BOSTON COLLEGE

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Bloodborne Pathogens
Exposure Control Plan

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APPENDIX A

BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN

Facility Name: **Boston College**
140 Commonwealth Ave.,
Chestnut Hill, MA 02467

Units:

University Health Services
Campus Police
Campus School
Sports Medicine (athletic training)
Laundry for Varsity Sports
Plant Services (custodial)
Plumbing Department
Child Care Center
School of Nursing Faculty

Original Plan Prepared by: Arnold Mazur, M.D., Director of Health Services, and Suzanne Howard, Environmental Health and Safety Officer

Date of Preparation: 7/9/92
Revisions: 04/04/03, 05/21/04, (See signature compliance page in EH&S BBP File)08 0 Tile)08 0 D 0 Tu(

Bloodborne Pathogens

2. The following engineering controls will be utilized:

   Sharps containers
   Regulated waste containers/bags
   Retractable needles

3. The above controls will be examined and maintained on a regular schedule. The schedule for reviewing the effectiveness of the controls is as follows:

Department	Person/Title	Frequency
Clinic	Head Nurse	Daily
Infirmary	Head Nurse	Daily
Campus Police	Shift Supervisor	Weekly
Campus School	Nurse	Weekly
Athletic Department	Head Trainer	Weekly
Plant Services	Asst. Director/Foreman	Weekly
Plumbing	Assoc. Director/Foreman	Monthly
Child Care Center	Director	Monthly
Grounds Department	Worker	Monthly
Cushing Simulation Lab	Nursing Faculty	Weekly

C. Handwashing

1. Handwashing facilities are available to employees who incur exposure to blood or other potentially infectious materials. These facilities are readily accessible in the Clinic, Infirmary, Campus School and Sports Medicine. Police officers on patrol and trainers on the field who do not have readily accessible handwashing facilities, will use alcohol based waterless sanitizers or antiseptic towellettes and then thoroughly wash their hands Custo Cushin22 0 TD -0.03D 0.12 Tw ( ) Tj 112 0 T(.8

2. Sharp

5. Protective clothing will be provided to employees in the following manner:

PPE	**Responsible Supervisor**	**Tasks Included**
Gloves	Nurse Manager Head Trainer Campus School Nurse	Wound Care Phlebotomy Surgical Procedures Handling Contaminated Laundry Injections Pelvic exams
Gloves	Child Care Director	Wound Care
Gloves	Head Trainer	Wound Care Handling Contaminated Laundry Handling Regulated Waste
Gloves	Campus Police (Supervisor)	Wound Care (emergency response)
Gloves	Grounds Worker	General Trash Cleanup
Gloves	Campus School Nurse	Wound Care
Gloves	Custodial Supervisor	Cleaning Contaminated Spills Handling Regulated Waste
Gloves	Plumbing Foreman	Plumbing Services (repairs)
Mask,	Nurse Manager	Cleaning Contaminated Spills

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7. Masks in combination with eye protection devices, such as goggles or glasses with solid side shield are required to be worn whenever splashes, spray, splatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose or mouth contamination can reasonably be anticipated. Situations at this institution which would require such protection are: heavily bleeding wounds from massive trauma and work on sewer lines. Such situations would be extremely rare.

8. Protective Clothing including gowns and aprons will be used in the Clinic and infirmary for heavily bleeding wounds. Such situations are rarely encountered at this institution. Footwear and headwear is not required in this facility. Pocket masks with one-way valves are available in police cruisers and infirmary for CPR.

I. Housekeeping

1. This institution will be cleaned and decontaminated according to the following schedule and using **ARK HY-DIS** (MSDS attached, see *Appendix E in hard copy)* or a **10% bleach solution** (1 part bleach, 9 parts water) by the Housekeeping Department.

2. Where required, cleaning solutions will be used to decontaminate surfaces as needed.

4. All contaminated work surfaces will be decontaminated after completion of procedures which have resulted in contamination and immediately or as soon as feasible after any spill of blood or other potentially infectious materials, as well as the end of the work shift if the surface may have become contaminated since the last cleaning.

5. 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.

6. Any broken glassware which may be contaminated will not be picked up directly with the hands. It shall be cleaned up using mechanical means including a brush and dustpan tongs, or forceps.

