Children's Hospital and Health System Infection Prevention and Control Manual

This policy applies to the following entity(s): Children's Hospital and Health System

SUBJECT: Bloodborne Pathogen (BBP) Exposure Control Plan (ECP)

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POLICY

Also see Infection Prevention and Control Policy and Procedure" Blood and Body Fluid Exposure Protocol Policy.

This plan is in accordance with the OSHA "Occupational Exposure to Bloodborne Pathogens" standard, 29 CFR 1910.1030, of December 6, 1991 and encompasses the Enforcement Procedures update CPL 2.103 of November *5*, 1999. Federal Bill HR 5178 of November 6, 2000.

Children's Health System 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 blood borne pathogens.

The ECP is a key document to assist 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:
 - Standard precautions
 - Engineering and work practice controls
 - Personal protective equipment
 - Housekeeping
- Hepatitis B vaccination
- Post exposure evaluation and follow-up
- 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.

Program Administration

The Infection Prevention Team as well as Risk Management and Employee Health and Wellness, is responsible for the implementation of the Exposure Control Plan (ECP). Employee Health and Wellness and Infection Prevention will maintain, review and update the ECP at least annually and whenever necessary to include new or modified tasks and procedures. The contact phone number is Infection Prevention at (414) 266-3382 and Employee Health and Wellness is (414)266-8616.

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

Each department 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 manager of the department will have the ultimate responsibility to ensure that adequate supplies of the aforementioned equipment are available in the appropriate sizes. Contact Infection Prevention at (414)266-3382 if there are questions.

Employee Health and Wellness will be responsible for ensuring that all medical actions required

are performed and that appropriate employee health and OSHA records are maintained.

Employee Health and Wellness and Educational Services will be responsible for the supervision of the new hire bloodborne pathogen training. This training is conducted through use of an online learning management system that documents the training record. Department specific training will occur during the orientation period in the employee's department. Subsequent annual training will be a coordinated effort of Infection Prevention, Employee Health and Wellness, and Educational Services. A copy of the written ECP is available to all employees, as well as OSHA and NIOSH representatives via Childrens Connect.

Employee Exposure Determination

Human Resources maintains a database of job titles that designate an employee in either an OSHA Category I or Category II job which addresses the potential for occupational exposure. These include part time and casual employees. The Bloodborne Pathogen code "Exposure/High Risk" (Category I) denotes employees who may have exposure potential to blood and OPIM in a limited number of tasks such as:

Handling of specimens and/or blood and blood products Handling /cleaning of contaminated equipment Handling of contaminated sharps Handling of <u>regulated</u> waste Handling of contaminated linen Direct contact with blood, tissue and OPIM

The Bloodborne Pathogen code "No Exposure" (Category II) denotes jobs which have unlikely potential for exposure to blood and OPIM.

The individual's department will provide education specific to that work unit, including what PPE is required and process of handling of sharps items. Education should be documented by the orientee/preceptor.

Contracted employees from personnel services assigned at Children's facilities will receive the initial Bloodborne Pathogen education, the Hepatitis B Vaccine, and exposure follow-up from their employers. Children's Hospital and Health System (CHHS) specific education to include PPE requirements and sharps safety devices will be done by CHHS. Medical College of WI (MCW) faculty and residents will receive initial training from Froedtert/MCW. Medical Staff office will provide CHHS specific information.

Methods of Implementation and Control

Standard Precautions

All employees will adhere to this standard as described in the Standard Precaution policy.

Exposure Control Plan (ECP)

Employees covered by the bloodborne pathogens standard receive an explanation of this ECP

during their initial training session. It will also be reviewed in their annual refresher training during safety education. All employees have an opportunity to review this plan at any time via the internal organizational website.

Both Infection Prevention and Employee Health and Wellness are responsible for reviewing and updating the ECP annually or more frequently if necessary. The plan will reflect any new or modified tasks and procedures which affect occupational exposure and new or revised employee positions with occupational exposure or changes in technology that eliminate or reduce exposure to bloodborne pathogens.

