

BOSTON COLLEGE

Bloodborne Pathogens Exposure Control Plan

Date of Preparation: July, 1992
Current Revision Date: May, 2004

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Bloodborne Pathogens Exposure Control Plan

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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

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Date of Preparation: 7/9/92

Revisions: 04/04/03, 05/21/04, (See signature compliance page in EH&S BBP File)

(To be reviewed and updated at least annually and whenever necessary to reflect new or modified tasks or employee positions with occupational exposure)

In accordance with the **Occupational Safety and Health Administration (OSHA)**
BLOODBORNE PATHOGENS STANDARD, 29 CFR 1910.1030, the following exposure
control plan has been developed by Boston College:

I. EXPOSURE DETERMINATION

A. Types of Procedures Where Occupational Exposure May Occur:

Patient exams	Dressing changes
Inoculations	Waste disposal
Blood Sampling	Handling bloody laundry of athletes
Wound care	Bites and wounds from Campus School students

B. **High Risk Job Classifications** in which **all employees** have occupational exposure to blood or other potentially infectious materials.

Campus school aide	Athletic trainer
Campus school teacher	Student-trainer
Nurse	Police officer
Nurse-Practitioner	Student-equipment manager
Phlebotomist	Equipment manager
Physician	Nurse's Aid
Nursing Faculty	

C. **Low Risk Job Classifications** in which **some employees** may have occupational exposure (including tasks and procedures in which occupational exposure may occur).

<u>Job Classification</u>	<u>Tasks/Procedures</u>
Custodian	Bagging & collection of regulated waste Cleaning up of contaminated spills
Plumber	Working on plumbing, sewage lines, etc.
Teachers in the Child Care Center	First Aid

II. IMPLEMENTATION SCHEDULE AND METHODOLOGY FOR COMPLIANCE

A. Universal Precautions

Universal precautions will be observed in order to prevent contact with blood or other potentially infectious materials. All blood or other potentially infectious material will be considered infectious regardless of the perceived status of the source individual.

B. Engineering and Work Practice Controls

1. Controls will be utilized to eliminate or minimize employee exposure. Where occupational exposure remains after institution of the controls, personal protective equipment will be utilized.

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:

<u>Department</u>	<u>Person/Title</u>	<u>Frequency</u>
Clinic	Head Nurse	Daily
Infirmery	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, Infirmery, 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 towelettes and then thoroughly wash their hands and affected skin with soap and running water as soon as feasible. The Police shift supervisors and Head Trainer will be responsible for maintaining the availability and accessibility of the towelettes.
2. After removal of personal protective gloves, employees will wash hands and any other potentially contaminated skin area immediately or as soon as feasible with soap and water.
3. If employees incur exposure to their skin or mucous membranes, then those areas shall be washed or flushed with water as appropriate as soon as feasible following contact.

D. Needles

1. Contaminated needles and other contaminated sharps will not be reused, bent, recapped, removed, sheared or purposely broken. If needles must be recapped, it is done with a sheath mechanism.

2. Sharps Containers are available in Clinic, Infirmary and Sports Medicine. Staff have been instructed to not overfill the containers.
3. Immediately or as soon as possible after use, contaminated reusable sharps shall be placed in an appropriate container until properly reprocessed. These containers shall be:
 - a. Puncture resistant,
 - b. Appropriately labeled or color-coded,
 - c. Leakproof on the sides and bottoms, and
 - d. Shall not be handled in a manner that requires employees to reach by hand into containers where these sharps have been placed.

E. Needlestick Prevention

1. Each department using sharps shall conduct the following:
 - a. Annual consideration and implementation of appropriate engineering controls, outlined in *Appendix I*.
 - b. Solicitation of non-managerial healthcare workers in evaluating and choosing devices. The plan must be reviewed and updated at least annually.
 - c. Needle less or safe needle devices will be used whenever possible. Employees required to use needles in the course of their work, will participate in the selection and evaluation of needless or safe needle devices in accordance with OSHA's Sharps Injury Prevention Program. If not practical to involve all employees, the Department may select front-line worker representatives. Evaluation of safe needle devices may include: functional reliability, range of use, ease of use, active vs. passive safeties, single handed use, hands behind sharps, changes in technique, activation point, packaging, level of interference with the procedure, and right or left handed use.

F. Work Area Restrictions

1. In work areas where there is a reasonable likelihood of exposure to blood or other potentially infectious materials, employees are not to eat, drink, apply cosmetics or lip balm, smoke, or handle contact lenses. Food and beverages are not to be kept in refrigerators, freezers, shelves, cabinets, or on counter tops or bench tops where blood or other potentially infectious materials are present. Mouth pipetting/suctioning of blood or other potentially infectious materials is prohibited. All procedures will be conducted in a manner which will minimize splashing, spraying, splattering, and generation of droplets of blood or other potentially infectious materials.

