

Calvin College

Bloodborne Pathogens Exposure Control Plan

POLICY

Calvin College is committed to providing a safe and healthful work environment for our entire staff. In pursuit of this endeavor, the following exposure control plan (ECP) is provided to eliminate or minimize occupational exposure to bloodborne pathogens in accordance with MIOSHA rules 325.70001 - .70018, "Occupational Exposure to Bloodborne Infectious Diseases."

The ECP is a key document to assist our college in implementing and ensuring compliance with the standard, thereby protecting our employees. This ECP includes:

- Determination of employee exposure
- Implementation of various methods of exposure control, including:
 - Universal precautions
 - Engineering and work practice controls
 - Standard operating procedures
 - Personal protective equipment
 - Housekeeping
- Hepatitis B vaccination
- Post-exposure evaluation and follow-up for staff, faculty and volunteers
- Post-exposure evaluation and follow-up for students
- Communication of hazards to employees and training
- Recordkeeping
- Procedures for evaluating circumstances surrounding an exposure incident

The methods of implementation of these elements of the standard are discussed in the subsequent pages of this ECP.

PROGRAM ADMINISTRATION

The Environmental Health & Safety (EHS) office is responsible for the implementation of the ECP. The EHS officers will maintain, review, and update the ECP at least annually, and whenever necessary to include new or modified tasks and procedures. Contact location/phone number:

The EHS office is in the Physical Plant.
Phone numbers: x6-8591 or x6-6342.

Those employees who are determined to have occupational exposure to blood or other potentially infectious materials (OPIM) must comply with the procedures and work practices outlined in this ECP.

The EHS officers and department representatives will maintain and provide all necessary personal protective equipment (PPE), engineering controls (e.g., sharps containers), labels, and red bags as required by the standard. The EHS officers and department representatives will ensure that adequate supplies of the aforementioned equipment are available in the appropriate sizes.

Department

EHS
Art
Biology
Campus Safety
Health Services
HPERDS

Representative/phone number:

Heather Chapman 6-8591 or Jennifer Ambrose, 6-6342
Betty Sanderson, 6-6744
Lori Keen, 6-6080
Dan Gordon, 6-6710
Barb Mustert, 6-6568
Joe Dykstra, 6-7630

Nursing	Shelly Bartels, 6-8755
Physical Plant	Heather Chapman 6-8591 or Jennifer Ambrose 6-6342
Student Life	Jay Wise, 6-6633
West Michigan Regional Lab	Jon Klunder, 6-7519

Department representatives, EHS and Human Resources will be responsible for ensuring that all medical actions required are performed and that appropriate employee health and MIOSHA records are maintained.

Department representatives and EHS will be responsible for training, documentation of training, and making the written ECP available to employees, MIOSHA, and NIOSH representatives.

I. EMPLOYEE EXPOSURE DETERMINATION

The following is a list of all job classifications at our establishment that have been determined to be Category A (covered by the bloodborne infectious diseases standard):

<u>JOB TITLE</u>	<u>DEPARTMENT/LOCATION</u>
Faculty	Biology
Lab Manager	Biology
Ecosystem Preserve Manager	Biology
Equipment Manager	Biology
Director	Campus Safety
Associate Director	Campus Safety
Operations Manager	Campus Safety
Patrol Supervisor	Campus Safety
Campus Safety Officer	Campus Safety
Director	Health Services
Department Assistant	Health Services
LPN	Health Services
Medical Assistant	Health Services
Nurse Practitioner	Health Services
Nurse	Health Services
Physician	Health Services
Student Assistant	Health Services
Head Athletic Trainer	HPERDS
Student Athletic Trainer	HPERDS
Equipment Room Manager	HPERDS
Student Equipment Room Worker	HPERDS
Professor of Exercise Science	HPERDS
Director of Campus Wellness	HPERDS
Health Habits Screeners	HPERDS
Student Weight Room Worker	HPERDS
Intramural Director	HPERDS
Student Intramural Worker	HPERDS
Aquatics Director	HPERDS
Student Aquatics Worker	HPERDS
Coach	HPERDS
Assistant Coach	HPERDS
Faculty	Nursing
Lab Assistants (student employees)	Nursing
Lab/Media Coordinator	Nursing
Plumber	Physical Plant
On-call personnel	Physical Plant

Building Services Manager	Physical Plant
Residential Housekeeping Staff	Physical Plant
Assistant Director, Service	Physical Plant
Building Services Supervisor	Physical Plant
Custodian	Physical Plant
Recycling Coordinator	Physical Plant
Grounds Trash Handler	Physical Plant
Resident Hall Director	Student Life
Staff	WMRL
Department Assistant	Art Department

The following is a list of job classifications in which some employees at our establishment have occupational exposure. Included is a list of tasks and procedures, or groups of closely related tasks and procedures, in which occupational exposure may occur for these individuals:

<u>JOB TITLE</u>	<u>DEPARTMENT/LOCATION</u>	<u>TASK/PROCEDURE</u>
Lab Technician	Biology	Working with blood or OPIM
Lab Assistant	Biology	Course 333

II. METHODS OF IMPLEMENTATION AND CONTROL

A. Universal Precautions

All employees will utilize universal precautions.

B. Exposure Control Plan

Employees covered by the bloodborne infectious diseases standard receive an explanation of this ECP during their initial training session. It will also be reviewed in their annual refresher training. All employees have an opportunity to review this plan at any time during their work shifts by contacting the EHS office.

If requested, an employee will be provided with a copy of the ECP free of charge and within 15 days of the request.

EHS, in consultation with department representatives, is responsible for reviewing and updating the ECP annually or more frequently if necessary to reflect any new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

C. Standard Operating Procedures

Standard operating procedures (SOP's) provide specific guidance on controls and practices that shall be used when performing tasks involving occupational exposure to bloodborne pathogens. See [Appendix A for SOP's](#). These are utilized in employee training.

D. Contingency Plans

Where circumstances can be foreseen in which recommended standard operating procedures could not be followed, contingency plans for employee protection are addressed through incident investigation and medical follow-up as part of the standard operating procedures.

E. Engineering Controls and Work Practices

Engineering controls and work practice controls will be used to prevent or minimize exposure to bloodborne pathogens. The following safer devices and engineering controls are being implemented:

