Technical College
System of Georgia

Brian P. Kemp
Governor

Gregory C. Dozier
Commissioner

July 08, 2021

President Anthony Parker
Albany Technical College
1704 South Slappey BLVD
Albany, GA 31701

Dear President Parker:

Enclosed is the approved and signed copy of the 2021-2022 Exposure Control Plan (ECP) for your College. Your ECP has been approved without need for revisions. We appreciate the hard work and dedication you and your staff have shown.

Please contact me directly at lbeck@tcsg.edu or 404-679-1666 if I can be of service to you or your College in any way with concerns you may have in these areas. We wish you a safe and secure academic year.

Sincerely,

Lisa Anne Beck
Emergency Manager

(Please send a copy to your College Exposure Control Coordinator, Latrona Lanier for College distribution.)

Exposure Control Plan
for Bloodborne Pathogens and Airborne Pathogens/Tuberculosis
Albany Technical College
2021 - 2022

REVIEWED: _____ DATE: 13 April 2021
EXPOSURE CONTROL COORDINATOR
ALBANY TECHNICAL COLLEGE

APPROVED: _____ DATE: April 19 2021
PRESIDENT/EXECUTIVE
ALBANY TECHNICAL COLLEGE

REVIEWED: _____ DATE: 06/21/21
EMERGENCY MANAGER
TECHNICAL COLLEGE SYSTEM OF GEORGIA

APPROVED: _____ DATE: 7/7/2021
DIRECTOR OF CAMPUS SAFETY
TECHNICAL COLLEGE SYSTEM OF GEORGIA

Albany Technical College
Exposure Control Plan for
Occupational Exposure to
Bloodborne Pathogens and Airborne Pathogens/Tuberculosis
2021 - 2022

INTRODUCTION

The State Board of the Technical College System of Georgia (SBTCSG), along with its technical colleges and work units, is committed to providing a safe and healthful environment for its employees, students, volunteers, visitors, vendors and contractors. SBTCSG Policy 3.4.1. Emergency Preparedness, Health, Safety and Security compels technical colleges and work units to eliminate or minimize exposure to bloodborne and airborne pathogens in accordance with OSHA Standard 29 CFR 1910.1030, "Occupational Exposure to Bloodborne Pathogens" as well as Centers for Disease Control (CDC) "Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Health-Care Facilities, 2005." In pursuit of this goal, the Exposure Control Plan (ECP) is maintained, reviewed, exercised and updated at least annually to ensure compliance and protection for employees and students.

This Exposure Control Plan includes:

- clarification of program administration
- determination of employee and student exposure
- implementation of various methods of exposure control
    - standard precautions
    - engineering and administrative controls
    - personal protective equipment (PPE)
    - housekeeping
    - laundry
    - labeling
- vaccination for hepatitis B
- evaluation and follow-up following exposure to bloodborne/airborne pathogens (tuberculosis)
- evaluation of circumstances surrounding exposure incidents
- communication of hazards and training and
- recordkeeping

I. PROGRAM ADMINISTRATION

A. Latrona Lanier serves as the Exposure Control Coordinator (ECC) and is responsible for the implementation, maintenance, review, and updating of the Exposure Control Plan (ECP). The ECC will be responsible for ensuring that all required medical actions are performed and that appropriate health records are maintained. Further, the ECC will be responsible for training, documentation of training as well as making the written ECP available to employees, students, and any compliance representatives.

Contact Information for Exposure Control Coordinator
Latrona Lanier, PhD, RN, CNE
Albany Technical College
1704 S Slappey Blvd
Albany, Georgia 31701
229-430-3698

B. Those employees and students who are determined to be at risk for occupational exposure to blood, other potentially infectious materials (OPIM) as well as at risk for exposure to airborne pathogens/tuberculosis must comply with the procedures and work practices outlined in this ECP.

C. The Albany Technical College is responsible for the implementation, documentation, review, and training/record keeping of standard precautions with respect to the areas of personal protective equipment (PPE), decontamination, engineering controls (e.g., sharps containers), administrative controls, housekeeping, laundry, and labeling and containers as required as assigned to designees. Further, adequate supplies of the aforementioned equipment will be available in the appropriate sizes/fit. See Appendix A.

D. Albany Technical College engages in the following contractual agreements regarding exposure control, Annual Contractual agreement with Stericylce, INC.

E. Albany Technical College engages in the following training, drills and exercises regarding exposure control. All covered employees and students will receive an explanation of this ECP during their initial training or academic experience, as well as a review on an annual basis. All covered employees and students can review this ECP at any time while performing task that may be potential risks by contacting Latrona Lanier, Program Director of Nursing.

Annual Exposure Control training update, this update includes viewing a video and completing a quiz with a minimum 80% score.

The protocol for the retention of training records is training records are completed for each covered employee and student upon completion of training. These documents

will be kept for at least three years at Albany Technical College by the individuals listed in I.C. for students and employees.

F. The protocol for the annual review of the Albany Technical College ECP is the ECC will review and update the ECP annually, or more frequently if necessary to reflect any new or modified tasks or activities that affect occupational exposure and to reflect new or revised employee classifications or academic programs with potential for occupational exposure.

II. EXPOSURE DETERMINATION

Employees/or students are identified as having occupational exposure to bloodborne/airborne pathogens based on the tasks or activities in which they engage. These tasks or activities are placed into categories as defined by the 1987 joint advisory notice by the U.S. Department of Labor and the U.S. Department of Health and Human Services. The relative risk posed by these tasks or activities, as well as the measures taken to reduce or eliminate risk of occupational exposure are also determined by the category.

Category I: A task or activity in which direct contact or exposure to blood, other potentially infectious materials, or airborne pathogens (tuberculosis) is expected and to which standard precautions apply.

Category II: A task or activity performed without exposure to blood or other potentially infectious materials, or airborne pathogens (tuberculosis) and to which standard precautions apply, but exposure to another person's blood or to OPIM might occur as an abnormal event or an emergency or may be required to perform unplanned Category I tasks or activities.

Category III: A task or activity that does not entail normal or abnormal exposure to blood or other potentially infectious materials, or airborne pathogens (tuberculosis) and to which standard precautions do not apply.

Employees or students who engage in tasks or activities which are designated as Category I or II, as well as their occupational area, are considered to be "covered" by the parameters of the ECP, including part-time, temporary, contract and per-diem employees.

The following is a list of job and/or student program classifications which have Category I or II occupational exposure. Included is a list of the tasks or activities or groups of closely related tasks or activities in which occupational exposure may occur for these individuals.

List specific programs/areas falling under the following categories:

Job/Program/Title/Occupational/Program Area
Maintenance
Housekeeping
Facilities
Police/Public Safety/Security
Allied Health
Health Science
Child Care (Early Childhood Care and Education)
Barbering

III. IMPLEMENTATION OF METHODS OF EXPOSURE CONTROL

A. **Standard Precautions:** All covered employees and covered students will use standard precautions as indicated by the task or activity.

B. **Exposure Control Plan:**
   1. All covered employees and covered students will receive an explanation of this ECP during their initial training or academic experience, as well as a review on an annual basis. All covered employees and covered students can review this ECP at any time while performing these tasks or activities by contacting Latrona Lanier, Program Director of Nursing (ASN). If requested, a hard copy of this ECP will be provided free of charge within 3 business days of request.
   2. The ECC will review and update the ECP annually, or more frequently if necessary to reflect any new or modified tasks or activities that affect occupational exposure and to reflect new or revised employee classifications or instructional programs with potential for occupational exposure.

IV. PERSONAL PROTECTIVE EQUIPMENT

Follow standard precautions with regard to personal protective equipment for identified Category I and II tasks. The individuals identified in I. C. are responsible for implementing and documenting the following:

A. Appropriate personal protective equipment (PPE) is provided to covered employees at no cost and available to covered students at the student's expense. Training/recording keeping in the use of PPE for specific tasks is provided by Latrona Lanier, Program Director of Nursing (ASN).

Types of PPE that are provided include the following:

Task	PPE	Location
Drawing blood	gloves, eye protection	Classroom A225 Storage Closet

B. All covered employees and covered students using PPE must observe the following precautions:
   1. Wash hands immediately or as soon as feasible after removing gloves or other PPE.
   2. Remove PPE after it becomes contaminated and before leaving the work area.
   3. Used PPE may be disposed of in red material hazardous bags.
   4. Wear appropriate gloves when it is reasonably anticipated that there may be hand contact with blood or OPIM, and when handling or touching contaminated items or surfaces; replace gloves if torn, punctured or contaminated, or if their ability to function as a barrier is compromised.
   5. Utility gloves may be decontaminated for reuse if their integrity is not compromised. Utility gloves should be discarded if they show signs of

cracking, peeling, tearing, puncturing, or deterioration.

6. Never wash or decontaminate disposable gloves for reuse.
7. Wear appropriate face and eye protection when splashes, sprays, spatters, or droplets of blood or OPIM pose a hazard to the eye, nose, or mouth.
8. Remove immediately, or as soon as feasible, any garment contaminated by blood or OPIM, in such a way as to avoid contact with the outer surface.

C. The protocol for handling used PPE is as follows: disposed of in red material hazardous bags.

V. DECOMTAMINATION

Follow standard precautions with regard to decontamination for identified Category I and II tasks. The individuals identified in I. C. are responsible for implementing and documenting the following:

A. Latrona Lanier responsible for training/record keeping for decontamination.
B. For each category I and II task document the decontamination method required.

VI. Engineering and Administrative Controls:

Follow standard precautions with regard to engineering and administrative controls for identified Category I and II tasks. The individuals identified in I. C. are responsible for implementing and documenting the following:

A. Engineering and administrative controls are developed and implemented to reduce or eliminate occupational exposure. Specific engineering and administrative controls for specified tasks or activities (delineated by instructional program or department) are listed below:

Task	**Engineering/Administrative Controls**
Drawing blood	needleless systems, non-glass capillary tubes

B. Protocol and documentation of the inspection, maintenance and replacement of sharps disposal containers is the responsibility of Latrona Lanier, Program Director of Nursing (ASN).

C. The processes for assessing the need for revising engineering and administrative controls, procedures, or products, and the individuals/groups involved are detailed below:

Example:
Academic Program Advisory Groups examine exposure control methods during advisory group meetings, and the recommendations are discussed with the ECC by the academic program manager(s).

VII. HOUSEKEEPING

Follow standard precautions with regard to housekeeping for identified Category I and II tasks. The individuals identified in I. C. are responsible for implementing and documenting the following:

A. Regulated waste is placed in containers which are closable, constructed to contain all contents and prevent leakage, appropriately labeled or color-coded, and closed prior to removal to prevent spillage or protrusion of contents during handling.

B. The protocol for handling sharps disposal containers is: Sharp materials ("sharp") must be placed in special puncture resistant containers. Sharps include needles, broken glass, scalpels, test tubes, pipettes, petri dishes, razors, and other contaminated objects that could potentially pierce a plastic bag. As with other waste, sealed containers filled with sharps may be placed in the shipping box provided by Stericylce.

C. The protocol for handling other regulated waste is: All medical waste, collected for disposal, must be placed in a corrugated box or reusable container which is lined. The plastic bag used for this purpose must be sufficient strength to prevent ripping or tearing. In addition, the bag must be marked according to federal, state, and local regulations (red in color and/or biohazard symbol).

D. Contaminated sharps are discarded immediately or as soon as possible in containers that are closable, puncture-resistant, leak proof on sides and bottoms, and appropriately labeled or color-coded. Sharps disposal containers are available at all medical waste, collected for disposal, must be placed in a corrugated box or reusable container which is lined. The plastic bag used for this purpose must be sufficient in strength to prevent ripping or tearing. In addition, the bag must be marked according to federal, state, and local regulations (red in color and /or biohazard symbol).

E. Bins and pails (e.g., wash or emesis basins) are cleaned and decontaminated as soon as feasible after visible contamination.

F. Broken glassware that may be contaminated is only picked up using mechanical means, such as a brush and dustpan.

VIII. LAUNDRY

Follow standard precautions with regard to laundry for identified Category I and II tasks. The individuals identified in I. C. are responsible for implementing and documenting the following:

A. The following contaminated articles will be laundered laundered using standard established practice and all disposable laundry will be placed in biohazard bags for pickup by Stericycle for destroying by program faculty. Program faculty will deliver properly prepared laundry for disposal to HCT 125 at time of incident.

B. The following laundering requirements must be met (document procedures):
   1. Handle contaminated laundry as little as possible, with minimal agitation.

2. Place wet contaminated laundry in leak-proof, labeled or color-coded containers before transport. Use (red in color and/or biohazard symbol) for this purpose.
3. Wear the following PPE when handling and/or sorting contaminated laundry: gloves; safety shoes/boots/covers, if substance is likely to splash; apron/gown/coveralls, if substance is likely to splash; respirator/mask, if substance is airborne. Remove PPE carefully to avoid self-contamination. Dispose of PPE in designated containers before leaving the area. Wash hands immediately or as soon as feasible after removing PPE

IX. LABELING AND CONTAINERS

Follow standard precautions with regard to labeling and containers for identified Category I and II tasks. The individuals identified in I. C. are responsible for implementing and documenting the following:

A. The following labeling methods are used in this facility: All regulated waste should be placed in a red bag designated for regulated waste and placed in the box labeled with biohazard label.

Example:

Equipment to be Labeled	**Label Type (size, color)**
specimens, contaminated laundry, etc.	red bag, biohazard label

B. Persons identified in I.C. are responsible for ensuring that warning labels are affixed or red bags are used as required if regulated waste or contaminated equipment is brought into or out of the facility. Covered employees and covered students are to notify Persons identified in I.C. if they discover regulated waste containers, refrigerators containing blood or OPIM, contaminated equipment, etc., without proper labels.

X.VACCINATION FOR HEPATITIS B

A. Latrona Lanier will ensure training is provided to covered employees on hepatitis B vaccinations, addressing safety, benefits, efficacy, methods of administration, and availability. Latrona Lanier will ensure that the same content training to covered students.

B. The hepatitis B vaccination series is available at no cost after initial covered employee training and within 10 days of initial assignment to all covered employees identified in the exposure determination section of this plan. The hepatitis B vaccination series is available to covered students at cost after initial covered student training and within 10 days of initial assignment to all covered students identified in the exposure determination section of this plan.

C. Vaccination may be precluded in the following circumstances: 1) documentation exists that the covered employee or covered student has previously received the series; 2) antibody testing reveals that the employee is immune; 3) medical

evaluation shows that vaccination is contraindicated; or (4) following the medical evaluation, a copy of the health care professional's written opinion will be obtained and provided to the covered employee or student within 15 days of the completion of the evaluation. It will be limited to whether the covered employee or covered student requires the hepatitis B vaccine and whether the vaccine was administered.

D. However, if a covered employee or covered student declines the vaccination, the covered employee or covered student must sign a declination form. Covered employees or covered students who decline may request and obtain the vaccination at a later date at no cost to covered employees or at cost to covered students. Documentation of refusal of the vaccination is kept in the medical records of the individual.

E. Vaccination will be provided by employees' personal care provider or at the local health department.

XI. POST-EXPOSURE FOLLOW-UP

A. Should an exposure incident occur, contact Latrona Lanier at the following telephone number 229-430-3698.

B. An immediate available confidential medical evaluation and follow-up will be conducted and documented by a licensed health care professional. Following initial first aid (clean the wound, flush eyes or other mucous membrane, etc.), the following activities will be performed:

1. Document the routes of exposure and how the exposure occurred.
2. Identify and document the source individual (unless the employer can establish that identification is infeasible or prohibited by state or local law).
3. For blood or OPIM exposure:
   - **a.** Obtain consent and make arrangements to have the source individual tested as soon as possible to determine HIV, HCV, and HBV infectivity; document that the source individual's test results were conveyed to the employee's/student's health care provider.
   - **b.** If the source individual is already known to be HIV, HCV and/or HBV positive, new testing need not be performed.
   - **c.** Exposure involving a known HIV positive source should be considered a medical emergency and post-exposure prophylaxis (PEP) should be initiated within 2 hours of exposure, per CDC recommendations.
   - **d.** Assure that the exposed employee/student is provided with the source individual's test results and with information about applicable disclosure laws and regulations concerning the identity and infectious status of the source individual (e.g., laws protecting confidentiality).
   - **e.** After obtaining consent, collect exposed employee's/student's blood as soon as feasible after exposure incident, and test blood for HBV and HIV serological status.
   - **f.** If the employee/student does not give consent for HIV serological testing during collection of blood for baseline testing, preserve the baseline blood sample for at least 90 days; if the exposed employee elects to have the

baseline sample tested during this waiting period, perform testing as soon as feasible.

4. For airborne pathogen (tuberculosis):
   a. Immediately after the exposure of a covered employee or covered student, the responsible supervisor, the technical college or work unit Exposure Control Coordinator (ECC) and the authorized contact person at the clinical or work site shall be notified and should receive documentation in writing. Documentation of the incident is to be prepared the day of the exposure; on an Exposure Incident Report and Follow-Up Form for Exposure to Bloodborne/Airborne Pathogens (Tuberculosis); promulgated within 24 hours of the incident; and recorded in the Exposure Log.
   b. The exposed covered employee/student is to be counseled immediately after the incident and referred to his or her family physician or health department to begin follow-up and appropriate therapy. Baseline testing should be performed as soon as possible after the incident. The technical college or work unit is responsible for the cost of a post-exposure follow-up for both covered employees and covered students.
   c. Any covered employee or covered student with a positive tuberculin skin test upon repeat testing, or post-exposure should be clinically evaluated for active tuberculosis. If active tuberculosis is diagnosed, appropriate therapy should be initiated according to CDC Guidelines or established medical protocol.

XII. ADMINISTRATION OF POST-EXPOSURE EVALUATION AND FOLLOW-UP

A. Those individuals named in I.C. ensures that health care professional(s) responsible for the covered employee or student hepatitis B vaccination and post-exposure evaluation and follow-up are given a copy of this ECP.

B. Those individuals named in I.C. ensures that the health care professional evaluating a covered employee or student after an exposure incident receives the following:
   1. a description of the covered employee's or covered student's tasks or activities relevant to the exposure incident
   2. route(s) of exposure
   3. circumstances of exposure
   4. if possible, results of the source individual's blood test
   5. relevant covered employee or covered student medical records, including vaccination status

C. During the period of the 2020 – 2021 HCPP the following incidents surrounding exposure occurred. NONE.

safety, method of administration, the benefits of being vaccinated, and that the vaccine will be offered free of charge to covered employees and at cost to covered students;

8. information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM;
9. an explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available;
10. information on the post-exposure evaluation and follow-up that the employer/college is required to provide for the covered employee or covered student following an exposure incident;
11. an explanation of the signs and labels and/or color coding required by the standard and used at this facility;
12. and an opportunity for interactive questions and answers with the person conducting the training session.

B. Training materials are available from the departments identified as Category I and Category II.

XV. RECORDKEEPING

A. Training Records

1. Training records are completed for each covered employee and covered student upon completion of training. These documents will be kept for at least three years at Albany Technical College by the individuals listed in I.C. for students and employees.
2. The training records include:
    a. the dates of the training sessions
    b. the contents or a summary of the training sessions
    c. the names and qualifications of persons conducting the training
    d. the names and job titles/department of all persons attending the training sessions
3. Training records are provided upon request to the covered employee or covered student or the authorized representative of the employee or student within 15 working days. Such requests should be addressed to Barbara Brown, Vice President for student Affairs.

B. Medical Records

1. Medical records are maintained for each covered employee or covered student in accordance with 29 CFR 1910.1020, "Access to Employee Exposure and Medical Records."
2. Barbara Brown is responsible for maintenance of the required medical records. These confidential records are kept in Student Affairs, Kirkland Building for at least the duration of employment or attendance plus 30 years.
3. Covered employee or covered student medical records are provided upon request of the employee or student or to anyone having written consent of the

employee or student within 3 working days. Such requests should be sent to Barbara Brown.

C. Recordkeeping

An exposure incident is evaluated to determine if the case meets OSHA's Recordkeeping Requirements (29 CFR 1904). This determination and the recording activities are done by Mike Alligood.

D. Sharps Injury Log

1. In addition to the 29 CFR 1904 Recordkeeping Requirements, all percutaneous injuries from contaminated sharps are also recorded in a Sharps Injury Log. All incidences must include at least:
   a. Date of the injury
   b. Type and brand of the device involved (syringe, suture needle)
   c. Department or work area where the incident occurred explanation of how the incident occurred.
2. The Sharps Injury Log is reviewed as part of the annual program evaluation and maintained for at least five years following the end of the calendar year covered. If a copy is requested by anyone, it must have any personal identifiers redacted from the report. The following protocol is followed for evaluating the circumstances surrounding sharp injuries immediately after the sharp injury of covered employee or student, documentation of the incident is to be prepared the day of the sharp injury on an Exposure Incident Report and Follow-Up form. The exposed covered employee or student is to be counseled and steps to prevent future occurrences are discussed.

Appendix A

Department	Name	Title	Campus	Phone	Email
Cosmetology	Arniecesha Price	Chair/ Instructor	Albany (AED 107 A)	229.430.6140	aprice@albanytech.edu
Dental Assisting	Ivey Spears	Chair/ Instructor	Albany (HCT 104)	229.430.3543	ispears@albanytech.edu
Early Childhood	Valerie McGhee	Chair/ Instructor	Albany (CDV 105)	229.430.6145	vmcghee@albanytech.edu
Emergency Medical Technician/ Advanced EMT	Tracie Hobbs	Chair/ Instructor	Albany (EMR 120)	229.430.3093	thobbs@albanytech.edu
Fire Science Technology	Frank Flanigan	Chair/ Instructor	Albany (EMR 128)	229.430.4994	fflanigan@albanytech.edu
Law Enforcement	Kenn Singleton	Chair/ Instructor	Albany (EMR 102)	229.430.1234	ksingleton@albanytech.edu
Maintenance and Custodian	Mike Alligood	Chair/ Instructor	Albany (OPS)	229.430.0657	malligood@albanytech.edu
Medical Assisting	LaTonya Harris	Chair/ Instructor	Albany (HCT 132)	229.430.3542	lharris@albanytech.edu
Nurse Aide	Katrina Shivers	Chair/ Instructor	Albany (HCT 144)	229.430.2832	kshivers@albanytech.edu
Nursing (ASN)	Latrona Lanier	Director of Nursing/ Instructor	Albany (HCT 107)	229.430.3698	llanier@albanytech.edu
Pharmacy Technology	JaNee Mobley	Chair/ Instructor	Albany (HCT 147)	229.430.3596	jmobley@albanytech.edu
Practical Nursing	Teresa Darity	Chair/ Instructor	Albany (HCT 108)	229.420.1025.	tdarity@albanytech.edu
Radiologic Technology	Sarah Watson	Chair/ Instructor	Albany (HCT 140)	229.430.3546	swatson@albanytech.edu
Surgical Technology	Lori Day	Chair/ Instructor	Albany (HCT 139)	229.430.3552	lday@albanytech.edu

Contact Information for Responsible Person(s) or Department(s)

POLICY

Occupational Exposure to Blood Borne Pathogens
And
Airborne Pathogens/Tuberculosis

Technical College System of Georgia

A. POLICY:

The Board of the State Department of Technical and Adult Education Policy **# II.D3.a Occupational Exposure to Blood Borne Pathogens** and **# II.D.3.b Occupational Exposure to Air Borne Pathogens/Tuberculosis,** revised March 30, 2001, govern the actions of faculty and students in technical college occupational training programs and courses when performing tasks, procedures or activities which have the potential for accidental exposure to either blood borne or airborne pathogens. A copy of these policies and related procedures may be viewed at: www.dtae.org/dtaepolicy/menu.html

Each state technical college is required to prepare and maintain an approved ***Exposure Control Plan*** for occupational exposure to blood borne and airborne pathogens/tuberculosis. The plan is to be updated annually.

B. PURPOSE

The ***Exposure Control Plan*** for this technical college is designed to provide the faculty and students with recognition of tasks, procedures and activities which present the potential for occupational exposure to blood and air-borne pathogens and a means of eliminating or minimizing in the performance of their instructional duties or activities.

C. TECHNICAL COLLEGE OBLIGATIONS

Annual training for covered faculty and students must include the following areas, but is not limited to:

1. The categories of tasks which have been identified as having the potential for exposure to blood borne pathogens in all occupational programs, both credit and non-credit programs and/or courses.

2. The personal protective equipment; work practices and engineering controls; and housekeeping measures requisite for minimizing exposure to faculty and students at potential for exposure in each category of task.

3. The State Board of Technical and Adult Education Policy II.D.3.a, Occupational Exposure to Blood Borne Pathogens, revised, March 30, 2001 and the Occupational Exposure to Air Borne Pathogens/Tuberculosis Policy, II.D.3.b, revised March 30, 2001

4. The Universal (Standard) Precautions to be followed and the personal protective equipment (PPE) to utilized. (http://www.cdc.gov/ncidod/dhqp/quidelines.html)

5. The epidemiology and signs and symptoms of blood borne and air borne diseases.

6. Blood bore pathogen and needle stick prevention post exposure post exposure guidelines (See http://www.osha.gov/SLTC/bloodborne pathogens/postexposure.html)

7. The "Occupational Safety and Health Standards: Blood borne Pathogens", 29 CFR Part 1910, 1030 as amended February 28, 2006 (http;//www.osha.gov/SLTC/bloodbornepathogens/index.html)

8. Information regarding Hepatitis B vaccine, including its efficacy, safety, method of administration, the benefits of being vaccinated and that the vaccine will be offered to covered employees at no cost to the faculty member.

9. The signs and/or color-coding used in the workplace for exposure control purposes (biohazard labels, "red" bags, etc.)

10. Georgia O.C.G.A. 13-12-13. G Blood borne Pathogens. This Act extends blood borne pathogens protection to state employees employed in public (state) hospitals and public health facilities and requires the use of needleless delivery systems in these facilities.

11. Additional recommendations, guidelines and precautions for the prevention of the occupational transmission of air borne pathogens/tuberculosis as required by OSHA. These recommendations and precautions are included in "Procedures Sheet 2: Reporting and Post-exposure Follow Up for Airborne Pathogens/Tuberculosis" appended to this document.

12. Documentation of annual training regarding the Exposure Control Plan shall be placed in each covered faculty employee personnel file with an additional copy in the technical college master training file. Documentation of student training shall be maintained in the student's training file.

13. Faculty and students are to be notified of changes in guidelines and procedures as soon as possible. The technical college Infection Control Coordinator will post new information at a common location determined by the institution. Written notice of changes may be required for faculty members and students, when warranted by the technical college infection control coordinator.

Annual Exposure Control Plan Submission

The *Exposure Control Plan* shall be reviewed, updated and submitted annually to determine appropriate classification occupational programs and associated tasks. It will also be reviewed and updated to reflect new, modified or revised tasks, progress in implementing needleless systems and engineered sharps injury protection devices; as well as procedures and faculty positions relative to occupational programs and tasks which have been identified by the technical college to pose a potential exposure risk.

Reporting, emergency notification and record keeping procedures for exposure incidents and post-exposure follow up:

See "Procedures Sheet 2" appended to this document for fuller discussion of requirements.

D. CATEGORIES OF TASKS WITH RISK OF EXPOSURE TO BLOOD BORNE PATHOGENS

Tasks that present the potential for exposure to potentially infectious body materials that warrant the use of **Standard Precautions** have been classified (using the term Universal Precautions) using the following definitions based on a joint 1987 advisory notice by the U.S. Department of Health and Human Services in

a joint 1987 advisory notice:

Category I A task or activity in which direct contact or exposure to blood or other body materials, or air borne pathogens to which Universal Precautions/Standard precautions apply is normal.

Category II A task or activity performed without exposure to blood or other body materials, or air borne pathogens to which universal precautions/standard precautions apply, but exposure might occur as an abnormal event or an emergency.

Category III A task or activity that does not entail normal or abnormal exposure to blood or other body materials, or air borne pathogens to which universal precautions/standard precautions apply.

Fluids and other materials that warrant the use of Universal Precautions/Standard Precautions are identified as:

1. Blood
2. Semen and vaginal fluids
3. Tissues, cerebral spinal fluid
4. Synovial fluid, peritoneal fluid, amniotic fluid, pleural fluid, pericardial fluid and any other body fluids visibly contaminated with blood and all body fluids in situations were it is difficult or impossible to differentiate between body fluids.
5. Saliva and gingival fluid, in dentistry due to the common occurrence of blood in the dental setting.
6. Any unfixed tissue or organ, other than intact skin, from a human (living or dead)

(*At present; urine, feces, sweat, tears, nasal secretions sputum and vomitus are not considered potentially infectious body materials unless they contain blood.)

Clinical sites for health-related program faculty and students, and work sites for other occupational area faculty, may require additional special precautions and students-if exposure potential exists. Faculty members and students will follow the *Exposure Control Plan* of health facility clinical sites when such a plan is in effect. The technical college *Exposure Control Plan* will be followed in the absence of a health facility clinic site plan and when faculty, staff, and students are on-campus.

E STANDARD OPERATING GUIDELINES

Standard Operating Guidelines are designed to provide the faculty and students with the best protective measures in accordance with current regulations, guidelines and policies and polices to reduce or prevent blood borne pathogen exposure. **These guidelines must be followed by faculty and students performing Category I and II tasks.** Whenever there is a conflict in precautions, PPE, or other exposure control measures, faculty and students will follow the more stringent guidelines.

