

Beaumont

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Document Contact Beth Wallace: Dir, Infection Prevention CHE
Area Infection Prevention and Epidemiology
Applicability Beaumont All Sites

Bloodborne Pathogens Exposure Control Plan

Document Type: Policy

I. PURPOSE AND OBJECTIVE:

The purpose is to eliminate or minimize occupational exposure to blood and/or other body fluids through the development, implementation, and enforcement of work practices, controls, and education. This is accomplished in compliance with standards from both the Occupational Safety and Health Administration (OSHA; standard 29 CFR 1910.1030) and the Michigan Occupational Safety and Health Administration (MIOSHA Part 554. Bloodborne Infectious Diseases Standard).

II. DEFINITIONS:

- A. **Bloodborne pathogen (BBP):** Pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV).
- B. **Contaminated:** The presence or reasonable anticipated presence of blood or other potentially infectious materials on an item or surface.
- C. **Decontamination:** The use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infection, and the surface or item is rendered safe for handling, use, or disposal.
- D. **Engineering controls:** Mechanisms such as sharps disposal containers, self-sheathing needles, etc. that isolate or remove the bloodborne pathogens hazard from the workplace.
- E. **Exposure incident:** Eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials resulting from the performance of

personnel's duties.

- F. **Occupational exposure:** Reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of personnel's duties.
- G. **Other potentially infectious materials (OPIM):** Semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; including urine and stool as well as any unfixed tissue or organ (other than intact skin) from a human. HIV containing cell or tissue cultures, organ cultures, and HIV or HBV containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV, HCV, or HBV.
- H. **Parenteral:** Piercing mucous membranes or the skin barrier through events such as needle sticks, human bites, cuts, and abrasions.
- I. **Permucosal:** Splash of blood or body fluid into an eye or onto a mucous membrane.
- J. **Percutaneous:** Blood/body fluid contact with non-intact skin (exposed skin that is chapped, abraded, or afflicted with dermatitis).
- K. **Personal protective equipment (PPE):** Specialized clothing or equipment worn by an employee/volunteer for protection against a hazard. General work clothes (e.g. uniforms, pants, shirts, or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.
- L. **Regulated waste:** is any of the following:
 - 1. Liquid or semi-liquid blood or OPIM
 - 2. Contaminated items that contain liquid or semi-liquid blood or are caked with dried blood and are capable of releasing these materials when handled.
 - 3. Contaminated sharps
 - 4. Pathological and microbiological waste containing blood or OPIM.
- M. **Sharps:** Any object that can be reasonably anticipated to penetrate the skin or any other part of the body, and to result in an exposure incident, including, but not limited to needle devices, scalpels, lancets, broken glass, broken capillary tubes, etc.
- N. **Source individual:** Any individual whose blood or OPIM may be a source of occupational exposure to the employee.
- O. **Standard operating procedures (SOPs):** Policies, procedures, directives, protocols and elements of an infection prevention program that address the performance of work activities so as to reduce the risk of exposure to blood and other potentially infectious material.
- P. **Standard Precautions:** An approach to infection prevention in which all human blood and body fluids are treated as if known to be infectious for HBV, HIV, and/or other bloodborne pathogens.
- Q. **Sterilize:** The use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.
- R. **Work practice controls:** Controls that reduce the likelihood of exposure by defining the manner in which a task is performed (e.g. prohibited recapping of needles by a two-handed technique,

etc.)

III. EXPOSURE DETERMINATION:

- A. Category A consists of occupations that require procedures or other occupation-related tasks that involve exposure or reasonably anticipated exposure to blood or other potentially infectious material or that involve a likelihood for spills or splashes of blood or other potentially infectious material. This includes procedures or tasks conducted in non-routine situations as a condition of employment.
- B. Category B consists of occupations that do not require tasks that involve exposure to blood or other potentially infectious material on a routine or non-routine basis as a condition of employment. Employees in occupations in this category do not perform or assist in emergency medical care or first aid and are not reasonably anticipated to be exposed in any other way. If a worker in this group was occupationally exposed to blood or OPIM, that individual would receive post-exposure follow-up.
- C. A list of hospital-specific job codes and their respective occupational exposure risk can be found as attachments to this policy.