- Hand washing technique:
For routine hand washing, vigorously rub together lathered hands for 15 seconds, followed by thorough rinsing under a stream of water. Dry with paper towels and use towel to turn off the faucet.
- Employees will wash their hands and any other exposed skin with soap and water as soon as possible following any contact of body areas with blood or OPIM. Exposed mucous membranes will be flushed with water.
- After the use of any protective glove or other protective equipment the employee shall immediately or as soon as practical wash their hands with soap and water.
- Hand washing facilities with soap, water and paper towels are provided in all laboratories and rooms where staff and students may be expected to come into contact with blood or OPIM.
- If washing facilities are not immediately available the employee shall use an antiseptic wipe or hand sanitizing lotion to clean the hands and any other affected area. As soon as practical the employee shall wash the affected area with soap and water.
- In the event of a blood or OPIM spill, the material shall be cleaned up by employees covered by this ECP. A Blood & Body Fluid Clean-up Kit shall be used following the directions inside the kit. Clean-up kits are supplied by the Physical Plant custodians or Campus Safety officers. Protective equipment must be worn.
- Eating, drinking, smoking, applying cosmetics or lip balm and handling contact lenses is prohibited in areas where there is a potential for exposure to bloodborne pathogens.
- Used needles, or needles and other sharps that are contaminated with blood or OPIM will not be sheared, bent or broken and shall not be recapped, re-sheathed or removed and will be immediately disposed of in closable, leak-proof, properly labeled or color-coded, puncture resistant and disposable containers.
- Lancets and pipettes used for obtaining blood samples to check for blood sugar and cholesterol are to be single use devices that are disposed of immediately after use in sharps disposal containers.
- Sharps disposal containers are inspected and maintained or replaced by department representatives (or a person they designate) every month or whenever necessary to prevent overfilling.
- Regulated waste that is not capable of puncturing plastic shall be disposed of in plastic-lined, cardboard, labeled biohazard boxes.
- Regulated waste is picked up by Stericycle, Inc every 12 weeks. Collection areas for regulated waste are in Health Services, DH 206, and SB 215. Lori Keen and Barb Mustert coordinate the collection and pick-up.
- Disposable thermometer sheaths will be available at all times.
- Equipment, such as glass thermometers or protective eyewear, that come in contact with mucous membranes, or body fluid shall be decontaminated with either a freshly prepared solution of bleach diluted with water 1:10 for 10 minutes, or soaked (for the time specified by the manufacturer) in an EPA approved disinfectant and rinsed thoroughly before reuse.
- Clothing that is contaminated with blood or OPIM must not be brought home for laundering.
- If clothing should become contaminated the clothing shall be removed and placed in red plastic biohazard bags. Contaminated laundry is brought to the Physical Education Building Equipment Room or Prince Conference Center for laundering. Hospital scrubs are available from EHS, Biology or Campus Safety in the event that personal clothing must be removed for laundering.
- Self-sheathing needles shall be used for the administration of all parenteral medications.
- When intravenous medications are administered, needleless medication systems will be used whenever available.

- Resuscitation devices with one-way valves are provided in all campus first aid boxes and shall be used when giving mouth-to-mouth resuscitation.

Specific engineering controls and work practice controls for departments:

Biology

Human blood or OPIM, for the Biology department, saliva and urine, are used only in a few laboratory courses each academic year. Students collect and use their own saliva and urine. The saliva is boiled immediately upon collection, thereby eliminating the BBP risk. The department receives blood in vacutainer tubes. Blood or saliva is typically used in quantities of 5 ml or less. Human blood or OPIM is rarely, if ever, in contact with needles or syringes in the Biology department.

The Biology department operates two autoclaves. These autoclaves are not used to decontaminate blood or OPIM or items that may be contaminated with blood or OPIM. Therefore this equipment is not included in the cleaning log/cleaning schedule applicable to this plan.

- In the labs, sharps (capillary tubes, Pasteur pipettes, toothpicks, microscope slides and cover-slips, needles or any other object capable of puncturing plastic) contaminated with blood or OPIM shall be immediately disposed of in closable, leak-proof, puncture-resistant, disposable containers (sharps containers).
- Sharps containers in the laboratories will be checked monthly by the laboratory manager for leaking and overfilling. Sharps containers are located in SB 215, DH 100, DH 206, DH 208, DH 212, DH 216 and DH 222. Containers in these locations are usually NOT used for BBP. The Biology department generally uses needles and syringes for materials that do not constitute a threat of infection, such as introducing solvents into vials for purposes of reconstitution or dilution or withdrawing solutions/reagents from containers. Needles are always required to be disposed of in a sharps container; however, it is probable that the needles did not encounter blood or OPIM. It may be found that these needles are recapped. Furthermore, needles and syringes are used to withdraw non-human (sheep) blood from containers. It is the Biology department policy that all items to be disposed of, that are visibly contaminated with any kind of blood, are to be treated as a biohazard. These needles may also be re-capped prior to disposal.
- Sharps containers shall be placed at the workstations/lab benches within reach of each student when blood or OPIM is used in a particular laboratory exercise.
- Splash shields shall be utilized whenever it is reasonably anticipated that blood or OPIM may splash, splatter or spray. In lieu of splash shields, eye protection and masks shall be worn if there is potential for splash, splatter or spray.
- Absorbent, disposable bench pads shall be placed on the work surface during tasks involving blood or OPIM. After use, the pads shall be discarded in a biohazard box.
- Self-sealing, plastic or mylar-wrapped hematocrit tubes rather than plain glass hematocrit tubes shall be used for collecting blood in capillary/hematocrit tubes.
- Temporary Biohazard/Universal Precautions signs shall be posted on the doors leading into laboratories in which work with blood or OPIM is being used and shall remain posted until decontamination of the laboratory and equipment has occurred.
- Needles and syringes that are NOT contaminated with blood or other potentially infectious material may be recapped and disposed of in sharps containers.
- Equipment, such as centrifuges, that come in contact with blood or OPIM will be decontaminated with an approved disinfectant as soon as possible after completion of the task or the completion of the laboratory exercise, but not exceeding 24 hours after the conclusion of the laboratory period. Decontamination, following a laboratory, shall be completed by the laboratory manager or other non-student employee.
- The laboratory instructor shall ensure that each student has decontaminated his/her workplace as well as any equipment assigned to the student, prior to that student's leaving the lab.
- Liquid waste, such as blood, blood components and saliva are collected in beakers containing 10% bleach solution or other EPA approved disinfectant for the purpose of

decontaminating the waste. The contents are then flushed down the drain with running water.

Health Services

- Only sterile needles may be recapped using a one-handed technique after drawing up medication or before switching needles.
- Regulated waste will be immediately disposed of in covered, labeled, lined biohazard waste receptacles, which will be provided in each exam room and in the laboratory.
- Contents from covered wastebaskets shall be removed from these wastebaskets in the plastic liners and placed into plastic-lined biohazard boxes.
- Syringes with self-sheathing needles will be used by staff for all injections with the exception of allergy injections. Allergy injections will be given using allergy syringes per the request of local Allergists. This reduces serum waste and allows for change of needles when needed. These will not be recapped and will be placed immediately into sharps containers after use.
- Sharps containers are inspected and maintained or replaced by the LPNs on a weekly basis. Containers that are leaking or 2/3's full will be removed from the lab, patient rooms, or travel health office and placed into the biohazard waste bin. A log will be kept in the lab for weekly checks.

Nursing

- Syringes with self-sheathing needles will be used by faculty and students when sterile saline subcutaneous injections are administered to nursing students in the labs.
- Needleless intravenous administration systems will be provided in the labs so that students can use with teaching models and manikins. Venipuncture is not practiced on people in the labs.
- Faculty and students that provide nursing care in client's homes will have antiseptic hand cleaner provided. This alternative hand washing method is allowed only when running water and soap is not immediately available. When this method has been used the faculty and students must wash their hands (or other affected area) with soap and running water as soon as feasible thereafter.
- Needles and syringes that are used while learning injection techniques in the labs but are not contaminated with blood or OPIM may be recapped and disposed of in closable, leak-proof, puncture resistant, disposable containers.
- Used needles and other contaminated sharps shall not be sheared, bent or broken and shall not be recapped, re-sheathed or removed by Calvin College employees in the clinical sites. Used needles and other sharps shall be immediately disposed of in closable, leak-proof, puncture-resistant, disposable containers unless the administration of that agency can demonstrate that no alternative is feasible or that such action is required by a specific medical procedure.
- Other objects or clothing contaminated with blood or OPIM will be handled as little as possible and placed in labeled containers designated for that purpose.
- Only sterile needles may be recapped using a one-handed technique after drawing up medication or before switching needles.