7. Tools used in clean-up will be properly decontaminated or discarded after use. Vacuum cleaners will not be used since they can spread contaminants through their exhaust stream.

J. Regulated Waste Disposal

1. Regulated waste means liquid or semi-liquid blood or other potentially infectious materials;

    a. Contaminated items that would release blood or other potentially infectious a liquid or semi-liquid state if compressed;
    b. Items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling;
    c. Contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

2. Other potentially infectious materials include the following human body fluids:

    a. Semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures;
    b. 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.

3. **Contaminated sharps** shall be discarded as soon as feasible in sharps containers are available through the **Cushing Hall Primary Care Center** for all appropriate departments.

4. **Regulated Waste other than Sharps** includes bloody dressings, soiled gloves, etc. It shall be placed in appropriate closed containers which may be red plastic bags, red boxes, or plastic bags or boxes which have appropriate "'**BIOHAZARD**" warning

labels affixed to them. Such containers are located in:

a.

4. The employee will be offered post exposure HBV prophylaxis in accordance with the current recommendations of the U.S. Centers for Disease Control and Prevention. These recommendations are: (*see Appendix A*).

5. Due to the need for urgent initiation of treatment, which should be initiated within 2 hours as recommended by the current HIV prophylaxis protocols, the employee will be offered post exposure HIV evaluation and prophylaxis through immediate referrals to St. Elizabeth's Occupational Health Department or other appropriate hospital sites. The supervisor will provide the employee with *Appendices C, D, and E* for documentation by the referred health care professional.

6. The employee will be told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

7. The employee will be given appropriate counseling concerning precautions to take during the period after the exposure incident. The employee will also be given medical evaluation of reported illnesses following an exposure incident. s) havehe TDdesign

H. All other findings or diagnoses shall remain part of the confidential medical record and shall not be included in the healthcare professional's written opinion to the employer.

IV.

1. 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, with the following exceptions:

    a. Red bags or red containers may be substituted for labels.

    b. Individual containers of blood or other potentially infectious materials that are placed in a labeled container during storage, transport, shipment or disposal do not have to be separately labeled, (e.g. a tube of blood stored in a labeled refrigerator or transported in a labeled or red transport bag or container).

2. The labels will be attached as close as possible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal.

    a. The labels will be fluorescent orange or orange-red with lettering or symbols in a contrasting color, as follows:

B. Information and Training

1. All employees with occupational exposure shall participate in a training program during working hours and at no cost to the employee.

2. Training shall be provided as follows:

    a. At the time of initial assignment to tasks where occupational exposure may take place.
    b. Within 90 days after the effective date of the regulation (Standard).
    c. At least annually thereafter and within one year of previous training.
    d. 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.
    e. Additional training will be provided when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the
    f. Employee's occupational exposure. The additional training may be limited to addressing the new exposures created.

3. Training shall use material appropriate to the educational level, literacy and language of employees.

C. Training Program Contents

1. An accessible copy of the OSHA Standard for Bloodborne Pathogens and an explanation of its contents.

2. A general explanation of the epidemiology and symptoms of bloodborne diseases.

3. An explanation of the modes of transmission of bloodborne pathogens.

4. An explanation of the Boston College exposure control plan and the means by which the employee can obtain a copy of the written plan.

5. An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials.

6. 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.

7. Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment.

8. An explanation of the basis for selection of personal protective equipment.

9. 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 be offered free of charge.

10. Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials.
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11. 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 .

14. An opportunity for interactive questions and answers with the person conducting the training session.

D. Training Records

1. Training records shall include the following information:

   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 of all persons attending the training sessions

2. Training records shall be maintained for 3 years from the date on which the training occurred.

E. Availability of Records

1. Training Records

   a. Employee training records shall be provided on request for examination and copying to employees, employee representatives, the Director of the National Institute for Occupational Safety and Health, and the Assistant Secretary of Labor for Occupational Safety and Health.

2. Medical Records

   a. Employee medical records shall be provided upon request for examination and copying to the subject employee, anyone having written consent of the subject employee, the Director of the National Institute for Occupational Safety and Health, and the Assistant Secretary of Labor for Occupational Safety and Health.