G. Specimens

1. Specimens of blood or other potentially infectious materials will be placed in a container which prevents leakage during the collection, handling, processing, storage, and transport of the specimens. The container used for this purpose will be labeled with a biohazard label or color coded in accordance with the requirements of the OSHA standard. Any specimens which could puncture a primary container will be placed within a secondary container which is puncture resistant. If outside contamination of the primary container occurs, the primary container shall be placed within a secondary container which prevents leakage during the handling, processing, storage, transport, or shipping of the specimen.

H. Contaminated Equipment

1. Equipment which has become contaminated with blood or other potentially infectious materials shall be examined prior to servicing or shipping and shall be decontaminated as necessary unless decontamination is not feasible, in which case a readily observable "BIOHAZARD" warning label shall be attached to the equipment. The label shall indicate which portions of the equipment remain contaminated.

I. Personal Protective Equipment (PPE)

1. All PPE used at this institution will be provided without cost to employees. PPE will be chosen based on the anticipated exposure to blood or other potentially infectious materials. The PPE will be considered appropriate only if it does not permit blood or other potentially infectious materials to pass through or reach the employees' clothing, skin, eyes, mouth or other mucous membranes under normal conditions of use and for the duration of time which the PPE will be used.
2. All personal protective equipment will be cleaned or disposed of by the employer at no cost to employees. All repairs and replacements will be made by the employer at no cost to employees. All garments which are penetrated by blood shall be removed immediately or as soon as feasible. All PPE will be removed prior to leaving the work area.
3. Gloves are available from Clinic and Infirmary Head Nurses, Head Trainer, Police Supervisors, Campus School Nurse, Child Care Center Director, Custodial Supervisors and Plumbing Shop. Gloves are available for the following procedures: wound care, phlebotomy, surgical procedures, injections, pelvic exams, handling contaminated laundry, handling regulated waste, cleaning contaminated spills. Hypo-allergenic gloves or glove-liners are available. Utility gloves are available as needed.
4. Gloves shall be worn when it is reasonably anticipated that employees will have hand contact with blood, other potentially infectious materials, non-intact skin and mucous membranes.

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

<u>PPE</u>	<u>Responsible Supervisor</u>	<u>Tasks Included</u>
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, Protective Suits	Nurse Manager Custodial Supervisor Plumbing Foreman	Cleaning Contaminated Spills Cleaning Contaminated Spills Cleaning Contaminated Spills & extensive sewage line repair
Gloves, with Gown, Mask, Protective Eye Splash Gear (with solid side shield)	Surgical Nurse Manager	Wound Care with likelihood of Splash

6. Disposable gloves used at this institution are not to be washed or decontaminated for reuse and are to be replaced as soon as practical when they become contaminated, or as soon as feasible if they are torn, punctured, or their ability to function as a barrier is compromised. Utility gloves may be decontaminated for reuse provided that the integrity of the glove is not compromised. Utility gloves will 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.

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. Contaminated items will be bagged and brought to Health Services for storage and disposal.

3. **Area Schedule**

<u>Location</u>	<u>Frequency</u>	<u>Schedule</u>
Clinic	Daily	Mon-Fri
Infirmery/Newton	Daily	7 days/week
Sports Medicine (Conte Forum)	Daily	7 days/week
Campus School	Daily	Mon-Fri.
First Aid Room (Conte Forum)	Before and after usage	
First Aid Room (Alumni Stadium)	Before and after usage	
Locker Rooms for Visiting Teams:	Before and after each game	
Police Cars:	After potential contamination occurs, contact: International Service Systems 623-3800	
Child Care Center:	After potential contamination occurs	

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. Cushing Hall Primary Care Center
 - b. Sports Medicine Treatment Rooms (Conte Forum and Alumni Stadium),
First Aid Rooms and visiting team locker rooms in
Conte Forum and Alumni Stadium
 - c. Campus School Nurse's Office (Sharps container as needed) and red biohazard
bags stored in a designated closet.
 - d. All police cars (red biohazard bags)
 - e. Housekeeping Offices (red biohazard bags)
 - f. Higgins Hall – hazardous waste storage room (at loading dock)
5. Red plastic bags (labeled with biohazard symbols) will be used for regulated waste containers, except for sharps which will be discarded in hard red plastic containers.
 6. Containers for regulated waste will be supplied, maintained and picked up by the Health Services Department. Filled containers will be stored by the Health Services Department prior to regularly scheduled disposal off campus by an outside vendor.