The *Standard Operating Guidelines* for each Category will contain the following information:

1. Identification of each task performed by faculty/students in each occupational training program.

2. Identification of the employee positions and student categories involved in the performance of that category of task.

3. Identification of the personal protective equipment (PPE) required.

4. Work place practice controls (methods to follow to reduce the potential for exposure).

5. Engineering controls that are required to isolate or remove the exposure hazard from the workplace.

6. Housekeeping measures that are required after the performance of a task.

CATEGORY I

Category I Tasks

"All tasks or activity in which direct contact or exposure to blood, other body materials, or air borne pathogens to which Universal Precautions/Standard precautions apply is normal."

Category I Task Listing

Category I tasks performed in classroom, laboratory and clinical activities for each occupational training program/course are to be listed below:

Central Sterile Supply Technician

A. Miscellaneous

1. Blood
2. Feces
3. Urine
4. Body Fluids
5. Instrumentation/equipment

B. Sharps

1. Hypodermic needles
2. Scalpel blades/knife
3. Bones/saw blades
4. Staplers/ligating clips
5. Suture needles

C. Clean/Disinfecting Procedures

1. Clean up spills
2. Disinfect surfaces
3. Decontamination of equipment/instruments
4. Handle contaminated equipment/instruments
5. Handle/dispose of biohazard waste
6. Removal of all linen/trash bins
7. Chemical agents
8. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids
9.

D. Equipment

1. Crash carts
2. Infusion pumps
3. Blood pressure cuffs
4. Sequential compression device
5. Instrumentation
6. Instrumentation pans
7. Case cart
8. IV poles
9. Electrical equipment
10. Sterilization equipment

Cosmetology

A. Hair Care Procedures

1. Complete hair/scalp treatments
2. Apply permanent waving/relaxers
3. Apply hair/color/bleaching
4. Perform thermal/curling/pressing/waxing

B. Brow Care Procedures

1. Perform tweezing
2. Apply color
3. Waxing

C. Body Care Procedures

1. Manicure/pedicure

D. Nail Care Procedures

1. Make repairs to broken/split nails
2. Apply tips to nails
3. Construct artificial nails
4. Apply gel/cure with ultraviolet light
5. Perform pedicure
6. Use electric drill

E. Clean/Disinfecting Procedures

1. Clean up spills
2. Surface disinfection
3. Handle/dispose of waste
4. Disinfect equipment/instruments
5. Handle contaminated equipment/instruments
6. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

Dental Assisting

A. Restorative procedures

1. Amalgam
2. Bonding/Composite
3. Prosthodontics
4. Endodontic

B. Diagnostic Procedures

1. Alginate impressions
2. Oral Exams

C. Radiographic Exam

D. Sterilization/Disinfectant Procedures

1. Handle Contaminated Instruments/Biohazard Waste
2. Use Ultrasonic
3. Surface Disinfection
4. Sterile instrument
5. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

E. Preventive Procedures

1. Sealants
2. Fluoride/Disclosing

F. Laboratory Procedures

1. Pouring Impression
2. Polishing Models
3. Trimming Models

G. Oral Surgery Procedures

Early Childhood Procedures

A. Personal Care Procedures

1. Diapering/Cleaning Incontinent Child
2 Carrying Unclothed Child
3. Assisting with Toiletry
4. Bottle Feeding
5. Handling Breath Milk

B. Medical Care Procedures

1. Examining Non-Intact/Abraded Skin
2. Obtain Rectal Temperature
3. Care for Child with Active Bleeding
4. Render CPR
5. Bandage Non-Intact Skin
6. Remove Mouth/Nasal Secretions

C. Cleaning/Disinfecting Procedures

1. Surface Disinfection
2. Handle/Rinse/Bag Soiled Diapers/Clothing
3. Empty/Sanitize Potty Chairs
4. Disinfecting Toy/Personal Care Items
5. Clean-up Spills
6. Store/handle/wash linen and clothing
7. Store/handle/wash sleeping mats

D. Miscellaneous

1. Line All Pails/Trash Bins

2. Removal of Lining in all Pails/Trash Bins
3. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

Advanced Emergency Medical Technician/Paramedicine

A. Patient Care Procedures

1. Perform Vital Signs
2. Start/Discontinue IV
3. Perform Splinting
4. Control Bleeding
5. Insert/Maintain/Discontinue Airway
6. Administer Oxygen
7. Suction Airway
8. Initial Scene Assessment
9. Patient Extraction
10. Deliver Infants
11. Transport Clients
12. Collect/Transport body parts
13. Wound Care
14. Cut-Down Procedures
15. Perform CPR
16. Perform Heimlich Maneuver

B. Cleaning/Disinfection

1. Surface Disinfection
2. Clean Up Spills
3. Disinfect Equipment/Instrument
4. Handle Contaminated Instruments/Equipment
5. Handle/Dispose of Biohazard Waste
6. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

Firefighter/EMSP

A. Victim Care Procedures

1. Perform vital signs
2. Control Bleeding
3. Maintain airways
4. Administer oxygen
5. Perform CPR
6. Perform Heimlich maneuver

B. Cleaning/Disinfection

1. Surface disinfection
2. Clean up spills
3. Disinfect equipment
4. Handle equipment/instruments
5. Handle/dispose of biohazard waste

6. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

C. **First Aid/CPR Respondents**

1. Administering Care for shock victims
2. Administering Care for burn victims
3. Administering Care for seizure victims
4. Administering Care for fainting victims
5. Administering Care for eye injuries
6. Administering Care for the bleeding victims
7. Administering Care for victims with wounds
8. Administering Care for cardio-pulmonary resuscitation
9. Administering Care for chocking victims

Law Enforcement

A. Internship Site Potential Hazards

1. Corner

a. Prepare corpse for examination
b. Assist corner with examination of corpse
c. Handle chemicals used in examination

B. Police/Sheriff Departments/Probation and Parole/Incarceration Facilities

1. Handle suspect with possible health issues by exposure to:

a. Blood
b. Feces
c. Urine
d. Bodily fluids
e. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

C. Laboratory Potential Hazards

1. Chemical agents
2. Dust
3. Abrasives
4. Corrosives
5. Acids/Alkali
6. Toxic gases and fumes

Medical Assisting

A. Exam Diagnostic

1. Prepare patient for special procedures
2. Obtain rectal temperatures
3. Obtain rectal temperatures

4. Prepare for assist with minor surgical procedures
5. Collect/process specimens for testing
6. Perform venipuncture with syringe/vacutainer
7. Perform routine biochemical tests on urine
8. Obtain capillary blood for testing
9. Perform micro-hematocrit
10. Perform/develop x-rays
11. Perform first aid/CPR

A. Miscellaneous

1. Mouth/denture care
2. Administer local
3. Obtaining height/weight infants/incontinent patients
4. AM care
5. Log on patient
6. Position the dependent patient
7. Dressing incontinent adult/child/infant
8. PM care
9. Post mortem care
10. Preoperative skin preparation
11. Perineal care
12. Nail care
13. Cleaning equipment/supplies
14. Caring for the patient in isolation

B. GI/GU

1. Assisting with bowel/bladder/retraining
2. Removal fecal impaction
3. Rectal/digital stimulation for spinal cord
4. Catheter change/irrigation/indwelling/internal
5. Ileal ladder care
6. Assisting/caring for patients with bladder irrigation (3way catheter)
7. Levine stumps care/measuring (Naso gastric tube)
8. Levine tube care of feeding tube and stylet
9. Specimen collection sputum/urine/feces
10. Colostomy irrigation
11. Administering enemas
12. Caring for the patient with peritoneal dialysis
13. Assisting with elimination bedside commode/potty chair/bedpan/urinal
14. Measuring output/vomitus/urine/stool

C. Respiratory

1. Assisting with respiratory exercise
2. Assist with postural drainage
3. Incentive spirometer/quad coughing/deep breathing
4. Caring for patients with chest tubes
5. Mouth and laryngeal suctioning

D. Sensory

1. Removing/inserting and caring for prosthetics eye and socket
2. Insertion and removal of contact lenses

E. Cardiovascular

1. Obtaining capillary blood for testing chem strip blood glucose manual

F. Reproductive

1. Vaginal irrigation/douche

G. Wound care dressing change/wound irrigation

1. Decubitus care/prevention techniques
2. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

H. Medication

1. Perform diagnostic skill testing (intradermal)
2. Administering parenteral injections
3. Suppository insertion
4. Administering eye/ear/nose medications
5. Administering dermal medications
6. Administering PO medications

Nursing

A. Personal Care-Bathing Patients

1. Bathing patients showering/Tub bath/bed bath/alcohol sponge/sitz/tepid
2. Bed/crib/bassinet making-occupied
3. Mouth/denture care
4. Administer local cold/heat treatments
5. Obtaining height/weight/ infants/incontinent patients
6. AM care
7. Log roll patient
8. Position the dependent patient
9. Dressing incontinent adult/child/infant
10 PM care
11. Post mortem care
12. Preoperative skin preparation
13. Perineal care
14. Nail care
15. Clean equipment/supplies
17. Double bagging (outside room)

B. Miscellaneous

1. Clean patient unit
2. Clean up spills
3. Clean equipment/supplies
4. Handle/dispose of bio-hazardous waste
5. Surface disinfection
6. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

C. GI/GU

1. Assisting with bowel/bladder retraining
2. Removal fecal impaction
3. Rectal/digital stimulation for spinal cord Injuries
4. Catheter change/irrigation/indwelling/external
5. Ileal bladder care
6. Assisting/caring for patients with bladder irrigation (3 way catheter)
7. Levine/stumps tube/care of insertion and removal (Naso-gastric Tube)
8. Levine tube care of/insertion and removal of flexible feeding tube and stylet
9. Diapering infants
10. Sputum/urine/feces/culture blood
11. Colostomy irrigation
12. Administering enemas
13. Caring for the patient with peritoneal dialysis
14. Beside commode/potty chair/bed pan/urinal
15. Vomitus/urine/stool
16. Assisting with esophageal pressure Blakemore Sengstaken tube
17. Tube feeding gastrostomy/assisting with the initial insertion of tube
18. Checking residual/placement of stomach tubes
19. Assisting with manual peritoneal dialysis

D. Respiratory

1. Assisting with respiratory exercises incentive spirometer/quad cough/deep breathing
2. Assist with postural drainage
3. Assist with insertion/caring for chest tubes
4. Administering care form mouth and laryngeal suctioning
5. Endotracheal suctioning
6. Tracheotomy care (charging inner and outer tracheotomy
7. Assisting with Thoracentesis/Paracentesis

E. Sensory System

1. Insertion and removal of contact lenses
2. Removing/insertion and caring for prosthetic eye and socket
3. Ear and eye Irrigation

F. Reproductive

1. Apply and removing sanitary pads
2. Assisting with obstetric procedures
3. Assisting with pericare
4. Time contractions
5. Count physician with rounds
6. Vaginal irrigation/douche

G. Wound Care

1. Dressing care
2. Wound irrigation
3. Suture/staple removal
4. Apply skin closures
5. Decubitus care/preventive techniques
6. Removal/insert package

H. Medication

1. Perform diagnostic skin testing (intradermal)
2. Administering Parenteral Injections
3. Administering PO Medications
4. Suppository Insertion
5. Administering Eye/Ear/Nose Medication
6. Administering Dermal Medications
7. Perform Intravenous Insertions

I. Endocrine

1. Obtain Capillary Blood for Testing Chem Strip Blood Glucose Manual

J. Hematology

1. Assisting With/Caring for Patients Receiving Blood and Blood Products
2. Obtain Blood Via Venous Sticks for Laboratory Test.

K. Integumentary

1. Initiation and Caring for a Client Receiving Intravenous Therapy

Radiologic Technology

A. Radiographic Procedures to Include:

1. Myelogram
2. Barium enema/upper GI/Barium Swallow
3. Modified barium swallow
4. Venogram
5. Arthrogram
6. T-Tube and cholangiogram
7. Cystogram
8. ERCP
9. Facet injections
10. Bronchogram
11. Sialogram
12. Chest x-ray
13. Loopogram
14. Lumar puncture
15. Flow study
16. Voiding cystourethrogram
17. IVU

B. All Radiographic Procedures Where Trauma Is Present

1. Lower extremities
2. Upper extremities
3. Head
4. Neck
5. Spine
6. Pelvis
7. Abdomen
8. Chest

Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

Patient Care Assisting

A. Personal Care

1. Obtaining height and weight/adult continent patients
2. Carrying the clothed infant
3. Making unoccupied bed/crib/bassinet/occupied/unoccupied
4. Apply restraints
5. Apply binders/collars/braces/splints
6. Hair care/shampoo/complete;/partial bed bath
7. Dressing continent child/adult patient
8. Admitting/transferring/dismissing the patient
9. Transfer the patient on stretcher wheel
10. Apply alternating pressure mattress/egg crate
11. Assist with ambulation/gait belt application
12. Use mechanical lift
13. Serve food tray
14. Assist with ROM exercise
15. Feed the patient
16. Back rub/skin care/foot care/nail care
17. Apply anti-emboli/jobst stockings
18. Adjust bedside rails
19. Emptying of foley catheters
20. Assisting patient with bed pan
21. Obtain B/P, temperature, pulse, respiration
22. Warm/cold application
23. Post mortem care
24. Turning and reposition in bed/wheelchair
25. Mouth/denture care
26. CPR/first aid
27. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

B. Musculoskeletal

1. Cast care (limited)

Pharmacy Technology

A Code blue participation (dependent on policy of the hospital)

1. Assist with medication retrieval
2. Clean and restock crash cart
3. Cleaning contaminated equipment
4. Providing first aid
5. Performing CPR

6. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

Practical Nursing

A. Personal Care-Bathing Patients

1. Bathing patients showering/Tub bath/bed bath/alcohol sponge/sitz/tepid
2. Bed/crib/bassinet making-occupied
3. Mouth/denture care
4. Administer local cold/heat treatments
5. Obtaining height/weight/ infants/incontinent patients
6. AM care
7. Log roll patient
8. Position the dependent patient
9. Dressing incontinent adult/child/infant
10 PM care
11. Post mortem care
12. Preoperative skin preparation
13. Perineal care
14. Nail care
15. Clean equipment/supplies
17. Double bagging (outside room)

B. Miscellaneous

7. Clean patient unit
8. Clean up spills
9. Clean equipment/supplies
10. Handle/dispose of bio-hazardous waste
11. Surface disinfection
12. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

C. GI/GU

20. Assisting with bowel/bladder retraining
21. Removal fecal impaction
22. Rectal/digital stimulation for spinal cord Injuries
23. Catheter change/irrigation/indwelling/external
24. Ileal bladder care
25. Assisting/caring for patients with bladder irrigation (3 way catheter)
26. Levine/stumps tube/care of insertion and removal (Naso-gastric Tube)
27. Levine tube care of/insertion and removal of flexible feeding tube and stylet
28. Diapering infants
29. Sputum/urine/feces/culture blood
30. Colostomy irrigation
31. Administering enemas
32. Caring for the patient with peritoneal dialysis
33. Beside commode/potty chair/bed pan/urinal
34. Vomitus/urine/stool
35. Assisting with esophageal pressure Blakemore Sengstaken tube
36. Tube feeding gastrostomy/assisting with the initial insertion of tube

37. Checking residual/placement of stomach tubes
38. Assisting with manual peritoneal dialysis

D. Respiratory

8. Assisting with respiratory exercises incentive spirometer/quad cough/deep breathing
9. Assist with postural drainage
10. Assist with insertion/caring for chest tubes
11. Administering care form mouth and laryngeal suctioning
12. Endotracheal suctioning
13. Tracheotomy care (charging inner and outer tracheotomy
14. Assisting with Thoracentesis/Paracentesis

E. Sensory System

4. Insertion and removal of contact lenses
5. Removing/insertion and caring for prosthetic eye and socket
6. Ear and eye Irrigation

F. Reproductive

7. Apply and removing sanitary pads
8. Assisting with obstetric procedures
9. Assisting with pericare
10. Time contractions
11. Count physician with rounds
12. Vaginal irrigation/douche

G. Wound Care

7. Dressing care
8. Wound irrigation
9. Suture/staple removal
10. Apply skin closures
11. Decubitus care/preventive techniques
12. Removal/insert package

H. Medication

8. Perform diagnostic skin testing (intradermal)
9. Administering Parenteral Injections
10. Administering PO Medications
11. Suppository Insertion
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29. Chest x-ray
30. Loopogram
31. Lumar puncture
32. Flow study
33. Voiding cystourethrogram
34. IVU

B. All Radiographic Procedures Where Trauma Is Present

9. Lower extremities
10. Upper extremities
11. Head
12. Neck
13. Spine
14. Pelvis
15. Abdomen
16. Chest
17. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

Surgical Technology

A. Patient Care

1. Patient Transfer on stretcher/OR table
2. Positioning of patient
3. Apply anti-emboli stockings
4. Apply bovie pad
5. Shave patient
6. Empty of foley catheter
7. Prepping/draping of patient

B. Surgical Procedures

1. Sponges
2. Dressing
3. Blood

4. Feces
5. Urine
6. Body fluids
7. Instrument/equipment
8. Specimen

C. Sharps

1. Hypodermic needles
2. Scalpel/blades/knife
3. Bone/saw blades
4. Suture needles
5. Bovie tips
6. Staplers/ligating clips
7. Razors

D. Wound Care

1. Dressing change
2. Wound irrigation
3. Suture/staple removal
4. Apply skin closure
5. Decubitus care/preventive techniques
6. Removal/insert packaging

E. Clean/Disinfecting Procedures

1. Clean up spills
2. Disinfect surfaces
3. Disinfect equipment/instruments
4. Handle contaminated equipment/instruments
5. Handle/dispose of biohazard waste
6. Removal of all linen/trash bins
7. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

(Attach a separate sheet if there is additional Category I tasks to be listed)

CATEGORY I TASK STANDARD OPERATING GUIDELINES

DEFINITION:

A Category I Task is one in which there is a normal occurrence for exposure to blood, other potentially infectious body materials or airborne pathogens that warrant the use of exposure controls.

FACULTY POSITIONS INVOLVED:

The technical college faculty positions involved in the performance of Category I tasks are:

1. Central Sterile Technician Instructor
2. Dental Assisting Instructor
3. Early Childhood Care and Education Instructors
4. Cosmetology Instructors Performing Nail Care
5. Advanced Emergency Medical Technician/Paramedicine Instructors
6. First Aid/CPR respondents Who Render Care and Clean Sites
7. Law Enforcement Instructors
8. Medical Assisting Instructors
9. Patient Care Assistant Instructors
10. Pharmacy Instructors
11. Practical Nursing Instructors
12. Radiologic Technology Instructors
13. Surgical Technology Instructors
14. Firefighter/EMSP Instructors

(Attach a separate sheet to list additional employee positions)

STUDENT OCCUPATIONAL CATEGORIES

The technical college student occupational categories involved in the performance of Category I tasks are:

1. Central Sterile Technician
2. Dental Assisting
3. Early Childhood Care and Education
4. Cosmetology Students Performing Nail Care
5. Advanced Emergency Medical Technician/Paramedicine
6. Law Enforcement
7. Medical Assisting
8. Patient Care Assistant
9. Pharmacy Technology
10. Practical Nursing
11. Radiologic Technology
12. Surgical Technology
13. Firefighter/EMSP

(Attach a separate sheet to list additional students groups performing Category I tasks)

PERSONAL PROTECTIVE EQUIPMENT REQUIRED (CATEGORY I TASKS)

The personal protective equipment required will vary with the individual task and the degree of protection required. The faculty member/student shall use the following guidelines in addition to those listed in Blood borne Pathogens Standard and TB Interim Guidelines.

1. The use of gloves is required for all faculty members and students involved in the performance of a Category I task. Personnel shall wash their hands after removal of gloves and at the end of the procedure. Gloves shall be replaced as soon as feasible if they are torn, punctured or when their ability to function as barrier protection is compromised. Gloves shall not be washed or decontaminated for reuse and shall be changed between each patient contact. A variety of types of gloves must be available to insure usage. **Non-latex gloves must be available as an alternative for latex-sensitive persons**. Unpowered gloves must also be furnished.

2. Mask and eye protection (goggles, or glasses with solid side shields or chin length face shields) are required if there is a potential for splashes, spills spray, splatter or aerosolizing of blood or other potentially infectious body materials (O.P.I.M.) and contamination of mucosal membranes, eyes, mouth or nose is likely. **The National Institute of Occupational Safety and Health (NIOSH) must approve masks used for airborne pathogen protection for this purpose. Approved masks include: HEPA respirators and N-95 respirators.**

3. Lab coat, gown, apron or other protective clothing is required if there is a likelihood for soiling of clothing, to be worn outside the work-site, with blood or OPIM. The type and characteristics will depend upon the task and the degree of exposure anticipated. The protective clothing selected shall form an effective barrier for the faculty member or student.

4. Resuscitation equipment (pocket masks, BVMs, or other ventilatory devices) shall be immediately available at the work-site and used where the need for emergency resuscitation is likely to occur.

5. Fluid-proof clothing shall be worn if there is the potential for clothing to become soaked with blood or O.P.I.M. These would include, but are not limited to, surgical gowns, shoe covers, etc. Surgical caps or hoods shall be worn if there is the potential for splashing or spraying of blood or O.P.I.M. on the head.

WORK PRACTICES AND ENGINEERING CONTROLS (CATEGORY I TASKS)

The following work practices shall be used to further reduce or eliminate the occupational exposure to blood and air-borne pathogens.

The most effective available needleless systems and sharps with engineered sharps injury protection are to be used in those programs requiring invasive procedures involving patients or simulated patients.

Each technical college will have established an evaluation committee, a specified in the Georgia Code, to identify and select needless systems and engineered sharps injury protection used in occupational training programs.

1. **Contaminated needles and other sharps**--Used needles and other sharps shall not be sheared, bent, broken, recapped or resheathed by hand,(except by use of approved methods).**Recapping of contaminated needles or other sharps is prohibited**. When recapping of contaminated needles is determined to be necessary for a specific procedure it is to be accomplished through the use of resheathing devices, self-sheathing needles or syringes, forceps or other one-handed method of recapping that has been

approved by the technical college pathogens coordinator or faculty member.

2. **Sharps containers**--Immediately or as soon as possible after use, disposable syringes and needles, scalpel blades, and other sharp items shall be placed in an approved puncture-resistant container, for disposal. The container shall be leakproof on the sides, bottom and top. Approved containers shall be marked with the international biohazard symbol. Such containers shall be easily assessable at the work-site and located in areas where needles and other sharps are commonly used.

3. **Hand washing**--Faculty members and students shall wash their hands immediately or as soon as possible after removal of gloves of other PPE and after hand contact with blood or O.P.I.M. Faculty and staff should use an anti-microbial skin cleaner as provided by the institute when washing their hands.

4. **Waste Containers** used for medical waste (non-sharp items) that are contaminated with blood or O.P.I.M. shall be marked with the international bio-hazard symbol and a closable covers to limit access and prevent secondary contamination. Waste shall be segregated, handled and stored in accordance with the requirements of the Blood borne Pathogens Standard.

5. **Linen and laundry items** soiled with blood or other O.P.I.M. shall be placed in bags that are labeled and identify them as contaminated with potential pathogens or biohazards and prevent soaking through and/or leakage to the exterior. Contaminated laundry items shall be handled with gloves.

HOUSEKEEPING MEASURES (CATEGORY I TASKS)

The work-site is to be maintained in a clean and sanitary condition. The housekeeping measures are to be followed as the basic means for achieving ***disinfection*** (inactivating virtually all recognized pathogenic organisms but not necessarily all microbial forms [i.e., bacterial endospores on work surfaces, floors, equipment]) and ***sterilization*** (physical and chemical procedures designed to destroy all microbial life, including endospores)

The housekeeping measures serve to protect the faculty and students of this technical college as well as patients or clients during contact with faculty and students. The technical college Infection Control Coordinator will review these measures on at least an annual basis for their effectiveness and for changes to meet current guidelines.

1. **Schedule**--All equipment and environmental and working surfaces shall be cleaned and decontaminated after contact with blood or O.P.I.M.

   Contaminated work surfaces shall be decontaminated with an appropriate disinfectant after the completion of a procedure, when they are overtly contaminated with blood or O.P.I.M. and at the end of the work shift.

   Equipment and instruments (dental hand pieces, needle holders, forceps, lights and X-ray heads, etc) that may have become contaminated with blood or O.P.I.M. shall be decontaminated with an appropriate disinfectant after the completion of the procedure.

   Protective coverings such as plastic wrap, aluminum foil or imperviously backed absorbent paper shall be removed and replaced as soon as possible if they are overtly contaminated with blood or O.P.I.M. or at the end of the work shift if the surface may have become contaminated since the last cleaning.

   All pails, bins cans and similar receptacles intended for reuse which have a likelihood for becoming contaminated with blood or O.P.I.M. shall be inspected and decontaminated

as soon as feasible when visibly contaminated and when emptied for disposal purposes.

Broken glassware, which may be contaminated, shall not be picked up directly by the hands. It shall be cleaned up using mechanical means, such as a brush and dustpan, tongs or forceps.

2. **Disinfectants**-- Following the initial cleanup, one of the following shall be used for cleaning blood or O.P.I.M.

a. Chemical germicides that are approved as hospital disinfectants and are tuberculocidal when used in recommended dilutions.
b. Products registered by the U.S.E.P.A. as being effect against HIV with an accepted 'HIV label"
c. A solution of 5.25% sodium hypochlorite (household bleach) diluted with water between 1:10 to 1:100 strength. This solution should be mixed fresh on a daily basis.

3. **Reusable Instruments** and other devices that will be used on other patients or clients should be cleaned and disinfected and/or sterilized upon completion of the procedure. Reusable sharps shall not be stored or processed in a manner that requires the faculty member or student to reach by hand into the container where the sharps have been placed.

a. Cleaning is accomplished by washing the instruments and brushing their surfaces to loosen any embedded materials. This cleaning process requires the use of gloves and eye protection by the faculty member or student.

b. Disinfection of instruments should be accomplished by soaking them in an approved disinfectant. They should soak for the minimum time specified by the manufacturer of the solution.

c. Sterilization of instruments should be accomplished by soaking in an approved liquid sterilizing solution or by autoclaving.

4. **Disposal**-- Materials and items to be discarded upon completion of the procedure and have been contaminated with blood or O.P.I.M. shall be placed in appropriate waste containers.

a. Sharps shall be placed in approved, puncture-resistant containers that are labeled with the international biohazard symbol and color-coded.

b. Materials (other than sharps) that are contaminated with blood or O.P.I.M. shall be placed in an appropriate medical waste container that is labeled with the international biohazard symbol or color-coded.

c. Materials (other than sharps) not contaminated with blood or O.P.I.M. shall be placed in a general waste container.

5. **Food, Drinks, etc.**--Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are **prohibited** in work areas where Category I procedures area are performed. Food and Drink shall not be kept in refrigerators, freezers, shelves, cabinets, or on counter tops or bench tops where blood and/or O.P.I.M. are present.

ASSOCIATE OF SCIENCE IN NURSING
CATEGORY I TASKS AND PERSONAL PROTECTIVE EQUIPMENT

Category I: Task is one in which there is a normal occurrence for exposure to blood, other potentially infectious body materials or airborne pathogens that warrant the use of Standard Precautions.

TASKS	Puncture Resistant Gloves	Fluid Resistant Gloves	Uniforms or Coveralls	Lab Coats or Gowns	Fluid Resistant Apron/ Gown	Face shield or Goggles and Mask	Safety Glasses or Goggles	Hats or Hair Net	CPR Mask or Mask	Hand Washing
Collecting/testing body fluids	N	R	A	A	A	A	A	A	A	R
Assisting with invasive procedures	N	R	A	A	A	A	A	A	A	R
Caring for & emptying collection containers/drainage tubes/ bed pans	N	R	A	A	N	A	A	N	A	R
Providing venipuncture	N	R	A	A	N	A	A	N	A	R
Wound care	N	R	A	A	N	A	A	N	A	R
Managing blood from any source	N	R	A	A	N	A	A	N	A	R
Assisting with surgical patients	N	R	A	A	A	A	A	N	A	R
Managing trauma patients	N	R	A	A	N	A	A	N	A	R
Cleaning contaminated equipment	N	R	A	A	N	A	A	N	A	R
Cleaning body fluid spills	N	R	A	A	N	A	A	N	A	R
Handling contaminated linens	N	R	A	A	N	A	A	N	A	R
Suctioning off air passages	N	R	A	A	N	A	A	N	A	R
Providing resuscitation/CPR	N	R	A	A	N	A	A	N	R	R
Replacing/caring for catheters	N	R	A	A	N	A	A	N	A	R

Key: R - Required A – Available; worn in appropriate situations N – Not Required
(All PPE must be inspected, cleaned, and replaced as needed in order to maintain its effectiveness.)

DENTAL ASSISTING
CATEGORY I TASKS AND PERSONAL PROTECTIVE EQUIPMENT

Category I: Task is one in which there is a normal occurrence for exposure to blood, other potentially infectious body materials or airborne pathogens that warrant the use of Standard Precautions.