APPENDIX A:

Morbidity and Mortality Weekly Report Vol. 40/No. RR13
November 22, 1991 - pp 21-25

POST-EXPOSURE HEPATITIS B PROPHYLAXIS

I. Acute Exposure to Blood that Contains (or Might Contain) HBsAg

A. For accidental percutaneous (needle stick, laceration, or bite) or permucosal (ocular or mucous-membrane) exposure to blood, the decision to provide prophylaxis must include consideration of several factors:

1. Whether the source of the blood is available,
2. The HBsAG status of the source,
3. The hepatitis B vaccination and vaccine-response status of the exposed person. Such exposures usually affect persons for whom hepatitis B vaccination is recommended. For any exposure of a person not previously vaccinated, hepatitis B vaccination is recommended.

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The first dose of hepatitis B vaccine should be given intramuscularly at a separate site (deltoid for adults) and can be given simultaneously with HBIG or within 7 days of exposure. Subsequent doses should be given as recommended for specific vaccine. If the exposed person has begun but not completed vaccination, one dose of HBIG should be given immediately, and vaccination should be completed as scheduled.

B. *Exposed person has already been vaccinated against hepatitis B, and anti-HBs response status is known*.

1. If the exposed person is known to have had adequate response in the past, the anti-HBs level should be tested unless an adequate level has been demonstrated within the last 24months. Although current data show that vaccine-induced protection does not decrease as antibody level wanes, most experts consider the following approach to be prudent:

    a. If anti-HBs level is inadequate, no treatment is necessary.
    b. If anti-HBs level is inadequate,* a booster dose of hepatitis B vaccine should be given.

2. If the exposed person is known not to have responded to the primary vaccine series, the exposed person should be given either a single dose of HBIG and a dose of hepatitis B vaccine as soon as possible after exposure, or two doses of HBIG (0.06 ml/kg,) one given as soon as possible after exposure and the second 1 month later. The latter treatment is preferred for those who have failed to respond to at least four doses of vaccine.

* An adequate antibody level is >10 mill international Units (mlU/mI, approximately equivalent to 10 sample ratio units (SRU) by RIA or positive by EIA.

C. *Exposed person has already been vaccinated against hepatitis B, and the anti-HBs response is unknown.*

1. The exposed person should be tested for anti-HBs, and;

    a. If the exposed person has adequate antibody, no additional treatment is necessary.

    b. If the exposed person has inadequate antibody on testing, one dose of HBIG (0.06 ml/kg) should be given immediately and a standard booster dose of vaccine (Table 3) given at a different site.

2. Source of exposure known and HBsAg-negative

    a. Exposed person has not been vaccinated or has not completed vaccination. If unvaccinated, the exposed person should be given the first dose of hepatitis B vaccine within 7 days of exposure, and vaccination should be completed as recommended. If the exposed person has not completed vaccination, vaccination should be

completed as scheduled.

b. Exposed person has already been vaccinated against hepatitis B. No treatment is necessary.

3. Source of exposure unknown or not available for testing

a. Exposed person has not been vaccinated or has not completed vaccination. If unvaccinated, the exposed person should be given the first dose of hepatitis B vaccine within 7 days of exposure and vaccination completed as recommended. If the exposed person has not completed vaccination, vaccination should be completed as scheduled.

b. Exposed person has already been vaccinated against hepatitis B,. and anti-HBs response status is known.

i. If the exposed person is known to have had adequate response in the past, no treatment is necessary.

ii. If the exposed person is known not to have responded to the vaccine, prophylaxis as described earlier in section Lb.(2) under "Source of exposure HBsAg-positive" may be considered if the source of the exposure is known to be at high risk of HBV infection.

c. Exposed person has already been vaccinated against hepatitis B, and the anti-HBs response is unknown. The exposed person -.Bs

i. -

TABLE 5

Recommendations for hepatitis B prophylaxis following percutaneous or permucosal exposure.