Physical Plant

- Only full or regular part time staff (not student employees) will handle contaminated linens in the residence halls. Contaminated linens will be discarded in properly labeled BIOHAZARD containers for disposal.

WMRL

The WMRL operates two autoclaves. These autoclaves are not used to decontaminate blood or OPIM or items that may be contaminated with blood or OPIM. Therefore this equipment is not included in the cleaning log/cleaning schedule applicable to this plan.

- In the labs, sharps (capillary tubes, Pasteur pipettes, toothpicks, microscope slides and cover-slips, needles or any other object capable of puncturing plastic) contaminated with

blood or OPIM shall be immediately disposed of in closable, leak-proof, puncture-resistant, disposable containers (sharps containers).

- Where self-sheathing needles can't be used, the one-handed technique may be used after drawing up medication or before switching needles.
- Regulated waste will be immediately disposed of in covered, labeled, lined biohazard waste receptacles, which will be provided in each exam room and in the laboratory.
- Used needles and other contaminated sharps shall not be sheared, bent or broken and shall not be recapped, re-sheathed or removed by Calvin College employees in the clinical sites. Used needles and other sharps shall be immediately disposed of in closable, leak-proof, puncture-resistant, disposable containers unless the administration of that agency can demonstrate that no alternative is feasible or that such action is required by a specific medical procedure.
- Other objects or clothing contaminated with blood or OPIM will be handled as little as possible and placed in labeled containers designated for that purpose.

Evaluation of Safety Devices, Engineering Controls and Work Practices

EHS officers identify the need for changes in engineering control and work practices through sharps injury investigations, employee interviews, and discussions with covered employees during annual update training. Covered employees, EHS officers and members of the Committee on Environmental Health & Safety will identify the need for changes in engineering controls and work practices through observation of and experience with equipment and procedures.

Departments evaluate new procedures or new products in the following ways:

Biology:

The Biology Laboratory Manager, Biology Facilities and Equipment Committee and the Biology 333 teaching faculty identify the need for changes in engineering and work practice controls through observation of equipment and procedures used in the Biology laboratories. Review and assessment takes place in the spring of each year but no later than May 31. The Lab manager and Biology 333 teaching faculty ensure that the recommendations of the committee are implemented.

Health Services:

Health Services is evaluating safer medical devices annually. The devices are being evaluated by each RN, LPN and one NP. At this time, each staff person will evaluate the safety medical devices that are currently being used in Health Services and any new device that is available through their supplier. Each person will complete the Safety Feature Evaluation Form appropriate for each device. See Appendix B. After the forms are completed, the staff will discuss their findings and reach an agreement on whether the device will continue to be used, or whether another device will be evaluated and tried.

Nursing:

Selection of safer medical devices is done by a committee composed of the Lab/Media Coordinator, the student Lab Assistant, and at least one Faculty member. This committee (the Safer Medical Devices Committee) will meet annually. At this time, each committee member will evaluate each safer medical device that is currently being used in the Nursing lab setting. Each committee member will complete an Evaluation Tool for Selection of Safer Medical Devices for each safer medical device currently in use. After the Tool is completed, the members will discuss their findings and reach an agreement on whether the device will continue to be used, or whether another device will be evaluated and tried.

Each safer medical device will also be evaluated while being used in the Nursing lab setting, in a manner to be determined by the Safer Medical Devices Committee, possibly during a Lab Skills Testing Session. This evaluation will take place prior to the committee meeting, so that the information will be available at the committee meeting.

WMRL:

The safety practices and devices used in WMRL are reviewed periodically by the lab supervisor, manager and the Director. In addition to this oversight, the Institutional Animal Care & Use Committee also annually review practices and safety devices used in the lab.

F. Personal Protective Equipment (PPE)

PPE is provided to our employees at no cost to them. Training is provided by EHS, department representatives, or supervisors in the use of the appropriate PPE for the tasks or procedures employees will perform.

The types of PPE available to employees are as follows gloves (latex, synthetic latex-free), eye/face protection (safety glasses with side shields, splash shields, and mask/eye shields), coveralls, lab coats, aprons, and shoe covers.

PPE is located in the Service Building EHS closet and in each department covered by this plan. See the list of department representatives for contact information. EHS and department representatives are responsible for ensuring that PPE is available.

All employees using PPE must observe the following precautions:

- Wash hands immediately or as soon as feasible after removal of gloves or other PPE.
- Remove PPE after it becomes contaminated, and before leaving the work area.
- Used disposable PPE shall be disposed of in plastic-lined, cardboard, labeled biohazard boxes.
- Protective eyewear that comes in contact with mucous membranes, or body fluid shall be decontaminated with either a freshly prepared solution of bleach diluted with water 1:10 for 10 minutes, or soaked (for the time specified by the manufacturer) in an EPA approved disinfectant and rinsed thoroughly before reuse.
- Remove immediately or as soon as feasible any garment contaminated by blood or OPIM, in such a way as to avoid contact with the outer surface.
- Clothing that is contaminated with blood or OPIM must not be brought home for laundering.
- If clothing or lab coats become contaminated they shall be removed and placed in red plastic biohazard bags. Contaminated laundry is either disposed of as regulated waste or brought to the Physical Education Building Equipment Room or Prince Conference Center for laundering. Contact the Equipment Room Manager, Dick Wilkins, at extension 6-6185. Hospital scrubs are available from EHS or Campus Safety in the event that personal clothing must be removed for laundering.
- Wear appropriate gloves when it can be reasonably anticipated that there may be hand contact with blood or OPIM, and when handling or touching contaminated items or surfaces; replace gloves if torn, punctured, contaminated, or if their ability to function as a barrier is compromised.
- Utility gloves may be decontaminated for reuse if their integrity is not compromised; discard utility gloves if they show signs of cracking, peeling, tearing, puncturing, or deterioration.
- Never wash or decontaminate disposable gloves for reuse.
- Wear face and eye protection whenever splashes, sprays, spatters, or droplets of blood or OPIM are reasonably anticipated.
- Contaminated resuscitation devices from campus first aid boxes must be disposed of as regulated waste. Replacement of these devices is arranged by EHS.

If under rare and extraordinary circumstances the employee temporarily and briefly declines to use personal protective equipment because, in the employee's professional judgment, in this specific instance its use would have prevented the delivery of health care or public safety services or would have posed an increased hazard to the safety of the employee or a coworker, this circumstance must be documented. After documentation, an investigation will be made to determine if changes to the procedures are needed to prevent such occurrences in the future.

The following tasks have been reviewed and have been found to have the potential for occupational exposure to blood or OPIM. Engineering and work practice controls have been instituted to eliminate or minimize employee exposure. Where exposure or the potential for exposure remains after institution of these controls, PPE shall also be used.

The following lists are not exhaustive. They list the minimum PPE to be worn by staff in specific departments. Additional protective clothing shall be worn if additional contact to unprotected portions of the body with blood or OPIM can be reasonably expected to occur.

