Fermilab

Section Office
ES&H Section
630.840.8069 (phone)
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Memorandum

May 16, 2008

To: Bruce Chrisman

From: William Griffing Tim Mills for WG

Subject: Revised FESHM Chapter 5072 – Bloodborne Pathogens

FESHM chapter 5072, Bloodborne Pathogens, was revised following an annual review required by 29 CFR 1910.1030. The text was extensively edited and reformatted to better coincide with the style used in other chapters and to improve the understandability of the contents. In addition, many appendices were added to provide a readily available storage location for Medical Department forms that have evolved to fit various situations. Finally, a small number of procedures were revised to coincide with current practices.

After final approval, please return this approval page to Elizabeth Bancroft at MS119 for posting on the web.

Encl.

Recommended for Approval:

Bruce Chrisman — 6/3/08 Date

Approved:

Piermaria Oddone — 6/7/08 Date

Bloodborne Pathogens

INTRODUCTION

Although the primary mechanism for transmission of bloodborne pathogens is needle stick injuries to healthcare workers, other workers can be exposed via sharps injuries, as well as contact of bodily fluids with mucous membranes or skin. This chapter provides guidance to Fermilab employees to minimize the risk of transmission and to help assure compliance with applicable standards.

APPLICABLE STANDARDS

29 CFR 1910.1030 - OSHA Occupational Exposure to Bloodborne Pathogens

29 CFR 1910.1020 - Access to Employee Exposure and Medical Records

DEFINITIONS

Affected employees - employees who are determined to have a significant risk of occupational exposure to blood or other potentially infectious biological materials.

Bloodborne pathogen - a pathogenic microorganism present in human blood and can be transmitted to and cause disease in others. These pathogens include hepatitis B virus (HBV), hepatitis C virus (HVC), and human immunodeficiency virus (HIV).

Exposure control plan (ECP) – a plan that explains ways to minimize or eliminate exposure to bloodborne pathogens and is compliant with OSHA's bloodborne pathogen standard (29 CFR 1910.1030).

Exposure incident – contact with blood or other potentially infectious material to an eye, mouth, mucous membrane, non-intact skin, or into the body (via injection or injury) in association with a work activity.

Potentially infectious materials – any fluid/tissue that is normally confined to the inside of the body. In particular, blood, any body fluid/tissue visibly contaminated with blood, semen, vaginal secretions/amniotic fluid, and saliva in dental injuries/procedures. The following body fluids do **not** require precautions unless visibly contaminated with blood: nasal secretions, vomit, sputum, feces, tears, sweat, saliva, and urine.

Sharp - any device having corners, edges, or projections capable of cutting or piercing the skin. In a medical setting this often includes hypodermic needles, syringes, scalpel blades, suture needles, and blood vials.

Universal precautions – basic guidelines used to protect workers from possible infection with bloodborne pathogens. When handling potentially infectious material, all persons should be assumed to be infectious and precautions should be taken to prevent spread of infection. Precautions include administrative, engineering, and work practice controls, as well as personal protective equipment (PPE).

SPECIAL RESPONSIBILTIES

Divisions/Sections are responsible for obtaining and maintaining all necessary personal protective equipment (PPE), engineering controls, labels, and red bags required by this plan.

The Lab's Custodial Services contractor has primary responsibility for cleaning up spills of potentially-infectious materials when the person who is the source of the material is unable to do so. Due to limited availability and/or access restrictions on custodial employees, other personnel may be called upon to clean up spills.

The Medical Department is responsible for maintaining the ECP including an annual review, providing training on the HBV vaccination, maintaining the bloodborne pathogen lesson plan, conducting post-exposure evaluation and follow up, and ensuring that all required medical actions are performed as well as the maintenance of appropriate employee health records.

The Fire Department and the Medical Department share responsibility for providing bloodborne pathogen training to Fermilab employees. These organizations are also responsible for cleaning up potentially-infectious materials that may contaminate their clothing, equipment, or facilities.

PROGRAM DESCRIPTION

Fermilab's ECP consists of the following elements as required by the OSHA standard 29 CFR 1910.1030. A list of all job classifications in which employees have a significant potential for occupational exposure and the tasks in which these exposures are likely to occur. A description of how exposures are controlled through the use of universal precautions, and engineering and work practice controls, as well as personal protective equipment. HBV vaccinations are made available to all employees who have occupational exposure. Post-exposure evaluation and follow up are provided to all employees who have had an exposure incident. Communication of hazards is accomplished via labels and signs as well as information and training. Records for

each occupationally exposed employee are maintained in accordance with 29CFR 1910.1020 with regard to medical surveillance, training, availability, and suspected exposures. Following the report of an exposure incident, an exposed employee is immediately offered a confidential medical evaluation. Follow up will include documentation of the route(s) of exposure, and the circumstances under which the incident occurred.

The ECP is updated annually by Medical Department staff when their annual refresher training is performed. This review includes consideration of new medical devices designed to prevent or minimize exposure to potentially infective material. Input is solicited from at risk, non-managerial personnel including those responsible for direct care of injured or ill personnel.

BASIC BLOOD SPILL PROCEDURES

These are the basic procedures for dealing with a spill of blood or other potentially infectious material. If an injury is serious or there is a large amount of bleeding call for an emergency response by dialing X3131. In all situations, medical evaluation of potentially-exposed personnel within two hours is crucial.