TASKS	Puncture Resistant Gloves	Fluid Resistant Gloves	Uniforms or Coveralls	Lab Coats or Gowns	Fluid Resistant Apron/ Gown	Face shield or Goggles and Mask	Safety Glasses or Goggles	Hats or Hair Net	CPR Mask or Mask	Hand Washing
Assisting with Amalgam procedures	N	R	R	R	A	R	A	N	A	R
Assisting with Composite procedure	N	R	R	R	A	R	A	N	A	R
Assisting with Prosthodontic procedures	N	R	R	R	A	R	A	N	A	R
Assisting with Endodontic procedures	N	R	R	R	A	R	A	N	A	R
Taking Alginate Impressions	N	R	R	R	A	R	A	N	A	R
Performing Oral Exams	N	R	R	R	A	R	A	N	A	R
Taking Radiographs	N	R	R	R	A	R	A	N	A	R
Handling Contaminated Instruments	R	A	R	R	A	R	A	N	A	R
Use of Ultrasonic	R	A	R	R	A	R	A	N	A	R
Surface Disinfection	R	A	R	R	A	R	A	N	A	R
Sterilizing	R	A	R	R	A	R	A	N	A	R
Placing sealants	N	R	R	R	A	R	A	N	A	R
Flouride and Disclosing procedures	N	R	R	R	A	R	A	N	A	R
Pouring, Trimming, Polishing models	N	R	R	R	A	R	A	N	A	R
Performing Oral Surgery Procedures	N	R	R	R	A	R	A	N	A	R

Key: R - Required A – Available; worn in appropriate situations N – Not Required
(All PPE must be inspected, cleaned, and replaced as needed in order to maintain its effectiveness.)

RADIOLOGIC TECHNOLOGY
CATEGORY I TASKS AND PERSONAL PROTECTIVE EQUIPMENT

Category I: Task is one in which there is a normal occurrence for exposure to blood, other potentially infectious body materials or airborne pathogens that warrant the use of Standard Precautions.

TASKS	Fluid Resistant Non-Sterile Gloves	Sterile Gloves	Sterile Gowns	Non-Sterile Gowns	Mask	Face Shield or Eyewear	Hair Covers	Shoe Covers	Hand Washing
Assisting with barium enema	R	R	R	A	A	N	A	A	R
Assisting with upper gastro intestinal study (UGI)	R	R	R	A	A	A	A	A	R
Assisting with cystogram	A	R	R	A	A	A	A	A	R
Handling radiographic exam involving isolation patients	R	R	R	A	R	A	R	R	R
Handling radiographic exam done in the operating room	R	R	R	A	R	R	R	R	R
Handling radiographic exam done in the intensive care units	R	R	R	A	R	N	R	R	R
Assisting with patient for enema exams	R	R	R	A	A	A	N	R	R

Key: R - Required A – Available; worn in appropriate situations N – Not Required
(All PPE must be inspected, cleaned, and replaced needed in order to maintain its effectiveness.)

SURGICAL TECHNOLOGY
CATEGORY I TASKS AND PERSONAL PROTECTIVE EQUIPMENT

Category I: Task is one in which there is a normal occurrence for exposure to blood, other potentially infectious body materials or airborne pathogens that warrant the use of Standard Precautions.

TASKS	Fluid Resistant Non-Sterile Gloves	Sterile Gloves	Sterile Gowns	Non-Sterile Gowns	Mask	Face Shield or Eyewear	Hair Covers	Shoe Covers	Hand Washing
Assisting with endoscopic procedures	R	N	N	R	N	N	A	A	R
Assisting with intraoperative surgical procedures	N	R	R	N	R	R	R	R	R
Assisting with skin prepping	N	R	A	N	R	A	R	R	R
Assisting with wound care	A	R	R	A	R	R	R	R	R
Managing blood from any source	A	R	R	A	A	A	R	R	R
Handling specimens	A	R	R	N	R	R	R	R	R
Handling bloody sponges	A	R	R	N	R	R	R	R	R
Managing trauma patients	A	R	R	A	R	R	R	R	R
Cleaning contaminated equipment/instruments	R	N	N	R	N	R	R	R	R
Handling body fluid and blood	A	R	R	A	R	R	R	R	R
Handling of chemicals	R	N	N	N	N	N	N	N	R
Handling contaminated linens	R	R	R	N	A	A	R	R	R
Caring for drainage tubes	R	R	R	N	R	R	R	R	R
Replacing/caring for catheters	R	R	R	N	R	R	R	R	R

Key: R - Required A – Available; worn in appropriate situations N – Not Required
(All PPE must be inspected, cleaned, and replaced as needed in order to maintain its effectiveness.)

ASSOCIATE OF SCIENCE IN NURSING/PRACTICAL NURSING PROGRAMS
CATEGORY I TASKS AND PERSONAL PROTECTIVE EQUIPMENT

Category I: Task is one in which there is a normal occurrence for exposure to blood, other potentially infectious body materials or airborne pathogens that warrant the use of Standard Precautions.

TASKS	Puncture Resistant Gloves	Fluid Resistant Gloves	Uniforms or Coveralls	Lab Coats or Gowns	Fluid Resistant Apron/ Gown	Face shield or Goggles and Mask	Safety Glasses or Goggles	Hats or Hair Net	CPR Mask or Mask	Hand Washing
Collecting/testing body fluids	N	R	A	A	A	A	A	A	A	R
Assisting with invasive procedures	N	R	A	A	A	A	A	A	A	R
Caring for & emptying collection containers/drainage tubes/ bed pans	N	R	A	A	N	A	A	N	A	R
Providing venipuncture	N	R	A	A	N	A	A	N	A	R
Wound care	N	R	A	N	N	A	A	N	A	R
Managing blood from any source	N	R	A	A	N	A	A	N	A	R
Assisting with surgical patients	N	R	A	A	A	A	A	N	A	R
Managing trauma patients	N	R	A	A	N	A	A	N	A	R
Cleaning contaminated equipment	N	R	A	A	N	A	A	N	A	R
Cleaning body fluid spills	N	R	A	A	N	A	A	N	A	R
Handling contaminated linens	N	R	A	A	N	A	A	N	A	R
Suctioning off air passages	N	R	A	A	N	A	A	N	A	R
Providing resuscitation/CPR	N	R	A	A	N	A	A	N	R	R
Replacing/caring for catheters	N	R	A	A	N	A	A	N	A	R

Key: R - Required A – Available; worn in appropriate situations N – Not Required
(All PPE must be inspected, cleaned, and replaced as needed in order to maintain its effectiveness.)

CATEGORY II

Category II Task Listing

"All tasks/procedures where there is the potential (not planned) for contact with blood other potentially infectious materials or airborne pathogens."

Category II tasks performed in classroom, laboratory and clinical areas for each covered occupational training area is to be listed below:

Central Sterile Supply Technician

A. Miscellaneous

6. Blood
7. Feces
8. Urine
9. Body Fluids
10. Instrumentation/equipment

B. Sharps

6. Hypodermic needles
7. Scalpel blades/knife
8. Bones/saw blades
9. Staplers/ligating clips
10. Suture needles

C. Clean/Disinfecting Procedures

10. Clean up spills
11. Disinfect surfaces
12. Decontamination of equipment/instruments
13. Handle contaminated equipment/instruments
14. Handle/dispose of biohazard waste
15. Removal of all linen/trash bins
16. Chemical agents

D. Equipment

11. Crash carts
12. Infusion pumps
13. Blood pressure cuffs
14. Sequential compression device
15. Instrumentation
16. Instrumentation pans
17. Case cart
18. IV poles
19. Electrical equipment
20. Sterilization equipment
21. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

Cosmetology

A. Hair Care Procedures

1. Complete hair/scalp treatments
2. Apply permanent waving/relaxers

3. Apply hair/color/bleaching
4. Perform thermal/curling/pressing/waxing

B. Brow Care Procedures

1. Perform tweezing
2. Apply color
3. Waxing

C. Body Care Procedures

1. Manicure/pedicure

D. Nail Care Procedures

2. Make repairs to broken/split nails
3. Apply tips to nails
4. Construct artificial nails
5. Apply gel/cure with ultraviolet light
6. Perform pedicure
7. Use electric drill

E. Clean/Disinfecting Procedures

1. Clean up spills
2. Surface disinfection
3. Handle/dispose of waste
4. Disinfect equipment/instruments
5. Handle contaminated equipment/instruments
6. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

Custodial

A. Cleaning /Disinfecting Procedures

1. Surface disinfection
2. Clean up spills
3. Handle and dispose of biohazard waste
4. Removal of lining in all pails/trash bins
5. Line all pails/ trash bins
6. Handle Abrasives, Corrosives and other Chemical agents
7. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

Dental Assisting

A. Miscellaneous

1. Prepare Exam Room
2. Obtain Vital Signs
3. Position/Prepare patient for Exam

4. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

Early Childhood Care and Education

A. Medical Care Procedures

1. Render Heimlich Maneuver
2. Obtain Oral Temperature
3. Administer Oral Vital Medication
4. Carry Clothes Infant
5. Obtain Health Assessment
6. Supervise Bathroom Procedures
7. Spoon Feed Child
8. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

Food Services

A. Sharps

1. Knives
2. Shears
3. Meat cutters

B. Clean/Disinfecting Procedures

1. Clean up spills
2. Disinfect surfaces
3. Decontamination of equipment
4. Handle contained equipment
5. Removal of all trash bins
6. Injury caused by commonly used equipment glasses/plates knives, can openers, electric slicer, thermometer stem, meat grinder and heavy equipment. Exposure from burns caused by steam table, oven, grills, deep fryer stove, tilt/steam kettle. Eye injury due to splash with cleaning chemicals.

Law Enforcement

D. Internship Site Potential Hazards

2. Corner

d. Prepare corpse for examination
e. Assist corner with examination of corpse
f. Handle chemicals used in examination

E. Police/Sheriff Departments/Probation and Parole/Incarceration Facilities

2. Handle suspect with possible health issues by exposure to:

f. Blood
g. Feces
h. Urine
i. Bodily fluids

F. Laboratory Potential Hazards

1. Chemical agents
2. Dust
3. Abrasives
4. Corrosives
5. Acids/Alkali
6. Toxic gases and fumes
7. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

Maintenance

A. Maintenance Technicians

1. Administer first aid
2. Perform CPR

B. Clean/Disinfecting Procedures

1. Surface disinfection
2. Clean up spills
3. Handle and dispose of biohazard waste
4. Removal of lining in all pails/trash bins
5. Line all pails/ trash bins
6. Handle Abrasives, Corrosives and other Chemical agents
7. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

Medical Assisting

A. Exam Diagnostic

1. Prepare patient for special procedures
2. Obtain patient for special procedures
3. Obtain rectal temperature
4. Obtain height/weight of infants
5. Collect/process specimens for testing
6. Perform venipuncture with syringe/butterfly and vacutainer
7. Perform routine biochemical tests on urine
8. Obtain capillary blood testing
9. Perform micro-hematocrit
10. Perform/develop x-ray
11. Perform first aid/CPR

B. Miscellaneous

1. Mouth/denture care
2. Administer local cold/heat treatments
3. Obtaining height/weight infants/incontinent patients
4. AM care
5. Log roll patient
6. Position the dependent patient

7. Dressing incontinent adult/child/infant
8. PM care
9. Post mortem care
10. Preoperative skin preparation
11. Perineal care
12. Nail care
13. Cleaning equipment/supplies
14. Caring for the patient in isolation

C. GI/GU

1. Assisting with bowel/bladder/retraining
2. Removal fecal impaction
3. Rectal/digital stimulation for spinal cord
4. Catheter change/irrigation/indwelling/internal
5. Ileal ladder care
6. Assisting/caring for patients with bladder irrigation (3way catheter)
7. Levine stumps care/measuring (Naso gastric tube)
8. Levine tube care of feeding tube and stylet
9. Specimen collection sputum/urine/feces
10. Colostomy irrigation
11. Administering enemas
12. Caring for the patient with peritoneal dialysis
13. Assisting with elimination bedside commode/potty chair/bedpan/urinal
14. Measuring output/vomitus/urine/stool

D. Respiratory

1. Assisting with respiratory exercise
2. Assist with postural drainage
3. Incentive spirometer/quad coughing/deep breathing
4. Caring for patients with chest tubes
5. Mouth and laryngeal suctioning

E. Sensory

1. Removing/inserting and caring for prosthetics eye and socket
2. Insertion and removal of contact lenses

F. Cardiovascular

1. Obtaining capillary blood for testing chem strip blood glucose manual

G. Reproductive

1. Vaginal irrigation/douche

H. Wound care dressing change/wound irrigation

1. Decubitus care/prevention techniques
2. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

I. Medication

1. Perform diagnostic skill testing (intradermal)
2. Administering parenteral injections

3. Suppository insertion
4. Administering eye/ear/nose medications
5. Administering dermal medications
6. Administering PO medications

Nursing

A. Personal Care-Bathing Patients

1. Bathing patients showering/Tub bath/bed bath/alcohol sponge/sitz/tepid
2. Bed/crib/bassinet making-occupied
3. Mouth/denture care
4. Administer local cold/heat treatments
5. Obtaining height/weight/ infants/incontinent patients
6. AM care
7. Log roll patient
8. Position the dependent patient
9. Dressing incontinent adult/child/infant
10 PM care
11. Post mortem care
12. Preoperative skin preparation
13. Perineal care
14. Nail care
15. Clean equipment/supplies
17. Double bagging (outside room)

B. Miscellaneous

13. Clean patient unit
14. Clean up spills
15. Clean equipment/supplies
16. Handle/dispose of bio-hazardous waste
17. Surface disinfection
18. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

C. GI/GU

39. Assisting with bowel/bladder retraining
40. Removal fecal impaction
41. Rectal/digital stimulation for spinal cord Injuries
42. Catheter change/irrigation/indwelling/external
43. Ileal bladder care
44. Assisting/caring for patients with bladder irrigation (3 way catheter)
45. Levine/stumps tube/care of insertion and removal (Naso-gastric Tube)
46. Levine tube care of/insertion and removal of flexible feeding tube and stylet
47. Diapering infants
48. Sputum/urine/feces/culture blood
49. Colostomy irrigation
50. Administering enemas
51. Caring for the patient with peritoneal dialysis
52. Beside commode/potty chair/bed pan/urinal
53. Vomitus/urine/stool
54. Assisting with esophageal pressure Blakemore Sengstaken tube
55. Tube feeding gastrostomy/assisting with the initial insertion of tube
56. Checking residual/placement of stomach tubes

57. Assisting with manual peritoneal dialysis

D. Respiratory

15. Assisting with respiratory exercises incentive spirometer/quad cough/deep breathing
16. Assist with postural drainage
17. Assist with insertion/caring for chest tubes
18. Administering care form mouth and laryngeal suctioning
19. Endotracheal suctioning
20. Tracheotomy care (charging inner and outer tracheotomy
21. Assisting with Thoracentesis/Paracentesis

E. Sensory System

7. Insertion and removal of contact lenses
8. Removing/insertion and caring for prosthetic eye and socket
9. Ear and eye Irrigation

F. Reproductive

13. Apply and removing sanitary pads
14. Assisting with obstetric procedures
15. Assisting with pericare
16. Time contractions
17. Count physician with rounds
18. Vaginal irrigation/douche

G. Wound Care

13. Dressing care
14. Wound irrigation
15. Suture/staple removal
16. Apply skin closures
17. Decubitus care/preventive techniques
18. Removal/insert package

H. Medication

15. Perform diagnostic skin testing (intradermal)
16. Administering Parenteral Injections
17. Administering PO Medications
18. Suppository Insertion
19. Administering Eye/Ear/Nose Medication
20. Administering Dermal Medications
21. Perform Intravenous Insertions

I. Endocrine

1. Obtain Capillary Blood for Testing Chem Strip Blood Glucose Manual

J. Hematology

5. Assisting With/Caring for Patients Receiving Blood and Blood Products
6. Obtain Blood Via Venous Sticks for Laboratory Test.

K. Integumentary

3. Initiation and Caring for a Client Receiving Intravenous Therapy

Radiologic Technology

A. Radiographic Procedures to Include:

35. Myelogram
36. Barium enema/upper GI/Barium Swallow
37. Modified barium swallow
38. Venogram
39. Arthrogram
40. T-Tube and cholangiogram
41. Cystogram
42. ERCP
43. Facet injections
44. Bronchogram
45. Sialogram
46. Chest x-ray
47. Loopogram
48. Lumar puncture
49. Flow study
50. Voiding cystourethrogram
51. IVU

B. All Radiographic Procedures Where Trauma Is Present

18. Lower extremities
19. Upper extremities
20. Head
21. Neck
22. Spine
23. Pelvis
24. Abdomen
25. Chest

Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

Patient Care Assisting

A. Personal Care

1. Obtaining height and weight/adult continent patients
2. Carrying the clothed infant
3. Making unoccupied bed/crib/bassinet/occupied/unoccupied
4. Apply restraints
5. Apply binders/collars/braces/splints
6. Hair care/shampoo/complete/partial bed bath
7. Dressing continent child/adult patient
8. Admitting/transferring/dismissing the patient
9. Transfer the patient on stretcher wheel
10. Apply alternating pressure mattress/egg crate
11. Assist with ambulation/gait belt application
12. Use mechanical lift
13. Serve food tray
14. Assist with ROM exercise
15. Feed the patient
16. Back rub/skin care/foot care/nail care
17. Apply anti-emboli/jobst stockings
18. Adjust bedside rails

19. Emptying of foley catheters
20. Assisting patient with bed pan
21. Obtain B/P, temperature, pulse, respiration
22. Warm/cold application
23. Post mortem care
24. Turning and reposition in bed/wheelchair
25. Mouth/denture care
26. CPR/first aid
27. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

B. Musculoskeletal

1. Cast Care (limited)

Pharmacy Technology

A. Code blue participation (dependent on policy of the hospital)

1. Assist with medication retrieval
2. Clean and restock crash cart
3. Cleaning contaminated equipment
4. Providing first aid
5. Performing CPR
6. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

Practical Nursing

A. Personal Care-Bathing Patients

1. Bathing patients showering/Tub bath/bed bath/alcohol sponge/sitz/tepid
2. Bed/crib/bassinet making-occupied
3. Mouth/denture care
4. Administer local cold/heat treatments
5. Obtaining height/weight/ infants/incontinent patients
6. AM care
7. Log roll patient
8. Position the dependent patient
9. Dressing incontinent adult/child/infant
10 PM care
11. Post mortem care
12. Preoperative skin preparation
13. Perineal care
14. Nail care
15. Clean equipment/supplies
17. Double bagging (outside room)

B. Miscellaneous

19. Clean patient unit
20. Clean up spills
21. Clean equipment/supplies
22. Handle/dispose of bio-hazardous waste

23. Surface disinfection

C. GI/GU

58. Assisting with bowel/bladder retraining
59. Removal fecal impaction
60. Rectal/digital stimulation for spinal cord injuries
61. Catheter change/irrigation/indwelling/external
62. Ileal bladder care
63. Assisting/caring for patients with bladder irrigation (3 way catheter)
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68. Colostomy irrigation
69. Administering enemas
70. Caring for the patient with peritoneal dialysis
71. Beside commode/potty chair/bed pan/urinal
72. Vomitus/urine/stool
73. Assisting with esophageal pressure Blakemore Sengstaken tube
74. Tube feeding gastrostomy/assisting with the initial insertion of tube
75. Checking residual/placement of stomach tubes
76. Assisting with manual peritoneal dialysis

D. Respiratory

22. Assisting with respiratory exercises incentive spirometer/quad cough/deep breathing
23. Assist with postural drainage
24. Assist with insertion/caring for chest tubes
25. Administering care form mouth and laryngeal suctioning
26. Endotracheal suctioning
27. Tracheotomy care (charging inner and outer tracheotomy
28. Assisting with Thoracentesis/Paracentesis

E. Sensory System

10. Insertion and removal of contact lenses
11. Removing/insertion and caring for prosthetic eye and socket
12. Ear and eye Irrigation

F. Reproductive

19. Apply and removing sanitary pads
20. Assisting with obstetric procedures
21. Assisting with pericare
22. Time contractions
23. Count physician with rounds
24. Vaginal irrigation/douche

G. Wound Care

19. Dressing care
20. Wound irrigation
21. Suture/staple removal
22. Apply skin closures
23. Decubitus care/preventive techniques
24. Removal/Insert packings

25. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

H. Medication

22. Perform Diagnostic Skin Testing (Intradermal)
23. Administering Parenteral Injections
24. Administering PO Medications
25. Suppository Insertion
26. Administering Eye/Ear/Nose Medication
27. Administering Dermal Medications
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6. T-Tube and cholangiogram
7. Cystogram
8. ERCP
9. Facet injections
10. Bronchogram
11. Sialogram
12. Chest x-ray
13. Loopogram
14. Lumar puncture
15. Flow study
16. Voiding cystourethrogram
17. IVU

B. All Radiographic Procedures Where Trauma Is Present

1. Lower extremities
2. Upper extremities
3. Head
4. Neck
5. Spine
6. Pelvis
7. Abdomen

8. Chest
9. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

Security

A. Campus Activities
   1. Handle students with possible health issues by exposure to;
      a. Blood
      b. Feces
      c. Urine
      d. Bodily fluids

B. Victim care Procedures

   1. Perform CPR
   2. Perform Heimlich maneuver
   3. Administer care for bleeding
   4. Administer care for victims with wounds
   5. Apply restraints
   6. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

Surgical Technology

A. Patient Care

   1. Patient Transfer on stretcher/OR table
   2. Positioning of patient
   3. Apply anti-emboli stockings
   4. Apply bovie pad
   5. Shave patient
   6. Empty of foley catheter
   7. Prepping/draping of patient

B. Surgical Procedures

   1. Sponges
   2. Dressing
   3. Blood
   4. Feces
   5. Urine
   6. Body fluids
   7. Instrument/equipment
   8. Specimen

C. Sharps

   1. Hypodermic needles
   2. Scalpel/blades/knife
   3. Bone/saw blades
   4. Suture needles
   5. Bovie tips
   6. Staplers/ligating clips

7. Razors

D. Wound Care

1. Dressing change
2. Dressing wound irrigation
3. Suture/staple removal
4. Apply skin closure
5. Decubitus care/preventive techniques
6. Removal/insert packaging

E. Clean/Disinfecting Procedures

1. Clean up spills
2. Disinfect surfaces
3. Disinfect equipment/instruments
4. Handle contaminated equipment/instruments
5. Handle/dispose of biohazard waste
6. Removal of all linen/trash bins
7. Exposure to BBP contaminants from cleaning blood spills and any other fluids visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids

(Attach a separate sheet if there are additional Category II tasks to be listed)

CATEGORY II TASK STANDARD OPERATING GUIDELINES

"All tasks/procedures where there is the potential (not planned) for contact with blood other potentially infectious materials or airborne pathogens."

CATEGORY II TASK STANDARD OPERATING GUIDELINES

IDENTIFICATION:

The Category II Task Standard Operating Guidelines are to be followed for tasks, etc. where there is a potential for exposure to blood or O.P.I.M. that warrant the use of exposure control procedures. The risk of the occurrence would be considered as abnormal or infrequent, but because of the potential the precautions to be followed are similar to those of a Category I task. The types of PPE to be available for use by faculty members and students are to be determined by the faculty member and the technical college Infection Control Coordinator. Tasks that have been identified as Category II at this technical college are listed on the page preceding this SOG.

FACULTY POSITIONS INVOLVED:

The technical college faculty positions involved in the performance of Category II tasks are:

1. Central Sterile Technician Instructor
2. Dental Assisting Instructor
3. Culinary Arts Instructor
4. Early Childhood Care and Education Instructors
5. Cosmetology Instructors Performing Nail Care
6. Advanced Emergency Medical Technician/Paramedicine Instructors
7. First Aid/CPR respondents Who Render Care and Clean Sites
8. Law Enforcement Instructors
9. Medical Assisting Instructors
10. Patient Care Assistant Instructors
11. Pharmacy Instructors
12. Practical Nursing Instructors
13. Radiologic Technology Instructors
14. Surgical Technology Instructors
15. Firefighter/EMSP Instructors

(Attach a separate sheet to list additional employee positions)

STUDENT OCCUPATIONAL AREAS INVOLVED:

The technical college student occupational categories involved in the performance of Category I tasks are:

1. Central Sterile Technician
2. Cosmetology Students Performing Nail Care
3. Culinary Students
4. Early Childhood Care and Education
5. Dental Assisting
6. Advanced Emergency Medical Technician/Paramedicine
7. Law Enforcement
8. Medical Assisting
9. Patient Care Assistant
10. Pharmacy Technology
11. Practical Nursing
12. Radiologic Technology
13. Surgical Technology
14. Firefighter/EMSP

(Attach a separate sheet to list additional student categories)

Category II Tasks

Personal Protective Equipment Required, Work Practice and Engineering Controls and Housekeeping Measures are the same as those listed for Category I.

DENTAL ASSISTING
CATEGORY II TASKS AND PERSONAL PROTECTIVE EQUIPMENT

Category II: All tasks/procedures where there is the potential (not planned) for contact with blood other potentially infectious materials or airborne pathogens

TASKS	Puncture Resistant Gloves	Fluid Resistant Gloves	Uniforms or Coveralls	Lab Coats or Gowns	Fluid Resistant Apron	Face shield or Goggles and Mask	Safety Glasses or Goggles	Hats or Hair Net	CPR Mask or Mask	Hand Washing
Prepare Exam Rooms	R	A	R	R	A	R	A	N	A	R
Obtain Vital Signs	N	A	R	R	A	A	A	N	A	R
Position/Prepare patient for Exam	N	A	R	R	A	A	A	N	A	R

Key: R - Required A – Available; worn in appropriate situations N – Not Required
(All PPE must be inspected, cleaned, and replaced as needed in order to maintain its effectiveness.)

ASSOCIATE OF SCIENCE IN NURSING
CATEGORY II TASKS AND PERSONAL PROTECTIVE EQUIPMENT

Category II: All tasks/procedures where there is the potential (not planned) for contact with blood other potentially infectious materials or airborne pathogens

TASKS	Puncture Resistant Gloves	Fluid Resistant Gloves	Uniforms or Coveralls	Lab Coats or Gowns	Fluid Resistant Apron	Face shield or Goggles and Mask	Safety Glasses or Goggles	Hats or Hair Net	CPR Mask or Mask	Hand Washing
Bathing and dressing patients	N	R	R	N	N	N	A	N	A	R
Assessing patients	N	R	R	N	N	N	A	N	A	R
Taking vital signs (non-isolated)	N	R	R	N	N	N	A	N	A	R
Cleaning patient care areas	N	R	R	N	N	N	A	A	N	R
Transporting specimens	N	R	R	N	N	N	A	N	A	R
Administering oxygen	N	R	R	N	N	N	A	N	A	R
Transferring patients	N	R	R	N	N	N	A	N	A	R
Applying restraints/protective devices	N	R	R	N	N	N	A	N	A	R
Administering routine meds or all parenteral needs	N	R	R	N	N	N	A	N	A	R

Key: R - Required A – Available; worn in appropriate situations N – Not Required
(All PPE must be inspected, cleaned, and replaced as needed in order to maintain its effectiveness.)

SURGICAL TECHNOLOGY
CATEGORY II TASKS AND PERSONAL PROTECTIVE EQUIPMENT

Category II: All tasks/procedures where there is the potential (not planned) for contact with blood other potentially infectious materials or airborne pathogens

TASKS	Fluid Resistant Non-Sterile Gloves	Sterile Gloves	Sterile Gowns	Non-Sterile Gowns	Mask	Face shield or Eyewear	Hair Covers	Shoe covers	Hand Washing
Applying dressing to patients	N	R	R	N	R	R	R	R	R
Transferring patients	R	N	N	N	N	N	R	R	R
Cleaning patient	R	N	N	N	N	N	R	R	R
Cleaning operating room	R	N	N	N	N	N	R	R	R
Transferring specimens	R	N	N	N	N	N	R	R	R
Applying restraints/protective devices	R	N	N	N	N	N	R	R	R

Key: R - Required A – Available; worn in appropriate situations N – Not Required
(All PPE must be inspected, cleaned, and replaced as needed in order to maintain its effectiveness.)

CARDIOVASCULAR TECHNOLOGY
CATEGORY II TASKS AND PERSONAL PROTECTIVE EQUIPMENT

Category II: All tasks/procedures where there is the potential (not planned) for contact with blood other potentially infectious materials or airborne pathogens

TASKS	Puncture Resistant Gloves	Fluid Resistant Gloves	Uniforms or Coveralls	Lab Coats or Gowns	Fluid Resistant Apron	Face shield or Goggles and Mask	Safety Glasses or Goggles	Hats or Hair Net	CPR Mask or Mask	Hand Washing
Bathing and dressing patients	N	R	R	N	N	N	A	N	A	R
Assessing patients	N	R	R	N	N	N	A	N	A	R
Taking vital signs (non-isolated)	N	R	R	N	N	N	A	N	A	R
Cleaning patient care areas	N	R	R	N	N	N	A	A	N	R
	N			N	N	N	N	N	N	N
Transporting specimens	N	R	R	N	N	N	A	N	A	R
Administering oxygen	N	R	R	N	N	N	A	N	A	R
Transferring patients	N	R	R	N	N	N	A	N	A	R
Applying restraints/protective devices	N	R	R	N	N	N	A	N	A	R
Administering routine meds or all parenteral needs	N	R	R	N	N	N	A	N	A	R

Key: R - Required A – Available; worn in appropriate situations N – Not Required
(All PPE must be inspected, cleaned, and replaced as needed in order to maintain its effectiveness.)