Ecosystem Preserve:

Tasks to perform	Where performed	People performing tasks	PPE required
First aid for minor injuries	Preserve Tours	Ecosystem Preserve Manager	gloves

- During each tour and during summer camp, each employee will have in his or her possession the following: disposable gloves, antiseptic hand cleaner, antiseptic wipes and Band-Aids.
- Each employee is responsible for assuring that this equipment is kept immediately available during their work shift.
- Tour leaders (who have not received BBP training) must avoid touching anyone else's blood or body fluids.
- Tour leaders may instruct the school teacher or parent who is along with his or her students, or the student himself, to put the band-aids on or hold pressure to stop bleeding.
- If a more severe injury occurs Campus Safety or the Ecosystem Manager must be called.
- Used protective equipment will be disposed of in containers marked with the BIOHAZARD symbol.

Health Services:

Tasks to perform	Where performed	People performing tasks	PPE required
Dressing change	Exam room	MD, NP, RN, LPN	gloves
I and D	Exam room	MD, NP, RN, LPN	gloves, lab coat
Glucose monitoring	Exam room	NP,RN,LPN	gloves
HGB monitoring	Exam room	NP,RN,LPN	gloves
Lab draw-venipuncture	Exam room	NP,RN,LPN	gloves
HCG	Lab	NP,RN,LPN	gloves
Strep	Lab	NP,RN,LPN	gloves
Mono	Lab	NP,RN,LPN	gloves
Rectal exam	Exam room	NP,RN	gloves
CPR	Health Services	MD, NP, RN, LPN	gloves, one-way respirator mask
Suture removal	Exam room	NP, RN,LPN	gloves
Obtaining cultures	Exam room, lab	MD, NP, RN, LPN	gloves
Handling of specimens	Exam room, lab	MD, NP, RN, LPN	gloves
Pelvic exam	Exam room	MD, NP	gloves
Wart paring, histofreeze	Exam room	MD, NP,RN	gloves
Eye staining-flouresceine	Exam room	MD, NP, RN	gloves
Vaccinations,TB skin tests	Exam room, lab	NP, RN, LPN	gloves
Cleaning instruments & Rooms	Exam room, lab	MD,NP	gloves
STD testing	Exam room	MD,NP	gloves

- Lab coats are required for I&D procedures and other procedures with potential for contact with body fluids.

- Disposable, single-use latex or synthetic gloves will be worn whenever there is a reasonable anticipation of direct skin contact with blood or OPIM, mucous membranes or non-intact skin.
- Disposable gloves will be worn when handling items or surfaces that are soiled with blood or OPIM.
- Protective eyewear and facemasks will be worn during procedures that may involve eye and/or face exposure to blood or OPIM.

Nursing:

Tasks to perform	Where performed	People performing tasks	PPE required
Dressing Change - minor	Clinical sites	Students, Faculty	Gloves
Dressing Change - major	Clinical sites	Students, Faculty	Gloves
Observing a Deliver and Infant Care	Clinical sites	Students, Faculty	Gloves
Observing Surgery	Clinical sites	Students, Faculty	Gloves, Gown Eye/Face shield
Glucose Monitoring	Clinical sites, Labs at Calvin	Students, Faculty	Gloves
HBG Monitoring	Clinical sites	Students, Faculty	Gloves
Wound Irrigation	Clinical sites	Students, Faculty	Gloves, Gown Eye/Face shield
Suctioning	Clinical sites	Students, Faculty	Gloves Eye/Face shield
NG insertion	Clinical sites	Students, Faculty	Gloves Eye/Face shield
Rectal Exam	Clinical sites	Students, Faculty	Gloves
Parenteral Medication Administration	Clinical sites, Labs at Calvin	Students, Faculty	Gloves
Venipuncture	Clinical sites	Students, Faculty	Gloves
Obtaining Cultures	Clinical sites	Students, Faculty	Gloves
CPR	Clinical sites	Students, Faculty	Gloves, One way respirator mask
Handling and/or transport of specimens	Clinical sites	Students, Faculty	Gloves
Cleaning Patient Room / Bedmaking	Clinical sites	Students, Faculty	Gloves
Suture Removal	Clinical sites	Students, Faculty	Gloves
Perineal Care	Clinical sites, Labs at Calvin	Students, Faculty	Gloves
Postpartum Assessment	Clinical sites	Students, Faculty	Gloves
Change Diapers	Clinical sites	Students, Faculty	Gloves
Lab clean up after Injection and IV labs	Labs at Calvin	Lab Assistants, Lab Coordinator	Gloves

Patient Toileting	Clinical sites	Students, Faculty	Gloves
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Campus Safety:

Tasks to perform	Where performed	People performing tasks	PPE required
First aid	Campus buildings and properties	Campus Safety Officers, Patrol Supervisors, Operations Manager, Directors	Gloves
Clean up of body fluid	Campus buildings and properties	Campus Safety Officers, Patrol Supervisors, Operations Manager, Directors	Gloves
CPR	Campus buildings and properties	Campus Safety Officers, Patrol Supervisors, Operations Manager, Directors	Gloves, One way respirator mask

- During each shift employees will have in their possession the following PPE: disposable gloves, disposable face shield for CPR (Microshield) and antiseptic wipes.
- Each employee is responsible for assuring that the above equipment is kept immediately available to them during their work shift.

Physical Plant:

Tasks to perform	Where performed	People performing tasks	PPE required
Emptying trash	Campus buildings and properties	Custodian, Bldg. Services Supervisor and Manager, Housekeeper	Gloves
Collecting trash	Campus buildings and properties	Recycling Coordinator, Grounds Trash Handler	Gloves
Clean up of body fluid	Campus buildings and properties	Custodian, Bldg. Services Supervisor and Manager, Housekeeper	Gloves
Clean restrooms	Campus buildings and properties	Custodian, Bldg. Services Supervisor and Manager, Housekeeper	Gloves

HPERDS:

Tasks to perform	Where performed	People performing tasks	PPE required
Wound care	PE Bldg, Playing fields, away games & practice	Athletic Trainer, Student Athletic Trainer	Gloves

Clean up of body fluid	PE Bldg, Playing fields	Athletic Trainer, Student Athletic Trainer	Gloves
First aid	PE Bldg, Playing fields, away games & practice	Athletic Trainer, Student Athletic Trainer, Coaches, Assistant Coaches, Faculty, Intramural Director and Student Workers, Aquatics Director and Student Workers, Equipment Room Manager and Student Worker, Weight Room worker	Gloves
CPR	PE Bldg, Playing fields, away games & practice	Athletic Trainer, Student Athletic Trainer, Coaches, Assistant Coaches, Faculty, Intramural Director and Student Workers, Aquatics Director and Student Workers, Equipment Room Manager and Student Worker, Weight Room worker	Gloves, One way respirator mask
Cholestech	Campus buildings	HPERDS Exercise Science Professors, Exercise Science majors, Director of Campus Wellness	Gloves

Biology:

Tasks to perform	Where performed	People performing tasks	PPE required
Pipeting blood	Biology Labs and Prep rooms	Faculty, Lab Manager	Gloves, splash shield
Centrifugation	Biology Labs and Prep rooms	Faculty, Lab Manager	Gloves
Cleaning contaminated equipment & surfaces	Biology Labs and Prep rooms	Lab Manager	Gloves