1. STOP AND CONTAIN THE BLEEDING. If the employee is able he may apply direct pressure to the wound (see www.mayoclinic.com/health/first-aid-cut). If the employee is unable to apply pressure and there is access to nitrile or vinyl gloves which are impermeable to blood, another employee may apply pressure to the wound. Bleeding should be contained by application of clean dry gauze, paper tissues, etc. to contain the flow of blood.

2. RESTRICT ACCESS to the contaminated area to minimize exposure to others.

3. CLEAN UP THE BLOOD. The person who is the source of spilled material should clean up their own blood/body fluid if the cut is small and they are able. A solution of bleach mixed 10 parts water to 1 part bleach should be used to disinfect any blood/body fluid. If the person who is the source of spilled material is unable to clean up their own blood/body fluid, Custodial Services personnel (X2798) are qualified and equipped to safely clean up spills. Fire Department (X3428) and Fermilab Medical Office (X 3232) personnel are able to provide instruction on clean up and provide necessary supplies.

4. REPORT TO THE MEDICAL DEPARTMENT. Injured employees should report to the Medical Office as soon as possible. Anyone exposed to blood or other potentially infectious material should also report to the Fermilab Medical Office as soon as possible. If incident occurs when the Medical Office is closed the exposed employee should report to the nearest emergency facility with a copy of the post-exposure evaluation report (Appendix B-1, Appendix B-2, Appendix B-4, Appendix C-1 and the Bloodborne Pathogen Policy) for the physician on duty to complete.

The employee is to report to the Medical Department the next working day with both the original and copy of each report (Appendix B-1, Appendix B-2, Appendix B-4 and Appendix C-1.) Do not delay prompt medical evaluation to complete reports. Employee's supervisor should be notified of injury to an employee

5. FOLLOW UP. Identification of the source of contamination is important for risk assessment and should be identified and reported to the Medical Department as soon as possible. Item 1-26 of Appendix C- 1 is to be completed by the supervisor or the individual completing the initial report.

LABWIDE PROCEDURES

Labeling - The following labeling methods are used at Fermilab.

Item	Label Type (size, color, etc.)
Laboratory specimens	Ziploc bag with biohazard label
Contaminated Laundry	Red bag with biohazard label
Contaminated PPE	Red bag with biohazard label
Biohazard/Needle Containers plastic container	Biohazard label w/"SHARPS", red hard box
Small spill clean-up bag	Red bag with biohazard label

Employees who are qualified bloodborne pathogen workers or are otherwise assigned to handle biological waste containers will ensure that warning labels are affixed or red bags are used as required. Employees are to notify their supervisor and/or Senior Safety Office (SSO) if they discover regulated waste containers, refrigerators containing blood or other potentially infectious material, contaminated equipment, etc. without proper labels.

Employee Training – Basic training regarding bloodborne pathogens occurs at the time of hire in new employee orientation. Employees are instructed not to clean up another person's blood or body fluid. Employees with a significant risk of exposure to potentially infectious materials receive an explanation of the ECP during their initial training session. Refresher training is performed annually. All employees have an opportunity to review the plan at any time by logging onto the ESH web page (www-esh.fnal.gov/FESHM/5000/5072.html) or contacting the Fermilab Medical Department at X3232.

All employees who have a potential for occupational exposure to bloodborne pathogens must receive initial training conducted by a qualified instructor in the Fire Department or Medical Department. This instructor must be approved by the Site Occupational Medical Director. Refresher training is offered on an annual basis. Training includes the following topics:

- Epidemiology.

- Symptoms and transmission of bloodborne pathogen diseases.
- A copy and explanation of the bloodborne pathogen standard.
- How to recognize tasks and other activities that may involve exposure to blood and body fluids.
- Explain the use and limitations of engineering controls, work practice controls and PPE.
- Explain types, uses, location, removal, handling, decontamination and disposal of PPE.
- Explain basis for PPE selection.
- Information on the HBV vaccine including information on its effectiveness, safety,
  route of administration, benefits of vaccination, and that immunization is offered free of charge.
- Information on the appropriate actions to take and persons to contact in an emergency.
- 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.
- Information on the post-exposure evaluation and follow-up that will be made available
- An explanation of signage and labels and/or color coding required by the standard and used at this facility
- An interactive question and answer period with the person conducting training
- Classes may be scheduled at the following URL:
- www.esh.fnal.gov/pls/default/esh_home_page.page?this_page=100

Work Practice Controls - Refers to practical techniques that decrease the likelihood of exposure by changing the way a task is performed. Examples include hand washing, handling of used needles, collection and transport of
fluids and tissues.

- Contaminated sharps are to be discarded as soon as possible without recapping. Use containers that are closable, puncture resistant, leak-proof on the sides and bottoms, and labeled or appropriately color-coded red. Sharps containers may be obtained by calling the Hazard Control Technology Team at X3741.

- Bins, pails, emesis basins, wash basins are cleaned and decontaminated as soon as feasible.

- Broken glass (contaminated or otherwise) is picked up by using a brush and dust pan. Do not use hands.

- All other regulated waste is placed in containers that 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.