Engineering Controls and Work Practices

Engineering, safer medical devices and work practice controls will be used to prevent or minimize exposure to bloodborne pathogens. The specific engineering controls and work practices used are listed below:

Puncture resistant sharps containers Mechanical pipetting devices **Biosafety cabinets** Fluid resistant laundry bags Safety IV systems Blunt needle/ cannula to access the injection port Valve or stopcocks used with a syringe (no needle) Protected or recessed needles Shielded stylet safety catheter Needle re-capping devices/procedures for specified events. Safety injection devices Shielded and retracting needles Recapping with sliding sheath / sleeve Red or biohazard labeled trash system Personal protective equipment Resuscitation masks and bags Mylar-wrapped Plastic capillary tubes Rounded tip scalpel blades or shielded blades **Disposable scalpels**

Sharps disposal containers are inspected and maintained or replaced by the Environmental Services staff, after receiving training in proper handling. However, each department that has sharps containers is responsible for replacing a container when it is no more than 2/3 full.

Sharps Injury Prevention

Children's Hospital and Health System identifies the need for changes in engineering controls and work practices through employee suggestions and interviews, physicians, bloodborne exposure data and incident reports, staff committees, Infection Prevention, Risk Management, Clinical Engineering, and the Fox Valley Patient Safety Committee. The Value Analysis program manager is responsible for the evaluation, planning and implementation of new sharps products. New sharps safety products should be evaluated for safety, and most technologically advanced and cost effective devices appropriate for use in the pediatric population. Input from all employees will be considered, both front line users and management. See Sharps Safety and Needle Stick Prevention Policy.

The list of sharps products and safety devices utilized at Fox Valley, Milwaukee and Surgicenter is reviewed annually. The review will include the usage of each device currently in inventory to determine the specific areas of use. This will also allow the identification of areas that do not use the safety devices.

Employee Health and Wellness investigates each bloodborne exposure and interviews the exposed employee. The information collected includes the type of device used and the events surrounding the exposure. It includes information as to where and at what time during the use or disposal of the sharps item the exposure occurred.

Personal Protective Equipment (PPE)

Personal protective equipment is provided to our employees at no cost to them. Training is provided initially by the department preceptor, during orientation for the new employee, and upon transfer to a new position. The manager of the department will ensure that the PPE is appropriate for the tasks and procedures performed. The training will be documented in the employee's personnel record. The types of PPE available to employees may include, but not limited to, the following:

Gloves, in all sizes, powdered as well as powderless and non-latex alternatives Eye protection (such as goggles and face shields) Gowns/lab coats (non-permeable as appropriate for the task) Aprons Shoe covers, surgical caps and hoods Masks, CAPR's Ventilatory devices such as bags and pocket masks

The appropriateness of personal protective equipment for all staff, including physicians and management, is annually reviewed utilizing bloodborne exposure and incident report information from each CHW site.

PPE is located in each department that requires its use and is made available to employees from other areas. The Health Unit Coordinator of each patient care area is responsible for ensuring that supplies are adequate. The department <u>Environment of Care</u> rounds <u>will</u> review the availability of PPE. The department manager has the final responsibility to ensure compliance.

All employees using PPE must observe the following precautions:

- Clean hands immediately or as soon as possible after removal of gloves or other PPE.
- Remove PPE after it becomes contaminated and before leaving the work area.

- Used, disposable PPE may be disposed of in clear garbage bags if it does not contain gross blood or OPIM. Red bag disposal is necessary for any PPE containing drippable, pourable, squeezable, flakeable blood or OPIM. Washable garments will be sent to the contracted laundry service.
- 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 appropriate face and eye protection when splashes, sprays, spatters or droplets of blood or OPIM pose a hazard to the eye, nose, or mouth.
- 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.

The procedure for handling reusable PPE (as eye protection) is as follows: Goggles can be re-used after decontamination per manufacturer's guidelines. Resuscitation equipment and any other reusable items are decontaminated and sent for reprocessing.

Housekeeping Refer to Waste Management Program P&P

Laundry

Refer to Linen Utilization P&P

Laundering of personal clothing will be done at the hospital's expense if the employee's clothing has become contaminated with blood or OPIM. The employee will obtain scrubs and change clothes, removing scrubs by rolling the contaminated area away from the body. The contaminated clothing will then be labeled and placed in an impervious hospital laundry bag and sent for processing at contracted laundry services. The laundering cost will be reimbursed by Employee Health and Wellness.