CATEGORY III

CATEGORY III TASK STANDARD OPERATING GUIDELINE

IDENTIFICATION:

A Category III Task is one in which there is no potential for exposure to blood, other potentially infectious body materials or airborne pathogens that warrant the use of exposure controls.

Tasks that have been identified as Category III at this unit are listed in the page preceding this SOG. **No special precautions are required when performing Category III tasks.**

FACULTY POSITIONS INVOLVED:

1. Accounting Instructors
2. Agribusiness Instructors
3. Business Office Technology
4. Certified Program Instructors
5. Computer Information Systems Instructors
6. Commercial Truck Driving Instructors
7. Construction Office Administration Instructors
8. Continuing Education Program Instructors
9. Drafting Instructors
10. Dean for Academic Affairs: General Education and Online Learning
11. Dean for Academic Affairs: Business, Industrial, & Human Services
12. Dean for Academic Affairs: Health Sciences and Public Safety
13. Dean for Adult Education, Instructors, and Staff
15. Executive Director for Operations and Staff
16. Executive Director for Public Relations and Staff
17. General Education and Learning Support Instructors
18. Health Information Technology Instructors
19. Logistics Specialist Instructors
20. Library Services Personnel
21. Management & Supervisory Development
22. Marketing Management/Specialist Instructors
23. President's Office
24. VP for Institutional Effectiveness and Staff
25. VP for Student Affairs and Staff
26. VP for Academic Affairs and Staff
27. VP for Administration and Staff
28. VP for Economic Development and Staff

(Attach a separate sheet to list additional employee positions)

CATEGORY III TASK STANDARD OPERATING GUIDELINES

"All tasks/activities where there is no potential for exposure to blood or other potentially infectious body materials."

Category III Task listing

ADMINISTRATIVE NOTE: ***It is not necessary to list Category III tasks by occupational area.***

Please list each Category III occupational area only **(see next page)** ***and follow the list with a statement that these occupational areas have been surveyed and contain no tasks with exposure potential.***

STUDENT OCCUPATIONAL CATEGORIES INVOLVED:

The student occupational areas involved in the performance of Category III tasks only are:

1. Accounting Students
2. Business Administrative Technology Students
3. Computer Information Technology Students
4. Commercial Truck Driving Students
5. Management & Supervisory Students
6. Marketing Management/Specialist Students
7. Logistics Specialist Students
8. Health Information Students
9. Construction Students
10. Drafting Students

(Attach a separate sheet if there are additional student categories)

INFORMATION SHEET

INSTRUMENT STERILIZATION GENERAL SUMMARY

Instruments and devices that will be reused on patients/clients should be disinfected and/or sterilized between uses. This is accomplished by liquid and/or the use of an autoclaving devised. The following information will outline the basic procedures to achieve proper disinfection and/or sterilization.

1. **Cleaning**--All instruments should be rinsed and scrubbed prior to disinfection and/or sterilization to remove fluids, tissue or other materials that may have become embedded in the instrument. The faculty member or student shall wear gloves and protective eyewear when performing this type of task as a means of proper exposure control.

2. **Disinfection**--After they have been cleaned instruments may be disinfected by soaking in an approved disinfectant. They should soak for at least the minimum time specified by the manufacturer of the solution. The solution should be changed at the frequency recommended by the manufacturer to assure the effectiveness of the disinfection process. The faculty member or student shall wear gloves (protective eyewear if there is a chance of splashing the solution) when performing this type of task as a means of proper exposure control.

3. **Sterilization**--After they have been cleaned instruments may also be soaked in a disinfecting solution prior to sterilization. Proper sterilization is accomplished through extended soaking in an approved sterilizing solution or in an autoclaving instrument.

To achieve sterilization with a liquid soaking the instruments must remain in the sterilizing solution for at least the minimum time specified by the manufacturer to achieve sterilization (usually for a minimum of hours). The employee must be familiar with the current product being used and assure that the minimum time requirement is met.

To achieve sterilization with an autoclaving instrument follow the guidelines set forth in the operator's manual of the instrument. To assure the proper functioning of the instrument it is recommended that the autoclave be tested with a biological indicator on not less than a monthly basis (*the CDC recommends weekly testing for the dental setting because of the higher frequency of use*). A copy of the performance of the indicator should be kept on file for a minimum of two years.

EQUIPMENT DISINFECTION SUMMARY

Equipment that may have become contaminated with blood or other potentially infectious materials shall be examined prior to servicing or shipping and shall be decontaminated as necessary; unless it has been determined that proper decontamination of the equipment is not feasible. A readily observable label (i.e. the international biohazard label) shall be attached to the equipment stating which portions remain contaminated. Information on contaminated equipment shall be conveyed to all affected faculty members or students, the servicing representative and/or the manufacturer, as appropriate, prior to handling, servicing, or shipping so that appropriate precautions will be taken.

Personal protective equipment (i.e. gloves, protective eyewear, etc.) shall be provided to service personnel that work on the equipment in the facility.

PROCEDURE SHEET I

HBV/HIVGUIDELINES UNDER THE STANDARD

The following guidelines are a combination of the recommendations of the CDC (Centers for Disease Control), OSHA and the OSHA Blood borne Pathogen Standard.

Faculty members and students should consider all patients as potentially infectious with HIV and/or HBV and/or other blood borne pathogens (in accordance with CDC guidelines). Adherence to the infection control guidelines and Universal precautions/standard precautions, as outlined in this manual will greatly lessen the potential for contamination of faculty members or students in the workplace.

HBV VACCINATION

All employees having occupational exposure to blood or other infectious materials are offered the HBV vaccination at no charge to the employee. The vaccination is made available within ten working days of initial work assignment unless the employee has previously received the complete Hepatitis B vaccination series or antibody testing has revealed the employee is immune or the vaccine in contraindicated for medical reasons.

Students in covered occupational areas will be offered the vaccination series at cost.

Students should receive the first vaccine dose prior to patient/client contact and before practicing any tasks, procedures or activities that involve exposure potential.

A prescreening test may be offered but is not a prerequisite for receiving Hepatitis B vaccination. If testing is accepted by the employee it shall also be offered at no charge to the employee. Each employee has the right to refuse vaccination while reserving the right to obtain it at a later date (at no charge to the employee).

Vaccination is also offered as a post exposure follow up for all faculty members or students with an occupational exposure incident (skin, eye, mucous membrane, or potential contact with blood or other potentially infectious materials).

Documentation of the vaccination program (using HBV letter and declining statement forms in Section "Forms and Letters") is in each individual faculty member's personnel record as well as a master vaccination file. Documentation of student vaccination is to be maintained in the student's record file and master training file. Any faculty member or student declining vaccination has been counseled on the benefits and safety of the vaccine and has signed a statement as specified in appendix A to section 1910.1030 Hepatitis B Vaccine Declination (Mandatory).

POST EXPOSURE FOLLOWS UP (BLOOD OR O.P.I.M.)

If the faculty member or student has a percutaneous (needle stick, cut or puncture) or mucous membrane (splash to the eye, nasal mucosa, or mouth) exposure to body fluids (blood or other infectious materials) or has a cutaneous exposure when they have chapped or abraded skin, or otherwise non-intact skin it shall be reported as an exposure incident to the faculty member and/or the technical college Infection Control Coordinator.

Following the report of an occupational exposure incident the faculty member or student shall complete an accident/incident report. The employee will be offered a confidential medical evaluation and follow up which will include the following information:

1. Documentation of the route(s) of exposure, HBV and HIV antibody status of the patient(s) (if known), and the circumstances under which the exposure occurred. This information should also be posted to the Master Sharps Injury Log.

2. If it is feasible and the source patient can be determined and permission is obtained, collection and testing of the patient's blood to determine the presence of HIV and/or HBV infections shall be conducted.

3. If patient consent is refused, the employer shall establish that legally required consent cannot be obtained. When the source individual's consent is not required by law, their blood, if available, shall be tested and the results documented. If the source patient is already known to be HIV or HBV positive then testing need not be repeated.

4. Results of the source individual's testing shall be made available to the faculty member or student, and the faculty member or student shall be informed of the applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

5. The exposed faculty member or student's blood shall be collected as soon as feasible and tested after consent is obtained from the exposed person.

6. If the faculty member or student consents to baseline blood collections, but does not give consent at that time for HIV serologic testing, the sample shall be preserved for at least ninety days. If within the ninety days of the exposure incident, the faculty member or student elects to have the baseline sample tested, such testing shall be done as soon as feasible.

7. The technical college shall ensure that the healthcare professional responsible for the faculty member or student's Hepatitis B vaccination is provided a copy of the regulation for "Occupational Exposure to Blood borne Pathogens".

8. The technical college shall ensure that the healthcare professional evaluating an employee after an exposure incident is provided the following information:

    a. A copy of the regulation for "Occupational Exposure to Blood borne Pathogens".
    b. A description of the faculty member or student's duties as they relate to the exposure incident.
    c. Documentation of the route(s) of exposure and circumstances under which the exposure occurred.
    d. Results of the source individuals blood testing, ***if available.***
    e. All medical records relevant to the appropriate treatment of the employee including vaccination status, which are the Technical College's responsibility to maintain.

    The technical college shall obtain and provide the employee with a copy of the consulting healthcare professional's written opinion within 15 days of the completion of the evaluation. The healthcare professional's written opinion for Hepatitis B vaccination shall be limited to whether the vaccination is indicated and if the faculty member or student received such vaccination.

    The healthcare professional's written opinion for post-exposure evaluation and follow up shall be limited to the following information:

    a. That the faculty member or student has been informed of the results of the evaluation.
    b. That the faculty member or student has been told about any medical conditions resulting from exposure to blood or other infectious materials which require further evaluation or treatment.

    All other findings shall remain confidential and shall not be included in the written report.

    The Blood and Airborne Pathogens Coordinator establish and maintain a Sharps Injury Log to document exposure incidents as required under paragraph (2) of subsection C of the Georgia Code. The information to be recorded for each exposure incident is specified in paragraph (3) of subsection C of the Georgia Code.

Medical records required by the standard governing occupational exposure shall be maintained as outlined in *29 CFR 1910* Blood Borne Pathogens Standard.

Student medical records shall be retained for a period of one year after graduation, completion, termination or leaving the technical college. Faculty medical records shall be retained for a period of 30 years plus the length of employment.

PROCEDURE SHEET II

REPORTING AND POST-EXPOSURE FOLLOW UP FOR AIRBORNE PATHOGENS/TUBERCULOSIS

B. Purpose

This document outlines an interim, post exposure reporting and follows up process for a TB exposure incurred by either a faculty member or student in a covered occupational area. This process is based upon the CDC *"Guidelines for Preventing the Transmission of Tuberculosis in Health Care Settings..."* 1994. In addition, the requirements for HEPA respirators/PPE and training and education are also addressed.

These guidelines are to be in effect until OSHA acts upon Proposed Rule *29 CFR 1910.1035.* Occupational Exposure to Tuberculosis; Changes will be required at that time.

C. Definitions

1. Workplaces with Inherent Exposure Potential to TB Disease

    a. Healthcare facilities
    b. Corrections facilities
    c. Homeless shelters
    d. Long term health facilities
    e. Drug treatment centers
    f. Ambulances/EMS vehicles

2. Exposure Potential

    Exposure potential is defined as an exposure to the exhaled or expired air of a person with suspected or confirmed TB disease. Exposure to a high-hazard procedure or an individual with suspected or confirmed TB disease and with the potential to generate potentially infectious airborne respiratory secretions, i.e., aerosolized medication treatment, bronchoscope, sputum induction, endotracheal intubations, suctioning procedures and autopsies.

D. Population at Risk for Occupational Exposure

..."all persons with direct or indirect patient care or client responsibilities. Examples include, but are not limited to: physicians, nurses, assistants, technicians, laboratory workers, morgue workers, EMS personnel, corrections personnel, students, [instructors]"... CDC, 1990.

Technical college faculty members and students in program or course areas addressed above are to be considered as Category I (high risk) for the occupational exposure to TB disease and are to be in a covered occupational area.

E. Procedures - Testing/Surveillance

1. Each student and faculty member in a covered occupational area should have a tuberculin skin test at the time of employment or prior to assignment to clinical or worksite area respectively, unless a previously positive reaction can be documented or after completion of appropriate preventative therapy or adequate therapy can be documented.

2. Any covered faculty member or student with a history of Bacillus of Calmette and Guerin (BCG) vaccination should also have the tuberculin skin test as in #1.

3. Any covered faculty member or student who exhibits a first time positive reaction to the skin test

must be cleared by a physician prior to further contact with students or patients/clients. Clearance must be documented in writing. Personnel with documented, active TB disease should be also offered HIV antibody testing.

4. Covered faculty members and students with a **documented** history of a positive skin test (PPD) or adequate treatment of latent infection or active diseases are to be exempt from further testing unless signs and symptoms of TB disease develop.

5. Initial and follow up tuberculin skin tests should be administered and interpreted according to current CDC guidelines.

6. Periodic retesting of PPD-negative faculty members and students should be conducted to identify persons whose skin tests convert to a positive status. The frequency of retesting is risk-dependent. The schedule is for a person performing high-risk procedures is every six months. In general, other covered faculty and students should be tested annually.

7. Tuberculin skin tests (initial and periodic) shall be offered to covered faculty members at no cost to the employee. Students are responsible for the cost of their skin tests.

F. Procedures - Post Exposure Follow up

1. An accidental exposure is defined in Section C.2 An exposure may occur in any clinical facility or work site where patients or clients are under treatment. The high-risk areas for exposure potential are listed in Section C.1.

2. Immediately upon identification of an accidental exposure involving a covered faculty member or student, the clinical instructor or instructor's supervisor shall be notified as well as the technical college infection control coordinator and the authorized contact person at the clinical or work site.

3. The exposure incident shall be documented in writing with copies to the authorized person at the clinical or work site, the instructor and the technical college infection control coordinator (ICC). (Incident Form to be provided.) Initial documentation is to be prepared the day of the incident and must be filed with the ICC within 24 hours of the incident.

4. The exposed instructor or student is to be counseled immediately after the exposure incident and referred to his or her family physician or health department to begin follow up and appropriate therapy. Baseline testing should be performed as soon as possible post-incident. The technical college is responsible for the cost of a post -incident follow up for both covered faculty members and students as specified in State Board Policy # II.D.3.b Occupational Exposure to Air Borne Pathogens/Tuberculosis

5. Any faculty member or student in a covered occupational area with a positive skin test upon repeat testing, or after exposure should be clinically evaluated for active tuberculosis. If active tuberculosis is diagnosed, appropriate therapy should be initiated according to CDC Guidelines or established medical protocol.

6. Any instructor or student in covered occupational area with a positive skin test, upon repeat testing or exhibiting signs and symptoms of TB, is not to have patient or client contact until such time as he or she is cleared by a physician after further testing and/or by initiation of appropriate therapy.

7. If an instructor or student in a covered occupational area is found to have clinical TB, all students or instructors within the immediate class or course shall be advised to have a PPD skin test to be cleared for further participation in the class or course. Any person exposed, as above, with a documented history of positive PPD skin tests may be recommended for a prophylactic chest X-ray.

8. Appropriate treatment protocols shall be followed per CDC Guidelines and a timetable for repeat testing shall be established.

G. Personal Protective Equipment (PPE) - HEPA or other Approved N-95 Respirators

1. Personal protective equipment (PPE) shall be utilized as follows:

   a. Known or highly suspicious patient or client cases

   1) High efficiency particulate air (HEPA) respirators or N.I.O.S.H. approved N-95 respirators shall be used by faculty and students when entering a patient or clients' hospital room when the patient is known or highly suspected of having active TB disease.

   2) HEPA (filter) respirator fit testing for each faculty member or student must be conducted to insure a reliable fit and face-seal prior to use of the equipment. This is required only if the HEPA respirator is to be used in lieu of other types of respirators.

   3) The user should fit-check the respirator seal each time he or she uses the respirator, prior to entering a patient's or client's room.

   4) Disposable or reusable HEPA or other N.I.O.S.H. approved respirators may be used. Reusable respirators must be stored to maintain the form-fit after cleaning after patient contact.

2. A covered faculty member and student with a respiratory disease or other disorder which would cause respiratory impairment/decreased pulmonary function may be required to be certified as capable of using an approved respirator by a physician. This certification is to be in writing.

3. A covered faculty member or student with a certified respiratory impairment that would prevent the use of a HEPA or other respirator should not be assigned to a known TB case or to a highly suspicious patient/client. An alternative assignment is to be made.

4. Personal protective equipment is to be provided by the technical college for demonstration and practice lab activities. The clinical or work site may provide PPE for faculty members and students during rotations. If the PPE is not provided for actual patient/client contact, it is the responsibility of the technical college to provide it at no cost to faculty members at no cost and to students at their cost.

H. Required Education and Training for Covered Faculty Members and Students

1. Each covered faculty member and student shall receive education and training about tuberculosis as part of the blood and airborne pathogens module. Faculty members shall receive annual refresher training thereafter. The technical college infection control coordinator shall be responsible for monitoring and evaluating the effectiveness of this education and training process.

2. Training shall be documented as specified in the technical college Exposure Control Plan.

3. **The following shall be included in the education and training module**:

   a. Mode(s) of transmission
   b. Pathogenesis
   c. Diagnosis and assessment of TB
   d. Latent Infection Stage Compared to the Active Disease State
   e. Signs and symptoms of Tuberculosis
   f. The possibility of reinfection in persons with a positive PPD
   g. The potential for occupational exposure and transmission of TB
   h. Principles/practices which reduce risk of exposure/transmission
   I. Review of Written policies and procedures.
   j. The purpose of PPD testing and significance of a positive result
   k. Principles of preventive therapy in latent infection

l. Process and steps in the medical evaluation of a PPD test conversion or following signs and symptoms of TB disease (faculty & students)
m. Principles of drug therapy for active tuberculosis
n. The risk of TB in HIV or AIDS patients or other immunosuppressive disease
o. Confidentiality secondary to assessment and treatment of faculty or student who develops TB disease.
p. The technical college's policy on voluntary duty reassignment options for immunocompromised faculty members and students in covered occupational areas.

ADDENDUM

Addendum to the Exposure Control Plan

1. **Require that the Blood and Airborne Pathogens Coordinator establish and maintain Sharps Inquiry Log to document exposure incidents as required under paragraph (2) of subsection C of the Georgia Code. The information to be recorded for each exposure incident is specified in paragraph (3) of subsection C of the Georgia Code:**

   See Attachment

2. **Require that the most effective available needleless system and sharps with engineered sharp injury protection be included in the plan as engineering and work practice controls.**

3. **Establish an evaluation committee, as specified in the Georgia Code, to identify and select needless systems and engineered sharps injury used in occupational training programs.**

   The evaluation Compliance Committee will consist of the following persons:

Dr. Latrona Lanier	Exposure Control Coordinator
Dr. Janeé Mobley	Pharmacy Technology Chairperson
Teresa Darity	Practical Nursing Faculty
Tracie Hobbs	EMT/Paramedic Faculty
LaTonya Harris	Medical Assisting Faculty
Dr. Latrona Lanier	Nursing

4. **Provide a process for updating the exposure control plan, when necessary to reflect progress in implementation of the needleless systems and engineered sharps injury protection as determined by the evaluation committee. The update shall be made at least annually.**

   The Albany Technical College Exposure Control Manual will be reviewed and revised on an annual basis by the Evaluation Compliance Committee. Input is solicited from categories I and II instructors.

ALBANY TECHNICAL COLLEGE
SHARPS EXPOSURE INCIDENT REPORT FORM

Name _____ Date of Incident_____ Time: _____

Job Classification of Exposed Employee: _____

Department of Work Area Where the Exposed Incident Occurred: _____

_____

_____

Body Par involved in the Exposure Incident: _____

Explain how the Incident Occurred: _____

_____

_____

_____

_____

_____

_____

Type and Brand of Sharp Involved in the Exposure Incident: _____

_____

Did the Sharp have Engineered Sharps Injury Protection? Yes _____ No _____

If Yes, Complete the Questions in Section A – If No, complete Questions in Section B

Section A
If Yes, was the Protective Mechanism Activated? Yes _____ No _____
When did the Injury Occur?
Before the Protective Mechanism was Activated _____
During Activation of the Mechanism _____
After Activation of the Mechanism _____
Were you Trained in the Use of the Specific Type and Brand Sharp?

Section B

If No, in Your Opinion Would the use of an Engineered Sharps Injury Protection Mechanism have Prevented the Injury? Yes_____ No_____

If Yes, Explain _____

_____

_____

_____

_____

In Your Opinion, Would Any Other Engineering, Administrative, or Other Engineering, Administrative or Work Practice Control have Prevented the Injury? Yes _____ No _____

Explain: _____

_____

_____

_____

_____

_____

_____ _____

Signature Date of Report

This report is to be completed for all sharps related incidents. A student/employee accident/incident form must also be completed.
A copy of both reports will be forwarded to the Infection Control Coordinator. The Exposure Control Compliance Committee will review the incident within 5 working days.

APPENDIX A

APPENDIX A

"UNIVERSAL PRECAUTIONS"

CENTERS FOR DISEASE CONTROL

AND

PREVENTION

1989

Appendix: A

UNIVERSAL PRECAUTIONS

The term **"Universal Precautions"** refers to a set of recommendations issued by the Centers for Disease Control and Prevention (CDCP) in 1989 to reduce the risk of Healthcare Workers (HCW) exposure to blood and other potentially infectious body materials (OPIM)

Because it is impossible to identify all patients infected with the HIV or HBV virus and other potentially infectious diseases, universal precautions should be followed for all patients. **The following precautions are to be taken routinely when providing care to ALL patients regardless of the diagnosis.**

1. HANDWASHING

Hands and other skin surfaces should be washed immediately and thoroughly if contaminated with blood or OPIM. Hands should be washed immediately after removing gloves. Hands are to be washed between patient contacts.

2. PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment or barrier devices should be used routinely to prevent skin and mucous membrane exposure to blood or OPIM.

GLOVES: Gloves should be worn for potential contact with blood or body fluids, mucous membranes, non-intact skin or for handling items or equipment soiled with blood or other body fluids. **Gloves should be worn when performing phlebotomy.** Gloves should be changed after contact with each patient.

MASKS/PROTECTIVE EYEWEAR: Masks and other protective eyewear should be used to prevent exposure of the mucous membranes of the nose, eyes and mouth. These should be worn during procedures where sprays, splashes or aerosols of blood or other body fluids are likely to occur.

RESUSCITATION DEVICES: Resuscitation devices should be used to perform emergency mouth-to-mouth resuscitation.

NEEDLE/SHARPS HANDLING: Precautions to prevent injuries caused by needles, scalpels and other sharp instruments or devices are to be taken.

(a) Needles should not be recapped, broken or bent by hand.

(b) Needles should be placed in an appropriate needle receptacle immediately after use.

(c) Needle receptacles will be accessible to the point of use in all direct patient care areas.

3. LABORATORY CONSIDERATIONS

Blood or OPIM from all patients should be considered infectious. in addition to Universal Precautions, the following additional precautions pertain to clinical laboratories.

(a) All blood and body fluids specimens are to placed in a well-constructed container with a secure lid to prevent leaking during transport.

(b) Gloves should be worn when processing all specimens. Mask/protective eyewear are to be worn if splashes or sprays of blood or other body is anticipated. Gloves should be changed and hands washed after completion of specimen processing.

(d) Mouth pipetting is prohibited.

(e) Special labeling of "known infective" specimens is not to be done.

4. ENVIRONMENTAL CONSIDERATIONS

(a) Sterilization and disinfection - **See 29 CFR 1910.1930**

(b) Disinfectant-detergent formulations registered by the EPA will be used for routine environmental cleaning.

(c) Blood specimen cleanup - An approved, "tuberculocidal" hospital disinfectant will be used to decontaminate after blood and body fluid spills.

Reference: **Centers for Disease Control**
'Recommendations for prevention of HIV Transmission in Health-Care Settings"
MMWR, August 21, 1989/Vol 36/No. 2-S

APPENDIX A.1

"RECOMMENDATIONS FOR ISOLATION

PRECAUTIONS IN HOSPITALS"
PART II

Hospital Infection Control Practices

Advisory Committee

1997

Part II. Recommendations for Isolation Precautions in Hospitals

Hospital Infection Control Practices Advisory Committee

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.

Source

Human Sources of the infecting microorganisms in hospitals may be patients, personnel, or, 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, Other sources of infection 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.

Host

Resistance among persons to pathogenic microorganisms varies greatly. Some persons may be immune to infection or may 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; 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.

Transmission

Microorganisms are transmitted in hospitals by several routes, and the same microorganism may be transmitted by more than one route. There are five main routes of transmission; contact, droplet, airborne, common vehicle, and vectorborne. For the purpose of this guideline, common vehicle and vectorborne transmission will be discussed only briefly, because neither plays 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 also can 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, droplet transmission will be considered a separate route of transmission in this guideline. 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; that is, droplet transmission *must not* be confused with airborne transmission.

(3) *Airborne transmission* occurs by dissemination of either airborne droplet nuclei (small-particle residue [5 μm 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 dispersed widely 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) *Vectorborne 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.

Isolation precautions are designed to prevent transmission of microorganisms by these routes in hospitals. Because 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.

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 sometimes is required. The use of a multi-patient room for one patient uses valuable space that otherwise might 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.

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.

Handwashing and Gloving

Handwashing frequently is 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.(64-72)

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 handwashing, gloves play an important role in reducing the risks of transmission of microorganisms.

Gloves are worn for three important reasons in hospitals. First, gloves are worn to provide a protective barrier and to prevent gross contamination of the hands when touching blood, body fluids, secretions, excretions, mucous membranes, and nonintact skin (27-29); the wearing of gloves in specified circumstances to reduce the risk of exposures to bloodborne pathogens is mandated by the OSHA bloodborne pathogens final rule.(51) Second, gloves are worn 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. Third, gloves are worn 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.

Wearing gloves does not replace the need for handwashing, because gloves may have small, inapparent defects or may be torn during use, and hands can become contaminated during removal of gloves.(14,15,39,72-76) Failure to change gloves between patient contacts is an infection control hazard.(32)

Patient Placement

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.

When a private room is not available, an infected patient is placed with an appropriate roommate. Patients infected by the same microorganism usually can share a room, provided they are not infected with other potentially transmissible microorganisms and the likelihood of reinfection with the same organism is minimal. Such sharing of rooms, also referred to as cohorting patients, is useful especially during outbreaks or when there is a shortage of private rooms. When a private room is not available and cohorting is not achievable or recommended,(23) 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 also is important that patients, personnel, and visitors take precautions to prevent the spread of infection and that roommates are selected carefully.

Guidelines for construction, equipment, air handling, and ventilation for isolation rooms have been delineated in other publications.(77-79) 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. Adequate data regarding the need for an anteroom, however, is not available. Ventilation recommendations for isolation rooms housing patients with pulmonary tuberculosis have been delineated in other CDC guidelines.(23)

Transport of Infected Patients

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 reduces opportunities for transmission of microorganisms in hospitals. 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; and 3) patients are informed of ways by which they can assist in preventing the transmission of their infectious microorganisms to others.

Masks, Respiratory Protection, Eye Protection, Face Shields

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 the 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 bloodborne pathogens is mandated by the OSHA bloodborne pathogens final rule.(51) A surgical mask generally is 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 ft) from infected patients who are coughing or sneezing.

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 (18) 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); because the generic term "particulate respirator" was used in the 1990 guidelines, the implication was that any of these respirators provided sufficient protection.(80)

In 1993, a draft revision of the CDC tuberculosis guidelines (22) 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,(23) with the draft respirator criteria unchanged. At that time, the only class of respirators that were known to consistently meet or exceed the performance criteria outlined in the 1994 tuberculosis guidelines and that were certified by NIOSH (as required by OSHA) were HEPA filter respirators. Subsequently, NIOSH revised the testing and certification requirements for all types of air-purifying respirators, including those used for tuberculosis control.(81) 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 likely to be available in late 1995. 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.(80)

Gowns and Protective Apparel

Various types of gowns and protective apparel are worn to provide barrier protection and to reduce opportunities for transmission of microorganisms in hospitals. Gowns are worn to prevent contamination of clothing and to 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 bloodborne pathogens is mandated by the OSHA bloodborne pathogens final rule.(51)

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 leaving the patient's environment and hands are washed. Adequate data regarding the efficacy of gowns for this purpose, however, is not available.

Patient-Care Equipment and Articles

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.(27,51,82-84) 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 the bag without contaminating the outside of the bag (85); otherwise, two bags are used.

The scientific rationale, indications, methods, products, and equipment for reprocessing patient-care equipment have been delineated in other publications.(68,84,86-91) 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) are 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.

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.

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.(27,83,92,93) The methods for handling, transporting, and laundering of soiled linen are determined by hospital policy and any applicable regulations.

Dishes, Glasses, Cups, and Eating Utensils

No special precautions are needed for dishes, glasses, 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, cups, and eating utensils.