IV. COMPLIANCE METHODS:

- A. Standard Operating Procedures
 - 1. Refer to Appendix A for the Standard Operating Procedure (SOP) for inpatient settings
 - 2. Refer to Appendix B for the Standard Operating Procedure (SOP) for outpatient/ Ambulatory settings
- B. Standard Precautions: Standard precautions shall be observed to prevent contact with blood or other potentially infectious materials. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious. All personnel will perform hand hygiene as soon as feasible after removal of gloves or other personal protective equipment.
- C. Engineering Controls
 - 1. Engineering controls shall be used to eliminate or minimize employee exposure to bloodborne pathogens.
 - 2. Examples of engineering controls currently in use at Beaumont Health include safety devices on sharps and needleless access systems.
 - 3. Engineering controls are to be examined and maintained or replaced, as needed.
 - 4. Device-related exposure incidents are assessed at least semi-annually to determine efficacy of products in use and need to implement newer technologies.
- D. Workplace Controls
 - 1. Beaumont Health identifies the need for changes in engineering controls and work practices through review of Employee Incidence and Accident Report, review of the OSHA 300 log, and employee interviews.

2. Department supervisors will implement, monitor, and ensure compliance with recommended engineering controls and established work practices determined to minimize or eliminate occupational exposure to blood and body fluids.
3. Beaumont Health provides hand washing facilities and state alcohol-based hand hygiene products which are readily accessible to all employees.
4. All personnel will perform hand hygiene as soon as feasible after removal of gloves or other personal protective equipment.
5. All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, splattering, and generation of droplets of these substances.
6. Following unprotected contact with blood or other potentially infectious materials all personnel will wash hands and any other affected skin with soap and water and flush mucous membranes with water immediately.
7. When provision of hand washing facilities is not feasible or becomes compromised due to maintenance, repair, construction, or natural disaster, an appropriate alternative antiseptic hand cleanser will be provided.
8. Eating, drinking, smoking, vaping, applying cosmetics or lip balm, or manipulation of contact lenses is prohibited in laboratories and other work areas where blood or other potentially infectious materials are handled. This includes collection, receipt, processing and disposal of these specimens in the laboratory setting.
9. Food and drink shall not be stored in refrigerators, freezers, shelves, cabinets, or on countertops or bench tops where blood or other potentially infectious material is present or in other areas of possible contamination.
10. Mouth pipetting or suctioning of blood or other potentially infectious materials is prohibited.
11. Contaminated needles and other contaminated sharps shall not be bent, recapped, or removed except for specific reusable sharps. Sharing or breaking of contaminated needles is prohibited. If recapping is required, it must be accomplished through the use of a mechanical device or a one-handed technique.
12. All used and contaminated sharps are discarded immediately after use in a puncture-resistant, leak-proof, and closeable container approved for medical use.
13. Sharps containers must be located at the point of use to allow immediate sharps disposal including patient rooms, medication closets, medication rooms, utility rooms, crash carts, treatment or exam rooms, and procedure rooms.
14. The container for storage, transport or shipping shall be labeled as "biohazard" and color-coded and closed prior to being stored, transported, or shipped. If outside contamination of the primary container occurs, the primary container shall be placed within a second container which prevents leakage during handling, storage, transport, or shipping, and is labeled or color-coded.
15. All specimens will be placed in a designated specimen bag, sealed, with requisition attached and labeled with date and time on patient identification label.
16. If a specimen could puncture the primary container, the primary container shall be

placed within a secondary container (a bio hazard bin), which is puncture resistant.

17. **Psychiatric Units Only:** Sharps containers will not be placed in patient rooms or other patient-accessible areas on the psychiatric unit. Permanent sharps container(s) are located in the medication room only. Small, portable sharps container(s) will be available on the psychiatric unit for administration of injections to patients. This sharps container will be brought into the patient's room for administration of the medication and removed from the room immediately following disposal of the sharp(s). Any portable sharps containers should be stored in the medication room when not in use.

E. Personal Protective Equipment (PPE)

1. PPE is provided to employees at no cost, including, but not limited to: gowns, gloves, eye/face protection, surgical masks, N95 respirators, lab coats, and resuscitation devices.
2. Employees will be trained for appropriate PPE usage specific to the situation or task, as well as proper donning and removal of PPE.
3. PPE will be available to employees in the appropriate sizes and at the point of use. Contact Central Sterile Processing (CSP) or equivalent department if additional sizes of PPE are needed.
4. When PPE becomes heavily soiled, it should be removed slowly and carefully immediately or as soon as possible and handled properly.
5. Damaged or compromised PPE will be repaired or replaced at no cost to the employee.
6. All PPE will be removed prior to leaving the work area. If visibly contaminated, the PPE shall be placed in an appropriately designated area or receptacle for storage, washing, decontamination, or disposal.