Biohazard Labels

The following labeling method is used in this facility:

Equipment to be labeled	Label Type
Containers of regulated waste	Biohazard
Receptacles containing re-usable sharps	Biohazard
Specimens sent to other facilities	Biohazard
Refrigerators and freezers containing blood or products	Biohazard

(Because all specimens are bagged into plastic sealed containers at this facility, these do not need to be biohazard labeled.) Refer to the Lab Specimen, Collection, Labeling and Handling

P&P.

Blood products that are released for transfusion or other clinical use are exempt from these labeling requirements. Blood and blood products identifying their contents do not require special labeling. Red bags or containers may be substituted for labels. However, regulated wastes will be handled in accordance with rules and regulations of the Department of Natural Resources.

The department managers will ensure that warning labels are affixed or red bags used as required if regulated waste or contaminated equipment is brought into the facility. Employees are instructed to notify the Infection Prevention Department, Environmental Services, or Risk Management if they discover regulated waste containers, refrigerators containing blood or OPIM, contaminated equipment etc. without proper labels.

Hepatitis B Vaccination

Employee Health and Wellness will provide education 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 upon hire and offered within 10 days of initial assignment to employees identified in the exposure determination section of this plan. For all Category I employees 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 declination form. 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 Employee Health and Wellness medical record.

Post Exposure Evaluation and Follow-Up

Should an exposure incident occur, the HCW should immediately:

- 1. Perform routine wound/splash cleansing or first aid
- 2. **Report incident to Supervisor**. The supervisor will initiate patient source testing if the source is known. If the exposure occurred to an employee from a non-patient care department, the employee's supervisor is responsible for notifying the nurse supervisor.
- 3. Refer to: Blood and Body Fluid Post Exposure Procedure.docx (chw.org)

Administration of Post Exposure Evaluation and Follow-Up

Refer to: Blood and Body Fluid Post Exposure Procedure.docx (chw.org)

Employee Training

All employees who have occupational exposure to bloodborne pathogens receive training designed by Employee Health and Wellness, on the first day of employment. Department specific training will be done by the assigned department and verified by the orienteer/ preceptor prior to the employee actually performing any procedure allowing exposure potential.

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

- All of the requirements for the bloodborne pathogens standard can be found in Title 29 of the Code of Federal Regulations at 29 CFR 1910.1030. <u>https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id= 10051</u>
- 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 on its efficacy, safety, method of administration, the benefits of being vaccinated and that the vaccine will be offered free of charge.
- Information on 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 on 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
- An opportunity to ask questions of the Employee Health Nurse will occur prior to beginning any patient care activities.
- Training materials are in the form of a web based online course housed in the facility's learning management system available 24/7 to both employees and auditors.

Recordkeeping

Training Records

Each employee's training record is updated automatically upon completion of the BBP course in the learning management system. A similar completion record is captured for annual safety education completion. Documentation of completion will be kept for at least three years.

The training record includes the completion date and time for each employee.

The course content is created based on input from Employee Health and Wellness nurses, and stored in the learning management system. Employee training records are available in the learning management system and can be reported on as needed.

Medical Records

Medical records are maintained for each employee with occupational exposure in accordance with 29 CFR 1910.20, "Access to Employee Exposure and Medical Records". Employee Health and Wellness is responsible for the maintenance of the required medical records. These confidential records are kept in Employee Health and Wellness at Children's Hospital for at least the length 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:

Children's Wisconsin Employee Health and Wellness Services 9000 W. Wisconsin Avenue P.O. Box 1997 Milwaukee, Wisconsin 53201

OSHA Recordkeeping

An exposure incident is evaluated to determine if the case meets OSHA's Recordkeeping Requirements (29 CFR 1904). This determination and the recording activities are done by the Employee Health and Wellness Department of Children's Hospital.