Routine and Terminal Cleaning

The room, or cubicle, and bedside equipment of patients on Transmission-Based Precautions are cleaned using the same procedures 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, which can survive in the inanimate environment for prolonged periods of time.(94) Patients admitted to hospital rooms that previously were 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 cleaned and disinfected adequately. The methods, thoroughness, and frequency of cleaning and the products used are determined by hospital policy.

HICPAC ISOLATION PRECAUTIONS

There are two tiers of HICPAC isolation precautions. In the first, and most important, tier are those 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.

Standard Precautions

Standard Precautions synthesize the major features of UP (Blood and Body Fluid Precautions) (27,28) (designed to reduce the risk of transmission of bloodborne pathogens) and BSI (29,30) (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. 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. Standard Precautions are designed to reduce the risk of transmission of microorganisms from both recognized and unrecognized sources of infection in hospitals.

Transmission-Based Precautions

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.

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 µm 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 dispersed widely 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.

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 μm in size) containing microorganisms generated from a person who has a clinical disease or who 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, because droplets do not remain suspended in the air and generally travel only short distances, usually 3 ft 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.

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 patients, bathe patients, or perform other patient-care activities that require physical contact. Direct-contact transmission also can 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 than can be transmitted by direct or indirect contact.

A synopsis of the types of precautions and the patients requiring the precautions is listed in Table 1.

EMPIRIC USE OF AIRBORNE, DROPLET, OR CONTACT PRECAUTIONS

In many instances, the risk of nosocomial transmission of infection may be highest before a definitive diagnosis can be made and before precautions based on that diagnosis can be implemented. The routine use of Standard Precautions

for all patients should reduce greatly this risk for conditions other than those requiring Airborne, Droplet, or Contact Precautions. While 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 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 implemented always, hospitals must have systems in place to evaluate patients routinely, according to these criteria as part of their preadmission and admission care.

IMMUNOCOMPROMISED PATIENTS

Immunocompromised patients vary in their susceptibility to nosocomial infections, depending on the severity and duration of immunosuppression. They generally are 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.

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. Users of this guideline, however, are referred to the "Guideline for Prevention of Nosocomial Pneumonia" (95,96) for the HICPAC recommendations for prevention of nosocomial aspergillosis and Legionnaires' disease in immunocompromised patients.

RECOMMENDATIONS

The recommendations presented below are categorized as follows:

Category IA. Strongly recommended for all hospitals and strongly supported by well-designed experimental or epidemiologic studies.

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.

Category II. Suggested for implementation in many hospitals. Recommendations may be supported by suggestive clinical or epidemiologic studies, a strong theoretical rationale, or definitive studies applicable to some, but not all, hospitals.

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

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.

I. Administrative Controls

A. 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*

B. Adherence to Precautions

Periodically evaluate adherence to precautions, and use findings to direct improvements. *Category IB*

II. Standard Precautions

Use Standard Precautions, or the equivalent, for the care of all patients. *Category IB*

A. Handwashing

(1) 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*

(2) Use a plain (nonantimicrobial) soap for routine handwashing. *Category IB*

(3) Use an antimicrobial agent or a 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 on using antimicrobial and antiseptic agents.)

B. 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*

C. 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*

D. Gown

Wear a gown (a clean, nonsterile gown is adequate) to protect skin and to 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. 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*

E. 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 cleaned and reprocessed appropriately. Ensure that single-use items are discarded properly. *Category IB*

F. 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 ensure that these procedures are being followed. *Category IB*

G. 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 that avoids transfer of microorganisms to other patients and environments. *Category IB*

H. Occupational Health and Bloodborne Pathogens

(1) 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 using both hands, or use 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, which are 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*

(2) 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*

I. 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*

III. 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 µm or smaller in size] of evaporated droplets containing microorganisms that remain suspended in the air and that can be dispersed widely by air currents within a room or over a long distance). *Category IB*

A. Patient Placement

Place the patient in a private room that has 1) monitored negative air pressure in relation to the surrounding areas, 2) 6 to 12 air changes per hour, and 3) appropriate discharge of air outdoors or monitored high-efficiency filtration of room air before the air is circulated to other areas in the hospital.(23) 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,(23) 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*

B. Respiratory Protection

Wear respiratory protection (N95 respirator) when entering the room of a patient with known or suspected infectious pulmonary tuberculosis.(23,81) 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 (N95 respirator).(81) Persons immune to measles (rubeola) or varicella need not wear respiratory protection. *Category IB*

C. 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*

D. Additional Precautions for Preventing Transmission of Tuberculosis

Consult CDC "Guidelines for Preventing the Transmission of Tuberculosis in Health-Care Facilities"(23) for additional prevention strategies.

IV. 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 µm in size] that can be generated by the patient during coughing, sneezing, talking, or the performance of procedures). *Category IB*

A. 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 ft 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*

B. Mask

In addition to wearing a mask as outlined under Standard Precautions, wear a mask when working within 3 ft of the patient. (Logistically, some hospitals may want to implement the wearing of a mask to enter the room.) *Category IB*

C. 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*

V. 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*

A. 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*

B. Gloves and Handwashing

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.(72,94) After glove removal and handwashing, 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*

C. 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*

D. 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*

E. Patient Care

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*

F. Additional Precautions for Preventing the Spread of Vancomycin Resistance

Consult the HICPAC report on preventing the spread of vancomycin resistance for additional prevention strategies.(94)

APPENDIX A.2

EXPOSURE REPORT

RECOMMENDATIONS

Excerpted from:

"Public Health Service Guidelines for the Management of Health-Care Worker Exposures to HIV and Recommendations for Postexposure Prophylaxis"

MMWR 47(RR-7); 1-28
Publication date: 05/15/1998

Exposure Report

If an occupational exposure occurs, the circumstances and Postexposure management should be recorded in the HCW's confidential medical record (usually on a form the facility designates for this purpose). Relevant information includes

date and time of exposure;

details of the procedure being performed, including where and how the exposure occurred, and if the exposure was related to a sharp device, the type of device and how and when in the course of handling the device the exposure occurred;

details of the exposure, including the type and amount of fluid or material and the severity of the exposure (e.g., for a percutaneous exposure, depth of injury and whether fluid was injected; or for a skin or mucous-membrane exposure, the estimated volume of material and duration of contact and the condition of the skin (e.g., chapped, abraded, or intact));

details about the exposure source (i.e., whether the source material contained HIV or other bloodborne pathogen(s)), and if the source is an HIV-infected person, the stage of disease, history of antiretroviral therapy, and viral load, if known; and
details about counseling, Postexposure management, and follow-up.

Exposure Management

Treatment of an Exposure Site

Wounds and skin sites that have been in contact with blood or body fluids should be washed with soap and water; mucous membranes should be flushed with water.

There is no evidence that the use of antiseptics for wound care or expressing fluid by squeezing the wound further reduces the risk for HIV transmission. However, the use of antiseptics is not contraindicated. The application of caustic agents (e.g., bleach) or the injection of antiseptics or disinfectants into the wound is not recommended.

Assessment of Infection Risk

After an occupational exposure, the source-person and the exposed HCW should be evaluated to determine the need for HIV PEP. Follow-up for hepatitis B virus and hepatitis C virus infections also should be conducted in accordance with previously published CDC recommendations (98,99).

Evaluation of exposure.

The exposure should be evaluated for potential totransmit HIV based on the type of body substance involved and the route and severity of the exposure. Exposures to blood, fluid containing visible blood, or other potentially infectious fluid (including semen; vaginal secretions; and

cerebrospinal, synovial, pleural, peritoneal, pericardial, and amniotic fluids) or tissue through a percutaneous injury (i.e., needlestick or other penetrating sharps-related event) or through contact with a mucous membrane are situations

that pose a risk for bloodborne transmission and require further evaluation (Figure 1 and Figure 1C). In addition, any direct contact (i.e., personal protective equipment either was not used or was ineffective in protecting skin or mucous membranes) with concentrated HIV in a research laboratory or production facility is considered an exposure that requires clinical evaluation to assess the need for PEP.

For skin exposures, follow-up is indicated if it involves direct contact with a body fluid listed above and there is evidence of compromised skin integrity (e.g., dermatitis, abrasion, or open wound). However, if the contact is prolonged or involves a large area of intact skin, Postexposure follow-up may be considered on a case-by-case basis or if requested by the HCW.

For human bites, the clinical evaluation must consider possible exposure of both the bite recipient and the person who inflicted the bite. HIV transmission only rarely has been reported by this route (100,101; CDC, unpublished data, 1998). If a bite results in blood exposure to either person involved, Postexposure follow-up, including consideration of PEP, should be provided.

Evaluation and testing of an exposure source.

The person whose blood or body fluids are the source of an occupational exposure should be evaluated for HIV infection. Information available in the medical record at the time of exposure
(e.g., laboratory test results, admitting diagnosis, or past medical history) or from the source person may suggest or rule out possible HIV infection.

Examples of information to consider when evaluating an exposure source for possible HIV infection include laboratory information (e.g., prior HIV testing results or results of immunologic testing {e.g., CD4+ count}), clinical symptoms (e.g., acute syndrome suggestive of primary HIV infection or undiagnosed immunodeficiency disease), and history of possible HIV exposures (e.g., injecting-drug use, sexual contact with a known HIV-positive partner, unprotected sexual contact with multiple partners {heterosexual and/or homosexual}, or receipt of blood or blood products before 1985).

If the source is known to have HIV infection, available information about this person's stage of infection (i.e., asymptomatic or AIDS), CD4+ T-cell count, results of viral load testing, and current and previous antiretroviral therapy, should be gathered for consideration in choosing an appropriate PEP regimen. If this information is not immediately available, initiation of PEP, if indicated, should not be delayed; changes in the PEP regimen can be made after PEP has been started, as appropriate.

If the HIV serostatus of the source person is unknown, the source person should be informed of the incident and, if consent is obtained, tested for serologic evidence of HIV infection. If consent cannot be obtained (e.g., patient is unconscious), procedures should be followed for testing source persons according to applicable state and local laws. Confidentiality of the source person should be maintained at all times.

HIV-antibody testing of an exposure source should be performed as soon as possible. Hospitals, clinics, and other sites that manage exposed HCWs should consult their laboratories regarding the most appropriate test to use to expedite these results. An FDA-approved rapid HIV-antibody test kit should be considered for use in this situation, particularly if testing by enzyme

Immunoassay (EIA) cannot be completed within 24-48 hours. Repeatedly reactive results by EIA or rapid HIV-antibody tests are considered highly suggestive of infection, whereas a negative result is an excellent indicator of the absence of HIV antibody. Confirmation of a reactive result by Western blot or immunofluorescent antibody is not necessary for making initial decisions about Postexposure management but should be done to complete the testing process. If the source is HIV seronegative and has no clinical evidence of acquired immunodeficiency syndrome (AIDS) or symptoms of HIV infection, no further testing of the source is indicated. It is unclear whether follow-up testing of a source who is HIV negative at the time of exposure, but recently (i.e., within the last 3-6 months) engaged in behaviors that pose a risk for HIV transmission, is useful in Postexposure management of HCWs; HCWs who become infected generally seroconvert before repeat testing of a source would normally be performed.

If the exposure source is unknown, information about where and under what circumstances the exposure occurred should be assessed epidemiologically for risk for transmission of HIV. Certain situations, as well as the type of exposure, may suggest an increased or decreased risk; an important consideration is the prevalence of HIV in the population group (i.e., institution or community) from which the contaminated source material is derived. For example, an exposure that occurs in a geographic area where injecting-drug use is prevalent or on an AIDS unit in a health-care facility would be considered epidemiologically to have a higher risk for transmission than one that occurs in a nursing home for the elderly where no known HIV-infected residents are present. In addition, exposure to a blood-filled hollow needle or visibly bloody device suggests a higher-risk exposure than exposure to a needle that was most likely used for giving an injection. Decisions regarding appropriate management should be individualized based on the risk assessment.

HIV testing of needles or other sharp instruments associated with an exposure, regardless of whether the source is known or unknown, is not recommended. The reliability and interpretation of findings in such circumstances are unknown.

Clinical Evaluation and Baseline Testing of Exposed HCWs

Exposed HCWs should be evaluated for susceptibility to bloodborne pathogen infections. Baseline testing (i.e., testing to establish serostatus at the time of exposure) for HIV antibody should be performed. If the source person is seronegative for HIV, baseline testing or further follow-up of the HCW normally is not necessary. If the source person has recently engaged in behaviors that are associated with a risk for HIV transmission, baseline and follow-up HIV-antibody testing (e.g., 3 and/or 6 months Postexposure) of the HCW should be considered. Serologic testing should be made available to all HCWs who are concerned that they may have been exposed to HIV.

For purposes of considering HIV PEP, the evaluation also should include information about medications the HCW may be taking and any current or underlying medical conditions or circumstances (i.e., pregnancy, breast feeding, or renal or hepatic disease) that may influence drug selection. Pregnancy testing should be offered to all nonpregnant women of childbearing age whose pregnancy status is unknown.

APPENDIX B

APPENDIX B

"Recommendations for Prevention

Of

"HIV Transmission in Health Care Settings"

CDC: MMWR, 1989

Recommendations for Prevention of HIV Transmission in Health-Care Settings

MMWR 36(SU02);001

Publication date: 08/21/1987

Introduction

Human immunodeficiency virus (HIV), the virus that causes acquired immunodeficiency syndrome (AIDS), 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, and urine and is likely to be isolated from other body fluids, secretions, and excretions. However, epidemiologic evidence has implicated only blood, semen, vaginal secretions, and possibly breast milk in transmission.

The increasing prevalence of HIV increases the risk that health-care workers will be exposed to blood from patients infected with HIV, especially when blood and body-fluid precautions are not followed for all patients. Thus, this document emphasizes the need for health-care workers to consider ALL patients as potentially infected with HIV and/or other blood-borne pathogens and to adhere rigorously to infection-control precautions for minimizing the risk of exposure to blood and body fluids of all patients.

The recommendations contained in this document consolidate and update CDC recommendations published earlier for preventing HIV transmission in health-care settings: precautions for clinical and laboratory staffs (1) and precautions for health-care workers and allied professionals (2); recommendations for preventing HIV transmission in the workplace (3) and during invasive procedures (4); recommendations for preventing possible transmission of HIV from tears (5); and recommendations for providing dialysis treatment for HIV-infected patients (6). These recommendations also update portions of the "Guideline for Isolation Precautions in Hospitals" (7) and reemphasize some of the recommendations contained in "Infection Control Practices for Dentistry" (8). The recommendations contained in this document have been developed for use in health-care settings and emphasize the need to treat blood and other body fluids from ALL patients as potentially infective. These same prudent precautions also should be taken in other settings in which persons may be exposed to blood or other body fluids.

Definition of Health-Care Workers

Health-care workers are defined as persons, including students and trainees, whose activities involve contact with patients or with blood or other body fluids from patients in a health-care setting.

Health-Care Workers with AIDS

As of July 10, 1987, a total of 1,875 (5.8%) of 32,395 adults with AIDS, who had been reported to the CDC national surveillance system and for whom occupational information was available, reported being employed in a health-care or clinical laboratory setting. In comparison, 6.8 million persons -- representing 5.6% of the U.S. labor force -- were employed in health services. Of the health-care workers with AIDS, 95% have been reported to exhibit high-risk behavior; for the remaining 5%, the means of HIV acquisition was undetermined. Health-care workers with AIDS were significantly more likely than other workers to have an undetermined risk (5% versus 3%, respectively). For both health-care workers and non-health- care workers with AIDS, the proportion with an undetermined risk has not increased since 1982.

AIDS patients initially reported as not belonging to recognized risk groups are investigated by state and local health departments to determine whether possible risk factors exist. Of all health-care workers with AIDS reported to CDC who were initially characterized as not having an identified risk and for whom follow-up information was available, 66% have been reclassified because risk factors were identified or because the patient was found not to meet the surveillance case definition for AIDS. Of the 87 health-care workers currently categorized as having no identifiable risk, information is incomplete on 16 (18%) because of death or refusal to be interviewed; 38 (44%) are still being investigated. The remaining 33 (38%) health-care workers were interviewed or had other follow-up information available. The occupations of these 33 were as follows: five physicians (15%), three of whom were surgeons; one dentist (3%); three nurses (9%); nine nursing assistants (27%); seven housekeeping or maintenance workers (21%); three clinical laboratory technicians (9%); one therapist (3%); and four others who did not have contact with patients (12%). Although 15 of these 33 health-care workers reported parenteral and/or other non-needlestick exposure to blood or body fluids from patients in the 10 years preceding their diagnosis of AIDS, none of these exposures involved a patient with AIDS or known HIV infection.

Risk to Health-Care Workers of Acquiring HIV in Health-Care Settings

Health-care workers with documented percutaneous or mucous-membrane exposures to blood or body fluids of HIV-infected patients have been prospectively evaluated to determine the risk of infection after such exposures. As of June 30, 1987, 883 health-care workers have been tested for antibody to HIV in an ongoing surveillance project conducted by CDC (9). Of these, 708 (80%) had percutaneous exposures to blood, and 175 (20%) had a mucous membrane or an open wound contaminated by blood or body fluid. Of 396 health-care workers, each of whom had only a convalescent-phase serum sample obtained and tested greater than or equal to 90 days post- exposure, one -- for whom heterosexual transmission could not be ruled out -- was seropositive for HIV antibody. For 425 additional health-care workers, both acute- and convalescent-phase serum samples were obtained and tested; none of 74 health-care workers with nonpercutaneous exposures seroconverted, and three (0.9%) of 351 with percutaneous exposures seroconverted. None of these three health-care workers had other documented risk factors for infection.

Two other prospective studies to assess the risk of nosocomial acquisition of HIV infection for health-care workers are ongoing in the United States. As of April 30, 1987, 332 health-care workers with a total of 453 needlestick or mucous-membrane exposures to the blood or other body fluids of HIV-infected patients were tested for HIV antibody at the National Institutes of Health (10). These exposed workers included 103 with needlestick injuries and 229 with mucous-membrane exposures; none had seroconverted. A similar study at the University of California of 129 health-care workers with documented needlestick injuries or mucous-membrane exposures to blood or other body fluids from patients with HIV infection has not identified any seroconversions (11). Results of a prospective study in the United Kingdom identified no evidence of transmission among 150 health-care workers with parenteral or mucous-membrane exposures to blood or other body fluids, secretions, or excretions from patients with HIV infection (12).

In addition to health-care workers enrolled in prospective studies, eight persons who provided care to infected patients and denied other risk factors have been reported to have acquired HIV infection. Three of these health-care workers had needlestick exposures to blood from infected patients (13-15). Two were persons who provided nursing care to infected persons; although neither sustained a needlestick, both had extensive contact with blood or other body fluids, and neither observed recommended barrier precautions (16, 17). The other three were health-care workers with non-needlestick exposures to blood from infected patients (18). Although the exact route of transmission for these last three infections is not known, all three persons had direct contact of their skin with blood from infected patients, all had skin lesions that may have been contaminated by blood, and one also had a mucous-membrane exposure.

A total of 1,231 dentist and hygienists, many of whom practiced in areas with many AIDS cases, participated in a study to determine the prevalence of antibody to HIV; one dentist (0.1%) had HIV antibody. Although no exposure to a known HIV-infected person could be documented, epidemiologic investigation did not identify any other risk factor for infection. The infected dentist, who also had a history of sustaining needlestick injuries and trauma to his hands, did not routinely wear gloves when providing dental care (19).

Precautions To Prevent Transmission of HIV

Universal Precautions

Since medical history and examination cannot reliably identify all patients infected with HIV or other blood-borne pathogens, blood and body-fluid precautions should be consistently used for ALL patients. This approach, previously recommended by CDC (3,4), and referred to as "universal blood and body-fluid precautions" or "universal precautions," should be used in the care of ALL patients, especially including those in emergency-care settings in which the risk of blood exposure is increased and the infection status of the patient is usually unknown (20).

1. All health-care workers should 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. Gloves should be worn for touching blood and body fluids, mucous membranes, or non-intact skin of all patients, for handling items or surfaces soiled with blood or body fluids, and for performing venipuncture and other vascular access procedures. Gloves should be changed after contact with each patient. Masks and protective eyewear or face shields should 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 or aprons should be worn during procedures that are likely to generate splashes of blood or other body fluids.

2. Hands and other skin surfaces should be washed immediately and thoroughly if contaminated with blood or other body fluids. Hands should be washed immediately after gloves are removed.

3. All health-care workers should 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, needles should not be recapped, purposely bent or broken by hand, removed from disposable syringes, or otherwise manipulated by hand. After they are used, disposable syringes and needles, scalpel blades, and other sharp items should be placed in puncture-resistant containers for disposal; the puncture-resistant

containers should be located as close as practical to the use area. Large-bore reusable needles should be placed in a puncture-resistant container for transport to the reprocessing area.

4. Although saliva has not been implicated in HIV transmission, to minimize the need for emergency mouth-to-mouth resuscitation, mouth-pieces, resuscitation bags, or other ventilation devices should be available for use in areas in which the need for resuscitation is predictable.

5. Health-care workers who have exudative lesions or weeping dermatitis should refrain from all direct patient care and from handling patient-care equipment until the condition resolves.

6. Pregnant health-care workers are not known to be at greater risk of contracting HIV infection than health-care workers who are not pregnant; however, if a health-care worker develops HIV infection during pregnancy, the infant is at risk of infection resulting from perinatal transmission. Because of this risk, pregnant health-care workers should be especially familiar with and strictly adhere to precautions to minimize the risk of HIV transmission.

Implementation of universal blood and body-fluid precautions for ALL patients eliminates the need for use of the isolation category of "Blood and Body Fluid Precautions" previously recommended by CDC (7) for patients known or suspected to be infected with blood-borne pathogens. Isolation precautions (e.g., enteric, "AFB" {7}) should be used as necessary if associated conditions, such as infectious diarrhea or tuberculosis, are diagnosed or suspected.

Precautions for Invasive Procedures

In this document, an invasive procedure is defined as surgical entry into tissues, cavities, or organs or repair of major traumatic injuries 1)in an operating or delivery room, emergency department, or outpatient setting, including both physicians' and dentists' offices; 2) cardiac catheterization and angiographic procedures; 3) a vaginal or cesarean delivery or other invasive obstetric procedure during which bleeding may occur; or 4) the manipulation, cutting, or removal of any oral or perioral tissues, including tooth structure, during which bleeding occurs or the potential for bleeding exists. The universal blood and body-fluid precautions listed above, combined with the precautions listed below, should be the minimum precautions for ALL such invasive procedures.

1. All health-care workers who participate in invasive procedures must routinely use appropriate barrier precautions to prevent skin and mucous-membrane contact with blood and other body fluids of all patients. Gloves and surgical masks must be worn for all invasive procedures. Protective eyewear or face shields should 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. Gowns or aprons made of materials that provide an effective barrier should be worn during invasive procedures

that are likely to result in the splashing of blood or other body fluids. All health- care workers who perform or assist in vaginal or cesarean deliveries should wear gloves and gowns when handling the placenta or the infant until blood and amniotic fluid have been removed from the infant's skin and should wear gloves during post-delivery care of the umbilical cord.

2. If a glove is torn or a needlestick or other injury occurs, the glove should be removed and a new glove used as promptly as patient safety permits; the needle or instrument involved in the incident should also be removed from the sterile field.

Precautions for Dentistry (*)

Blood, saliva, and gingival fluid from ALL dental patients should be considered infective. Special emphasis should be placed on the following precautions for preventing transmission of blood-borne pathogens in dental practice in both institutional and non-institutional settings.

1. In addition to wearing gloves for contact with oral mucous membranes of all patients, all dental workers should wear surgical masks and protective eyewear or chin-length plastic face shields during dental procedures in which splashing or spattering of blood, saliva, or gingival fluids is likely. Rubber dams, high-speed evacuation and proper patient positioning, when appropriate, should be utilized to minimize generation of droplets and spatter.

2. Handpieces should be sterilized after use with each patient, since blood, saliva, or gingival fluid of patients may be aspirated into the handpiece or waterline. Handpieces that cannot be sterilized should at least be flushed, the outside surface cleaned and wiped with a suitable chemical germicide, and then rinsed. Handpieces should be flushed at the beginning of the day and after use with each patient. Manufacturers' recommendations should be followed for use and maintenance of waterlines and check valves and for flushing of handpieces. The same precautions should be used for ultrasonic scalers and air/water syringes.

3. Blood and saliva should be thoroughly and carefully cleaned from material that has been used in the mouth (e.g., impression materials, bite registration), especially before polishing and grinding intra-oral devices. Contaminated materials, impressions, and intra-oral devices should also be cleaned and disinfected before being handled in the dental laboratory and before they are placed in the patient's mouth. Because of the increasing variety of dental materials used intra-orally, dental workers should consult with manufacturers as to the stability of specific materials when using disinfection procedures.

4. Dental equipment and surfaces that are difficult to disinfect (e.g., light handles or X-ray-unit heads) and that may become contaminated should

be wrapped with impervious-backed paper, aluminum foil, or clear plastic wrap. The coverings should be removed and discarded, and clean coverings should be put in place after use with each patient.

* General infection-control precautions are more specifically addressed in previous recommendations for infection-control practices for dentistry (8).

Precautions for Autopsies or Morticians' Services

In addition to the universal blood and body-fluid precautions listed above, the following precautions should be used by persons performing postmortem procedures:

1. All persons performing or assisting in postmortem procedures should wear gloves, masks, protective eyewear, gowns, and waterproof aprons.
2. Instruments and surfaces contaminated during postmortem procedures should be decontaminated with an appropriate chemical germicide.

Precautions for Dialysis

Patients with end-stage renal disease who are undergoing maintenance dialysis and who have HIV infection can be dialyzed in hospital-based or free-standing dialysis units using conventional infection-control precautions (21). Universal blood and body-fluid precautions should be used when dialyzing ALL patients.

Strategies for disinfecting the dialysis fluid pathways of the hemodialysis machine are targeted to control bacterial contamination and generally consist of using 500-750 parts per million (ppm) of sodium hypochlorite (household bleach) for 30-40 minutes or 1.5%-2.0% formaldehyde overnight. In addition, several chemical germicides formulated to disinfect dialysis machines are commercially available. None of these protocols or procedures need to be changed for dialyzing patients infected with HIV.

Patients infected with HIV can be dialyzed by either hemodialysis or peritoneal dialysis and do not need to be isolated from other patients. The type of dialysis treatment (i.e., hemodialysis or peritoneal dialysis) should be based on the needs of the patient. The dialyzer may be discarded after each use. Alternatively, centers that reuse dialyzers – i.e. a specific single-use dialyzer is issued to a specific patient, removed, cleaned, disinfected, and reused several times on the same patient only – may include HIV-infected patients in the dialyzer-reuse program. An individual dialyzer must never be used on more than one patient.

Precautions for Laboratories **

Blood and other body fluids from ALL patients should be considered infective. To supplement the universal blood and body-fluid precautions listed above, the following precautions are recommended for health-care workers in clinical laboratories.

1. All specimens of blood and body fluids should be put in a well- constructed container with a secure lid to prevent leaking during transport. Care should

be taken when collecting each specimen to avoid contaminating the outside of the container and of the laboratory form accompanying the specimen.

2. All persons processing blood and body-fluid specimens (e.g., removing tops from vacuum tubes) should wear gloves. Masks and protective eyewear should be worn if mucous-membrane contact with blood or body fluids is anticipated. Gloves should be changed and hands washed after completion of specimen processing.

3. For routine procedures, such as histologic and pathologic studies or microbiologic culturing, a biological safety cabinet is not necessary. However, biological safety cabinets (Class I or II) should be used whenever procedures are conducted that have a high potential for generating droplets. These include activities such as blending, sonicating, and vigorous mixing.

4. Mechanical pipetting devices should be used for manipulating all liquids in the laboratory. Mouth pipetting must not be done.

5. Use of needles and syringes should be limited to situations in which there is no alternative, and the recommendations for preventing injuries with needles outlined under universal precautions should be followed.

6. Laboratory work surfaces should be decontaminated with an appropriate chemical germicide after a spill of blood or other body fluids and when work activities are completed.

7. Contaminated materials used in laboratory tests should be decontaminated before reprocessing or be placed in bags and disposed of in accordance with institutional policies for disposal of infective waste (24).

8. Scientific equipment that has been contaminated with blood or other body fluids should be decontaminated and cleaned before being repaired in the laboratory or transported to the manufacturer.

9. All persons should wash their hands after completing laboratory activities and should remove protective clothing before leaving the laboratory.

Implementation of universal blood and body-fluid precautions for ALL patients eliminates the need for warning labels on specimens since blood and other body fluids from all patients should be considered infective.

** Additional precautions for research and industrial laboratories are addressed elsewhere (22,23).

Environmental Considerations for HIV Transmission

No environmentally mediated mode of HIV transmission has been documented. Nevertheless, the precautions described below should be taken routinely in the care of ALL patients.

Sterilization and Disinfection

Standard sterilization and disinfection procedures for patient-care equipment currently recommended for use (25, 26) in a variety of healthcare settings -- including hospitals, medical and dental clinics and offices, hemodialysis centers, emergency-care facilities, and long-term nursing-care facilities -- are adequate to sterilize or disinfect instruments, devices, or other items contaminated with blood or other body fluids from persons infected with blood-borne pathogens including HIV (21, 23).