- Laundry handling requirements - Clothing contaminated with blood or other potentially infectious material will be processed on a case-by-case basis in accordance with the below requirements or disposed of appropriately. Handle contaminated laundry as little as possible. Place wet contaminated laundry in leak-proof, labeled, or color-coded containers before transport. Use red bags or bags with biohazard label affixed to the bag. Wear gloves, gowns, eye protection, face protection and/or other PPE as indicated. Maintain the bag of contaminated laundry at a secure location. Arrange to have the contaminated laundry picked up by a qualified laundry service for cleaning or disposed of in accordance with Chapter 8021 of this Manual.

- Waste disposal - Refer to Fermilab Hazardous Waste Disposal Chapter (8021) for the procedures to dispose of sharps containers or other regulated waste (www.esh.fnal.gov/FESHM/8000/8021.htm).

Procedures for Use of PPE/Barriers

- Wash hands as soon as possible after removal of gloves or other PPE.
- Remove PPE after it becomes contaminated, and before leaving the work area. Any garment contaminated by blood or other potentially infectious material should be removed as soon as feasible and in such a way as to avoid skin contact with the contaminated surface of garment.
- Used PPE may be disposed of in appropriate containers, such as red, hard-sided containers with biohazard symbol or red biohazard bags.
- Contaminated laundering containers: Red bag, or garbage bag with red biohazard symbol.
- Areas to be decontaminated are marked with yellow warning tape.
- Wear appropriate waterproof gloves (vinyl or nitrile) when it can be reasonably anticipated that there may be hand/skin contact with blood or other potentially infectious materials.
- Gloves may be disinfected for reuse if their integrity will not be compromised. Gloves should be discarded if they show signs of cracking, peeling, tearing, puncturing or deterioration. Never wash or decontaminate disposable gloves for reuse.

- Wear appropriate face and eye protection when splashes, sprays, splatters, or droplets of blood or other potentially infectious materials pose a hazard to the eye, nose, or mouth.

Engineering Controls - Refers to methods used to remove hazards from the workplace. Examples **include** sharps disposal containers, retractable needles, needleless systems, and spill clean-up kits.

Post-Exposure Evaluation and Follow-Up - Medical evaluation within two hours of exposure to potentially infectious materials is crucial.

- A confidential medical evaluation and follow-up will be immediately available. This evaluation will be conducted by a licensed medical professional in the Medical Department or offsite medical facility if the Medical Department is not open. Routes of exposure and how exposure occurred will be documented.
- The identity of the source individual will be documented (unless employer can establish the identification is infeasible or prohibited by state or local law). Consent for testing of source individual will be sought. Source individual will be tested for HIV, HCV, and/or HBV. If source individual is known to be positive for any of the above, new testing need not be performed.
- Assure that the exposed employee is provided with the source individual's test results and with information about applicable disclosure laws regarding identity and infectious status of source individual. Document source testing and that source testing and disclosure information was provided to exposed employee and employee's health care provider.
- Obtain exposed employee's consent to collect blood as soon as feasible after the exposure incident. Test exposed employee's blood for HBV, HIV, HCV and LFT at time of incident. Testing should be repeated at 3 months, and six months. If the employee does not give consent for HIV serologic 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 the testing as soon as feasible.
- **Hepatitis B Vaccinations -** The HBV vaccination series is available to employees with potential exposure to infectious materials, at no cost, after training, and within 10 days of initial assignment. In addition to the HBV vaccinations, the Medical Department will provide training on HBV vaccinations, including vaccine effectiveness, safety, benefits, route of administration, and availability. Vaccination is encouraged unless documentation exists that the employee has previously received the series, antibody testing reveals that the employee is immune, or medical evaluation shows that vaccination is contraindicated.

Employees who decline vaccination at the time it is offered must sign a Vaccine Declination form (see Appendix A-1).

However, they may chose to have the vaccine at a later date at no cost. Documentation regarding vaccine status is kept in the Medical Department.

Recordkeeping - Training records are generated for each employee upon completion of training. Original attendance sheets are kept by the trainer. Copies are sent to the ESH section. In addition, training is documented electronically in the ESH TRAIN database that can be found at the following URL: www.esh.fnal.gov/pls/default/esh_home_page.html. Training records include the date(s) of training session(s), the names and qualifications of persons conducting the training, and the names and job titles of all persons attending the training session. Employee training records are provided upon request to the employee or the employee's authorized representative within 15 working days. Such requests should be addressed to the division/section ES&H organization. Program content is available from the Medical Department.

Medical records for active employees are maintained in the Medical Office. Medical records for terminated employees are kept in an off-site storage facility for thirty years after termination of employment. Employee Medical Record requests can usually be provided within 15 working days to the employee or designated representative having written consent. Requests should be sent to:

Fermilab Medical Office
P.O. Box 500, MS 204
Batavia, IL, 60510

Medical Records are maintained for each employee with occupational exposure in accordance with applicable standards. This includes completed copies of the appendices to this chapter.
In particular, Appendix C -2 is considered to be the "SHARPS LOG".