WMRL:

Tasks to perform	Where performed	People performing tasks	PPE required
Dressing Change - minor	Surgical or staging rooms	Staff	Gloves, Lab coat
Wound Irrigation	Surgical or staging rooms	Staff	Gloves, Gown Eye/Face shield
Suctioning	Surgical or staging rooms	Staff	Gloves
Venipuncture	Surgical or	Staff	Gloves

	staging rooms		
Obtaining Cultures	Surgical rooms	Staff	Gloves
Lab clean up after Injections and IVs	Surgical rooms	Lab Assistants, Lab Coordinator	Gloves
Clean up of body fluid	Surgical rooms	Staff	Gloves
Pipeting blood	Surgical rooms	Lab Manager or Supervisor	Gloves, splash shield
Centrifugation	Surgical rooms	Lab Manager or Supervisor	Gloves
Cleaning contaminated equipment & surfaces	Surgical rooms	Lab Manager or Supervisor	Gloves

G. Housekeeping

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

Sharps disposal containers are checked monthly for leaking and overfilling. Containers that are 2/3 full shall be sealed and moved to one of the biohazard medical waste boxes in Health Services, DH 206, or SB 215.

Regulated waste that does not contain contaminated sharps must be placed in red biohazard bags and placed in one of the biohazard medical waste boxes in Health Services, DH 206, DH 222, or SB 215.

Contaminated sharps are discarded immediately or as soon as possible in containers that are closable, puncture-resistant, leak-proof on sides and bottoms, and labeled or color-coded appropriately. Sharps disposal containers are available through EHS or department representatives and are to be placed within easy reach of employees who need to dispose of contaminated sharps. In the event that a contaminated sharp is found and an appropriate container is not close by, the employee shall go obtain a sharps container and bring it to the object rather than bring the contaminated sharp to the container.

Needles from self administered injections shall not be disposed of in bathroom, dorm or office waste baskets. Any student or employee can obtain a free sharps container from Health Services. Individuals shall immediately place any personally owned and contaminated sharps in the provided sharps container. When the container is $\frac{3}{4}$ full it may be returned to Health Services and a new one obtained.

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

Broken glassware contaminated with blood or OPIM must never be handled or picked up by hand. Use a brush and dustpan or pieces of cardboard to scoop it up and dispose of it in a puncture-resistant, leak-proof container labeled as bio-hazardous waste.

Broken glass, even if it is not contaminated, must never be handled or picked up by hand. Use a brush and dustpan or pieces of cardboard to scoop it up and dispose of it in a puncture-resistant container. Boxes designed for the disposal of broken glass are available in each building.

Departmental Housekeeping Procedures

HPERDS:

- Non absorbent surfaces shall be decontaminated with either a freshly prepared solution of bleach diluted with water 1:10 for 10 minutes and allowed to air dry, or with an EPA approved disinfectant (for the time specified by the manufacturer) following contamination with blood or OPIM.
- The facility shall be cleaned daily and all potentially contaminated surfaces disinfected using an EPA listed disinfectant.

Nursing:

- The Labs will be maintained in a clean and sanitary condition. Custodial staff will empty and clean trash receptacles and clean Lab floors weekly. Sinks, counter tops and tables will be cleaned by Lab Assistants with a general purpose cleaner weekly or whenever soiled. Work surfaces will be decontaminated by Lab Assistants with a freshly prepared solution of bleach diluted with water 1:10 and allowed to air dry, or with an EPA approved disinfectant (for the time specified by the manufacturer) following parenteral medication administration, and whenever skills have been practiced where contact with blood, other potentially infectious material, mucous membranes, or non-intact skin has occurred. Staff will wear gloves when handling items or surfaces that are soiled with blood or other potentially infectious material. Housekeeping Logs will be posted in each lab.
- Faculty teaching in the Labs will notify lab personnel whenever surfaces have been contaminated with blood or other potentially infectious material.

Health Services:

- The Exam Rooms and Laboratory will be maintained in a clean and sanitary condition. Custodial staff will empty and clean trash receptacles daily. Custodial staff will clean sinks daily with a general purpose cleaner. Work surfaces (counter tops and tables) will be decontaminated daily and floors will be cleaned 3 times weekly by custodial staff using EPA listed disinfectants following manufacturer's directions.
- Weekly Housekeeping Logs will be maintained.

WMRL:

- The surgical rooms will be maintained in a clean and sanitary condition. WMRL staff will empty and clean trash receptacles and clean floors periodically. Sinks, counter tops and tables will be cleaned by WMRL staff with a general purpose cleaner whenever soiled and after each procedure where there is contact with blood, other potentially infectious material, mucous membranes, or non-intact skin. Staff will wear gloves when handling items or surfaces that are soiled with blood or other potentially infectious material.

H. Laundry

Calvin will launder the following contaminated articles:

- Lab coats from Biology 333.
- Team uniforms contaminated with blood or OPIM.
- Towels contaminated with blood or OPIM.
- Employee clothing that has been contaminated blood or OPIM.

Laundering will be performed by Dick Wilkins, Equipment Room Manager, HPERDS at x6-6185. The following laundering requirements must be met:

- Handle contaminated laundry as little as possible, with minimal agitation.
- Place wet contaminated laundry in leak-proof, labeled or color-coded containers before transport. Use red bags or bags marked with biohazard symbol for this purpose.

- Wear the following PPE when handling and/or sorting contaminated laundry: protective gloves.
- Remove gloves immediately after handling contaminated laundry and wash hands thoroughly.

WMRL launders their PPE. For work with human cadavers, disposable gowns are worn and these are disposed of as a biohazardous waste after use. Other work activities are performed using standard lab coats. These are laundered within WMRL on at least a weekly basis.

I. Labels

The following labeling method is used at Calvin College:

<u>EQUIPMENT TO BE LABELED</u>	<u>LABEL TYPE (size, color, etc.)</u>
Equipment contaminated with blood or OPIM	Red label with biohazard symbol
Refrigerators containing blood or OPIM	Red label with biohazard symbol
Regulated waste containers	Biohazard symbol

EHS officers or department representatives will ensure warning labels are affixed or red bags are used as required if regulated waste or contaminated equipment is brought into the facility. Employees are to notify EHS officers or department representatives if they discover regulated waste containers, refrigerators containing blood or OPIM, contaminated equipment, etc. without proper labels.

III. HEPATITIS B VACCINATION

EHS officers and qualified department representatives will provide training to employees on hepatitis B vaccinations, addressing the safety, benefits, efficacy, methods of administration, and availability.

The hepatitis B vaccination series is available at no cost after training and within 10 days of initial assignment to employees identified in the exposure determination section of this plan. Vaccination is encouraged unless: 1) documentation exists that the employee has previously received the series, 2) antibody testing reveals that the employee is immune, or 3) medical evaluation shows that vaccination is contraindicated.

However, if an employee chooses to decline vaccination, the employee must sign a copy of the declination form (see [Appendix C](#)). Employees who decline may request and obtain the vaccination at a later date at no cost. Documentation of refusal of the vaccination is kept in the EHS office.

Vaccination will be provided by the MED-1 Occupational Health System. The fees for immunizations and titers are paid by Human Resources for Calvin College [Category A](#) employees.