Instruments or devices that enter sterile tissue or the vascular system of any patient or through which blood flows should be sterilized before reuse. Devices or items that contact intact mucous membranes should be sterilized or receive high-level disinfection, a procedure that kills vegetative organisms and viruses but not necessarily large numbers of bacterial spores. Chemical germicides that are registered with the U.S. Environmental Protection Agency (EPA) as "sterilants" may be used either for sterilization or for high-level disinfection depending on contact time..

Contact lenses used in trial fittings should be disinfected after each fitting by using a hydrogen peroxide contact lens disinfecting system or, if compatible, with heat (78 C-80 C {172.4 F-176.0 F}) for 10 minutes.

Medical devices or instruments that require sterilization or disinfection should be thoroughly cleaned before being exposed to the germicide, and the manufacturer's instructions for the use of the germicide should be followed. Further, it is important that the manufacturer's specifications for compatibility of the medical device with chemical germicides be closely followed. Information on specific label claims of commercial germicides can be obtained by writing to the Disinfectants Branch, Office of Pesticides, Environmental Protection Agency, 401 M Street, SW, Washington, D.C. 20460.

Studies have shown that HIV is inactivated rapidly after being exposed to commonly used chemical germicides at concentrations that are much lower than used in practice (27-30). Embalming fluids are similar to the types of chemical germicides that have been tested and found to completely inactivate HIV. In addition to commercially available chemical germicides, a solution of sodium hypochlorite (household bleach) prepared daily is an inexpensive and effective germicide. Concentrations ranging from approximately 500 ppm (1:100 dilution of household bleach) sodium hypochlorite to 5,000 ppm (1:10 dilution of household bleach) are effective depending on the amount of organic material (e.g., blood, mucus) present on the surface to be cleaned and disinfected. Commercially

available chemical germicides may be more compatible with certain medical devices that might be corroded by repeated exposure to sodium hypochlorite, especially to the 1:10 dilution.

Survival of HIV in the Environment

The most extensive study on the survival of HIV after drying involved greatly concentrated HIV samples, i.e., 10 million tissue-culture infectious doses per milliliter (31). This concentration is at least 100,000 times greater than that typically found in the blood or serum of patients with HIV infection. HIV was detectable by tissue-culture techniques 1-3 days after drying, but the rate of inactivation was rapid. Studies performed at CDC have also shown that drying HIV causes a rapid (within several hours) 1-2 log (90%-99%) reduction in HIV concentration. In tissue-culture fluid, cell-free HIV could be detected up to 15 days at room temperature, up to 11 days at 37 C (98.6 F), and up to 1 day if the HIV was cell-associated.

When considered in the context of environmental conditions in health- care facilities, these results do not require any changes in currently recommended sterilization, disinfection, or housekeeping strategies. When medical devices are contaminated with blood or other body fluids, existing recommendations include the cleaning of these instruments, followed by disinfection or sterilization, depending on the type of medical device. These protocols assume "worst-case" conditions of extreme virologic and microbiologic contamination, and whether viruses have been inactivated after drying plays no role in formulating these strategies. Consequently, no changes in published procedures for cleaning, disinfecting, or sterilizing need to be made.

Housekeeping

Environmental surfaces such as walls, floors, and other surfaces are not associated with transmission of infections to patients or health-care workers. Therefore, extraordinary attempts to disinfect or sterilize these environmental surfaces are not necessary. However, cleaning and removal of soil should be done routinely.

Cleaning schedules and methods vary according to the area of the hospital or institution, type of surface to be cleaned, and the amount and type of soil present. Horizontal surfaces (e.g., bedside tables and hardsurfaced flooring) in patient-care areas are usually cleaned on a regular basis, when soiling or spills occur, and when a patient is discharged. Cleaning of walls, blinds, and curtains is recommended only if they are visibly soiled. Disinfectant fogging is an unsatisfactory method of decontaminating air and surfaces and is not recommended.

Disinfectant-detergent formulations registered by EPA can be used for cleaning environmental surfaces, but the actual physical removal of microorganisms by scrubbing is probably at least as important as any antimicrobial effect of the cleaning agent used. Therefore, cost, safety, and acceptability by housekeepers

can be the main criteria for selecting any such registered agent. The manufacturers' instructions for appropriate use should be followed.

Cleaning and Decontaminating Spills of Blood or Other Body Fluids

Chemical germicides that are approved for use as "hospital disinfectants" and are tuberculocidal when used at recommended dilutions can be used to decontaminate spills of blood and other body fluids. Strategies for decontaminating spills of blood and other body fluids in a patient-care setting are different than for spills of cultures or other materials in clinical, public health, or research laboratories. In patient-care areas, visible material should first be removed and then the area should be decontaminated. With large spills of cultured or concentrated infectious agents in the laboratory, the contaminated area should be flooded with a liquid germicide before cleaning, then decontaminated with fresh germicidal chemical. In both settings, gloves should be worn during the cleaning and decontaminating procedures.

Laundry

Although soiled linen has been identified as a source of large numbers of certain pathogenic microorganisms, the risk of actual disease transmission is negligible. Rather than rigid procedures and specifi- cations, hygienic and common-sense storage and processing of clean and soiled linen are recommended (26). Soiled linen should be handled as little as possible and with minimum agitation to prevent gross microbial contamination of the air and of persons handling the linen. All soiled linen should be bagged at the location where it was used; it should not be sorted or rinsed in patient-care areas. Linen soiled with blood or body fluids should be placed and transported in bags that prevent leakage. If hot water is used, linen should be washed with detergent in water at least 71 C (160 F) for 25 minutes. If low-temperature (less than or equal to 70 C {158 F}) laundry cycles are used, chemicals suitable for low-temperature washing at proper use concentration should be used.

Infective Waste

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 has caused disease in the community as a result of improper disposal. Therefore, identifying wastes for which special precautions are indicated is largely a matter of judgment about the relative risk of disease transmission. The most practical approach to the management of infective waste is to identify those wastes with the potential for causing infection during handling and disposal and for which some special precautions appear prudent. Hospital wastes for which special precautions appear prudent include microbiology laboratory waste, pathology waste, and blood specimens or blood products. While any item that has had contact with blood, exudates, or secretions may be potentially infective, it is not usually considered practical or necessary to treat all such waste as infective (23, 26). Infective waste, in general, should either be

incinerated or should be autoclaved before disposal in a sanitary landfill. 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 to dispose of other infectious wastes capable of being ground and flushed into the sewer.

Implementation of Recommended Precautions

Employers of health-care workers should ensure that policies exist for:

1. Initial orientation and continuing education and training of all health-care workers – including students and trainees – on the epidemiology, modes of transmission, and prevention of HIV and other blood-borne infections and the need for routine use of universal blood and body-fluid precautions for ALL patients.

2. Provision of equipment and supplies necessary to minimize the risk of infection with HIV and other blood-borne pathogens.

3. Monitoring adherence to recommended protective measures. When monitoring reveals a failure to follow recommended precautions, counseling, education, and/or re-training should be provided, and, if necessary, appropriate disciplinary action should be considered.

Professional associations and labor organizations, through continuing education efforts, should emphasize the need for health-care workers to follow recommended precautions.

Serologic Testing for HIV Infection

Background

A person is identified as infected with HIV when a sequence of tests, starting with repeated enzyme immunoassays (EIA) and including a Western blot or similar, more specific assay, are repeatedly reactive. Persons infected with HIV usually develop antibody against the virus within 6-12 weeks after infection.

The sensitivity of the currently licensed EIA tests is at least 99% when they are performed under optimal laboratory conditions on serum specimens from persons infected for greater than or equal to 12 weeks. Optimal laboratory conditions include the use of reliable reagents, provision of continuing education of personnel, quality control of proce- dures, and participation in performance-evaluation programs. Given this performance, the probability of a false-negative test is remote except during the first several weeks after infection, before detectable antibody is present. The proportion of infected persons with a false-negative test attributed to absence of antibody in the early stages of infection is dependent on both the incidence and prevalence of HIV infection in a population.

The specificity of the currently licensed EIA tests is approximately 99% when repeatedly reactive tests are considered. Repeat testing of initially reactive specimens by EIA is required to reduce the likelihood of laboratory error. To increase further the specificity of serologic tests, laboratories must use a supplemental test, most often the Western blot, to validate repeatedly reactive EIA results. Under optimal laboratory conditions, the sensitivity of the Western blot test is comparable to or greater than that of a repeatedly reactive EIA, and the Western blot is highly specific when strict criteria are used to interpret the test results. The testing sequence of a repeatedly reactive EIA and a positive Western blot test is highly predictive of HIV infection, even in a population with a low prevalence of infection. If the Western blot test result is indeterminant, the testing sequence is considered equivocal for HIV infection. When this occurs, the Western blot test should be repeated on the same serum sample, and, if still indeterminant, the testing sequence should be repeated on a sample collected 3-6 months later. Use of other supplemental tests may aid in interpreting of results on samples that are persistently indeterminant by Western blot.

Testing of Patients

Previous CDC recommendations have emphasized the value of HIV serologic testing of patients for: 1) management of parenteral or mucous-membrane exposures of health-care workers, 2) patient diagnosis and management, and 3) counseling and serologic testing to prevent and control HIV transmission in the community. In addition, more recent recommendations have stated that hospitals, in conjunction with state and local health departments, should periodically determine the prevalence of HIV infection among patients from age groups at highest risk of infection (32).

Adherence to universal blood and body-fluid precautions recommended for the care of all patients will minimize the risk of transmission of HIV and other blood-borne pathogens from patients to health-care workers. The utility of routine HIV serologic testing of patients as an adjunct to universal precautions is unknown. Results of such testing may not be available in emergency or outpatient settings. In addition, some recently infected patients will not have detectable antibody to HIV.

Personnel in some hospitals have advocated serologic testing of patients in settings in which exposure of health-care workers to large amounts of patients' blood may be anticipated. Specific patients for whom serologic testing has been advocated include those undergoing major operative procedures and those undergoing treatment in critical-care units, especially if they have conditions involving uncontrolled bleeding. Decisions regarding the need to establish testing programs for patients should be made by physicians or individual institutions. In addition, when deemed appropriate, testing of individual patients may be performed on agreement between the patient and the physician providing care.

In addition to the universal precautions recommended for all patients, certain additional precautions for the care of HIV-infected patients undergoing major

surgical operations have been proposed by personnel in some hospitals. For example, surgical procedures on an HIV-infected patient might be altered so that hand-to-hand passing of sharp instruments would be eliminated; stapling instruments rather than hand-suturing equipment might be used to perform tissue approximation; electrocautery devices rather than scalpels might be used as cutting instruments; and, even though uncomfortable, gowns that totally prevent seepage of blood onto the skin of members of the operative team might be worn. While such modifications might further minimize the risk of HIV infection for members of the operative team, some of these techniques could result in prolongation of operative time and could potentially have an adverse effect on the patient.

Testing programs, if developed, should include the following principles:

- Obtaining consent for testing.
- Informing patients of test results, and providing counseling for seropositive patients by properly trained persons.
- Assuring that confidentiality safeguards are in place to limit knowledge of test results to those directly involved in the care of infected patients or as required by law.
- Assuring that identification of infected patients will not result in denial of needed care or provision of suboptimal care.
- Evaluating prospectively 1) the efficacy of the program in reducing the incidence of parenteral, mucous-membrane, or significant cutaneous exposures of health-care workers to the blood or other body fluids of HIV-infected patients and 2) the effect of modified procedures on patients.

Testing of Health-Care Workers

Although transmission of HIV from infected health-care workers to patients has not been reported, transmission during invasive procedures remains a possibility. Transmission of hepatitis B virus (HBV) -- a blood-borne agent with a considerably greater potential for nosocomial spread -- from health-care workers to patients has been documented. Such transmission has occurred in situations (e.g., oral and gynecologic surgery) in which health-care workers when tested had very high concentrations of HBV in their blood (at least 100 million infectious virus particles per milliliter, a concentration much higher than occurs with HIV infection), and the health-care workers sustained a puncture wound while performing invasive procedures or had exudative or weeping lesions or microlacerations that allowed virus to contaminate instruments or open wounds of patients (33, 34).

The hepatitis B experience indicates that only those health-care workers who perform certain types of invasive procedures have transmitted HBV to patients. Adherence to recommendations in this document will minimize the risk of transmission of HIV and other blood-borne pathogens from health-care workers

to patients during invasive procedures. Since transmission of HIV from infected health-care workers performing invasive procedures to their patients has not been reported and would be expected to occur only very rarely, if at all, the utility of routine testing of such health-care workers to prevent transmission of HIV cannot be assessed. If consideration is given to developing a serologic testing program for health-care workers who perform invasive procedures, the frequency of testing, as well as the issues of consent, confidentiality, and consequences of test results -- as previously outlined for testing programs for patients -- must be addressed.

Management of Infected Health-Care Workers

Health-care workers with impaired immune systems resulting from HIV infection or other causes are at increased risk of acquiring or experiencing serious complications of infectious disease. Of particular concern is the risk of severe infection following exposure to patients with infectious diseases that are easily transmitted if appropriate precautions are not taken (e.g., measles, varicella). Any health-care worker with an impaired immune system should be counseled about the potential risk associated with taking care of patients with any transmissible infection and should continue to follow existing recommendations for infection control to minimize risk of exposure to other infectious agents (7, 35). Recommendations of the Immunization Practices Advisory Committee (ACIP) and institutional policies concerning requirements for vaccinating health-care workers with live-virus vaccines (e.g., measles, rubella) should also be considered.

The question of whether workers infected with HIV -- especially those who perform invasive procedures -- can adequately and safely be allowed to perform patient-care duties or whether their work assignments should be changed must be determined on an individual basis. These decisions should be made by the health-care worker's personal physician(s) in conjunction with the medical directors and personnel health service staff of the employing institution or hospital.

Management of Exposures

If a health-care worker has a parenteral (e.g., needlestick or cut) or mucous-membrane (e.g., splash to the eye or mouth) exposure to blood or other body fluids or has a cutaneous exposure involving large amounts of blood or prolonged contact with blood -- especially when the exposed skin is chapped, abraded, or afflicted with dermatitis -- the source patient should be informed of the incident and tested for serologic evidence of HIV infection after consent is obtained. Policies should be developed for testing source patients in situations in which consent cannot be obtained (e.g., an unconscious patient).

If the source patient has AIDS, is positive for HIV antibody, or refuses the test, the health-care worker should be counseled regarding the risk of infection and

evaluated clinically and serologically for evidence of HIV infection as soon as possible after the exposure. The health-care worker should be advised to report and seek medical evaluation for any acute febrile illness that occurs within 12 weeks after the exposure. Such an illness -- particularly one characterized by fever, rash, or lymphadenopathy -- may be indicative of recent HIV infection. Seronegative health-care workers should be retested 6 weeks post-exposure and on a periodic basis thereafter (e.g., 12 weeks and 6 months after exposure) to determine whether transmission has occurred. During this follow-up period, especially the first 6-12 weeks after exposure, when most infected persons are expected to seroconvert -- exposed health-care workers should follow U.S. Public Health Service (PHS) recommendations for preventing transmission of HIV (36, 37).

No further follow-up of a health-care worker exposed to infection as described above is necessary if the source patient is seronegative unless the source patient is at high risk of HIV infection. In the latter case, a subsequent specimen (e.g., 12 weeks following exposure) may be obtained from the health-care worker for antibody testing. If the source patient cannot be identified, decisions regarding appropriate follow-up should be individualized. Serologic testing should be available to all health-care workers who are concerned that they may have been infected with HIV.

If a patient has a parenteral or mucous-membrane exposure to blood or other body fluid of a health-care worker, the patient should be informed of the incident, and the same procedure outlined above for management of exposures should be followed for both the source health-care worker and the exposed patient.

APPENDIX C

APPENDIX C

29 CFR 1910.1030

"OCCUPATIONAL EXPOSURE TO BLOODBORNE PATHOGENS STANDARD"

OSHA Regulations (Standards - 29 CFR)
Bloodborne pathogens. - 1910.1030

◀

- **Standard Number:** 1910.1030
- **Standard Title:** Bloodborne pathogens.
- **SubPart Number:** Z
- **SubPart Title:** Toxic and Hazardous Substances

(a)

Scope and Application. This section applies to all occupational exposure to blood or other potentially infectious materials as defined by paragraph (b) of this section.

(b)

Definitions. For purposes of this section, the following shall apply:

"Assistant Secretary" means the Assistant Secretary of Labor for Occupational Safety and Health, or designated representative.

"Blood" means human blood, human blood components, and products made from human blood.

"Bloodborne Pathogens" means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

"Clinical Laboratory" means a workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious materials.

"Contaminated" means the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

"Contaminated Laundry" means laundry which has been soiled with blood or other potentially infectious materials or may contain sharps.

"Contaminated Sharps" means any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and

exposed ends of dental wires.

"Decontamination" means the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

"Director" means the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designated representative.

"Engineering Controls" means controls (e.g., sharps disposal containers, self-sheathing needles) that isolate or remove the bloodborne pathogens hazard from the workplace.

"Exposure Incident" means a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

"Handwashing Facilities" means a facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines.

"Licensed Healthcare Professional" is a person whose legally permitted scope of practice allows him or her to independently perform the activities required by paragraph (f) Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up.

"HBV" means hepatitis B virus.

"HIV" means human immunodeficiency virus.

"Occupational Exposure" means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

"Other Potentially Infectious Materials" means (1) The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; (2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and (3) HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

"Parenteral" means piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions.

"Personal Protective Equipment" is specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered

to be personal protective equipment.

"Production Facility" means a facility engaged in industrial-scale, large-volume or high concentration production of HIV or HBV.

"Regulated Waste" means liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

"Research Laboratory" means a laboratory producing or using research-laboratory-scale amounts of HIV or HBV. Research laboratories may produce high concentrations of HIV or HBV but not in the volume found in production facilities.

"Source Individual" means any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients; clients in institutions for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospices and nursing homes; human remains; and individuals who donate or sell blood or blood components.

"Sterilize" means the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

"Universal Precautions" is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

"Work Practice Controls" means controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

(c)

Exposure Control.

(c)(1)

Exposure Control Plan.

(c)(1)(i)

Each employer having an employee(s) with occupational exposure as defined by paragraph (b) of this section shall establish a written Exposure Control Plan designed to eliminate or minimize employee exposure.

(c)(1)(ii)

The Exposure Control Plan shall contain at least the following elements:

(c)(1)(ii)(A)

The exposure determination required by paragraph (c)(2),

..1910.1030(c)(1)(ii)(B)

(c)(1)(ii)(B)

The schedule and method of implementation for paragraphs (d) Methods of Compliance, (e) HIV and HBV Research Laboratories and Production Facilities, (f) Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up, (g) Communication of Hazards to Employees, and (h) Recordkeeping, of this standard, and

(c)(1)(ii)(C)

The procedure for the evaluation of circumstances surrounding exposure incidents as required by paragraph (f)(3)(i) of this standard.

(c)(1)(iii)

Each employer shall ensure that a copy of the Exposure Control Plan is accessible to employees in accordance with 29 CFR 1910.1020(e).

(c)(1)(iv)

The Exposure Control Plan shall be reviewed and updated at least annually and whenever necessary to reflect new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

(c)(1)(v)

The Exposure Control Plan shall be made available to the Assistant Secretary and the Director upon request for examination and copying.

(c)(2)

Exposure Determination.

(c)(2)(i)

Each employer who has an employee(s) with occupational exposure as defined by paragraph (b) of this section shall prepare an exposure determination. This exposure determination shall contain the following:

(c)(2)(i)(A)

A list of all job classifications in which all employees in those job classifications have occupational exposure;

OSHA Regulations (Standards – 29 CFR
Bloodborne pathogens. – 1910. 1030

- **Standard Number:** 1910. 1030
- **Standard Title:** Bloodborne pathogens.
- **SubPart Number:** Z
- **SubPart Title:** Toxic and Hazardous Substances

(a)

Scope and Application. This section applies to all occupational exposure to blood or other potentially infectious materials as defined by paragraph (b) of this section

(b)

Definitions. For purposes of this section, the following shall apply:

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"Bloodborne Pathogens" means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

"Clinical Laboratory" means a workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious materials.

"Contaminated" means the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

"Contaminated Laundry" means laundry which has been soiled with blood or other potentially infectious materials or may contain sharps.

"Contaminated Sharps" means any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and

exposed ends of dental wires.

"Decontamination" means the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

"Director" means the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designated representative.

"Engineering Controls" means controls (e.g., sharps disposal containers, self-sheathing needles, safer medical devices, such as sharps with engineered sharps injury protections and needleless systems) that isolate or remove the bloodborne pathogens hazard from the workplace.

"Exposure Incident" means a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

"Handwashing Facilities" means a facility providing an adequate supply of running potable water, soap, and single-use towels or air-drying machines.

"Licensed Healthcare Professional" is a person whose legally permitted scope of practice allows him or her to independently perform the activities required by paragraph (f) Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up.

"HBV "means hepatitis B virus.

"HIV "means human immunodeficiency virus.

Needleless systems means a device that does not use needles for:

"Occupational Exposure" means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

"Other Potentially Infectious Materials" means (1) The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; (2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and (3) HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

Parenteral means piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions.

Personal Protective Equipment is specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered

to be personal protective equipment.

'Production Facility" means a facility engaged in industrial-scale, large-volume or high concentration production of HIV or HBV.

"Regulated Waste" means liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

"Research Laboratory" means a laboratory producing or using research-laboratory-scale amounts of HIV or HBV. Research laboratories may produce high concentrations of HIV or HBV but not in the volume found in production facilities.

"Source Individual "means any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients; clients in institutions for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospices and nursing homes; human remains; and individuals who donate or sell blood or blood components.

"Sterilize" means the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

"Universal Precautions" is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

"Work Practice Controls" means controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

(c)

Exposure Control.

(c)(1)

Exposure Control Plan.

(c)(1)(I)

Each employer having an employee(s) with occupational exposure as defined by paragraph (b) of this section shall establish a written Exposure Control Plan designed to eliminate or minimize employee exposure.

(c)(1)(Ii)

The Exposure Control Plan shall contain at least the following elements:

(c)(1)(ii)(A)

The exposure determination required by paragraph (c)(2),

(c)(1)(ii)(B)

The schedule and method of implementation for paragraphs (d) Methods of Compliance, (e) HIV and HBV Research Laboratories and Production Facilities, (f) Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up, (g) Communication of Hazards to Employees, and (h) Recordkeeping, of this standard, and

(c)(1)(ii)(C)

The procedure for the evaluation of circumstances surrounding exposure incidents as required by paragraph (f)(3)(i) of this standard.

0(c)(1)(iii)

Each employer shall ensure that a copy of the Exposure Control Plan is accessible to employees in accordance with 29 CFR 1910.1020(e).

(c)(1)(iv)

The Exposure Control Plan shall be reviewed and updated at least annually and whenever necessary to reflect new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

(c)(1)(v)

The Exposure Control Plan shall be made available to the Assistant Secretary and the Director upon request for examination and copying.

(c)(2)

Exposure Determination.

(c)(2)(i)

Each employer who has an employee(s) with occupational exposure as defined by paragraph (b) of this section shall prepare an exposure determination. This exposure determination shall contain the following:

(c)(2)(i)(A)

A list of all job classifications in which all employees in those job classifications have occupational exposure;

1910.1030(c)(2)(i)(B)

A list of job classifications in which some employees occupational exposure, and

(c)(2)(i)(C)

A list of all tasks and procedures or groups of closely related task and procedures in which occupational exposure occurs and that are performed by employees in job classifications listed in accordance with the provisions of paragraph (c)(2)(i)(B) of this standard.

(c)(2)(ii)

This exposure determination shall be made without regard to the use of personal protective equipment.

(d)

Methods of Compliance.

(d)(1)

General. Universal precautions shall be observed to prevent contact with blood or other potentially infectious materials. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials.

(d)(2)

Engineering and Work Practice Controls.

(d)(2)(i)

Engineering and work practice controls shall be used to eliminate or minimize employee exposure. Where occupational exposure remains after institution of these controls, personal protective equipment shall also be used.

1910.1030(d)(2)(ii)

Engineering controls shall be examined and maintained or replaced on a regular schedule to ensure their effectiveness.

(d)(2)(iii)

Employers shall provide handwashing facilities which are readily accessible to employees.

(d)(2)(iv)

When provision of handwashing facilities is not feasible, the employer shall provide either

an appropriate antiseptic hand cleanser in conjunction with clean cloth/paper towels or antiseptic towelettes. When antiseptic hand cleansers or towelettes are used, hands shall be washed with soap and running water as soon as feasible.

(d)(2)(v)

Employers shall ensure that employees wash their hands immediately or as soon as feasible after removal of gloves or other personal protective equipment.

(d)(2)(vi)

Employers shall ensure that employees wash hands and any other skin with soap and water, or flush mucous membranes with water immediately or as soon as feasible following contact of such body areas with blood or other potentially infectious materials.

(d)(2)(vii)

Contaminated needles and other contaminated sharps shall not be bent, recapped, or removed except as noted in paragraphs (d)(2)(vii)(A) and (d)(2)(vii)(B) below. Shearing or breaking of contaminated needles is prohibited.

..1910.1030(d)(2)(vii)(A)

(d)(2)(vii)(A

Contaminated needles and other contaminated sharps shall not be bent, recapped or removed unless the employer can demonstrate that no alternative is feasible or that such action is required by a specific medical or dental procedure.

(d)(2)(vii)(B)

Such bending, recapping or needle removal must be accomplished through the use of a mechanical device or a one-handed technique.

(d)(2)(viii)

Immediately or as soon as possible after use, contaminated reusable sharps shall be placed in appropriate containers until properly reprocessed. These containers shall be:

(d)(2)(viii)(A)

Puncture resistant;

(d)(2)(viii)(B)

Labeled or color-coded in accordance with this standard;

(d)(2)(viii)(C)

Leakproof on the sides and bottom; and

(d)(2)(viii)(D)

In accordance with the requirements set forth in paragraph (d)(4)(ii)(E) for reusable sharps.

(d)(2)(ix)

Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure.

(d)(2)(x)

Food and drink shall not be kept in refrigerators, freezers, shelves, cabinets or on countertops or benchtops where blood or other potentially infectious materials are present.

1910.1030(d)(2)(xi)

(d)(2)(xi)

All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these substances.

(d)(2)(xii)

Mouth pipetting/suctioning of blood or other potentially infectious materials is prohibited.

(d)(2)(xiii)

Specimens of blood or other potentially infectious materials shall be placed in a container which prevents leakage during collection, handling, processing, storage, transport, or shipping.

(d)(2)(xiii)(A)

The container for storage, transport, or shipping shall be labeled or color-coded according to paragraph (g)(1)(i) and closed prior to being stored, transported, or shipped. When a facility utilizes Universal Precautions in the handling of all specimens, the labeling/color-coding of specimens is not necessary provided containers are recognizable as containing specimens. This exemption only applies while such specimens/containers remain within the facility. Labeling or color-coding in accordance with paragraph (g)(1)(i) is required when such specimens/containers leave the facility.

(d)(2)(xiii)(B)

If outside contamination of the primary container occurs, the primary container shall be placed within a second container which prevents leakage during handling, processing, storage, transport, or shipping and is labeled or color-coded according to the requirements of this standard.

1910.1030(d)(2)(xiii)(C)

(d)(2)(xiii)(C)

If the specimen could puncture the primary container, the primary container shall be placed within a secondary container which is puncture-resistant in addition to the above characteristics.

(d)(2)(xiv)

Equipment which may become contaminated with blood or other potentially infectious materials shall be examined prior to servicing or shipping and shall be decontaminated as necessary, unless the employer can demonstrate that decontamination of such equipment or portions of such equipment is not feasible.

(d)(2)(xiv)(A)

A readily observable label in accordance with paragraph (g)(1)(i)(H) shall be attached to the equipment stating which portions remain contaminated.

(d)(2)(xiv)(B)

The employer shall ensure that this information is conveyed to all affected employees, the servicing representative, and/or the manufacturer, as appropriate, prior to handling, servicing, or shipping so that appropriate precautions will be taken.

1910.1030(d)(3)

(d)(3)

Personal Protective Equipment.

(d)(3)(i)

Provision. When there is occupational exposure, the employer shall provide, at no cost to the employee, appropriate personal protective equipment such as, but not limited to. Gloves, gowns, laboratory coats, face shields or masks and eye protection, and mouthpieces, resuscitation bags, pocket masks, or other ventilation devices. Personal protective 3qipment will be considered "appropriate" only if it does not permit blood or other potentially infectious materials to pass through to or reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.

(d)(3)(ii)

Use. The employer shall ensure that the employee use appropriate peraonal protectice equipment usless the employer shows that the employee temporally and briefly declined to use personal protective equipment when, under rare and extraordinary circumstances, it was the employee's professional judgement ehat in the specific instance its use would have

when their ability to function as a barrier is compromised.

..1910.1030(d)(3)(ix)(B)

(d)(3)(ix)(B)

Disposable (single use) gloves shall not be washed or decontaminated for re-use.

(d)(3)(ix)(C)

Utility gloves may be decontaminated for re-use if the integrity of the glove is not compromised. However, they must be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.