ORGANIZATION-SPECIFIC INFORMATION & PROCEDURES

Important phone numbers

Organization	Phone number
Medical Department	3232
Custodial Services	2798
Fire Department / Emergency	3131
Fire Department / Non- Emergency	3428

Job Classifications affected employees for Bloodborne **Pathogen Exposure**

Job Title	**Department/Location**
Physician	ESH/Medical Office

Nurse I	ESH/Medical Office
Nurse II	ESH/Medical Office
Fire Chief	BS/Fire Department
Lieutenant	BS/Fire Department
Captain	BS/Fire Department
Fire Fighter	BS/Fire Department
Security Captain	BS/Security Department
Housekeeping Manager	BS/ Accommodations
Day Care Teacher	WR/Day Care Center
Day Care Attendant	WR/Day Care Center
Day Care Administrator	WR Day Care Center
Lifeguards	WR/ Recreation

In addition to these employees, it is recognized that all janitorial and housekeeping staff have a potential for occupation exposure to bloodborne pathogens. This work is currently carried out by contract service vendors who are responsible for implementation of necessary bloodborne pathogen precautions. Divisions/Sections may include additional individuals in the plan based on unusual job assignments. Certain Facililities Engineering & Operations employees may be eligible for HAV and HBV vaccination depending on their work assignments. These employees are covered by the Exposure Control Plan.

Location of PPE/Barriers

Organization	Location
Medical Office	Storage closet in Exam Room 2
Day Care	Storage closet at north end of facility
Fire Department	On emergency vehicles; both squad and engines, and in the first aid lockers
Lifeguards	Storage Closet

Work practice controls

Organization	Controls
Medical Department	• Gloves should be used for venipuncture, wound care, clean-up of bodily fluids. • Use a scoop to pick up broken glass. • Needles should not be recapped. • Use caution when transferring serum to second collection tube. • Use sharps disposal containers for needles or other sharps. • Promptly dispose of sharps. • Sharps disposal containers should be routinely inspected by the nursing staff to prevent overfilling.
Day Care Center	• Use gloves for wound care and clean-up activities. • Use sharps disposal containers for needles and other sharps. • Promptly dispose of sharps. • Sharps disposal containers should be routinely inspected by the Day Care Manager or teachers to prevent overfilling.
Lifeguards	• Gloves should be used for wound care and clean-up activities. • Use a scoop to pick up broken glass.
Fire Department	• Gloves should be used for wound care, venipuncture, starting IV's, clean-up of bodily fluids. • Use of sharps disposal containers for needles and other sharps. • Promptly dispose of sharps. • Sharps disposal containers should by routinely inspected by emergency personnel and to prevent overfilling.

Health Care Professional Training - The Site Occupational Medical Director ensures that health care professional(s) responsible for employee's HBV vaccination and post-exposure evaluation and follow-up are given a copy of OSHA's Blood-borne Pathogens Standard (29 CFR 1910.1030).

Subcontractors - All subcontractors on the Fermilab site that have significant exposure to blood-borne pathogens must comply with appropriate OSHA standards, including 29 CFR 1910.1030 and 29CFR 1910.20.

Fermilab

Hepatitis B Vaccine Declination (Mandatory)

I understand that due to my occupational exposure to blood or other potentially infectious 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 no charge to myself. However, I decline the Hepatitis B vaccination at this time. I understand 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 exposure to blood or other potentially infectious materials and I want to be vaccinated with the Hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Printed name: _____ Fermi ID# _____

_____ _____
Signature Date

_____ _____
Witness Date

Print Form

APPENDIX A-1

Fermilab

Seasonal Hire Declination for Hepatitis B

I understand that due to my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring Hepatitis B virus (HBV).

I have received the 3 Hepatitis B injections.

I have been requested to provide Fermilab Medical Office with verification of the dates the injections were received.

I have not complied with the above request.

I have been offered to have the series repeated by Fermilab Medical Office at no charge to me.

I am declining the offer.

Printed name: _____ Fermi ID# _____

_____ _____
Signature Date

_____ _____
Witness Date

Print Form

Fermilab

AUTHORIZATION FOR HEPATITIS B VACCINE ADMINISTRATION

I, the undersigned, do hereby give permission to Fermilab Medical Office to administer a series of Hepatitis B immunizations to me. I understand that my occupation has been designated as a high risk for hepatitis, and it is in the interest of my health and the health of my fellow employees and patients that these immunizations be administered.

I herewith assume all responsibility for any reaction that may occur as a result of such immunization.

My agreement to receive the Hepatitis B immunizations has been completely voluntary, and I understand that I may revoke my consent at any time prior to any of the three immunizations.

Print Name: _____ _____ Signature _____ Date

Witness: _____ Signature _____ Date

HEPATITIS B VACCINE IMMUNIZATION RECORD

Vaccine is to be administered in three doses. It should be given intramuscularly. The deltoid muscle is the preferred site. The vaccine should not be administered in the buttocks. For persons at risk of hemorrhage following intramuscular injection, the vaccine may be administered subcutaneously. The schedule for doses is as follows:

1. Elected date
2. One month from elected date
3. Six months from elected date

Employee Name _____ ID # _____

Date of first dose: _____ Medical person's initials: _____

Date of second dose: _____ Medical person's initials: _____

Date of third dose: _____ Medical person's initials: _____

Antibody test results - postvaccine: _____

Time interval since last injection: _____

Reason for non-participation in the Hepatitis B vaccine program: _____

_____

Print Form

APPENDIX B-1

Fermilab

Medical Office
ES&H Section
630-840-3232 (phone)
630-840-3053 (fax)
medical@fnal.gov

RE: Source Release of Information Request

The purpose of this letter is to obtain your cooperation in the evaluation and treatment of a Fermilab employee.