TREATMENT WHEN SOURCE IF FOUND TO BE:			
Exposed person	**HBsAg-positive**	**HBsAg-negative**	**Source not tested or unknown**
Unvaccinated	HBIG x 1* and initiate HB vaccine**	Initiate HB vaccine**	Initiate HB vaccine **
Previously vaccinated Known responder	Test exposed for	No treatment	No treatment

Appendix C

Post-Exposure Confidential Medical Evaluation and Follow-Up

1. Name of individual exposed: _____

2. Social Security #: _____ 3. Date and Time of Exposure: _____

4. Route of Exposure: _____

5. Name of Source of Exposure: _____ 6. S.S. #: _____

7. Brief Description of Incident: _____

_____

_____

_____

8. Evaluation of Exposure: _____

_____

_____

_____

9. HBV Status of Source: Obtained and immune Obtained, not infectious

Test Pending Not obtainable

10. HCV Status of Source: Obtained and immune Obtained, not infectious

Test Pending Not obtainable

11. HIV Status of Source: Obtained/Positive Obtained/Negative

Test Not obtainable

12. HBV Status of exposed employee: Tested/Immune Tested/Not Immune Test Declined

13. HCV Status of exposed employee: Tested/Immune Tested/Not Immune Test Declined

14. HIV Status of exposed employee:
HIV Test Results: _____ _____ _____ _____
(BASELINE) (3 Months) (6 Months) (12 Months)

15. HBV Prophylaxis recommended: Hepatitis B vaccine: Yes No

Hepatitis B immune globulin: Yes No

16. HIV Prophylaxis recommended: Yes No

17. Employee informed about medical conditions which may result from exposure to blood or other potentially infectious materials which may require further evaluation and treatment: Yes No

18. Employee offered medical evaluation of reported illness following exposure incident: Yes No

Healthcare Professional

Healthcare Professional's Name:_____

Signature:_____

Date: _____

FILE: Employee confidential **Boston College Medical Record** to be returned with employee after initiation by referral.

APPENDIX D

Healthcare Professional Hepatitis B Evaluation for Supervisor

1. Name of individual exposed:_____

2. Social Security Number:_____

3. Date of Exposure:_____

4. Hepatitis B Vaccine is indicated for this exposure: p Yes p No
5. The Employee has received Hepatitis B Vaccine: p Yes p No
6. 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 including HIV, HCV and HBV.

7. Healthcare Professional's Name:_____
8. Signature:_____
9. Date:_____

1. Name of individual exposed:_____
2. Social Security Number:_____

Original: Employee's Supervisor
Copy: Employee's Confidential Medical Record

APPENDIX E

Material Safety Data Sheet(s)
Available at the Facilities Management
EH&S Website

APPENDIX F

PATIENT CONSENT FORM

BOSTON COLLEGE

HEALTH SERVICES

_____

Date

I HEREBY AUTHORIZE _____

TO RELEASE MY RECORDS REGARDING THE TESTING AND

TREATMENT FOR BLOODBORNE PATHOGENS EXPOSURE TO:

DIRECTOR
BOSTON COLLEGE HEALTH SERVICES
CUSHING HALL 140
CHESTNUT HILL, MA 02167

Name (please print)_____

Signature_____

SS#_____

Date of Birth_____

APPENDIX H

BOSTON COLLEGE

SHARPS INJURY LOG
NEEDLESTICK SAFETY AND PREVENTION ACT

This log must protect the privacy and confidentiality of the injured worker. No personal identifying information is to be recorded on this log. Please use a separate sheet for each incident.

Employee Code Identifier:_____ **Department**:_____

Date of Injury:_____ **Time of Injury**: _____

Job Classification:_____ **Location of Occurrence**:_____

Body Part:_____ _____

Task Being Performed:_____

Description of the Exposure Incident:_____

_____

_____

_____

_____

_____

Device Information:

Type: _____ **Brand:**_____

Model:_____ **Was the device contaminated?** _____

Did the device have engineered sharps injury protection?_____

Was the protective mechanism activated?_____

Did the injury occur before, during or after activation?

Recommendations for Engineering Controls or Work Practice:
By Injured Employee:_____

By Boston College Dept. Supervisor:_____

_____

APPENDIX I

Needlestick Prevention Evaluation

Based on this year's worker evaluations:

Safe Needle Devices added as Engineering Controls in this calendar year:_____

_____

_____

Engineering Controls eliminated in current year:_____

_____

Devices under review:_____

_____

Target date for implementation:_____

_____

Devices in use with no safety feature:_____

_____

Review Approval Signature:_____

Title:_____ Date:_____