(d)(3)(ix)(D)

If an employer in a volunteer blood donation center judges that routine gloving for all phlebotomies is not necessary then the employer shall:

(d)(3)(ix)(D)(1)

Periodically reevaluate this policy;

(d)(3)(ix)(D)(2)

Make gloves available to all employees who wish to use them for phlebotomy;

(d)(3)(ix)(D)(3)

Not discourage the use of gloves for phlebotomy; and

(d)(3)(ix)(D)(4)

Require that gloves be used for phlebotomy in the following circumstances:

[i] When the employee has cuts, scratches, or other breaks in his or her skin;

[ii] When the employee judges that hand contamination with blood may occur, for example, when performing phlebotomy on an uncooperative source individual; and

[iii] When the employee is receiving training in phlebotomy.

..1910.1030(d)(3)(x)

(d)(3)(x)

Masks, Eye Protection, and Face Shields. Masks in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin-length face shields, shall be worn whenever splashes, spray, spatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can be reasonably anticipated.

(d)(3)(xi)

Gowns, Aprons, and Other Protective Body Clothing. Appropriate protective clothing such as, but not limited to, gowns, aprons, lab coats, clinic jackets, or similar outer garments shall be worn in occupational exposure situations. The type and characteristics will depend upon the task and degree of exposure anticipated.

(d)(3)(xii)

Surgical caps or hoods and/or shoe covers or boots shall be worn in instances when gross contamination can reasonably be anticipated (e.g., autopsies, orthopaedic surgery).

(d)(4)

Housekeeping.

(d)(4)(i)

General. Employers shall ensure that the worksite is maintained in a clean and sanitary condition. The employer shall determine and implement an appropriate written schedule for cleaning and method of decontamination based upon the location within the facility, type of surface to be cleaned, type of soil present, and tasks or procedures being performed in the area.

(d)(4)(ii)

All equipment and environmental and working surfaces shall be cleaned and decontaminated after contact with blood or other potentially infectious materials.

..1910.1030(d)(4)(ii)(A)

(d)(4)(ii)(A)

Contaminated work surfaces shall be decontaminated with an appropriate disinfectant after completion of procedures; immediately or as soon as feasible when surfaces are overtly contaminated or after any spill of blood or other potentially infectious materials; and at the end of the work shift if the surface may have become contaminated since the last cleaning.

(d)(4)(ii)(B)

Protective coverings, such as plastic wrap, aluminum foil, or imperviously-backed absorbent paper used to cover equipment and environmental surfaces, shall be removed and replaced as soon as feasible when they become overtly contaminated or at the end of the workshift if they may have become contaminated during the shift.

(d)(4)(ii)(C)

All bins, pails, cans, and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or other potentially infectious materials shall be inspected and decontaminated on a regularly scheduled basis and cleaned and

decontaminated immediately or as soon as feasible upon visible contamination.

(d)(4)(ii)(D)

Broken glassware which may be contaminated shall not be picked up directly with the hands. It shall be cleaned up using mechanical means, such as a brush and dust pan, tongs, or forceps.

(d)(4)(ii)(E)

Reusable sharps that are contaminated with blood or other potentially infectious materials shall not be stored or processed in a manner that requires employees to reach by hand into the containers where these sharps have been placed.

(d)(4)(iii)

Regulated Waste.

..1910.1030(d)(4)(iii)(A)

(d)(4)(iii)(A)

Contaminated Sharps Discarding and Containment.

(d)(4)(iii)(A)(1)

Contaminated sharps shall be discarded immediately or as soon as feasible in containers that are:

[a] Closable;

[b] Puncture resistant;

[c] Leakproof on sides and bottom; and

[d] Labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard.

(d)(4)(iii)(A)(2)

During use, containers for contaminated sharps shall be:

[a] Easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found (e.g., laundries);

[b] Maintained upright throughout use; and

[c] Replaced routinely and not be allowed to overfill.

(d)(4)(iii)(A)(3)

When moving containers of contaminated sharps from the area of use, the containers shall be:

[a] Closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping;

[b] Placed in a secondary container if leakage is possible. The second container shall be:

[i] Closable;

[ii] Constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping; and

[iii] Labeled or color-coded according to paragraph (g)(1)(i) of this standard.

(d)(4)(iii)(A)(4)

Reusable containers shall not be opened, emptied, or cleaned manually or in any other manner which would expose employees to the risk of percutaneous injury.

(d)(4)(iii)(B)

Other Regulated Waste Containment.

(d)(4)(iii)(B)(1)

Regulated waste shall be placed in containers which are:

[a] Closable;

[b] Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping;

[c] Labeled or color-coded in accordance with paragraph (g)(1)(i) this standard; and

[d] Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

(d)(4)(iii)(B)(2)

If outside contamination of the regulated waste container occurs, it shall be placed in a second container. The second container shall be:

[a] Closable;

[b] Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping;

[c] Labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard; and

[d] Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

(d)(4)(iii)(C)

Disposal of all regulated waste shall be in accordance with applicable regulations of the United States, States and Territories, and political subdivisions of States and Territories.

..1910.1030(d)(4)(iv)

(d)(4)(iv)

Laundry.

(d)(4)(iv)(A)

Contaminated laundry shall be handled as little as possible with a minimum of agitation.

(d)(4)(iv)(A)(1)

Contaminated laundry shall be bagged or containerized at the location where it was used and shall not be sorted or rinsed in the location of use.

(d)(4)(iv)(A)(2)

Contaminated laundry shall be placed and transported in bags or containers labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard. When a facility utilizes Universal Precautions in the handling of all soiled laundry, alternative labeling or color-coding is sufficient if it permits all employees to recognize the containers as requiring compliance with Universal Precautions.

(d)(4)(iv)(A)(3)

Whenever contaminated laundry is wet and presents a reasonable likelihood of soak-through of or leakage from the bag or container, the laundry shall be placed and transported in bags or containers which prevent soak-through and/or leakage of fluids to the exterior.

(d)(4)(iv)(B)

The employer shall ensure that employees who have contact with contaminated laundry wear protective gloves and other appropriate personal protective equipment.

..1910.1030(d)(4)(iv)(C)

(d)(4)(iv)(C)

When a facility ships contaminated laundry off-site to a second facility which does not utilize Universal Precautions in the handling of all laundry, the facility generating the contaminated laundry must place such laundry in bags or containers which are labeled or color-coded in accordance with paragraph (g)(1)(i).

(e)

HIV and HBV Research Laboratories and Production Facilities.

(e)(1)

This paragraph applies to research laboratories and production facilities engaged in the culture, production, concentration, experimentation, and manipulation of HIV and HBV. It does not apply to clinical or diagnostic laboratories engaged solely in the analysis of blood, tissues, or organs. These requirements apply in addition to the other requirements of standard.

(e)(2)

Research laboratories and production facilities shall meet the following criteria:

(e)(2)(I)

Standard Microbiological Practices. All regulated waste shall either be incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.

(e)(2)(II)

Special Practices

(e)(2)(II)(A)

Laboratory doors shall be kept closed when involving HIV or HBV is in progress.

..1910.1030(e)(2)(B)

(e)(2)(II)(B)

Contaminated materials that are to be decontaminated at a site away from the work area shall be placed in a durable, leakproof, labeled or color-coded container that is closed before being removed from the work area.

(e)(2)(II)(C)

Access to the work area shall be limited to authorized persons. Written policies and procedures shall be established whereby only persons who have been advised of the potential biohazard, who meet any specific entry requirements, and who comply with all entry and exit procedures shall be allowed to enter the work areas and animal rooms.

(e)(2)(II)(D)

When other potentially infectious materials or infected animals are present in the work area or containment module, a hazard warning sign incorporating the universal biohazard symbol shall be posted on all access doors. The hazard warning sign shall comply with paragraph (g)(1)(ii) of this standard.

(e)(2)(II)(E)

All activities involving other potentially infectious materials shall be conducted in

biological safety cabinets or other physical-containment devices within the containment module. No work with these other potentially infectious materials shall be conducted on the open bench.

(e)(2)(ii)(F)

Laboratory coats, gowns, smocks, uniforms, or other appropriate protective clothing shall be used in the work area and animal rooms. Protective clothing shall not be worn outside of the work area and shall be decontaminated before being laundered.

..1910.1030(e)(2)(ii)(G)

(e)(2)(ii)(G)

Special care shall be taken to avoid skin contact with other potentially infectious materials. Gloves shall be worn when handling infected animals and when making hand contact with other potentially infectious materials is unavoidable.

(e)(2)(ii)(H)

Before disposal all waste from work areas and from animal rooms shall either be incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.

(e)(2)(ii)(I)

Vacuum lines shall be protected with liquid disinfectant traps and high-efficiency particulate air (HEPA) filters or filters of equivalent or superior efficiency and which are checked routinely and maintained or replaced as necessary.

(e)(2)(ii)(J)

Hypodermic needles and syringes shall be used only for parenteral injection and aspiration of fluids from laboratory animals and diaphragm bottles. Only needle-locking syringes or disposable syringe-needle units (i.e., the needle is integral to the syringe) shall be used for the injection or aspiration of other potentially infectious materials. Extreme caution shall be used when handling needles and syringes. A needle shall not be bent, sheared, replaced in the sheath or guard, or removed from the syringe following use. The needle and syringe shall be promptly placed in a puncture-resistant container and autoclaved or decontaminated before reuse or disposal.

(e)(2)(ii)(K)

All spills shall be immediately contained and cleaned up by appropriate professional staff or others properly trained and equipped to work with potentially concentrated infectious materials.

..1910.1030(e)(2)(ii)(L)

(e)(2)(ii)(L)

A spill or accident that results in an exposure incident shall be immediately reported to the laboratory director or other responsible person.

(e)(2)(ii)(M)

A biosafety manual shall be prepared or adopted and periodically reviewed and updated at least annually or more often if necessary. Personnel shall be advised of potential hazards, shall be required to read instructions on practices and procedures, and shall be required to follow them.

(e)(2)(iii)

Containment Equipment.

(e)(2)(iii)(A)

Certified biological safety cabinets (Class I, II, or III) or other appropriate combinations of personal protection or physical containment devices, such as special protective clothing, respirators, centrifuge safety cups, sealed centrifuge rotors, and containment caging for animals, shall be used for all activities with other potentially infectious materials that pose a threat of exposure to droplets, splashes, spills, or aerosols.

(e)(2)(iii)(B)

Biological safety cabinets shall be certified when installed, whenever they are moved and at least annually.

(e)(3)

HIV and HBV research laboratories shall meet the following criteria:

..1910.1030(e)(3)(i)

(e)(3)(i)

Each laboratory shall contain a facility for hand washing and an eye wash facility which is readily available within the work area.

(e)(3)(ii)

An autoclave for decontamination of regulated waste shall be available.

(e)(4)

HIV and HBV production facilities shall meet the following criteria:

(e)(4)(i)

The work areas shall be separated from areas that are open to unrestricted traffic flow within the building. Passage through two sets of doors shall be the basic requirement for entry into the work area from access corridors or other contiguous areas. Physical

separation of the high-containment work area from access corridors or other areas or activities may also be provided by a double-doored clothes-change room (showers may be included), airlock, or other access facility that requires passing through two sets of doors before entering the work area.

(e)(4)(ii)

The surfaces of doors, walls, floors and ceilings in the work area shall be water resistant so that they can be easily cleaned. Penetrations in these surfaces shall be sealed or capable of being sealed to facilitate decontamination.

..1910.1030(e)(4)(iii)

(e)(4)(iii)

Each work area shall contain a sink for washing hands and a readily available eye wash facility. The sink shall be foot, elbow, or automatically operated and shall be located near the exit door of the work area.

(e)(4)(iv)

Access doors to the work area or containment module shall be self-closing.

(e)(4)(v)

An autoclave for decontamination of regulated waste shall be available within or as near as possible to the work area.

(e)(4)(vi)

A ducted exhaust-air ventilation system shall be provided. This system shall create directional airflow that draws air into the work area through the entry area. The exhaust air shall not be recirculated to any other area of the building, shall be discharged to the outside, and shall be dispersed away from occupied areas and air intakes. The proper direction of the airflow shall be verified (i.e., into the work area).

(e)(5)

Training Requirements. Additional training requirements for employees in HIV and HBV research laboratories and HIV and HBV production facilities are specified in paragraph (g)(2)(ix).

(f)

Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up.

..1910.1030(f)(1)

(f)(1)

General.

(f)(1)(i)

The employer shall make available the hepatitis B vaccine and vaccination series to all employees who have occupational exposure, and post-exposure evaluation and follow-up to all employees who have had an exposure incident.

(f)(1)(ii)

The employer shall ensure that all medical evaluations and procedures including the hepatitis B vaccine and vaccination series and post-exposure evaluation and follow-up, including prophylaxis, are:

(f)(1)(ii)(A)

Made available at no cost to the employee;

(f)(1)(ii)(B)

Made available to the employee at a reasonable time and place;

(f)(1)(ii)(C)

Performed by or under the supervision of a licensed physician or by or under the supervision of another licensed healthcare professional; and

(f)(1)(ii)(D)

Provided according to recommendations of the U.S. Public Health Service current at the time these evaluations and procedures take place, except as specified by this paragraph (f).

(f)(1)(iii)

The employer shall ensure that all laboratory tests are conducted by an accredited laboratory at no cost to the employee.

..1910.1030(f)(2)

(f)(2)

Hepatitis B Vaccination.

(f)(2)(i)

Hepatitis B vaccination shall be made available after the employee has received the training required in paragraph (g)(2)(vii)(I) and within 10 working days of initial assignment to all employees who have occupational exposure unless the employee has previously received the complete hepatitis B vaccination series, antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons.

(f)(2)(ii)

The employer shall not make participation in a prescreening program a perquisite for receiving hepatitis B vaccination.

(f)(2)(iii)

If the employee initially declines hepatitis B vaccination but at a later date while s4till covered under the standard decides to accept the vaccination, the employer shall make available hepatitis B vaccination at that time.

(f)(2)(iv)

The employer shall assure that employees who decline to accept hepatitis B vaccination offered by the employer sign the statement in Appendix A.

(f)(2)(v)

If a routine booster dose(s) of hepatitis B vaccine is recommended by the U>S> Public Health Service at a future date, such booster dose(s) shall be made available in accordance with section (f)(1)(ii).

(f)(3)

Post-exposure Evaluation and Follow-up. Following a report of an exposure incident, the employer shall make immediately available to the exposed employee a confidential medical evaluation and follow-up, including at least the following elements:

(f)(3)(i)

Documentation of the route(s) of exposure, and the circumstances unde4r which the ex0posure incident occurred;

..1910.1030(f)(3)(ii)

(f)(3)(ii)

Identification and documentation of the source individual, unless the employer can establish that identification is infeasible or prohibited by state or local law;

(f)(3)(ii)(A)

The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV infectivity. If consent is not obtained, the employer shall establish that legally required consent cannot be obtained. When the source individual's consent is not required by law, the source individual's blood, if available, shall be tested and the results documented.

(f)(3)(ii)(B)
When the source individual is already known to be infected with HBV or HIV, testing for the source individual's known HBV or HIV status need not be repeated.

(f)(3)(ii)(C)

Results of the source individual's testing shall be made available ot the eposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

(f)(3)(iii)

Collection and testing of blood for HBV and HIV serological status;

(f)(3)(iii)(A)

The exposed employee's blood shall be collected as soon as feasible and tested after consent is obtained.

..1910.1030(f)(3)(iii)(B)

(f)(3)(iii)(B)

If the employee consents to baseline blood collection, but does not give consent at that time for HIV serologic testing, the sample shall be preserved for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.

(f)(3)(iv)

Counseling; and

(f)(3)(vi)

Evaluation of reported illnesses.

(f)(4)

Information Provided to the Healthcare Professional.

(f)(4)(i)

The employer shall ensure that the healthcare professional responsible for the employee's Hepatitis B vaccination is provided a copy of this regulation.

(f)(4)(ii)

The employer shall ensure that the healthcare professional evaluating an employed after an exposure incident is provided the following information:

(f)(4)(ii)(A)

A copy of this regulation;

(f)(4)(ii)(B)

A description of the exposed employee's duties as they relate to the exposure incident;

(f)(4)(ii)(C)

Documentation of the route(s) of exposure and circumstances under which exposure occurred;

..1910.1030(f)(4)(ii)(D)

(f)(4)(ii)(D)

Results of the source individual's blood testing, if available; and

(f)(4)(ii)(E)

All medical records relevant to the appropriate treatment of the employee including vaccination status which are the employer's responsibility to maintain.

(f)(5)

Healthcare Professional's Written Opinion. The employer shall obtain and provide the employer with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation.

(f)(5)(i)

The healthcare professional's written pinion for Hepatitis B vaccination shall be limited to whether Hepatitis B vaccination is indicated for an employee, and if the employee has received such vaccination.

(f)(5)(ii)

The healthcare professional's written opinion of post-exposure evaluation and follow-up shall be limited to the following information:

(f)(5)(ii)(A)

That the employee has been informed of the results of the evaluation; and

(f)(5)(ii)(B)

That the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

..1910.1030(f)(5)(iii)

(f)(5)(iii)

All other findings or diagnoses shall remain confidential and shall not be included in the written report.

(f)(6)

Medical Recordkeeping. Medical records required by this standard shall be maintained in accordance with paragraph (h)(1) of this section.

(g)

Communication of Hazards to Employees.

(g)(1)

Labels and Signs.

(g)(1)(i)

Labels.

(g)(1)(i)(A)

Warning labels shall be affixed to containers of regulated waste, refrigerators and freezers containing blood or other potentially infectious material; and other containers used to store, transport or ship blood or other potentially infectious materials, except as provided in paragraph (g)(1)(i)(E), (F) and (G).

(g)(1)(i)(B)

Labels required by this section shall include the following legend:

BIOHAZARD

(For Illustration, of Biohazard symbol, Click Here)

(g)(1)(i)(C)

These labels shall be fluorescent orange or orange-red or predominantly so, with lettering and symbols in a contrasting color.

(g)(1)(i)(D)

Labels shall be affixed as close as feasible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal.

..1910.1030(g)(1)(i)(E)

(g)(1)(i)(E)

Red bags or red containers may be substituted for labels.

(g)(1)(i)(F)

Containers of blood, blood components, or blood products that are labeled as to their contents and have been released for transfusion or other clinical use are exempted from the labeling requirements of paragraph (g).

(g)(1)(i)(G)

Individual containers of blood or other potentially infectious materials that are placed in a labeled container during storage, transport, shipment or disposal are exempted from the labeling requirement.

(g)(1)(i)(H)

Labels required for contaminated equipment shall be in accordance with this paragraph and shall also state which portions of the equipment remain contaminated.

(g)(1)(i)(I)

Regulated waste that has been decontaminated need not be labeled or color-coded.

(g)(1)(ii)

Signs.

(g)(1)(ii)(A)

The employer shall post signs at the entrance to work areas specified in paragraph (e), HIV and HBV Research Laboratory and Production Facilities, which shall bear the following legend:

BIOHAZARD
(For Illustration, of Biohazard symbol, Click Here)

(Name of the Infectious Agent)
(Special requirements for entering the area)
(Name, telephone number of the laboratory director or other responsible person.)

..1910.1030(g)(1)(ii)(B)

(g)(1)(ii)(B)

These signs shall be fluorescent orange-red or predominantly so, with lettering and symbols in a contrasting color.

(g)(2)

Information and Training.

(g)(2)(i)

Employers shall ensure that all employees with occupational exposure participate in a training program which must be provided at no cost to the employee and during working hours.

(g)(2)(ii)

Training shall be provided as follows:

(g)(2)(ii)(A)

At the time of initial assignment to tasks where occupational exposure may take place;

(g)(2)(ii)(B)

Within 90 days after the effective date of the standard; and

(g)(2)(ii)(C)

At least annually thereafter.

(g)(2)(iii)

For employees who have received training on bloodborne pathogens in the year preceding the effective date of the standard, only training with respect to the provisions of the standard which were not included need be provided.

(g)(2)(iv)

Annual training for all employees shall be provided within one year of their previous training.

..1910.1030(g)(2)(v)

(g)(2)(v)

Employers shall provide additional training when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the employee's occupational exposure. The additional training may be limited to addressing the new exposures created.

(g)(2)(vi)

Material appropriate in content and vocabulary to educational level, literacy, and language of employees shall be used.

(g)(2)(vii)

The training program shall contain at a minimum the following elements:

(g)(2)(ii)(A)

An accessible copy of the regulatory text of this standard and an explanation of its contents;

(g)(2)(ii)(B)

a general explanation of the epidemiology and symptoms of bloodborne diseases;

(g)(2)(ii)(C)

An explanation of the modes of transmission of bloodborne pathogens;

(g)(2)(ii)(D)

An explanation of the employer's exposure control plan and the means by which the employee can obtain a copy of the written plan;

(g)(2)(ii)(E)

An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials;

..1910.1030(g)(2)(ii)(F)

(g)(2)(ii)(F)

An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls. Work practices, and personal protective equipment;

(g)(2)(ii)(G)

Information on the types, proper use, location, removal handling decontamination and disposal or personal protective equipment;

(g)(2)(ii)(H)

An explanation of the basis for selection of personal protective equipment;

(g)(2)(ii)(I)

Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will e offered free of charge;

(g)(2)(ii)(J)

Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;

(g)(2)(vii)(K)

An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available;

(g)(2)(vii)(L)

Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident;

..1910.1030(g)(2)(vii)(M)

(g)(2)(vii)(M)

An explanation of the signs and labels and/or color coding required by paragraph (g)(1); and

(g)(2)(vii)(N)

An opportunity for interactive questions and answers with the person conducting the training session.

(g)(2)(viii)

The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the workplace that the training will address.

(g)(2)(ix)

Additional Initial Training for Employees in HIV and HBV Laboratories and Production Facilities. Employees in HIV or HBV research laboratories and HIV or HBV production facilities shall receive the following initial training in addition to the above training requirements.

(g)(2)(ix)(A)

The employer shall assure that employees demonstrate proficiency in standard microbiological practices and techniques and in the practices and operations specific to the facility before being allowed to work with HIV or HBV.

(g)(2)(ix)(B)

The employer shall assure that employees have prior experience in the handling of human pathogens or tissue cultures before working with HIV or HBV.

..1910.1030(g)(2)(ix)(C)

(g)(2)(ix)(C)

The employer shall provide a training program to employees who have no prior experience

in handling human pathogens. Initial work activities shall not include the handling of infectious agents. A progression of work activities shall be assigned as techniques are learned and proficiency is developed. The employer shall assure that employees participate in work activities involving infectious agents only after proficiency has been demonstrated.

(h)

Recordkeeping.

(h)(1)

Medical Records.

(h)(1)(i)

The employer shall establish and maintain an accurate record for each employee with occupational exposure, in accordance with 29 CFR 1910.1020.

(h)(1)(ii)

This record shall include:

(h)(1)(ii)(A)

The name and social security number of the employee;

(h)(1)(ii)(B)

A copy of the employee's hepatitis B vaccination status including the dates of all the hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination as required by paragraph (f)(2);

(h)(1)(ii)(C)

A copy of all results of examinations, medical testing, and follow-up procedures as required by paragraph (f)(3);

(h)(1)(ii)(D)

The employer's copy of the healthcare professional's written opinion as required by paragraph (f)(5); and

..1910.1030(h)(1)(ii)(E)

(h)(1)(ii)(E)

A copy of the information provided to the healthcare professional as required by paragraphs (f)(4)(ii)(B)(C) and (D).

(h)(1)(iii)

Confidentiality. The employer shall ensure that employee medical records required by paragraph (h)(1) are:

(h)(1)(iii)(A)

Kept confidential; and

(h)(1)(iii)(B)

Not disclosed or reported without the employee's express written consent to any person within or outside the workplace except as required by this section or as may be required by law.

(h)(1)(iv)

The employer shall maintain the records required by paragraph (h) for at least the duration of employment plus 30 years in accordance with 29 CFR 1910.1020.

(h)(2)

Training Records.

(h)(2)(i)

Training records shall include the following information:

(h)(2)(i)(A)

The dates of the training sessions;

(h)(2)(i)(B)

The contents or a summary of the training sessions;

(h)(2)(i)(C)

The names and qualifications of persons conducting the training; and

..1910.1030(h)(2)(i)(D)

(h)(2)(i)(D)

The names and job titles of all persons attending the training sessions.

(h)(2)(ii)

Training records shall be maintained for 3 years from the date on which the training occurred.

(h)(3)

Availability.

(h)(3)(i)

The employer shall ensure that all records required to be maintained by this section shall be made available upon request to the Assistant Secretary and the Director for examination and copying.

(h)(3)(ii)

Employee training records required by this paragraph shall be provided upon request for examination and copying to employees, to employee representatives, to the Director, and to the Assistant Secretary.

(h)(3)(iii)

Employee medical records required by this paragraph shall be provided upon request for examination and copying to the subject employee, to anyone having written consent of the subject employee, to the Director, and to the Assistant Secretary in accordance with 29 CFR 1910.1020.

..1910.1030(h)(4)

(h)(4)

Transfer of Records.

(h)(4)(i)

The employer shall comply with the requirements involving transfer of records set forth in 29 CFR 1910.1020(h).

(h)(4)(ii)

If the employer ceases to do business and there is no successor employer to receive and retain the records for the prescribed period, the employer shall notify the Director, at least three months prior to their disposal and transmit them to the Director, if required by the Director to do so, within that three month period.

(i)

Dates.

(i)(1)

Effective Date. The standard shall become effective on March 6, 1992.

(i)(2)

The Exposure Control Plan required by paragraph (c) of this section shall be completed on or before May 5, 1992.

(i)(3)

Paragraph (g)(2) Information and Training and (h) Recordkeeping shall take effect on or before June 4, 1992.

(i)(4)

Paragraphs (d)(2) Engineering and Work Practice Controls, (d)(3) Personal Protective Equipment, (d)(4) Housekeeping, (e) HIV and HBV Research Laboratories and Production Facilities, (f) Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up, and (g)(1) Labels and Signs, shall take effect July 6, 1992.

[56 FR 64004, Dec. 06, 1991, as amended at 57 FR 12717, April 13, 1992; 57 FR 29206, July 1, 1992; 61 FR 5507, Feb. 13, 1996]

APPENDIX D

II. D. 3. a. Occupational Exposure to Blood Borne Pathogens

The Department shall continue to develop plans and establish procedures to control exposure to blood borne pathogens to minimize or eliminate potential exposure by certain categories of faculty members and students in high-risk occupational training programs. Each state Technical College shall have in place a state-approved Blood Borne Pathogens Exposure Control Plan designed to minimize or eliminate faculty and student exposure to blood and other potentially infectious body materials in certain high-risk occupational training programs.

Requirements under this policy shall be reviewed annually and shall be revised with regard to U.S. Public Health and Occupational Safety and Health Administration recommendations and guidelines as well as requirements established by the Georgia Department of Human Resources under O.C.G.A. §31-12-13 G Bloodborne Pathogens.

An updated plan must be in place by September 1 of each year to reflect changes in the aforementioned requirements, newly approved instructional programs to be covered by this policy and changes in technology, which may afford additional protection to faculty and students.

Each Technical College shall appoint an administrative or faculty staff member to monitor compliance with the college exposure control plan. This person may be either an administrator holding professional medical credentials or an allied health or nursing faculty member holding professional medical credentials with knowledge of infectious diseases and infection control practices.

The Commissioner shall approve Technical College exposure control plans annually prior to the September 1 effective date.

The Department shall provide copies of appropriate excerpts from O.C.G.A. §31-13-12 and 29 C.F.R. 1910.1030 to each Technical College for information and compliance.

Technical College faculty and students in covered occupational areas shall follow procedures specified in the college exposure control plan when performing procedures, tasks, or activities which involve a potential risk of accidental exposure to blood or other potentially infectious body materials.

Accidental exposures shall be documented and followed up according to the college exposure control plan. Costs associated with the follow-up

for an exposed faculty member or student shall be the responsibility of the Technical College.

Covered faculty and students shall be offered the Hepatitis B vaccination series prior to being assigned to instructional tasks or activities, which involve the risk of potential exposure. The vaccine shall be offered at no cost to faculty in covered occupational areas. Students shall be responsible for the cost of the vaccination series.

Covered faculty and students declining the Hepatitis B vaccination series shall sign a mandatory Hepatitis B Vaccination Declination Form, as specified in Appendix A, 29 C.F.R. 1910.1030. This form may be modified to reflect student responsibility for costs associated with receiving the vaccine.

Proof of Hepatitis B vaccination for faculty and students shall be documented on a form provided by the college and shall be signed by a licensed physician or by an authorized county health official.

Covered faculty and students shall be provided training which includes information on the Hepatitis B vaccine, including information on its efficacy, safety, method of administration and the benefits of being vaccinated. This training is to be completed prior to faculty and students being offered the vaccine.

The general authority for Part 1910.1030 of Title 29 of the Code of Federal Regulations (C.F.R.) is contained within Sections 6 and 8, Occupational Safety and Health Act, 29 U.S.C. 653, 655, 657.

Definitions

The term Bloodborne Pathogens, as defined in O.C.G .A. §31-12-13 G (a) (1), are "pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus, (HBV), hepatitis C virus, (HCV), and human Immunodeficiency virus (HIV)."

An occupational exposure to blood borne pathogens shall be any exposure to blood or other potentially infectious body materials by a faculty member of student in either an instructional lab activity or in an occupational-based instructional setting as a clinical rotation or other work-site.