F. Housekeeping

1. General

- a. Beaumont Health will maintain work sites that are in clean and sanitary condition with the use of products that are Environmental Protection Agency (EPA)-registered and approved by Infection Prevention.
- b. Appropriate cleaning schedules and protocols are developed and followed in coordination with the Environmental Services department.
- c. Methods of decontamination are developed specific to the type of equipment/surface to be cleaned, type of soil present, and tasks or procedures that may be performed in an area. Equipment are to be cleaned according to manufacturer's instructions/recommendations.

2. Environmental Services

- a. Decontamination methods, materials used, and cleaning schedules are reviewed as needed, or when product or procedural changes are introduced.
- b. All disinfectants used for environmental decontamination must be EPA

registered and approved for use.

- c. All disinfectants must be used in accordance with the manufacturer's label instructions.

3. Regulated Waste

- a. Each facility generating regulated waste must maintain a permit administered by the State of Michigan Department of Environmental Quality.
- b. Regulated waste is not subject to decontamination prior to transport off-site by the licensed waste hauler. The licensed waste hauler is responsible for properly decontaminating the regulated waste prior to ultimate disposal in a licensed landfill.
- c. All regulated waste is placed in containers which are closable, constructed to contain all contents, leak proof, and appropriately labeled with a biohazard label/symbol or color-coded.
- d. Contaminated sharps are discarded immediately or as soon as possible in containers that are closable, puncture-resistant, leak proof on sides and bottoms, and appropriately labeled or color-coded. Sharps disposal containers are closed and removed when $\frac{3}{4}$ full or reach the fill line on the container
- e. Regulated waste from emerging diseases may have special guidance.

4. Laundry/linen

- a. All laundry/linen used in patient care areas will be handled, contained, bagged, and transported in a manner to prevent contamination of the linen or the surrounding environment.
- b. Appropriate PPE is required by all employees/volunteers who handle contaminated linen.

G. Compliance and Monitoring

1. Compliance with Standard Precautions and work practice controls will be routinely monitored by managers, supervisors, and other staff.
2. Non-compliance will be identified and individuals will receive appropriate counseling.
3. Any barriers to compliance will be identified and addressed immediately.

V. HEPATITIS B VACCINATION, HIV, AND POST-EXPOSURE EVALUATION AND FOLLOW-UP FOR INPATIENT AND OUTPATIENT/AMBULATORY:

A. General

1. Hepatitis B vaccination will be made available to all employees that have a potential for occupational exposure to blood or OPIM, including post-exposure evaluation and

follow-up.

2. All medical evaluations, procedures, vaccines, and follow-up, including prophylaxis are provided to employees at no cost.
3. All medical evaluations and procedures are performed under the supervision of a licensed physician or other designated licensed healthcare professional.

B. Vaccination

1. Employees will be offered hepatitis B vaccination free of charge and within 10 working days of initial employment, unless the employee has previously received the hepatitis B series, antibody testing has revealed that the employee has immunity, or that the vaccine is contraindicated for medical reasons.
2. Pre-screening for immunity is not a pre-requisite for receiving the hepatitis B vaccination.
3. Any employee that has occupational exposure but chooses to decline vaccination must sign a declination statement provided by Employee Health (EHS). EHS contact information can be found on appendix C. If an employee initially declines vaccination, but later wishes to accept vaccination, the hepatitis B vaccine will be made available to the employee.
4. If a routine booster dose of hepatitis B vaccine is recommended by the US Public Health Service at a future date, it will be made available.

C. Post-Exposure evaluation and follow-up

1. Immediately following an exposure incident, all employees will receive a medical evaluation and follow-up by Employee Health or the Emergency Department.
2. The evaluation and follow-up includes: Employee exposure form.
 - a. Documentation of the route of exposure, and the circumstances under which the incident occurred.
 - b. Identification of the source individual of the exposure incident, if known.
 - c. Testing of the source patient's blood for HBV, HCV, and HIV, and documented results. If the source is already known to be infected with HBV, HCV, or HIV, testing for that pathogen is not necessary.
 - d. Baseline testing of the exposed employee's blood for HBV, HCV, and HIV after consent is obtained. Refer to Appendix E for testing protocols for HCP exposed to blood/body fluids.
 - e. If the employee consents to baseline blood collection, but not for HIV testing, the blood sample will be preserved for at least 90 days to give the employee an opportunity to consent to baseline HIV testing at a later date.
 - f. Following the exposure incident, appropriate counseling will be conducted and documented in the medical record.
 - g. If indicated, post-exposure prophylaxis will be initiated based on the recommendations of the US Public Health Service. [Occupational Post-Exposure Prophylaxis HIV "PEP Kits" Dispensing](#)