With the exposure to another's body fluids, particularly blood, there is a risk of infectious disease transfer. Certainly, such exposure has taken on new meaning in this era of concern over some potentially serious communicable diseases. Many people regardless of their background may have the Hepatitis B or C virus that do not now or have ever appeared ill. There are employee safeguards in place to both prevent disease both before and after the exposure occurs.

The receipt of this letter means that a physician evaluating the exposed employee has already deemed the exposure "significant" in that broken skin or mucous membrane (eyes, nose, and mouth) has occurred. Since illnesses such as Hepatitis B, C, or Human Immunodeficiency Virus may be unknown to the affected individual reliance on a healthy appearance is not the best guide for treatment.

To provide optimum care to an exposed individual it is important to know the potential risk of infection to which that person has been subjected. Without such information, it is often prudent to assume the worst. However, assuming worst in all cases is traumatic, uncomfortable, and costly.

The exposed individual may continue to worry, may receive multiple injections and generate many medical visits. Knowledge that the source (in this case you or your child) is indeed a low risk for infection obviates the need for extensive treatment and evaluation in many cases.

Accordingly, both the United States Public Health Service and the Occupational Safety and Health Administration have supported the testing of the source individual. Illinois law permits the testing of blood already obtained. This testing is purely optional and there is no legal obligation, but participation in testing will greatly improve the management of the individual exposed to your blood or body fluids.

To help facilitate this process, Fermilab proposes that you can be tested at _____.
Information regarding risk factors such as past blood transfusions will also be an aid in formulating a plan of treatment for the exposed individual.

We realize that this request involves some loss of privacy but it also allows for the best treatment of another person. Information gained will be strictly for advising and treating the exposed employee. The very minimum of staff will have knowledge of the information exchanged. Records will be kept by Fermilab Medical Department.

APPENDIX B-1

Fermilab

Medical Office
ES&H Section
630-840-3232 (phone)
630-840-3053 (fax)
medical@fnal.gov

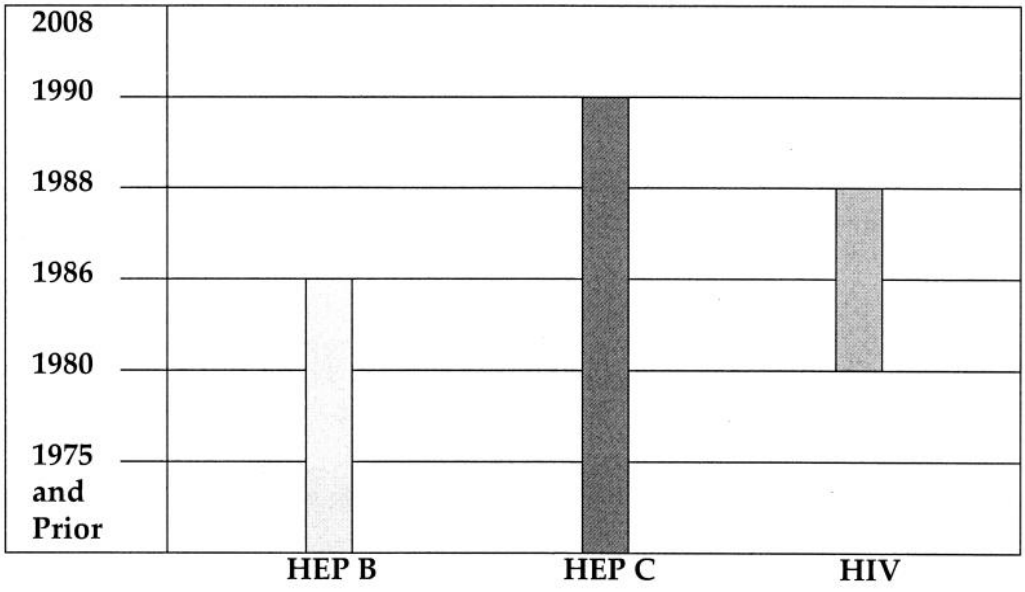
Risk Factor Screen

1) Received blood transfusion of human blood derived product between _____ (Year) and _____ (Year)

2) Household contacts or children of Hepatitis B carriers.

3. Individuals from countries where Hepatitis B is endemic (common), such as the Far East and selected Pacific islands.

4) Any other recognized risk factors for Human Immunodeficiency Virus, Hepatitis B or Hepatitis C infection.



The above chart shows the "High Risk Era" for transfusion

Fermilab

Medical Office
ES&H Section
630-840-3232 (phone)
630-840-3053 (fax)
medical@fnal.gov

Release of Information

I, _____, hereby ○ authorize ○ decline

release of medical testing results for Hepatitis B and Human Immunodeficiency Virus and risk factor screen to be released to _____ for purposes of advising the Fermilab employee (s) exposed to _____ (my or my child's name) blood or body fluid.

I realize that disclosure of any test results will be made solely to the individuals to who it is deemed medically prudent to inform, and those health care providers who may attend to the exposed individual. This release is purely voluntary and that information gained by this release will be kept solely for the purpose of treatment of the Fermilab employee (s).

I understand that any subsequent testing will be performed only upon my informed verbal or written request.