K. Laundry Procedures:

1. Laundry contaminated with blood or other potentially infectious materials will be handled as little as possible. Such laundry will be placed in appropriately marked bags at the location where it was used. The bags will prevent soak-through and/or leakage of fluids to the exterior. The bags will be red or labeled with the **'BIOHAZARD'** warning label. Contaminated laundry shall not be sorted or rinsed in the location of use.
 2. To prevent confusion among multiple handlers, universal precautions will be used when handling all Athletic Department laundry, and gloves will be worn. University Health Services laundry will be separated at the source into contaminated and uncontaminated portions. Gloves will be worn when handling contaminated laundry and it will be placed in red plastic.
- L. All employees who handle contaminated laundry will wear protective gloves and other appropriate personal protective equipment.
1. Laundry at the University Health Services will be cleaned by *North Star Rental, 43 Freeman Street, Somerville 02145*
 2. Laundry at Sports Medicine/Athletic Department will be cleaned on site in Conte Forum.

M. Hepatitis B Vaccine

1. All employees who have been identified as "**at risk**" for exposure to blood or other potentially infectious materials may receive the Hepatitis B vaccine at no cost to the employee. "At Risk" employees who accept or decline the Hepatitis B vaccine will sign a copy of the Hepatitis B Vaccine Consent/Declination Form (*Appendix G*). A copy is included in their confidential medical record.
2. The Departmental Supervisor will offer the vaccine to **high risk** employees within 10 working days of their initial assignment to work. If the employee previously had the vaccine or wishes to submit to antibody testing which shows the employee to have sufficient immunity, testing arrangements can be made through Health Services.
 - a. Employees who declines the Hepatitis B vaccine will sign a waiver which uses the wording in *Appendix A* of the OSHA standard.
3. Employees who initially decline the vaccine but who later wish to have it, may then have the vaccine provided at no cost. Responsibility for assuring that the vaccine is offered and the waivers are signed rests with the following individuals:

University Health Services:	Associate Dir. for Administration & Nursing
Athletic Department:	Assistant Dir. for Sports Medicine/Head Trainer
Campus School:	Principal
Campus Police:	Chief of Police
Housekeeping Department:	Asst. Director, Plant Services, Facilities Management
Plumbing Department:	Foreman
Child Care Center	Director (Haley Carriage House)

III. POST-EXPOSURE, CONFIDENTIAL MEDICAL EVALUATION AND FOLLOW-UP

- A. When an employee incurs an exposure incident, it should be reported immediately to their supervisor who completes *Appendix B* and faxes copies to both Health Services and Environmental Health and Safety Office:

Health Services - FAX # 2-3603

Environmental Health and Safety Office – Fax # 2-1093

DUE TO THE URGENCY OF THE SITUATION, IT IS IMPERATIVE THAT THE SUPERVISOR INSURE IMMEDIATE EVALUATION AND TREATMENT OF THE EMPLOYEE.

- B. The employee is to be sent to University Health Services during their hours of operation. If Health Services is closed the employee must seek evaluation at an appropriate medical facility. The supervisor is to send the employee with the

completed *Appendix B and Appendices C through E* which will be completed by the employee and evaluating practitioner.

- C. All employees who incur an exposure incident will be offered free confidential medical post-exposure evaluation and follow-up in accordance with the OSHA standard.
- D. The healthcare professional evaluating an employee after an exposure incident will be provided with the following information:
 - 1. A copy of the Bloodborne Pathogens Standard 29 CFR 1910.1030;
 - 2. A description of the exposed employee's duties as they relate to the exposure incident;
 - 3. Documentation of the route(s) of exposure & circumstances under which exposure occurred;
 - 4. Results of the source individual's blood testing, if available.
 - 5. All medical records relevant to the appropriate treatment of the employee including vaccination status which are the employer's responsibility to maintain.
 - 6. Employee written consent form to facilitate forwarding all testing results and treatment plans to University Health Services.
- E. The **Post-Exposure Evaluation and follow-up** will include the following:
 - 1. Documentation of the route of exposure and the circumstances related to the incident if possible, the identification of the source individual and, if possible, the status of the source individual. The blood of the source individual will be tested (after consent is obtained) for Human Immunodeficiency Virus/Hepatitis B Virus (HIV/HBV) infectivity. If consent for testing is not obtainable, it will be documented in the exposed employee's medical record.
 - 2. Results of testing of the source individual will be made available to the exposed employee and the exposed employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual. In Massachusetts, the source individual's identity may not be disclosed to the exposed employee or anyone else without his consent.
 - 3. The employee will be offered the option of having his/her blood collected for testing for HIV/HBV serological status. The blood sample will be preserved for up to 90 days to allow the employee to decide if the blood should be tested for HIV serological status. However, if the employee decides prior to that time to have the baseline sample tested, such testing will be done as soon as feasible.