References

Occupational Safety and Health Administration (OSHA). (2012). BBP Standard, Occupational Safety-Health Standards, Toxic and Hazardous Substances: Bloodborne Pathogens, 29 CFR 1910. 1030, 66 FR 5325 Jan., 18, 2001; 77 FR 19934, April 3, 2012

Approved by the Infection Control Committee February 9, 2023

Addendum A - Cleaning Spills of Blood and Body Substances

Cleaning Spills of Blood and Body Substances

Promptly clean and decontaminate spills of blood or body substance using the following steps:

- 1. Wear gloves and any other PPE (eye protection, mask, gown) to prevent the blood or body substance from coming in contact with your eyes, nose, mouth, skin or clothing.
- 2. Wipe up with disposable paper towels or other disposable absorbent material. (For spills in lab, refer to the Laboratory Infection Prevention and Control P&P).
- 3. Discard in a red plastic bag.
- 4. Swab the area with a disposable paper towel or disposable rag that has been moderately wetted with the approved hospital grade disinfectant. Refer to the <u>Disinfectants, Sterilants, Hand Hygiene Agents & Skin Antispectic Agents</u> P&P.
- 5. Follow manufacturer dwell time.
- 6. Remove PPE and discard in red bag.
- 7. Tie red bag securely and dispose of in biohazardous waste container.
- 8. Clean hands before resuming other activities.

Note: If it is a <u>large spill</u>, surround the spill with absorbent material to prevent spread and use a 1:10 dilution of bleach (sodium hypochlorite) before cleaning.

Addendum B

H.R.5178

One Hundred Sixth Congress of the United States of America

AT THE SECOND SESSION

Begun and held at the City of Washington on Monday, the twenty-fourth day of January, two thousand

An Act

To require changes in the bloodborne pathogens standard in effect under the Occupa-tional Safety and Health Act of 1970.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, SECTION 1. SHORT TITLE.

This Act may be cited as the "Needlestick Safety and Prevention Act".

SEC. 2. FINDINGS.

The Congress finds the following:

(1) Numerous workers who are occupationally exposed to bloodborne pathogens have contracted fatal and other serious viruses and diseases, including the human immunodeficiency virus (HIV), hepatitis B, and hepatitis C from exposure to blood and other potentially infectious materials in their work-place place.

(2) In 1991 the Occupational Safety and Health Administration issued a standard regulating occupational exposure to bloodborne pathogens, including the human immunodeficiency virus, (HIV), the hepatitis B virus (HBV), and the hepatitis C virus (HCV).

(3) Compliance with the bloodborne pathogens standard has significantly reduced the risk that workers will contract a bloodborne disease in the course of their work.

(4) Nevertheless, occupational exposure to bloodborne pathogens from accidental sharps injuries in health care set-tings continues to be a serious problem. In March 2000, the Centers for Disease Control and Prevention estimated that sharps occur annually among health care workers in United States hospital settings. Estimates for all health care settings are that 600,000 to 800,000 needlestick and other percutaneous injuries occur among health care workers annually. Such injuries can involve needles or other sharps contaminated with bloodborne pathogens, such as HIV, HBV, or HCV. (5) Since publication of the bloodborne pathogens standard

in 1991 there has been a substantial increase in the number and assortment of effective engineering controls available to employers. There is now a large body of research and data concerning the effectiveness of newer engineering controls,

including safer medical devices. (6) 396 interested parties responded to a Request for Information (in this section referred to as the "RFI") conducted

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by the Occupational Safety and Health Administration in 1998 on engineering and work practice controls used to eliminate or minimize the risk of occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps. Comments were provided by health care facilities, groups representing healthcare workers, researchers, educational institutions, professional and industry associations, and manufacturers of medical devices.

(7) Numerous studies have demonstrated that the use of safer medical devices, such as needleless systems and sharps with engineered sharps injury protections, when they are part of an overall bloodborne pathogens risk-reduction program, can be extremely effective in reducing accidental sharps injuries. (8) In March 2000, the Centers for Disease Control and

(8) In March 2000, the Centers for Disease Control and Prevention estimated that, depending on the type of device used and the procedure involved, 62 to 88 percent of sharps injuries can potentially be prevented by the use of safer medical devices.