- i. For exposure to hepatitis B, refer to appendix F
- ii. For exposure to hepatitis C, refer to appendix G

3. Healthcare Professional's Written Opinion

- a. The employee will receive a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation.
- b. The written opinion by EHS will include the following information:
 - i. Indications for the hepatitis B vaccine
 - ii. That the employee has been informed of the results of the evaluation
 - iii. That the employee has been told about any medical conditions resulting from exposure to blood or OPIM which require further evaluation or treatment.
- c. Infection Prevention & Epidemiology will inform first responders of the source patient's status. Refer to [First Responder Exposure to Blood Borne Pathogens and Other Communicable Diseases](#)

VI. COMMUNICATION OF HAZARDS TO EMPLOYEES:

A. Labels and Signs

- 1. Labels with a universal biohazard symbol shall be utilized as a warning to employees and others of a potential hazard. These labels shall be affixed to the following:
 - a. Refrigerators and freezers used as storage for blood or OPIM
 - b. Sharps disposal containers
 - c. Containers used to store, transport, or ship blood, OPIM, or other regulated waste.
 - d. Soiled utility rooms and any other room where regulated medical waste is stored.
- 2. Labels shall be fluorescent orange or red-orange with symbols and lettering or a contrasting color, and shall be affixed in a way that prevents their loss or unintentional removal.
- 3. Red bags or red containers may be substituted for labels.
- 4. Containers of blood, blood products, or blood components that have their contents labeled and have been released for transfusion or other clinical use need not be labeled as written above.
- 5. Regulated waste that has been decontaminated does not need to be labeled or color-coded.

B. Information and Training

1. All employees will receive online and in-person training with regards to bloodborne pathogens at the time of initial employment, and online bloodborne pathogen training annually thereafter. Consultation with Infection Prevention & Epidemiology is available to all employees at any time through the Infection Prevention on-call pager.
2. This training will be provided to the employee during working hours, and at no cost.
3. The training program shall contain:
 - a. Accessible copies of the MIOSHA and OSHA Bloodborne Pathogens standards
 - b. A general explanation of the epidemiology and symptoms of bloodborne diseases
 - c. An explanation of the transmission of bloodborne pathogens
 - d. An explanation of the exposure control plan and how it may be obtained
 - e. An explanation of the appropriate methods for recognizing tasks and activities that may involve exposure to blood and OPIM
 - f. An explanation of the limitations of methods that will reduce or prevent exposure including engineering controls, work practices, and personal protective equipment
 - g. Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, vaccination benefits, and that vaccination will be offered free of charge
 - h. Information on the appropriate actions to take and persons to contact in an emergency involving exposure to blood and/or OPIM
 - i. An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the follow-up that will be made available
 - j. Information regarding post-exposure evaluation and follow-up that will be provided following an exposure incident
 - k. An explanation of the signs and labels that are used to identify potential hazards
4. Employees must be provided an opportunity for interactive questions and answers via contact information provided during the Infection Prevention session of the Beaumont Health New Hire Training.
5. Contractors, vendors, and non-Beaumont students working within Beaumont Health will receive bloodborne pathogen training and appropriate immunizations are the responsibility of their employers. Employers must provide documentation and record keeping of annually training prior to work and when requested which must be provided within 24 hours upon request.
6. If an exposure occurs when working at Beaumont, non-Beaumont students, contractors and vendors must follow their school's or company's protocol and contact their Supervisor immediately for further direction. Beaumont Health will notify contractors of potential hazards in their work environment and control them.

VII. DEVIATION CONTINGENCY PLAN:

Standard operating procedures must be followed unless the use/process results in increased risk/hazard to the associate or patient. Any deviations from this SOP shall be approved under the guidance of the Employee Health Services Director, Medical Director or designee in writing.