The state-approved exposure control plan shall be a comprehensive written document which shall include those elements found in O.C.G.A. §31-12-13 G Bloodborne Pathogens and in 29 C.F.R. 1910.1030 Occupational Exposure to Bloodborne Pathogens - Final Rule: Occupational Health and Safety Administration, December 1991. This plan shall govern faculty and student activities when performing tasks or procedures that involve the potential for exposure to blood or other

potentially infectious body materials in both classroom lab and clinical settings.

The Hepatitis B vaccination series shall include a series of injections, including booster injections as specified by the U.S. Department of Public Health.

Covered faculty members and students are those identified by the college exposure control plan as having potential for routine or unplanned exposure to blood and/or other potentially infectious body materials pathogens in the normal conduct of faculty duties or student instructional activities.

References

20 C.F.R. 1910.1030

O.C.G.A. §31-12-13 G Bloodborne Pathogens

Occupational Safety and Health Act, 29 U.S.C. 653, 655, 657

The 2002-2003 Model Exposure Control Plan in Word Format:

Adopted: August 5, 1993
Revised: March 30, 2001
Code: 04-03-17

Approved

II. D. 3. b. Occupational Exposure to Air Borne Pathogens/Tuberculosis

The Department shall develop plans and establish procedures to control occupational exposure to tuberculosis and other airborne pathogens to minimize or eliminate potential exposure by certain categories of faculty members and students in certain high-risk occupational training programs.

Each state Technical College shall have in place a state-approved Tuberculosis Exposure Control Plan designed to minimize or eliminate faculty and student occupational exposure to tuberculosis and other airborne pathogens in certain high-risk occupational training programs.

Requirements under this policy shall be reviewed annually and shall be revised with regard to the U.S. Public Health Service and the Occupational Safety and Health Administration recommendations and guidelines.

An updated plan shall be in place, at each Technical College, by September 1 of each year to reflect changes in the aforementioned requirements and to identify newly approved instructional programs covered by this policy.

Each Technical College shall appoint an administrative or faculty staff member to monitor compliance with the college Tuberculosis Exposure Control Plan. This person may be either an administrator holding professional medical credentials or an allied health or nursing faculty member holding professional medical credentials with knowledge of infectious diseases and infection control practices.

The Commissioner shall approve Technical College exposure control plans annually prior to the September 1 effective date.

The Department shall provide copies of appropriate excerpts from the CDC Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis and 29 C.F.R. 1910 Occupational Exposure to Tuberculosis Final Rule to each Technical College for information and compliance.

Procedures designed to address and ensure compliance with this policy are found in the Administrative Guide.

The general authority for Part 1910.1030 of Title 29 of the Code of Federal Regulations (C.F.R.) is contained within Sections 6 and 8, Occupational Safety and Health Act, 29 U.S.C. 653, 655, 657.

Definitions

An occupational exposure to tuberculosis is defined as "exposure to the inhaled or expired air of a person with confirmed or suspected TB disease, exposure to a high-hazard procedure or an individual with suspected or confirmed TB disease and with the potential to generate potentially infectious airborne respiratory secretions."

An occupational exposure to blood borne pathogens shall be any exposure to blood or other potentially infectious body materials by a faculty member of student in either an instructional lab activity or in an occupational-based instructional setting as a clinical rotation or other work-site.

The state-approved exposure control plan shall be a comprehensive written document, which shall include those elements found in the U.S. Public Health Service; Centers for Disease Control and Prevention Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis in Health-Care Facilities- 1994, as revised and 29 C.F.R. 1910 Occupational Exposure to Tuberculosis Final Rule, 2000 (pending). This plan shall govern faculty and student activities when performing tasks or procedures that involve the potential for exposure involving suspected or confirmed TB patients in clinical settings or other OBI activities.

Covered faculty members and students are those identified by the college Tuberculosis Exposure Control Plan as having potential for exposure to persons or patients with suspected or confirmed TB disease in the normal conduct of faculty duties or student instructional activities.

Reference

Post-Exposure Follow-up for Tuberculosis/Airborne Pathogens

Created: March 30, 2001

Approved

APPENDIX E

APPENDIX E

INTERIM TB RECOMMENDATIONS

DTAE – 1996

Note: This information previously contained in this Appendix has been incorporated into the Model Plan

APPENDIX F

APPENDIX F

SAMPLE/MODEL FORMS

1. 29 CFR training Program Summary Form
2. Employee/Student Compliance Log Form
3. Personal Protective Equipment/Task Log Form
4. Decontamination Log Form
5. Major Points of Work Practice/Engineering Controls
6. Disinfectant Information Sheet
7. Accidental Exposure Documentation Form
8. Hepatitis B Vaccination Consent Form
9. Employee Hepatitis B Vaccine Declination Form
10. Student Hepatitis B Vaccine Declination Form

Documentation of Blood and Airborne Pathogens Training
Occupational Exposure to Blood and Airborne Pathogens Standard
Georgia Department of Technical Adult Education

College: _____ Employee/Student:_____

Date(s) of Training: _____ Employee/Student SS#: _____

Instructor(s):_____

Purpose:	☐ Initial Assignment	☐ Annual Refresher	☐ Supplemental
Levels:	☐ Faculty	☐ Other Employee	☐ Student

☐ Program Area or ☐ Job Assignment: _____

Summary of Training (Including but not limited to):

CFR-29 1910.1030
Bloodborne Pathogens

1. **Copy of OSHA Standard CFR 1910.1030**
2. **Explanation of the epidemiology and S&S of blood borne disease**
3. **Modes of Transmission**
4. **Review of the College Exposure Control Plan**
5. **Methods for recognizing tasks/activities that may involve exposure to blood other potentially infection body**
6. **Use a limitations of methods to reduce or eliminate exposure**
7. **Types, proper use, location, removal, handling decontamination and disposal of personal Protective Equipment.**
8. **Selection of appropriate Personal Protective Equipment**
9. **Benefits of being vaccinated and that vaccine is offered free of charge to employee and at-cost to students**
10. **Actions to take and person to contact in an emergency involving an accidental exposure**
11. **Procedure to follow if an exposure incident occurs**
12. **Explanation of signs and labels required.**
13. **Other** _____

CDC Guidelines for Prevention of Transmission of Tuberculosis... - 1994

1. **Mode(s) of transmission**
2. **Pathogenesis**
3. **Diagnosis and assessment of TB**
4. **Latent infection stage compared to the active disease state.**
5. **Signs and Symptoms of tuberculosis**
6. **The possibility of reinfection in persons with a positive PPD**
7. **The potential for occupational exposure and transmission of TB**
8. **Principles/practices which reduce risk of exposure/transmission**
9. **Review of written policies and procedures**
10. **The purpose of PPD testing and significance of a positive result**
11. **Principles of preventive therapy in latent infection**
12. **Process and steps in the medical evaluation of a PPD test conversion and following signs and Symptoms of TB disease (Faculty and Students)**
13. **Principles of drug therapy for active tuberculosis**
14. **The risk of TB in HIV and AIDS patients or other immunosuppressive disease**
15. **Confidentiality secondary to assessment and treatment of faculty or student who develop TB disease**
16. **The College's policy on voluntary duty reassignment options for immunocompromised faculty members and students in covered occupational areas.**

I certify that this person attended this training module and successfully completed all requirements of this module.

_____ _____

Signature of Instructor Date(s)

Blood and Airborne Pathogens Employee/Student Compliance Log
Health Information Technology

☐**Employee List** ☐**Student List** Page _____ of _____

Name of Employee/Student	Position Title or Student Program Area	Date of Employment or Enrollment	Occupational Exposure Potential	If Yes, Initial Training Date	Vaccination Date	(or) Declination Date	Next Date of Training
		/ /	Y___ N___	/ /	/ /	/ /	/ /
		/ /	Y___ N___	/ /	/ /	/ /	/ /
		/ /	Y___ N___	/ /	/ /	/ /	/ /
		/ /	Y___ N___	/ /	/ /	/ /	/ /
		/ /	Y___ N___	/ /	/ /	/ /	/ /
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		/ /	Y___ N___	/ /	/ /	/ /	/ /
		/ /	Y___ N___	/ /	/ /	/ /	/ /

PERSONAL PROTECTIVE/BARRIER EQUIPMENT

EQUIPMENT	USE	MISUSE
Infectious Waste Bags (Red with biohazard symbol)	• Use to contain material "super saturated" with blood/body fluids (excluding feces and urine). • Transport to dirty utility for disposal. Thickness and labeling must be in compliance with regulating agencies.	• Double bagging is not necessary. • If outside of bag becomes contaminated, it should be replaced.
Resuscitation Devices	• Used to initiate CPR without exposure to patient's mucous 2<< or other blood/body fluids. • Discard after use and replace.	
Contaminated Needle Receptacles	• Place needles, scalpels, broken glass, razor, and all other contaminated sharps DIRECTLY into container. • Container should be carefully closed prior to being removed for disposal. • Container should be immediately replaced to allow for constant access.	• DO NOT RECAP or otherwise manipulate needles before discarding. Recapping devices should be available for unavoidable recapping situations. • DO NOT OVERFILL. • DO NOT use for other non-sharp waste. Tape and tubing clog the container and cause a dangerous situation.
Nonsterile Exam Gloves	• Whenever it is likely that hands will be in contact with blood/body fluids. • Hypoallergenic must be supplied as needed. • Remove immediately after use and WASH HANDS. Gloves do not replace the act of handwashing. Mandated for phlebotomy.	• Gloves are not a substitute for handwashing. • Gloves should be removed immediately after use. • They should never be worn in hallways.
Mask and Goggles or Mask/Eyeshield Combination	• Wear to protect eyes and mucous membranes of the mouth and nose whenever it is likely that spraying or splashing of body fluids will occur. Mask must be fluid resistant.	• Should not be worn dangling around neck between uses. • Should NOT be reused.
Fluid Resistant Disposable Towns	• Wear protective clothing and forearms from contact with blood/body fluids. • Remove immediately after use and discard in trash.	• DO NOT store between uses. • DO NOT reuse. • DO NOT use for sweater or cover-up.
Lab Specimen Transport Bags	• Place specimen in Ziplock bag, use second pouch to protect requisition.	• Double begging not necessary. If outside of bag becomes contaminated, it should be replaced.

Exposure Control Program

*****

Table 1
Personal Protective Equipment

Tasks	Puncture Resistant Gloves	Fluid Resistant Gloves	Rubber Gauntlet Gloves	Uniform/ Coverall	Lab Coats	Disposable Coverall	Fluid Resistant Apron	Facesheild or Goggles & Mask	Safety Glasses	Goggles

KEY: **R – Required to be worn.**
A – Available; worn in appropriate situations.
N – Not required.

(All PPE must be inspected, cleaned and replaced as needed in order to maintain its effectiveness.)

DECONTAMINATION SCHEDULE

EQUIPMENT	DATE OF DECONTAMINATION	MEDTHOD USED	INITIALS PERSON PERFORMING TASK	DATE OF NEXT SCHEDULED DECONTAMINATION

S – Denotes decontamination by means of steam

C – Denotes chemical disinfection

The chemical disinfection used by this faculty is _____ and is located in the following areas.

MAJOR POINT OF WORK PRACTICE AND ENGINEERING CONTROL

REQUIREMENT	WORK PRACTICE	ENGIINEERING
LAUNDRY	• Ensure use of appropriate PPE for contact with contaminated Laundry. • Handle contaminated laundry as little as possible with a minimum of agitation. • Bag contaminated laundry at point of use. • Do not sort or rinse laundry at point of use.	• Provide bags which prevent soak-through and or leakage of fluids to the exterior. • Labels or color-code if off site shipping to a facility that does not use universal precautions.
GENERAL HOUSEKEEPING	• Clean and decontaminated all equipmental, environmental, and working surfaces after contact with blood or other potentially infectious materials: After completion of procedures. Immediately or ASAP after blood spill or overt contamination. At end of workshift if contamination may have occurred since last cleaning. • Broken glassware shall be picked up via mechanical means, e.g. brush and dust pan, tongs, forceps.	• Determine and implement appropriate written schedule for cleaning and method of decontamination based upon: Locate within facility. Type of surface. Type if soil present. Task/procedures performed there. • Ensure inspection and decontamination of reusable receptacles (bin, pails, cans) on regular schedule and ASAP upon visible contamination.

OCCUPATIONAL EXPOSURE TO BLOODBORNE PATHOGENS STANDARD

MAJOR POINTS OF WORK PRACTICE AND ENGINEERING CONTROLS

REQUIREMENT	WORK PRACTICE	ENGINEERING
HANDWASHING (HW)	Ensure proper HW practices, e.g.: • Upon removing gloves or other PPE. • ASAP following use of antiseptic hand cleaner. • ASAP following contact with blood/body fluids.	• Provide readily accessible HW facilities, i.e. sink, running water, soap, towels. • If sink/water unavailable, provide antiseptic hand cleaner and towels/towelettes.
SHARP/NEEDLE CONTAINERS	• Do not bend, shear, or break contaminated needles. • Do not recap or remove contaminated needles unless: no alternative is feasible or such action is required by the specific medical procedure and a mechanical device or on-handed technique is used. • Immediately after use, place reusable sharps in appropriate containers until properly reprocessed.	• Provide containers for contaminated sharps/needles that are puncture resistant, labeled (biohazard) or color-coded (red), leakproof on sides and bottom. • To discard, the container must be closable. • To store or process contaminated reusables ensure the container does not require employees to reach in by hand.
SPECIMEN CONTAINERS	• Place specimens in appropriate containers. • If contaminated, place container into second leak proof container. • Use puncture resistant container as needed.	• Provide containers which prevent leakage during collection, handling, processing, storage, transport, or shipping. • Labeling or color coding is required when containers leave the facility.
PERSONAL PROTECTIVE EQUIPMENT (PPE)	• Ensure use of appropriate PPE (only exception – rare & extraordinary circumstance). • Remove PPE prior to leaving work area. • Dispose of handle/store PPE properly.	• Provide appropriate PPE, in appropriate sizes, readily accessible at worksite or issued to the employee. • Provide cleaning, laundering, disposal, repair, and or replacement of PPE at no cost to employees. Provide special equipment if employee allergic, e.g. gloves.

DISINFECTANT INFORMATION SHEET

TYPE	NAME	ACTIONS/SPECIAL CONSIDERATIONS
Alcohol	Ethyl Alcohol Isopropyl Alcohol	Bacterial against vegetative forms of bacteria, tuberculocidal, fungicidal, virucidal. Does not destroy bacterial spores. Not a high level disinfectant. Cidal activity decreases sharply when diluted to less than 50%. Optimum bactericidal concentration is in the range of 60-90% by volume. Not recommended for sterilizing medical and surgical material principally due to lack of sporicidal action and their inability to penetrate protein rich materials. Can damage shellac mounting on lensed instruments, tend to swell and harden rubber and certain plastic tubing after prolonged and repeated use, may bleach rubber and plastic tiles. Flammable Evaporate rapidly making extended contact time difficult unless the items are immersed.
Chlorine Chlorine Compounds	Hypochlorite: Liquid – Sodium Hypochlorite Solid Calcium Hypochlorite	Broad spectrum antimicrobial activity. Inexpensive, last-acting. Microbiocidal activity depends on the pH, decreasing as pH increases. May produce carcinogenic either when contracts formaldehyde and an animal carcinogen if hot water is hyperchlorinated. Use in hospital is limited by corrosiveness, inactivation by organic matter and relative instability.
	Alternatives Demand Release Chlorine Dioxide, Chlormine-T	These alternatives retain chlorine longer and thus excel a more prolonged bactericidal effect.

TYPE	NAME	ACTIONS/SPECIAL CONSIDERATIONS
Formaldehyde	Formalin – 37% Formaldehyde by Weight	Bactericidal, tuberculocidal, fungicidal, virucidal, sporicidal. Classified by OSHA as a potential carcinogen, employee exposure standards have been established. This along with its irritating fumes and pungent odor limit its role in sterilization and disinfection. Formaldehyde is the preferred disinfectant for inactivating bacteria in the fluid pathway associated with dialysis.
Glularaldehyde	Aqueous Solutions	Aqueous solutions are acidic and not sporicidal until activated by alkalinating agents to a pH pf 7.5 to 8.5. Once activated they have a shell life of 14 days.
	Novel Glutaraldehyde Formulations: Glutataldehyde Phenate Potentiated Acid Glut. Stabilized Alkaline Glut.	Produced in the last several years overcoming the problem of rapid loss of stability while maintaining excellent mocrobiocidal activity. Antimicrobial activity is dependent not only on age but also on use conditions such as dilution and organic stress. Test kits are available for determining concentration effectiveness. Noncorrosive to metal and does not damage lensed instrument, rubber or plastic when used in accordance with manufacturer instructions. Health Care workers can become exposed to elevated levels of glularaldehyde vapor when equipment is processed in poorly ventilated rooms, spills occur or when there are open immersion baths.

TYPE	NAME	ACTIONS/SPECIAL CONSIDERATIONS
Hydrogen Peroxide	Stabilized Hydrogen Peroxide	Bactericidal, virucidal, sporicidal, fungicidal 3% Hydrogen Peroxide is an effective disinfectant on inanimate objects. 3-6% is commonly used to disinfect contact lenses and ventilator circuits. A chemical irritation resembling pseudomembraneous colitis caused by endoscope cleaning solutions (either 3% H2O2 or glularaldehyde) has been infrequently reported.
Iodophors	Iodine Solutions or Tinctures	Skin Antiseptics
	Iodophors – Providone Iodine	Antiseptic and disinfectant. Bactericidal, virucidal, mycobactericidal. May require prolonged contact times to kill certain fungi and bacterial spores. Retain germicidal efficacy of iodine without staining and are relatively free of toxicity and irritancy. Must be properly diluted to achieve antimicrobial activity. Antiseptic iodophor are not suitable for use as hard surface disinfectants because of concentration differences (they contain significantly less free iodine).
Phenolics (Carbolic Acid)	Ortho-phenylpheno Ortho-Benzl-Para Chlorophenol	Manufacturer data demonstrate commercial phenolics are not sporicidal but are tuberculocidal, virucidal, and bactericidal when properly diluted. Generally these manufacturer efficacy claims have been verified by independent labs. Phenolics are used mainly for decontamination of hospital environments, including labs surfaces and for noncritical medical and surgical items. Not recommended for semicritical items because of lack of published efficacy data the risk of issue irritation when on porous materials. Should be used to clean infant bassinets and incubators and should be diluted per manufacturer instructions if used on nursery floors to avoid hyperbiliruninemia due to phenolic exposure.

TYPE	NAME	ACTIONS/SPECIAL CONSIDERATIONS
Quaternary Ammonium Compounds	First Generation Quaternary	Results from manufacturer data sheets and from published scientific literature suggest the quaternaries sold hospital disinfectants are fungicidal, bactericidal, and virucidal against lipophilic viruses. They are not sporicidal and generally not tuberculocidal or virucidal again hydrophilic viruses. Know a good disinfectants and antiseptics, first generation quals were found to have decreased effectiveness when exposed to hard water, soap, anionic residues and proteinaceous soils. Antiseptic claims were eliminated due to documented outbreaks associated within use contamination. Commonly used in ordinary environmental sanitation of noncritical surfaces such as floors, furniture, and walls.
	Second Generation Quaternaries (Dual Qual)	Know as Ethyl Benzyl Chloride Quals their performance in hard water was greatly improved.
	Third Generation Quaternaries	Dialkyl to Twin Chain Quals – remain active in hard water and are tolerated in anionic residues.

Faculty Member/Student Consent Form
Accidental Exposure to Blood or Body Fluid
HIV Antibody Test
Georgia Department of Technical and Adult Education

I have reported an exposure to a patient's/client's blood or other potentially infectious body fluids and have been counseled to have the HIV (AIDS virus) antibody testing.

I understand that this test will be performed as soon as possible after the exposure, and will be repeated at intervals, according to the current U.S. Public Health Service guidelines. I understand that there will be no charge to me for this testing.

I acknowledge that prior to signing this consent from that I have received direct, personal counseling which have included the following:

1. The purpose of the test.
2. The procedures to be followed.
3. The limitations of the test and the meaning of the test results.
4. What is AIDS and how the HIV virus is transmitted.
5. Measures for prevention of HIV infection.
6. The voluntary nature of the HIV antibody test and the right to withhold consent to the test process prior to the actual test being done.
7. The right to keep confidential the information identifying me and the test results to the extent provided by the law.
8. When the test results will be available
9. Partner notification
10. Other recommended limitations and restrictions on activities until completion of the test process.

I understand that the test results will be released to the Institution Infection Control Coordinator and will not be released to any other agency or individual without my express written authorization.

I have had an opportunity to ask questions, which have been answered to my satisfaction. My signature below indicates that I am consenting to HIV antibody testing.

_____

Signature Date

_____

Witness Date

Exposure Incident Evaluation and Follow-up Form
Accident Exposure to Blood or Other Potentially infectious Body Materials

Georgia Department of Technical Education and Adult Education

Institute _____ Program/Course _____

Name of Person Exposed _____ ID # _____

Job or Student Title _____

Location of Incident _____

Describe Circumstances of Exposure Incident

Name of Person Preparing Report _____

Route of Exposure _____

Date Occurred _____ Date Reported _____

Follow-Up

Blood/OPIM

_____ Person involved is referred to physician, Health Department or other licensed HCP for Status assessment, testing, counseling.

_____ Documentation follow-up is on file at the institution and clinical/worksite (as appropriate)

Person involved in incident is informed of:

_____ potential risk of HIV/HBV transmission

_____ explanation of the follow-up process

_____ test results from source individual (when available)

_____ any medical conditions which may result from incident that may require further evaluation

_____ medical information is to be strictly confidential

_____ need for blood testing and immunization therapy

_____ advice to report any illness to HCP occurring in the follow-up period

_____ need to refrain from donating blood or organs during follow-up period

_____ need to refrain from or use protective measures during sexual activities during follow-up period

_____ If ♀, not to breast feed infant

_____ to keep all medical appointments

Airborne

_____ Person involved is referred to physician, Health Department or other licensed HCP for status assessment, testing, counseling

_____ Documentation of follow-up is on file at the college and clinical/worksite (as appropriate)

Person involved in incident is informed of:

_____ potential risk of TB exposure

_____ explanation of the follow-up process

If post-exposure activities are indicated:

_____ base-line PD status

_____ post exposure PPD

_____ prophylactic chest x-ray

_____ person has been medically clear (either not contagious or treatment begun)

_____ if active TB is diagnosed, person is placed on voluntary work restriction

Exposure Incident Report and Follow-Up Form
for
Exposure to Bloodborne/Airborne Pathogens (Tuberculosis)

INCIDENT REPORT

Date of report: _____

Name of person exposed: _____

Employee Number or Student Number: _____

If Student: Program/Course: _____

If Employee: Job Title: _____

Location of incident: _____

Date and time of incident: _____

Describe circumstances of exposure incident or attach report:

_____
_____
_____
_____
_____
_____

FOLLOW-UP

Person involved in incident referred to appropriate health care professional for follow-up. Documentation of medical release is on file at work unit or technical college and clinical or work site (if appropriate). Alternate employment duties/academic activities assignment may be considered based on the opinion of the employee's/student's appropriate healthcare provider.

Name, address and phone number of medical professional providing follow-up care:

_____

_____

Identify Individuals to whom copies were sent within 24 hours:

Exposed Person's Supervisor/Academic Coordinator:

_____

Work Unit or Technical College Exposure Control Coordinator:

_____

Clinical or Work Site Contact Person:

_____

Name/Title of person preparing Exposure Incident Report and Follow-up Form:

Mattie Buchannon, Dean of Academic Affairs _____

(Printed) (Signature)

Blood and airborne pathogen Exposure Procedure

In the event there is an exposure to blood or airborne pathogens please complete the following:

Encourage bleeding at the site of injury

Wash the site of the needle stick or sharp injury with soap and water.

Flush splashes to nose, mouth, or skin with water.

Irrigate eyes with saline, clean water or sterile irrigants.

If you are at a clinical facility follow the clinical site's protocol, complete the necessary paperwork for the clinical site

Seek medical attention, to have baseline lab work drawn. This lab work should include blood for HIV, Hep B and Hep C .You may seek medical help before 4PM from:
Phoebe Corporate Health **or** **Your personal physician**
2410 Sylvester Road

If accident/incident occurs after 5 PM seek help from the nearest emergency room.

Upon arrival to the medical center the student must call Sarah Spurlin at 229. 430.2864 to have Albany Technical College" Bill to me Form" faxed to them for completion.

Check HIV status of both yourself and the person whose blood has been transferred.

Retesting for HCV antibodies usually occurs six weeks after the incident, and again at four to six months. Retesting for HIV exposure usually occurs at six weeks, three, six, and 12 months to look for HIV antibodies.

The student must meet with the Dean of Academic for Healthcare to complete additional required forms and counseling

The forms will be copied the original will be given to Sarah Spurlin and a copy given to the Vice President of Academics

If the student is exposed on campus in a lab setting the "student accident/incident form "must be completed and given to the Academic Dean of Healthcare

The student may seek medical attention from the locations identified above.

The student/accident form must be completed and submitted to Sarah Spurlin within **24 hours** of the accident/incident occurring.

There is no cost to the student, faculty or facility.

College Faculty/Student Hepatitis B Vaccination Series Information and Consent

HEPATITIS is a viral disease that causes systemic infection with primary liver involvement. There is no specific treatment for this disease. The outcome of Hepatitis B is variable but it can be lethal and 5-10% of infected persons will become carriers.

Vaccination is strongly recommended for health care workers, allied health and nursing faculty and students as well as others whose job or training programs involve as inherent potential for skin or mucous membrane contact with blood, body fluids, body tissues or a potential for spills or splashes of these items.

PURPOSE:

The purpose of the vaccination series is to provide prophylactic HBV protection of those faculty members and students in program areas which have the potential of exposure to blood and other potentially infectious body materials (OPIM).

Hepatitis B Vaccination may be required by clinical facilities/worksites for both faculty members and students prior to any patient/client contact.

PREPARATION

The vaccination is safe, immunogenic and effective in preventing Hepatitis B.

VACCINE

The vaccine is produced in yeast cells, purified by a series of physical and chemical methods and **is free of any human body products.**

DOSAGE AND ADMINISTRATION:

1. Give IM only the deltoid muscle.
2. Three doses of 1 ml. each
   a. 1st dose
   b. 2nd dose one month later
   c. 3rd dose six months after 1st dose
3. The duration of the protective effect in unknown at the present time.

ADVERSE REACTIONS:

1. As with any vaccine, anaphylactic reaction may occur.
2. Redness, swelling, warmth and soreness at the injection site.
3. Low grade fever (</=101 F) is usually confined to the 48 hour period following the injection.
4. Malaise, headache, nausea, dizziness, and aching usually limited to the first few days following the injection.
5. Urticaria (rash) rare.
6. In a small number of persons, neurologic reaction, including the Guillian-Barre syndrome have occurred in the period following hepatitis B Vaccination. The rate of occurrence of Guillian-Barre syndrome is not thought to be significantly increased above that observed in normal adults. These reactions are not thought to be related directly to the hepatitis B Vaccine.

CONTRAINDICATIONS:

If any of the following are present, the vaccine should not be taken:

1. Hypersensitivity to yeast
2. Hypersensitivity to any component of the vaccine

PRECAUTIONS:

If any of the following are present, the faculty member/student should consult their private physician before starting the vaccination series.

1. Serious, active infection or illness
2. Severely compromised cardiopulmonary function
3. Pregnancy or lactation

WARNING:

Faculty member or students who are immunocompromised or receiving immunosuppressive therapy should consult their private physician for guidance and dosage prior to starting the vaccination series.

CONSENT:

I, by my signature below, consent to Hepatitis B Vaccination. I have read the information contained in this document and have had the opportunity to ask questions which were answered to my satisfaction.

I have completed a Blood and Airborne Pathogen training module as required prior to consenting to receive the hepatitis B vaccine. (Informed Consent)

I understand that completion of the hepatitis B vaccination series in necessary to insure the great degree of protection. I understand that the importance of completing the three-dose series as scheduled (defined as seven calendar days before or after the due date of the injection series) unless medical contraindicated.

I understand that as with any medical treatment, there is no guarantee that I will become immune, that the hepatitis B vaccine will prevent me from developing hepatitis B or that I will not experience an adverse side effect or side effects from the vaccine.

_____

Faculty Member/Student Signature Date

_____

Witness Signature Date

	Lot #	Date	Site	Admin. By	Manufacturer
1st Dose:					
2nd Dose:					
3rd Dose:					
Booster, if necessary:					

Employee Hepatitis B Declination Statement
Technical College System of Georgia

Employee Name: _____

ID #: _____ Program _____

Technical College: _____

I understand that due to my occupational training exposure to blood or other potentially infectious body materials, I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at cost. However, **I decline hepatitis B vaccination at this time.** I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational training exposure to blood or other potentially infectious body materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

_____

Signature of Employee Date

_____

Signature of Authorized Technical College Official Date

Student Hepatitis B Vaccine Declination Statement
Georgia Department of Technical and Adult Education

Student Name: _____

ID Number: _____ Program: _____

Technical College: _____

I understand that due to my occupational training exposure to blood or other potentially infectious body materials, I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at cost. However, **I decline hepatitis B vaccination at this time.** I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational training exposure to blood or other potentially infectious body materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at cost.

_____

Signature of Student Date

_____

Signature of Authorized Technical College Official Date