Following hepatitis B vaccinations, the health care professional's Written Opinion will be limited to whether the employee requires the hepatitis vaccine, and whether the vaccine was administered.

IV. POST-EXPOSURE EVALUATION AND FOLLOW-UP FOR STAFF, FACULTY & VOLUNTEERS

POST EXPOSURE PROCEDURE

1. Wash the exposed area immediately (cleanse wound or skin with soap and water, flush eyes or mucous membranes with water).
2. Call Campus Safety at extension: x3-3333. Campus Safety Dispatch will notify EHS.
3. Tell Campus Safety that you have been exposed to blood or body fluids and need immediate help.
4. When possible, locate the source individual and stay together.
5. An immediately available confidential medical evaluation and follow-up will be conducted by a physician at MED-1 Occupational Services.
6. Immediately (do not wait for paperwork if it is not readily available) go to MED-1 Leonard (24 hour service), 1140 Monroe Ave, phone: 459-6331 or MED-1 Breton (M-F daytime hours), 4433 Breton Ave. SE in Kentwood, phone: 281-6000. The MED-1 physician will conduct an evaluation, which may include, but not be limited to, blood tests, counseling and prophylactic treatment. Prophylactic treatment, if indicated, needs to be administered within 1 to 2 hours of the exposure incident. Calvin Campus Safety will arrange for transportation to MED-1.
7. The source individual should also go to MED-1 (unless it can be established that identification is not feasible or prohibited by law).
8. When you arrive at MED-1 inform the staff that you have been exposed to blood or body fluid and need immediate assistance.
9. The health care provider will obtain consent from the exposed individual and the source individual for blood testing.
10. If the incident occurs while the employee is performing work for Calvin, the injury will be covered by Calvin's worker compensation policy.
11. Inform your Calvin supervisor of the incident as soon as possible, but no later than by the end of the day. College policy requires that serious injuries be reported within 24 hours.
12. If an exposure occurs off campus while you are performing work for Calvin, also follow the procedures of that facility as related to an exposure incident.
13. Complete the [Appendix E: Report of Exposure to Blood or Other Potentially Infectious Material](#) form (obtain from the EHS web site, Human Resources or your department representative) and submit it to the EHS office within one week.
14. Bring the [Appendix F: Post Exposure Evaluation and Follow-up Report](#) (obtain from the EHS web site, Human Resources or your department representative) to MED-1. Your supervisor will need to complete the top portion of this report.
15. As previously mentioned, if paperwork is not immediately available go directly to MED-1.

Should an exposure incident occur, contact the EHS officer and the department representative as listed on page 1 of this plan.

The following activities will be performed. See Appendix E: *Report of Exposure to Blood or Other Potentially Infectious Material* and Appendix F: *Post Exposure Evaluation and Follow-up Report*. Completion of these two report forms will help assure that the following will be done as required by law.

- Document the routes of exposure and how the exposure occurred.
- Identify and document the source individual (unless the employer can establish that identification is infeasible or prohibited by state or local law).
- Obtain consent and make arrangements to have the source individual tested as soon as possible to determine HIV, HCV, and HBV infectivity; document that the source individual's test results were conveyed to the employee's health care provider.
- If the source individual is already known to be HIV, HCV and/or HBV positive, new testing need not be performed.
- Assure that the exposed employee is provided with the source individual's test results and with the information about applicable disclosure laws and regulations concerning the identity and infectious status of the source individual (e.g., laws protecting confidentiality).
- After obtaining consent, collect exposed employee's blood as soon as feasible after exposure incident, and test blood for HBV and HIV serological status.

- If the employee does not give consent for HIV serological testing during collection of blood for baseline testing, preserve the baseline blood sample for at least 90 days; if the exposed employee elects to have the baseline sample tested during this waiting period, perform testing as soon as feasible.

V. POST EXPOSURE PROCEDURE FOR BLOOD AND OTHER POTENTIALLY INFECTIOUS MATERIALS FOR STUDENTS DOING LABORATORY ASSIGNMENTS

Students are not covered by this plan. See The Bloodborne Pathogens Exposure Control Plan for Students.

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

EHS ensures that MED-1, responsible for post-exposure evaluation and follow-up, receives a copy of MIOSHA's bloodborne infectious diseases standard and this document.

EHS or the department representative ensures that the MED-1 physician evaluating an employee after an exposure incident receives the following (by completing appropriate sections of Appendix E: *Report of Exposure to Blood or Other Potentially Infectious Material* and Appendix F: *Post Exposure Evaluation and Follow-up Report*):

- a description of the employee's job duties relevant to the exposure incident
- route(s) of exposure
- circumstances of exposure
- if possible, results of the source individual's blood test
- relevant employee medical records, including vaccination status

EHS provides the employee with a copy of the evaluating health care professional's written opinion within 15 days after completion of the evaluation.

VII. PROCEDURES FOR EVALUATION THE CIRCUMSTANCES SURROUNDING AN EXPOSURE INCIDENT

EHS and the department representative will review the circumstances of all exposure incidents to determine:

- engineering controls in use at the time
- work practices followed
- a description of the device being used
- protective equipment of clothing that was used at the time of the exposure incident
- location of the incident
- procedure being performed when the incident occurred
- employee's training

If it is determined that revisions need to be made, EHS and the Committee on Environmental Health & Safety will ensure that appropriate changes are made to this ECP.

VIII. EMPLOYEE TRAINING

All employees who have occupational exposure to bloodborne pathogens either receive training conducted by one of the following trainers or by completing an online, interactive module. These training modules were created at Calvin College and are customized according to the department the employee works for. At the beginning of each module the employee is instructed to contact EHS officers or their department representative with any questions regarding the online training. Contact information is provided. Follow this link to begin the [online training module](#), or contact EHS at 526-8591 to arrange for a training class.

Calvin College Bloodborne pathogens training instructors:

- Heather Chapman, Environmental Health & Occupational Safety Officer. Heather has a degree in Occupational Health & Safety Management from Grand Valley State University and also holds a designation as a Certified Safety Professional.
- Jennifer Ambrose, Environmental Health & Occupational Safety Officer. Jennifer has a degree in Environmental Engineering from Michigan Technological University.
- Lori Keen, Biology Lab Manager. Lori has a degree in Biology from Calvin College. She has held her current position since 1985.
- Shelley Bartles, Nursing Lab/Media Coordinator. Shelly is a Registered Nurse licensed in Michigan and is an experienced community health nurse.
- Barb Mustert, RN, Staff Nursing Health Services. Barb is a Registered Nurse licensed in Michigan and runs the Travel Health and Immunization clinic in Health Services at Calvin.

All employees who have occupational exposure to bloodborne pathogens receive training on the epidemiology, symptoms, and transmission of bloodborne pathogen diseases. In addition, the training program covers, at a minimum, the following elements:

- a copy and explanation of the standard;
- an explanation of our ECP and how to obtain a copy;
- an explanation of methods to recognize tasks and other activities that may involve exposure to blood and OPIM, including what constitutes an exposure incident;
- an explanation of the use and limitations of engineering controls, work practices, and PPE;
- an explanation of the types, uses, location, removal, handling, decontamination, and disposal of PPE;
- an explanation of the basis for PPE selection;
- information on the hepatitis B vaccine, including information of its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine will be offered free of charge;
- information of the appropriate actions to take and persons to contact in an emergency involving blood or OPIM;
- 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 of the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident;
- an explanation of the signs and labels and/or color coding required by the standard and used at this facility; and
- an opportunity for interactive questions and answers.