Signature:_____ Date:_____

Witness:_____ Date:_____

Print Form

Fermilab

Medical Office
ES&H Section
630-840-3232 (phone)
630-840-3053 (fax)
medical@fnal.gov

EMERGENCY RESPONDER REQUEST FOR SOURCE TESTING

(RYAN WHITE ACT)

The purpose of these tests are to establish the risk, if any, of an emergency responder who came in contact with your blood. We wish to test for Hepatitis B and C as well as HIV disease.

The emergency responder will be informed of your results.

You are welcome to copies of these results. (a signed release will be required)

Printed Name: _____ Fermi ID# _____

_____ _____
Signature Date

_____ _____
Witness signature Date

Print Form

APPENDIX B - 3
RIBA / PCR
REQUEST SOURCE

Fermilab

Medical Office
ES&H Section
630-840-3232 (phone)
630-840-3053 (fax)
medical@fnal.gov

Date _____

Dear _____

I am writing in follow-up to the testing you permitted _____ to do after

(an employee) had a needle stick exposure to your blood. I wish to thank you for your assistance in this matter.

I am pleased to inform you that both your Hepatitis B and HIV (AID's Virus) testing were negative. The Hepatitis C testing was indeterminate; that is, we cannot tell you if you have or have not been exposed to this virus in the past. There is an additional test which could help in this determination. I would like to ask for your help again in providing an additional sample to aid in this assessment. This test can be performed at no cost to yourself through

_____. I would like to advise you have this additional testing done, even if

there is no healthcare worker exposure. The results of this test will be kept as confidential as possible, and I will be happy to forward this result as well as any of the current results to your personal physician.

To arrange testing, please call the Fermilab Medical Office at 630-840-3232. To ensure privacy, please ask to speak to a nurse when you call.

I hope you elect to get this testing as I feel it will be helpful to both you and the nurse who treated you. Thank you.

Sincerely,

_____
Fermilab Physician Signature

Director Occupational Health

Print Form

Fermilab

Medical Office
ES&H Section
630-840-3232 (phone)
630-840-3053 (fax)
medical@fnal.gov

Request for outside provider post exposure information

Date

To: Emergency Physician

Re: Post exposure evaluation report for:

Fermilab employee's name: Fermi ID#

The above individual is being treated initially by you for possible exposure to blood borne pathogens. Our Fermilab medical office will actively monitor follow up care.

Please provide us with a copy of records documenting your initial evaluation and treatment.

These would include:

- Route of exposure
- Identify source individual, if possible
- Actions taken to determine source individual's infectivity for HIV, HCBV, HBV and other serology
- Was exposed employee provided with source individual's test results?
- Action taken to test exposed employee's blood for HIV, HCV, HBV, and other serology
- Were anti-retroviral medications, or other treatments given?

Thank you for your help in managing this case.

Sincerely,

Fermilab Physician's Signature
Director Occupational Health

Print Form

Fermilab

APPENDIX C-1

INITIAL POST EXPOSURE EVALUATION REPORT

(Questions 1-23 to be completed for each exposure incident)

EMPLOYER INFORMATION

1. Employee name: _____ 2. Fermi ID#: _____

3. Address: _____

4. Home telephone number: _____

5. Division / Section: _____ 6. Job title: _____

7. Hire date: _____ 8. Duration of current job: _____

---

9. Date of exposure: _____ 10. Time of exposure: _____

11. Date of report: _____ 12. Time of report: _____

13. Name of person reported to: _____ 14. Division / Section: _____

15. Location of exposure:

Building: _____ Department: _____ Room: _____

16. Employee on duty? ☐ YES ☐ NO

17. Task being performed: _____

18. Precautions taken: _____

19. Blood or bodily fluid involved: _____

20. Nature of exposure:

- ☐ Needlestick injury
- ☐ Other sharp instrument injury
- ☐ Mucous membrane splash
- ☐ Non-intact skin
- ☐ Human bite
- ☐ Other _____

APPENDIX C -1

21. Exposure occurred during:

- ☐ Needle recapping
- ☐ Handling trash
- ☐ Handling linens
- ☐ Putting needle in box
- ☐ Medication administration
- ☐ Other

22. Describe exposure/injury:

23. Why did exposure occur?

24. How could exposure have been prevented?

SOURCE INFORMATION

25. Source patient exposure known? ☐ YES ☐ NO

26. Source patient:

Name:

Fermi ID# (if employee):

Date of birth:

Address:

Phone:

Print Form

APPENDIX C-2
SHARPS LOG
CONFIDENTIAL REPORT

DATE	DEVICE TYPE	BRAND	LOCATION OF INCIDENT	DESCRIPTION OF INDICENT	TD STATUS	HEP B STATUS	FERMI ID#

Print Form

Appendix C-3
Medical Office
Review of Sharps Devices

Date

Product 1:

Brand: Divice:

Advantages:

Disadvantages:

Product 2:

Brand: Divice:

Advantages:

Disadvantages:

Product 3:

Brand: Divice:

Advantages:

Disadvantages:

Print Form

Appendix D - 1
WORKSHEET FOR FNAL MEDICAL OFFICE

EMPLOYEE EVALUATION

1. **Hepatitis B Vaccine History**

Completed 3 dose series	○ Yes	○ No	Comments:
Post vaccination serology	○ Yes	○ No	Comments:
Prior Hepatitis serology history	○ Yes	○ No	Comments:
Prior HIV serology history	○ Yes	○ No	Comments:

2. **Post Testing**

NAME OF TEST	DATE SENT	DATE REPORTED	RESULTS
HIV serology			
HbsAG			

HEPATITIS B VACCINATION EVALUATION

1. Employee has received the Hepatitis B vaccine in the past. ○ Yes ○ No
2. If NO, does this employee desire the vaccine in the next program? ○ Yes ○ No
3. Employee is recommended to have the Hepatitis B Vaccine due to absence of contraindication.. ○ Yes ○ No
4. Treatment given:
5. Employee has been counseled and informed of:
   - ○ Significance of exposure
   - ○ Risk of infection
   - ○ Guidelines of prevention of spread
   - ○ Recommendations of employee's ability to receive Hepatitis B vaccine

Medical signature Date

Employee signature ID# Date

6. Healthcare professional's written opinion on exposure provided to employee along with test results needed for further follow-up. ○ Yes ○ No

Appendix D - 1
PHYSICIAN EVALUATION

(To be completed by Fermilab MD) Worksheet for FNAL Medical Office

SOURCE PATIENT Sharps Log ID# Date Reported

1. Source patient evaluation

☐ **Source unknown or Hep B Ag Positive** ☐ **Source known Hep B Ag Negative**

NOTE IN TABLE BELOW ***E*** *= Exposed and* ***S*** *= Source*

2. Source patient blood tests

TREATMENT		VACCINATION TIMES							RESULTS/ COMMENTS
TEST	INITIAL	7days	4 wk.	6 wk	3 mo.	6 mo.	1 yr.	ACTION DATE	(Circle which one Pertains to)
First Aid									
Tetanus									
Hep B Vaccine									
HBIG									
HbsAb									
HBsAg									
HepCAb									
LFTs									
HIV									

EXPOSED PATIENT/EMPLOYEE

1. This exposure is considered

   Non-infectious, non penetrating - requires no further follow-up

   Potentially infectious, requires follow-up

2. Recommended employee and source (if source known) be drawn for HIV and Hepatitis B testing with results to be given employee by Medical Office as they are available to be given employee by the Medical Office as soon as they are available.
3. Stress - Source confidentiality will be respected
4. Additional comments

Date

Physician signature

Print Form

FERMILAB MEDICAL OFFICE

Unvaccinated/Vaccinated Employee Chart

UNVACCINATED EMPLOYEE		SOURCE UNKNOWN OR HEP B AG POSITIVE		
	TREATMENT	LABORATORY TESTS		COMMENTS
TIME		EMPLOYEE	SOURCE	
Initial	First Aid Td if indicated Hep B Vacc #1	Hep B Ab Hep C Ab HIV	Hep B Ag Hep C Ab HIV	Can stop here if employee positive. No further testing if positive
Within 7 days	* HBIG #1			
4 Wks.	Hep B Vacc#2 (* HBIG #2) absent vaccine			
6 Wks.		HIV		
3 Mo.		HIV		
6 Mo.	Hep B Vacc #3	HIV, Hep B Ag HCV, LFT		Added to test for presence of disease
12 Mo.		HIV		

UNVACCINATED EMPLOYEE		SOURCE KNOWN OR HEP B AG NEGATIVE		
	TREATMENT	LABORATORY TESTS		COMMENTS
TIME		EMPLOYEE	SOURCE	
Initial	First Aid TD if indicated Hep B Vacc#1	Hep B Ab Hep C Ab HIV	Hep B Ab Hep C Ab HIV	
Within 7 days	** HBIG #1			
4 Wks.	Hep B Vacc#2 ** HBIG #2 absent virus			
6 Wks.		HIV		
3 Mo.		HIV		
6 Mo.		HIV HCV, LFT		
12 Mo.		HIV		

* HBIG needs to be done in the ER.

** If source has high risk behavior - Again HBIG would be done in ER

Appendix D-2

VACCINATED EMPLOYEE		SOURCE UNKNOWN OR HEP B AG POSITIVE		
	TREATMENT	LABORATORY TESTS		COMMENTS
Time		Employee	Source	
Initial	First Aid Td if indicated	Hep B Ab Hep C Ab HIV	Hep B Ag Hep C Ab HIV	
Within 7 days	Hep B Vacc			Administered only if Hep B Ab Negative
4 Wks.				
6 Wks.		HIV		
3 Mo.		HIV		
6 Mo.		HIV Hep B Ag HCV, LFT		Added to test for presence of disease
12 Mo.		HIV		

NOTE: If source is know HIV positive or high risk then consult outsider for diagnostic and treatment series AZT prophylaxis (should be started within 2 hours of the incident).

Print Form

APPENDIX E - 1

PHYSICIAN'S NOTIFICATION TO AN EXPOSED EMPLOYEE

GIVEN INITIALLY AND AT CLOSURE OF CASE

In accordance with the OSHA Bloodborne Pathogen Standard the following information is provided in writing to help you in deciding what further action (if any) is needed.

Information in parentheses is the actual lab result should you wish to consult with your personal physician.