(9) The OSHA 200 Log, as it is currently maintained, does not sufficiently reflect injuries that may involve exposure to bloodborne pathogens in healthcare facilities. More than 98 percent of healthcare facilities responding to the RFI have adopted surveillance systems in addition to the OSHA 200 Log. Information gathered through these surveillance systems is commonly used for hazard identification and evaluation of program and device effectiveness.

(10) Training and education in the use of safer medical devices and safer work practices are significant elements in the prevention of percutaneous exposure incidents. Staff involvement in the device selection and evaluation process is also an important element to achieving a reduction in sharps injuries, particularly as new safer devices are introduced into the work setting.
(11) Modification of the bloodborne pathogens standard

(11) Modification of the bloodborne pathogens standard is appropriate to set forth in greater detail its requirement that employers identify, evaluate, and make use of effective safer medical devices.

SEC. 3. BLOODBORNE PATHOGENS STANDARD.

The bloodborne pathogens standard published at 29 CFR 1910.1030 shall be revised as follows:

(1) The definition of "Engineering Controls" (at 29 CFR 1910.1030(b)) shall include as additional examples of controls the following: "safer medical devices, such as sharps with engineered sharps injury protections and needleless systems".

(2) The term "Sharps with Engineered Sharps min region of the engineered sharps injury protections and needleless systems". (2) The term "Sharps with Engineered Sharps Injury Protections" shall be added to the definitions (at 29 CFR 1910.1030(b)) and defined as "a nonneedle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident".

the risk of an exposure incident". (3) The term "Needleless Systems" shall be added to the definitions (at 29 CFR 1910.1030(b)) and defined as "a device that does not use needles for: (A) the collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established; (B) the administration of medication or

fluids; or (C) any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps".

(4) In addition to the existing requirements concerning exposure control plans (29 CFR 1910.1030(c)(1)(iv)), the review and update of such plans shall be required to also-

(A) "reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens"; and (B) "document annually consideration and implementa-

tion of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure".

(5) The following additional recordkeeping requirement shall be added to the bloodborne pathogens standard at 29 CFR 1910.1030(h): "The employer shall establish and maintain a sharps injury log for the recording of percutaneous injuries from contaminated sharps. The information in the sharps injury log shall be recorded and maintained in such manner as to protect the confidentiality of the injured employee. The sharps injury log shall contain, at a minimum— (A) the type and brand of device involved in the

incident, "(B) the department or work area where the exposure

"(C) an explanation of how the incident occurred.". The requirement for such sharps injury log shall not apply to any employer who is not required to maintain a log of occupational injuries and illnesses under 29 CFR 1904 and the sharps injury log shall be maintained for the period required by 29 CFR 1904.6.

(6) The following new section shall be added to the bloodborne pathogens standard: "An employer, who is required to establish an Exposure Control Plan shall solicit input from non-managerial employees responsible for direct patient care who are potentially exposed to injuries from contaminated sharps in the identification, evaluation, and selection of effective engineering and work practice controls and shall document the solicitation in the Exposure Control Plan.".

SEC. 4. EFFECT OF MODIFICATIONS.

The modifications under section 3 shall be in force until superseded in whole or in part by regulations promulgated by the Sec-retary of Labor under section 6(b) of the Occupational Safety and Health Act of 1970 (29 U.S.C. 655(b)) and shall be enforced in the same manner and to the same extent as any rule or regulation promulgated under section 6(b).

SEC. 5. PROCEDURE AND EFFECTIVE DATE.

(a) PROCEDURE.-The modifications of the bloodborne pathogens standard prescribed by section 3 shall take effect without regard to the procedural requirements applicable to regulations promulgated under section 6(b) of the Occupational Safety and Health Act of 1970 (29 U.S.C. 655(b)) or the procedural requirements

of chapter 5 of title 5, United States Code. (b) EFFECTIVE DATE.—The modifications to the bloodborne pathogens standard required by section 3 shall-

(1) within 6 months of the date of the enactment of this Act, be made and published in the Federal Register by the

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Secretary of Labor acting through the Occupational Safety and Health Administration; and (2) at the end of 90 days after such publication, take

(2) at the end of 90 days after such publication, take effect.

Speaker of the House of Representatives.

Vice President of the United States and President of the Senate.