VIII. RECORD KEEPING:

A. Medical Records

1. Accurate records for employees with occupational exposure will be established and maintained by Employee Health Services. Records should include:
 - a. Name and social security number of the employee
 - b. Hepatitis B vaccination status
 - c. All information relative to the employee's exposure to blood or OPIM, including post-exposure evaluation and follow-up
 - d. Signed consent/declination forms
 - e. Results of serologic testing for source patient and employee
 - f. Any post-exposure prophylaxis given
 - g. A copy of the healthcare professional's written opinion
2. All employee records will remain confidential and may not be disclosed or reported without express written consent to anyone within or outside Beaumont Health.
3. Medical records will be maintained for the duration of employment plus 30 years.
4. Non-Beaumont Health Employees: Contractors, vendors, and non-Beaumont students employers are responsible to provide and maintain
 - a. BBP training before hire
 - b. BBP training annually
 - c. Maintain Vaccine requirements / medical records

B. Training Records

1. All training records are kept for 3 years and include the following:
 - a. Dates of the training sessions
 - b. Contents of the training sessions
 - c. Names and qualifications of the trainer(s)
 - d. Names and job titles of all employees that participated in the training.

IX. IMPLEMENTATION SCHEDULE:

A. Annual Review

1. The Bloodborne Pathogens Exposure Control Plan will be reviewed and updated on

an annual basis.

2. Considerations for changes in technology that eliminate or reduce exposure to blood or OPIM are included in the annual review.

B. Specific dates for the implementation of policies and procedures that comply with the OSHA and MIOSHA Bloodborne Pathogen Standards can be found in archived exposure control plans for each of the "Subsidiary Hospitals" as defined in the Corporate Authority statement below.

X. REFERENCES:

Pathogens, Bloodborne. (29). CFR 1910.1030, US Department of Labor. *Occupational Safety and Health Administration, Washington, DC* Retrieved from <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030>.

Michigan Occupational Safety and Health Administration Standard Part 554. Bloodborne Infectious Diseases. Retrieved from https://www.michigan.gov/documents/CIS_WSH_part554_35632_7.pdf

Schillie S, Vellozzi C, Reingold A, et al. Prevention of Hepatitis B Virus Infection in the United States: Recommendations of the Advisory Committee on Immunization Practices. *MMWR Recomm Rep* 2018;67(No. RR-1):1-31. DOI: <http://dx.doi.org/10.15585/mmwr.rr6701a1>

Attachments

[Appendix A - Standard Operating Procedure \(SOP\) for Bloodborne Infectious Disease Control Measures in the Inpatient Setting](#)

[Appendix B - Standard Operating Procedure for BloodBorne Infectious Disease Control Measures in the Outpatient/Ambulatory Settings](#)

[Appendix C - Employee Health Contact Information](#)

[Appendix D - Founding Beaumont Job Codes](#)

[Appendix D - Founding Botsford Job Codes](#)

[Appendix D - Founding Oakwood Category A Job Classes](#)

[Appendix E - Testing Protocols for HCP Exposed to BBF.pdf](#)

[Appendix F - Hepatitis B Post-Exposure Testing and Prophylaxis.pdf](#)

[Appendix G - Hepatitis C Post-Exposure Testing.pdf](#)

Approval Signatures

Step Description	Approver	Date
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Policy and Forms Steering
Committee Approval (if
needed)

Nicholas Gilpin: Medical Director, Epidemiology	3/1/2024
Beth Wallace: Dir, Infection Prevention CHE	2/27/2024
Roxanne Newsom: Spec, Clinical Infection Prevention CHE	2/27/2024
Rita Rhinehart: Spec, Clinical Infection Prevention CHE	2/20/2024
Roula Hilli: Spec, Clinical Infection Prevention CHE	2/13/2024
Mary Dietrich: Spec, Clinical Infection Prevention CHE	2/6/2024
Sarah Carden: Spec, Clinical Infection Prevention CHE	2/6/2024
Eileen Thompson: Spec, Clinical Infection Prevention Sr CHE	2/6/2024
Beth Wallace: Dir, Infection Prevention CHE	2/6/2024
Beth Wallace: Dir, Infection Prevention CHE	2/6/2024

Applicability

Beaumont Corporate Shared Services, Beaumont Medical Group, Beaumont Pharmacy Solutions,
Dearborn, Farmington Hills, Grosse Pointe, Post Acute Care, Royal Oak, Taylor, Trenton, Troy, Wayne

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Appendix A

STANDARD OPERATING PROCEDURE (SOP) FOR BLOODBORNE INFECTIOUS DISEASE CONTROL MEASURES IN THE INPATIENT SETTING

Definitions:

Task/Procedure that involve potential exposure to blood or other potentially infectious materials (OPIM): Suctioning, sputum induction, intubation/extubation/resuscitation, tracheostomy care, wound irrigation, trauma wound care, OB delivery, catheter irrigation, autopsies, surgical procedures, NG tube insertion, radiology invasive procedures, bronchoscopy, endoscopy, instrument cleaning/disinfecting, intravascular insertion/removal, laboratory specimen processing/transport, collecting/handling blood or other potentially infectious materials (OPIM) specimens, handling linen or other soiled articles, managing bloody wounds/drainage, administering injections, handling soiled patient equipment, decontamination of work surfaces/spill cleanup, routine housekeeping in patient care areas, handling/transportation of biohazard waste, pathology gross exam/frozen section, sharps, and all other patient and non-patient related tasks presenting exposure to blood and bodily fluids

Exposure Potential: Mucous membrane exposure (splash to eyes, nose or mouth) Broken/damaged skin and blood body fluid exposure

Personal Protective Equipment: Gloves, Goggles, and mask if aerosolization or splattering likely, Gown if soilage likely (or if required for other purpose such as sterile precautions)

Use: Don personal protective equipment before performing task or procedure

Maintenance/Disinfection: Gloves, mask, and gown are disposable. Goggles may be disinfected with hospital approved germicidal wipe or spray and reused. Exception: (For novel influenza and other novel potentially airborne diseases all PPE will be disposed of including goggles)

Disposal:

- Discard PPE in general trash waste unless saturated/dripping with blood or OPIM which requires biohazard waste disposal (red bag waste)
- Dispose of used sharps in approved sharps container
- Place soiled linen in linen bag if not saturated or dripping

Engineering Controls: Biohazard containers (red bag waste), sharps containers, biohazard labels, linen hampers, safety needles, needleless devices, hand washing sinks, eyewash stations

Work Practice Controls:

1. Apply appropriate PPE based on anticipated exposure risks
2. Minimize splashing, spraying and generating of aerosols of infectious substance during procedures
3. Hands must be washed/sanitized immediately or as soon as feasible after removal of gloves or other PPE
4. Blood or OPIM specimens are placed in a closable leak proof container during collection, handling, and processing storage, transporting or shipping. If contamination of the outside of the primary container is likely, a second leak-proof container shall be placed over the outside of the first container to prevent leakage. Label container as biohazard
5. Warning labels must be applied to storage containers, including refrigerators or freezers that are

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used to store blood or other potentially infectious materials

6. Examine equipment prior to servicing or shipping and decontaminate with an approved disinfectant wipe/spray
7. Use an approved disinfectant to clean up body fluid spills, contaminated work surfaces, etc. Dispose of all materials in biohazard waste
8. Additional Work Practice Controls may be found in department specific infection control guidelines

General work practice controls:

1. Eating drinking, smoking, applying cosmetics are prohibited in work areas where there is reasonable likelihood of occupational exposure
2. Food and drink shall not be kept in refrigerators, freezers, shelves, cabinets or on countertops or bench tops where blood or OPIM are present
3. Mouth pipetting/suctioning of blood or other OPIM is prohibited
4. Additional Work Practice Controls may be found in department specific infection control guidelines

Deviation Contingency Plan: Standard operating procedures must be followed unless the use/process results in increased risk/hazard to the associate or patient. Any deviations from this SOP shall be approved under the guidance of the System Employee Health Services Director, Medical Director or designee in writing. Contact number for Employee Health - 248.733.7300.

Non-Beaumont Health Employees: Contractors, vendors, and non-Beaumont students working within Beaumont Health shall receive Bloodborne Pathogen Training and provide documentation record of annually training and appropriate immunizations when requested and prior to work with Beaumont Health

If an exposure occurs while working at Beaumont, the non-Beaumont students, contractors and vendors must follow their school's or company's protocol and contact their supervisor immediately for further direction. Vaccine requirements and training are the employer's responsibility. Department manager/supervisor will notify contractors of the potential hazards in their work environment and control them

I. Exposure to Blood or Other Potentially Infectious Fluids

1. Types of Exposure

- i. Parenteral: Piercing mucous membranes or the skin barrier through events such as needle sticks, human bites, cuts, and abrasions
- ii. Permucosal: Splash of blood or body fluid into an eye or onto a mucous membrane
- iii. Percutaneous: Blood/body fluid contact with non-intact skin (exposed skin that is chapped, abraded, or afflicted with dermatitis)
- iv. Other potentially infectious materials (OPIM): Semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; including urine and stool as well as any unfixed tissue or organ (other than intact skin) from a human