In reference to your **own** blood work and history:

Hepatitis B

- ○ No evidence of immunity (HBsAb Negative)
- ○ Evidence of immunity consistent with vaccination (HBsAb Positive)
- ○ Evidence of past disease with current immunity (HBsAb Positive)

*** Hepatitis C (if applicable)**

- ○ No evidence of past or current disease (HCAb Negative)
- ○ Evidence of past or current disease (HCAb Positive)
- ○ Not as a result of this current exposure (If found immediately post exposure) (HCAb Positive)
- ○ Not applicable

HIV (AIDS Virus)

- ○ No evidence of current infection (ELISA Negative)
- ○ Evidence of current infection (ELISA Positive Western Blot ☐ Full ☐ Partial

In reference to the **source** blood work:

Hepatitis B

- ○ Non-infectious (HbsAg Negative)
- ○ Infectious (HbsAg Positive)
- ○ Not available

*** Hepatitis C (if applicable)**

- ○ No evidence of past or current disease (HCAb Negative)
- ○ Evidence of past or current disease (HCAb Positive)
- ○ Not available

HIV (AIDS Virus)

- ○ No evidence of current infection (ELISA Negative)
- ○ Evidence of current infection (ELISA Positive Western Blot ☐ Full ☐ Partial)
- ○ Not available

In reference to the source's known medical history:

- ○ Low risk for HIV infection
- ○ Greater than low risk for HIV infection
- ○ Not available

Follow up laboratory work is always extended to the exposed individual as long as there is risk of infection from one or more of the agents listed on page one. You may choose to continue with the test schedule, but are in no way required to undergo further testing

Based on the nature of your exposure the laboratory data available, and the known source medical history, your risk for the following diseases is as follows:

Hepatitis B

- ○ Low
- ○ Significant
- ○ High

*** Hepatitis C**

- ○ Low
- ○ Significant
- ○ High
- ○ Not applicable

HIV (AIDS Virus)

- ○ Low
- ○ Significant
- ○ High

Accordingly the following actions are advised:

- ○ No further action required
- ○ Continue with Hepatitis B Vaccination Series
- ○ Observe for fever, chills, nausea, myalgia or urine color changes in the next 30 - 60 days
- ○ Start Hepatitis Immunoglobulin Series
- ○ Avoid exposing others to your body fluids for the next 60 days
- ○ Other _____

Follow up lab work will be provided in accordance with the OSHA standard and local policy. It is your choice to either continue or not continue the testing.

* NOTE: Hepatitis C is a virus which attacks the liver and is believed to be transmitted much like Hepatitis B. Hepatitis C cases do not occur nearly as frequently as Hepatitis B. Testing for Hepatitis C is fairly crude. The array of tests for Hepatitis C is somewhat limited compared to those available for Hepatitis B

Patient's name (Print) _____ ID# _____

Patient's signature_____ Date _____

Medical person's signature_____ Date_____

Print Form

APPENDIX E-2
EMPLOYEE POST EXPOSURE HANDOUT

	Hepatitis B	Hepatitis C	HIV
Description	Hepatitis B is a serious disease caused by a virus that attacks the liver. This can cause life-long infection, cirrhosis (scarring) of the liver, liver cancer, liver failure and death. Hepatitis B vaccine is available for all age groups to prevent Hepatitis B infection.	This is a virus different from Hepatitis B; however, it is a serious disease that attacks the liver and progresses similar to Hepatitis B.	This is the virus that causes AIDS. HIV is different from other viruses because it attacks the immune system. HIV finds and destroys a type of white blood cell (T cells) that the immune system must have to fight disease.
Symptoms	30% of persons have no symptoms. Jaundice, fatigue, dark urine, abdominal pain, nausea, loss of appetite, and joint pain.	80% of persons have no signs or symptoms. Jaundice, fatigue, dark urine, abdominal pain, nausea, loss of appetite.	May experience mild flu like symptoms approximately 2 weeks after exposure. Symptoms unlike the blood test are unreliable as an indicator of infection, as one may feel well for up to 10 years after infection; whereas, the blood test can detect infection within weeks of its onset. Early symptoms may be yeast infections that do not respond to treatment.
Cause	Hepatitis B virus (HBV)	Hepatitis C virus (HCV)	Human Immunodeficiency Virus (HIV)
Transmission	Occurs when blood from an infected person enters the body of a person who is not infected. Until testing is concluded and negative, use a latex condom during sex. HIV as well as Hepatitis B and C infections often share the same high risk behavior as a cause. So if an individual harbors one infection as a result of high risk behavior then one must suspect the presence of others. Do not share personal items which may have blood on them (like razors or toothbrushes) Do not give blood, organs or tissue until your testing is completed and negative	Occurs when blood from an infected person enters the body of a person who is not infected. Until testing is concluded and negative, use a latex condom during sex. HIV as well as Hepatitis B and C infections often share the same high risk behavior as a cause. So if an individual harbors one infection as a result of high risk behavior then one must suspect the presence of others. Do not share personal items which may have blood on them (like razors or toothbrushes) Do not give blood, organs or tissue until your testing is completed and negative	Occurs when blood from an infected person enters the body of a person who is not infected. Until testing is concluded and negative, use a latex condom during sex. HIV as well as Hepatitis B and C infections often share the same high risk behavior as a cause. So if an individual harbors one infection as a result of high risk behavior then one must suspect the presence of others. Do not share personal items which may have blood on them (like razors or toothbrushes) Do not give blood, organs or tissue until your testing is completed and negative

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