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.
8. The following person(s) have been designated to assure that the policy outlined here is effectively carried out as well as to maintain records related to this policy:
 - a. Environmental Health and Safety Officer
 - b. Associate Director of Health Services for Administration and Nursing

F. Healthcare Professional's Hepatitis B Evaluation for Supervisor (Appendix D):

1. A written statement shall be obtained from the healthcare professional who evaluates employees of this institution. Documentation will be obtained as follows:
 - a. When the employee is sent to obtain the Hepatitis B Vaccine.
 - b. Whenever the employee is sent to a health care professional following an exposure incident.

G. Healthcare professionals shall be instructed to limit their written statement to:

1. Whether the Hepatitis B vaccine is indicated and if the employee has received the vaccine.
2. In post-exposure evaluations, that the employee has been informed of the results of the post-exposure evaluation; and,
3. 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.

- 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. MEDICAL RECORDKEEPING

- A. The University Health Services shall establish and maintain an accurate medical record for each employee with occupational exposure to include:
 - 1. Name and social security number of employee.
 - 2. A copy of the employee's hepatitis B vaccination status including the dates of all hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination (such as antibody test results that indicate immunity, or medical reasons that contraindicate vaccination).
 - 3. A copy of all results of examinations, medical testing and follow-up procedures from the Post-Exposure Confidential Medical Evaluation and Follow-Up by the evaluating health care professional.
 - 4. The employer's copy of the healthcare professional's written opinion.
 - 5. A copy of the information provided to the healthcare professional who did the post-exposure evaluation and follow-up including:
 - a. Description of the exposed employee's duties as they relate to the exposure incident.
 - b. Documentation of the route(s) of exposure and circumstances under which exposure occurred.
 - c. Results of the source of individual's blood testing, if available.
- B. The employee medical record shall be kept confidential and not disclosed or reported without the employee's express written consent to any person within or outside the workplace except as may be required by law. The record shall be maintained for at least the duration of employment plus 30 years. If Boston College closes, it will notify the Director, National Institute for Occupational Safety and Health (NIOSH) at least three months prior to record disposal, and transmit the records to Director, NIOSH, upon request, within that three-month period.

V. COMMUNICATION OF HAZARDS TO EMPLOYEES

- A. Labels

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.
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.
12. Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident.
13. An explanation of the labels and/or color-coding required to indicate blood or other potentially infectious materials.

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.
- B. Following any such exposure, a blood sample should be obtained from the person who was the source of the exposure and should be tested for HBsAg, the hepatitis B vaccination status and anti-HBs response status (if known) of the exposed person should be reviewed. The outline below and Table 5 summarize prophylaxis for percutaneous or permucosal exposure to blood according to the HBsAg status of the source of exposure and the vaccination status and vaccine response of the exposed person.
- C. For greatest effectiveness, passive prophylaxis with HBIG, when indicated, should be given as soon as possible after exposure (its value beyond 7 days after exposure is unclear).

II. Source of Exposure HBsAg-positive

- A. *Exposed person has not been vaccinated or has not completed vaccination.*
 - 1. Hepatitis B vaccination should be initiated. A single dose of HBIG (0.06 ml/kg) should be given as soon as possible after exposure and within 24 hours, if possible.

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 24 months. 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 (mIU/ml, 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 should be tested for anti-HBs.
 - i. If the exposed person has adequate anti-HBs, no treatment is necessary.
 - ii. If the exposed person has inadequate anti-HBs, a standard booster dose of vaccine should be administered.

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 anti-HBs 1. If adequate*** no treatment. 2. If inadequate, HB vaccine booster dose	No treatment	No treatment
Known Non-responder	HBIG x 2 or HBIG x 1 plus 1 dose HB vaccine	No treatment	If known high-risk source, may treat as if source were HBsAg-positive
Response unknown	Test exposed for anti-HBs 1. If inadequate*** HBIG x1 plus HB Vaccine booster dose 2. If adequate, no treatment	No treatment	Test exposed for anti-HBs 1. If inadequate*** HB vaccine booster dose 2. If adequate, no treatment.

*HBIG dose 0.06 ml/kg IM

**HB Vaccine dose – see Table 3

***Adequate anti HBs is. 10 SRU by RIA or positive by EIA

APPENDIX B

Report of Evaluation of Exposure Incident

1. Name of individual exposed: _____
 - a. Job Title: _____
 - b. Social Security Number: _____
2. Date: _____ and hour _____ of exposure.
3. Location: _____
4. Route of Exposure: _____
5. Name of Source of Exposure: _____
 - a. Social Security Number: _____
6. Description of how incident occurred: _____

7. Evaluation of exposure incident: _____

8. Recommendations for facility changes: _____

Facility Exposure Incident Evaluator:

Name: _____

Signature: _____

Title: _____

Date: _____

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)

Page 1 of 2

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: Yes No
5. The Employee has received Hepatitis B Vaccine: Yes 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 source individual identifiable? _____

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: _____