Training materials for this facility are available in the EHS office.

IX. RECORDKEEPING

A. Training Records

Each employee who does BBP training online must complete a printed Bloodborne Pathogen Training Record with their department specific information, Hepatitis B immunization history, and signature. An electronic database automatically records online training as well. Training records are completed for each employee upon completion of training. These documents will be kept for at least three years by EHS.

The training records include:

- the dates of the training sessions
- the contents or a summary of the training sessions
- the names and qualifications of persons conducting the training
- the names and job titles of all persons attending the training sessions

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 EHS.

B. Medical Records

Medical records are maintained for each employee with occupational exposure in accordance with Part 432/R325.52101 - .52137, "Access to Employee Exposure and Medical Records."

Dorothy Britton, Human Resources Manager of Benefits, is responsible for maintenance of the required medical records. These confidential records are kept in Human Resources for at least the duration of employment plus 30 years.

Employee medical records are provided upon request of the employee or to anyone having written consent of the employee within 15 working days. Such requests should be sent to Dorothy Britton in Human Resources.

C. MIOSHA Recordkeeping

An exposure incident is evaluated to determine if the case meets MIOSHA's Recordkeeping Requirements (Part 11). This determination and the recording activities are done by EHS in coordination with Human Resources.

D. Sharps Injury Log

A sharps injury log is established and maintained for recording percutaneous injuries from contaminated sharps. See [Appendix D](#). The log includes:

- type and brand of device involved in the injury;
- department or work area where the exposure occurred; and
- explanation of how the incident occurred.

The log is recorded and maintained to protect the confidentiality of the injured employee. The EHS department is responsible for the maintenance of the sharps injury log.

APPENDIX A

STANDARD OPERATING PROCEDURE FOR BLOODBORNE INFECTIOUS DISEASE CONTROL MEASURES

Task: **Cleaning Up BODY FLUIDS from Hard Surfaces**

Exposure Potential: Vomit, urine, feces, saliva, and any other body fluid may contain blood or other potentially infectious material. Dried bodily fluids remain potentially infectious (hepatitis B) for up to 7 days. If dried bodily fluids could flake off during handling, the contaminated object must be disposed of as regulated waste.

Personal Protective Equipment: Gloves (mandatory)
Face Shield (optional)
Shoe Covers (optional)
Apron (optional)
Face Mask (optional)

Procedure:

1. Obtain Blood & Bodily Fluid Clean-up Kit from one of these locations:
Custodial Closet
EHS Office
Campus Safety Patrol car
Service Building Custodial Storage room
2. Prevent people from walking through the area
3. Open up kit and cuff the Red Biohazard Bag (so that it stays open) placing it close to spill
4. Put on Gloves and other protective equipment as needed
5. If in contact with items such as sheets, pillows, towels, etc., place these items in a biohazard bag
6. Sprinkle Absorbent Powder over the bodily fluid to form a solid/gel
7. If the bodily fluid has dried water may be added to facilitate clean-up
8. Use provided scraper to pick up the solid and dispose of in the biohazard bag
9. Drop the scraper in to the biohazard bag
10. Use paper towel and disinfectant spray to clean up the remainder of visible bodily fluid. Place paper towels in bag.
11. Spray the entire area with disinfectant spray. Leave for the required amount of time (approximately 10 minutes)
12. Remove gloves and place them in the biohazard bag
13. Use antiseptic towelettes to clean hands and discard into the biohazard bag
14. Unroll the top of the biohazard bag and secure the top
15. Wash hands with warm water and soap for at least 30 seconds
16. Call Campus Safety or take the biohazard bag to the Biology Department for disposal

Task: **Cleaning Up BODY FLUIDS from Carpet or Upholstery Surfaces**

Exposure Potential: Vomit, urine, feces, saliva, and any other body fluid may contain blood or other potentially infectious material

- c. Carpet Disinfectant
 - d. Water
3. Open up kit and cuff the Red Biohazard Bag (so that it stays open) placing it close to spill
 4. Put on Gloves and other protective equipment as needed
 5. Add plenty of water to the soiled area
 6. Use the carpet extractor over the entire area
 7. Spray area with carpet disinfectant following manufacturer's directions for amount and time of contact
 8. Use the carpet extractor over the entire area again
 9. Empty carpet extractor and disinfect it
 10. Remove gloves and place them in the biohazard bag
 11. Use antiseptic towelettes to clean hands and discard into the biohazard bag
 12. Unroll the top of the biohazard bag and secure the top
 13. Wash hands with warm water and soap for at least 30 seconds
 14. Call Campus Safety or take the biohazard bag to the Biology Department for disposal

Task: **Disposing of Contaminated Sharps**

Exposure Potential: Contaminated Sharps may contain blood or other body fluids

Personal Protective Equipment: Gloves (mandatory)

Procedure:

1. Bring a Sharps Container to the contaminated sharp object
2. If the object is too large to fit in a Sharps Container, find a covered plastic bucket that is puncture resistant and leak proof
3. Put on Gloves
4. Use a dustpan and broom or cardboard pieces to pick up the sharp object
5. Drop the contaminated sharp into the sharps container
6. Remove gloves and dispose
7. Wash hands with warm water and soap
8. If a bucket was used, label container with Biohazard Label and bring to Biology Prep Room, SB215, or have Campus Safety pick it up

Task: **Cleaning up Broken Glass**

Exposure Potential: Broken glass that is not properly disposed of puts employee at a risk of getting cut, thereby providing an exposure potential for others

Personal Protective Equipment: Gloves (mandatory)

Procedure:

1. Put on Gloves
2. Sweep the broken glass into a dust pan
3. Dispose of the broken glass in the containers that are marked for broken glass only. They are located in each building
4. Remove gloves and dispose
5. Wash hands with warm water and soap

6. If broken glass was on a carpeted area, vacuum the area well

Task:

Administering First Aid

Exposure Potential:

Any body fluid may contain blood or other potentially infectious material. Universal precautions are a must. Campus Safety Officers are designated First Aid Responders for Calvin College.

Personal Protective Equipment:

Gloves (mandatory)
Face Shield (optional)
Shoe Covers (optional)
Apron (optional)
Face Mask (optional)

Procedure:

1. Put on PPE including eye/face protection if there is a potential for splash or spray
2. Administer first aid measures
3. Follow **Cleaning Up BODY FLUIDS** procedure
4. Dispose of all regulated waste in a red biohazard bag
5. Remove gloves and other PPE and dispose in biohazard bag
6. Use antiseptic towelettes to clean hands and discard into the biohazard bag
7. Unroll the top of the biohazard bag and secure the top
8. Wash hands with warm water and soap for at least 30 seconds
9. Call Campus Safety or take the biohazard bag to the Biology Department for disposal

Task:

Obtaining Blood for Lab Tests

Exposure Potential:

Blood and contaminated sharps. Universal precautions are a must.