II. Post Exposure Process

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1. Perform first aid immediately by washing wound and skin with soap and water and rinse thoroughly
 2. Beaumont Health employee needs to report an exposure to their Supervisor immediately
 3. The First Report of Injury Form should be completed and employee should go to the Beaumont Emergency Center for evaluation immediately
 4. If source patient can be identified, the Supervisor shall initiate source patient testing panel and evaluation
 5. Employee should follow-up with Employee Health for results, counseling, and follow-up treatment on the next business day
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STANDARD OPERATING PROCEDURE FOR BLOODBORNE INFECTIOUS DISEASE CONTROL MEASURES IN THE OUTPATIENT/AMBULATORY SETTINGS

Definitions:

Task/Procedure: Handling linen or other soiled articles, managing bloody wounds/drainage, handling soiled patient equipment, Decontamination or work surfaces/spill cleanup, routine housekeeping in patient care areas, handling/transportation of biohazard waste. Collecting/handling blood or OPIM specimens,

Exposure Potential: Broken/damaged skin and blood body fluid exposure, general exposure

Personal Protective Equipment: Gloves, Goggles, and mask if aerosolization or splattering is likely, Gown if splashing is likely (or if required for other purpose such as sterile precautions)

Use: Don personal protective equipment before performing task or procedure

Maintenance/Disinfection: Gloves, mask, and gown are disposable. Goggles may be disinfected with hospital approved germicidal wipe or spray and reused. Exception: (For novel influenza and other novel potentially airborne diseases all PPE will be disposed of including goggles)

Disposal: Discard PPE in standard hospital waste unless saturated/dripping with blood or OPIM which requires biohazard waste disposal (red bag waste). Place linen in linen bag

Engineering Controls: Biohazard Waste (red bag waste), biohazard label, Linen hampers

Work Practice Controls:

1. Apply appropriate PPE
2. Examine equipment prior to servicing or shipping and decontaminate with a hospital approved disinfectant wipe or spray
3. Use a hospital approved disinfectant to clean up body fluid spills, contaminated work surfaces etc. Dispose of paper towel in the regular trash unless saturated with blood or OPIM
4. Hands must be washed/sanitized after removal of gloves or other PPE

General work practice controls:

1. Eating drinking, smoking, applying cosmetics are prohibited in work areas where there is reasonable likelihood of occupational exposure
2. Food and drink shall not be kept in refrigerators, freezers, shelves, cabinets or on countertops or bench tops where blood or OPIM are present.
3. Mouth pipetting/suctioning of blood or other OPIM is prohibited
4. Additional Work Practice Controls may be found in department specific infection control guidelines

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Contingency Plan: Standard operating procedures must be followed unless the use/process results in increased risk/hazard to the associate or patient. Any deviations from this SOP shall be approved by the Employee Health Director in writing.

EMPLOYEE HEALTH & SAFETY

BEAUMONT HEALTH

Beaumont – RO – TROY – GROSSE POINTE

Phone: 947-522-3717 Fax: 248-350-4164

26901 Beaumont Blvd., Southfield, Michigan 48033

Beaumont – FARMINGTON HILLS

Phone: 947-521-8496 Fax: 248-471-9928

28050 Grand River Ave., Farmington Hills, MI 48336

Beaumont – DEARBORN

Phone: 313-593-8067 Fax: 313-593-8889

18101 Oakwood Blvd., Dearborn, MI 48124

Beaumont – TAYLOR

Phone: 313-295-5276

10000 Telegraph Rd., Taylor, MI 48180

Beaumont – TRENTON

Phone: 734-671-3540 Fax: 734-671-3250

5450 Fort St., Trenton, MI 48183

Beaumont – WAYNE

Phone: 734-467-5507 Fax: 734-467-2372

33155 Annapolis St. Wayne, MI 48184

TESTING/MANAGEMENT PROTOCOLS FOR HEALTHCARE PERSONNEL EXPOSED TO BLOOD/BODY FLUIDS

For all exposed employees:

- Check anti-HBs in ED
- Check source panel on source patient by ordering "HIV ½ (Rapid) Hepatitis Source Patient Panel (Epic Code: LAB6648)

If source patient tests negative for HCV, HIV, & HBV:

- No follow-up needed in EHS unless source patient at high risk for acute infection with any of the viruses – if questions on if the patient is high risk, please contact the Needlestick Pager (7-STICK)

If source patient has HCV:

- Check baseline HCV antibody in EHS → if positive refer to ID
- Check HCV RNA by PCR at 6 weeks post-exposure in EHS
- Check HCV antibody at 6 months post-exposure in EHS

If source patient has HIV:

- Start post-exposure prophylaxis as recommended by Needlestick Pager Coverage (7-STICK)
- Check baseline HIV ½ algorithm in EHS → if positive refer to ID
- Check HIV by PCR at 6 weeks post-exposure in EHS
- Check HIV ½ algorithm at 4 months post-exposure in EHS
- Check HIV ½ algorithm at 6 months post-exposure in EHS

If the source patient has HBV:

- If HCP had vaccine series & anti-HBs at any time no further follow-up is needed
- If HCP is a known non-responder (anti-HBs negative 1 month after completion of 2 complete vaccine series):
 - Give Hbig x 1 in ED
 - Give Hbig x 1 at 1 month post-exposure in EHS
- If HCP is unvaccinated or vaccine history unknown & anti-HBs negative:
 - Give Hbig x 1 in ED
 - Give HBV vaccine series dose 1 in ED
 - Give HBV vaccine series dose 2 at 2 months post-exposure in EHS
 - Give HBV vaccine series dose 3 at 6 months post-exposure in EHS
 - Check anti-HBs at 7 months post-exposure in EHS
- If HCP has had complete series but no documented anti-HBs
 - Give Hbig x 1 in ED
 - Given HBV vaccine booster x 1 in ED
 - Check anti-HBs at 1 month post-exposure in EHS

If the source patient is unknown or cannot be tested:

Beaumont Health

- Post-exposure prophylaxis for HIV not typically recommended unless source thought to be high risk or occurred in a high-risk location (e.g. needle exchange clinic, HIV treatment clinic, etc) – contact Needlestick Pager to discuss individual plan for patient
 - Check baseline HIV ½ algorithm, HCV antibody, and hepatitis B surface antigen in EHS
 - Check HIV by PCR & HIV RNA at 6 weeks post-exposure in EHS
 - Check HIV ½ algorithm, HCV antibody, and hepatitis B surface antigen at 4 months post-exposure in EHS
 - Check HIV ½ algorithm, HCV antibody, and hepatitis B surface antigen at 6 months post-exposure in EHS
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Guidelines for Post-Exposure Testing and Prophylaxis to Prevent Hepatitis B Virus Infection in Adults

These guidelines are for **Occupational Exposures (HCP)**

HCP Status	Postexposure Testing		Postexposure Prophylaxis		Postvaccination serologic testing
	Source patient (HBsAg)	HCP (anti-HBs)	HBIG	Vaccination	
Documented responder after completed series	No action needed				
Documented nonresponder after two complete series	Positive/unknown	Not indicated	HBIG x2 separated by 1 month	Not indicated	Not indicated
	Negative	No action needed			
Response unknown after complete series	Positive/unknown	<10 mIU/mL	HBIG x1*	Initiate revaccination	Yes
	Negative	< 10 mIU/mL	None	No action needed	
	Any	≥ 10 mIU/mL			

Abbreviations: anti HBs = antibody to hepatitis B surface antigen; HBIG = hepatitis B immune globulin; HBsAg = hepatitis B surface antigen; HCP = health care personnel.

*HepB vaccine may be administered simultaneously with HBIG at a separate anatomical injection site (e.g., separate limbs).

Reference: Schillie S, Vellozzi C, Reingold A, et al. Prevention of Hepatitis B Virus Infection in the United States: Recommendations of the Advisory Committee on Immunization Practices. MMWR Recomm Rep 2018;67(No. RR-1):1–31.
DOI: <http://dx.doi.org/10.15585/mmwr.rr6701a1>

Guidelines for Post-Exposure Testing and Prophylaxis to Prevent Hepatitis B Virus Infection in Adults

These guidelines are for **Non-Occupational Exposures (Patients/Guests)**

Patient/Guest Status	Postexposure Testing		Postexposure Prophylaxis		Postvaccination serologic testing
	Source patient (HBsAg)	Patient/Guest (anti-HBs)	HBIG	Vaccination	
Documented recipient of a complete HepB vaccine series	Negative	Not indicated	No action needed		Not indicated
	Positive		Not indicated	Single dose	
	Unknown		No action needed		
In process of receiving HepB vaccine series, but incomplete	Negative	Not indicated	Not indicated	Complete series; not necessary to restart	Not indicated
	Positive		HBIG x1*		
	Unknown		Not indicated		
Unvaccinated	Negative	Not indicated	Not indicated	Initiate series as soon as possible postexposure	Not indicated
	Positive		HBIG x 2*		
	Unknown		Not indicated		

*HepB vaccine may be administered simultaneously with HBIG at a separate anatomical injection site (e.g., separate limbs).