on the type of exposure and the likelihood that the source was infected based on clinical and epidemiological assessment.

VII. EMPLOYMENT ISSUES

A. All HCWs, as indicated by their job descriptions, are expected to care for patients with all communicable diseases, including AIDS.

   1. Pregnant HCWs should not be exempt from caring for AIDS patients because they are not at increased risk of acquiring AIDS, and the recommended precautions are uniformly effective.

   2. Physician prescriptions for exemption of pregnant HCWs are incompatible with scientific evidence and published guidelines.

B. HCWs with AIDS or positive HIV antibody tests should be hired and/or retained in their jobs based on their ability to perform the job adequately and safely and on their willingness to follow standard infection control policies and procedures. References

should be made to APIC position paper on HCWs with AIDS American journal of Infection Control, December 1990.

C. Alternative assignments or transfers of HCWs with AIDS or positive HIV tests are rarely indicated and should be used only if a consistent, nondiscriminatory policy is developed and followed as for HBV infection. (See Section II, B ,E, and F.)

D. Agencies should develop specific policies for counseling and education of HCWs with known infectious agents which have a low risk of potential transmission, including HIV infections. This review should emphasize precautions for preventing the transmission of their potentially infectious disease, in this case, HIV or its associated opportunistic infections.

VII. NOTIFICATION OF RECIPIENTS OF CONTAMINATED BLOOD PRODUCTS

A. Agencies that give blood products should develop a program for notifying recipient of contaminated blood products following the American Association “Look Back” program.

IX. A SAMPLE CONSSENT FORM FOLLOWS ON THE NEXT PAGE

ACKNOWLEGEMENT AND CONSENT FOR HIV ANTIBODY BLOOD TEST

I acknowledge that I have been informed by my physician that my blood will be tested in order to detect whether or not I have antibodies in my blood to the human immunodefificiency virus (HIV), which is the probable causative agent of acquired immune deficiency syndrome (AIDS). I understand that the test is voluntary and that it is performed by withdrawing blood and using a substance to test the blood. I understand that I have the right to consent, or to refuse this test.

I acknowledge that I have been informed that the testis new and that its accuracy and reliability are still uncertain because the test results may in some cases, indicate that a person has antibodies to the virus may in person does not (false positive) or the test may fail to detect that a person actually does have antibodies to the virus (false negative). I also acknowledge that I have been informed that a positive blood test does not mean that I have or will develop AIDS.

I acknowledge that I have been informed that any questions I have regarding the nature of the blood tests, its expected benefits, its risks, or alternative tests may be asked of my physician before I consent to the blood test. I have had the opportunity to question my physician regarding this procedure and he/she has fully answered my questions.

I understand that the results of this blood test will only be released to the physician directly responsible for my care and treatment, and to other persons only as required by law. I further understand that no additional release of the results will be made without my express written authorization.

By my signature below, I acknowledge that I have been given all of the information I desire concerning the blood tests and release of the results. I hereby give my consent to the performance of a blood test to detect antibodies to HIV.

Date:_____ _____

Signature of patient or other person legally authorized to sign on behalf of patient.

Witness: _____

Print Name

Date:_____ _____

Signature