Personal Protective Equipment:

Gloves (mandatory)

Procedure:

1. Put on gloves
2. Have a Sharps Container ready
3. Use a single use lancet and immediately dispose of it in the sharps container after use
4. If a pipette is used to collect a drop of blood, after use immediately dispose of the pipette in the sharps container
5. Remove gloves
6. Wash hands with warm water and soap for at least 30 seconds

APPENDIX B

SHARPS INJURY AND NEEDLESTICK PREVENTION: EVALUATION OF SAFER DEVICES

Calvin College Nursing Program Evaluation Tool for Selection of Safer Medical Devices

Committee members conducting evaluation:

Review of data on needlestick injuries occurring in our nursing labs:
(since last committee meeting)

Name of safer medical device to be evaluated:

How would the device be used in our nursing labs?

Does the safer medical device meet criteria for its safety features as suggested by the FDA? The safety feature should:

- Provide a barrier between the user's hands and the needle after use.
- Allow or require the user's hands to remain behind the needle at all times.
- Be an essential part of the device and not an accessory.
- Be in effect before disassembly and remain in effect after disposal.
- Be simple and uncomplicated to operate and require very little or no training for effective use.

How would you rate this device in its ability to reduce needlestick injuries in the nursing lab setting? What are drawbacks/benefits of the device?

1 2 3 4 5
not effective somewhat effective effective very effective most effective

Is the device cost effective? How many of this product would be used annually by Junior and Senior student nurses? What would the annual cost be?

What method can be used to evaluate this device in the nursing lab setting?

Calvin College Health Services

VACUUM TUBE BLOOD COLLECTION SYSTEMS

SAFETY FEATURE EVALUATION FORM

Date: _____ Name: _____ Occupation: _____

Product: _____

Please circle the most appropriate answer for each question. Not applicable (N/A) may be used if the question does not apply to this particular product.

- | | agree..... | disagree |
|---|------------|----------|
| 1. The safety feature can be activated using a one-handed technique..... | 1 2 3 4 5 | N/A |
| 2. The safety feature does not interfere with normal use of this product..... | 1 2 3 4 5 | N/A |
| 3. Use of this product requires you to use the safety feature..... | 1 2 3 4 5 | N/A |
| 4. This product does not require more time to use than a non-safety device..... | 1 2 3 4 5 | N/A |
| 5. The safety feature works well with a wide variety of hand sizes..... | 1 2 3 4 5 | N/A |
| 6. The safety feature works well with a butterfly..... | 1 2 3 4 5 | N/A |
| 7. A clear and unmistakable change (either audible or visible) occurs when the safety feature is activated..... | 1 2 3 4 5 | N/A |
| 8. The safety feature operates reliably..... | 1 2 3 4 5 | N/A |
| 9. The exposed sharp is blunted or covered after use and prior to disposal..... | 1 2 3 4 5 | N/A |
| 10. The inner vacuum tube needle (rubber sleeved needle) does not present a danger of exposure..... | 1 2 3 4 5 | N/A |
| 11. The product does not need extensive training to be operated correctly..... | 1 2 3 4 5 | N/A |

Any comments regarding this product:

Calvin College Health Services

SAFETY SYRINGES

SAFETY FEATURE EVALUATION FORM

Date: _____ Name: _____ Occupation: _____

Product: _____

Please circle the most appropriate answer for each question. Not applicable (N/A) may be used if the question does not apply to this particular product.

During Use:

agree.....disagree

1. The safety feature can be activated using a one-handed technique.....1 2 3 4 5 N/A
2. The safety feature does not obstruct vision of the tip of the sharp.....1 2 3 4 5 N/A
3. Use of this product requires you to use the safety feature1 2 3 4 5 N/A
4. This product does not require more time to use than a non-safety device.....1 2 3 4 5 N/A
5. The safety feature works well with a variety of hand sizes.....1 2 3 4 5 N/A
6. The device is easy to handle while wearing gloves.....1 2 3 4 5 N/A
7. This device does not interfere with uses that do not require a needle.....1 2 3 4 5 N/A
8. This device offers a good view of any aspirated fluid.....1 2 3 4 5 N/A
9. This device will work with all required syringe and needle sizes.....1 2 3 4 5 N/A
10. This device provides a better alternative to traditional recapping.1 2 3 4 5 N/A

After Use:

11. There is a clear and unmistakable change (audible or visible) that occurs when the safety feature is activated.....1 2 3 4 5 N/A
12. The safety feature operates reliably.....1 2 3 4 5 N/A
13. The exposed sharp is permanently blunted or covered after use and prior to disposal ...1 2 3 4 5 N/A
14. This device is no more difficult to process after use than non-safety devices.....1 2 3 4 5 N/A

Training:

15. The user does not need extensive training for correct operation.....1 2 3 4 5 N/A
16. The design of the device suggests proper use.....1 2 3 4 5 N/A
17. It is not easy to skip a crucial step in proper use of the device.....1 2 3 4 5 N/A

Any comments regarding this product:

Calvin College Health Services

SHARPS CONTAINERS

SAFETY FEATURE EVALUATION FORM

Date: _____ Name: _____ Occupation: _____

Product: _____

Please circle the most appropriate answer for each question. Not applicable (N/A) may be used if the question does not apply to this particular product.

- | | agree.....disagree |
|--|--------------------|
| 1. The containers shape, its markings, or its color, imply danger..... | 1 2 3 4 5 N/A |
| 2. The implied warning of danger can be seen from the angle at which people commonly view it..... | 1 2 3 4 5 N/A |
| 3. The implied warning can be universally understood by students, patients, and visitors..... | 1 2 3 4 5 N/A |
| 4. The containers purpose is self-explanatory and easily understood by a health care worker who may be pressed for time or unfamiliar with the clinic setting..... | 1 2 3 4 5 N/A |
| 5. The container can accept all sizes and shapes of sharps..... | 1 2 3 4 5 N/A |
| 6. The container allows single handed operation. (Only the hand holding the sharp should be near the container opening.)..... | 1 2 3 4 5 N/A |
| 7. It is difficult to reach in and remove a sharp..... | 1 2 3 4 5 N/A |
| 8. Sharps can go into the container without getting caught on the opening..... | 1 2 3 4 5 N/A |
| 9. Sharps can go into the container without getting caught on any molded shapes in the interior..... | 1 2 3 4 5 N/A |
| 10. The container is puncture resistant..... | 1 2 3 4 5 N/A |
| 11. When the container is dropped or turned upside down (even before it is permanently closed) sharps stay inside..... | 1 2 3 4 5 N/A |
| 12. The user can determine easily, from various angles, when the container is full..... | 1 2 3 4 5 N/A |
| 13. When the container is to be used free-standing (no mounting bracket), it is stable and unlikely to tip over..... | 1 2 3 4 5 N/A |
| 14. It is safe to close the container. (Sharps should not protrude into the path of hands attempting to close the container..... | 1 2 3 4 5 N/A |
| 15. The container closes securely..... | 1 2 3 4 5 N/A |
| 15. The product has handles which allow you to safely transport a full container..... | 1 2 3 4 5 N/A |
| 15. The product does not require extensive training to operate correctly..... | 1 2 3 4 5 N/A |

Any comments regarding this product:

APPENDIX C

HEPATITIS B VACCINE DECLINATION (MANDITORY)

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 hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Signed: (Employee Name) _____

Signature: _____

Social Security number: _____

Date: _____