RFSW BLOODBORNE PATHOGEN (BBP) EXPOSURE CONTROL PLAN (ECP) & Hepatitis Vaccination Policy

RETINA FOUNDATION OF THE SOUTHWEST (RFSW)

VERSION: July 18, 2019

DUE DATE FOR REVISION: July 18, 2020
BBP EXPOSURE CONTROL PLAN FOR RETINA FOUNDATION OF THE SOUTHWEST

PURPOSE

The Retina Foundation of the Southwest (RFSW) is committed to providing a safe and healthful work environment for our entire staff. In pursuit of this goal, the following exposure control plan (ECP) is provided to eliminate or minimize occupational exposure to bloodborne pathogens in accordance with OSHA standard 29 CFR 1910.1030, “Occupational Exposure to Bloodborne Pathogens.”

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

1. Determination of employee exposure
2. Implementation of various methods of exposure control including:
   a. Universal precautions
   b. Engineering and work practice controls
   c. Personal protective equipment
   d. Housekeeping
3. Hepatitis B vaccination
4. Post-exposure evaluation and follow-up
5. Communication of hazards to employees and training
6. Recordkeeping
7. Procedures for evaluating circumstances surrounding exposure incidents

Implementation methods for these elements of the standard are discussed in the subsequent pages of this ECP.

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.
This written exposure control plan is accessible to all employees both online (www.retinafoundation.org) and at BioSafety Stations.

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**RESPONSIBILITY**

Contact names and phone numbers:

*Timothy Catchpole, Ph.D.* is responsible for implementing the exposure control plan.

*Dr. Catchpole* will maintain, review, and update the exposure control plan at least annually, and whenever necessary to reflect any new or modified tasks and procedures that affect occupational exposure and to reflect new or revised employee positions with occupational exposure.
Dr. Catchpole will provide and maintain all necessary personal protective equipment (PPE), engineering controls (e.g., sharps containers), labels, and red bags as required by the standard. Dr. Catchpole will ensure that adequate supplies of the aforementioned equipment are available in the appropriate sizes. Contact location/phone number: Molecular Ophthalmology Lab. Ext. 136.

Dr. Catchpole will make this plan available to employees, Texas state and federal representatives and regulatory administrators of sponsored clinical trials.

Dr. Catchpole will be responsible for making sure all medical actions required are performed, and that appropriate employee medical records are maintained.

### EMPLOYEES AT RISK FOR EXPOSURE

The following are job classifications in our establishment in which ALL employees have occupational exposure to bloodborne pathogens:

<table>
<thead>
<tr>
<th>Job Title or Classification</th>
<th>Department/Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phlebotomists</td>
<td>ERG lab</td>
</tr>
<tr>
<td>Phlebotomists / RN</td>
<td>Pediatrics lab</td>
</tr>
<tr>
<td>Research Assistants &amp; Associates handling blood samples</td>
<td>All RFSW laboratories</td>
</tr>
</tbody>
</table>

The following are job classifications in our establishment in which SOME employees have occupational exposure to bloodborne pathogens:

<table>
<thead>
<tr>
<th>Job Title or Classification</th>
<th>Department/Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Assistants, Associates, Scientists &amp; summer interns handling blood samples</td>
<td>All RFSW laboratories</td>
</tr>
</tbody>
</table>
NOTE: Part-time, temporary, contract and per diem employees are covered by the bloodborne pathogens standard. The ECP will be explained to these employees.

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. All employees can review this plan at any time by contacting (Dr. Catchpole; Molecular Ophthalmology, Extension 136). If requested, we will provide an employee with a copy of the ECP free of charge and within 15 days of the request.

METHODS OF IMPLEMENTATION AND CONTROL

Universal Precautions
All human blood and some human body fluids are treated as if they were known to be infectious for human immunodeficiency virus (HIV), hepatitis B virus (HBV), hepatitis C virus (HCV), and other bloodborne pathogens. All employees must observe Universal Precautions to prevent contact with blood or other potentially infectious materials (OPIM). When a body fluid is difficult to impossible to identify, all body fluids must be considered OPIM.

Exposure Control Plan
Dr. Catchpole is responsible for reviewing and updating the ECP annually or more frequently if necessary to reflect any new or modified tasks and procedures that affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

Engineering Controls and Work Practices:
Engineering controls and work practice controls will be used to prevent or minimize exposure to bloodborne pathogens. The specific engineering controls and work practice controls used are listed below:

A. Hand Hygiene Facilities: Hand Washing Facilities shall be readily accessible to employees. Waterless alcohol-based hand sanitizer is readily accessible throughout the RFSW.

B. Sharps containers: Sharps containers shall be rigid, puncture resistant, leak-proof on the sides and bottoms, and portable when portability is necessary to ensure easy access by the user. The sharps container shall be closable. When closed, the container shall be leak resistant and incapable of being reopened without great difficulty. Such containers shall be labeled with the universal biohazard symbol on all sides including the lid and replaced frequently enough to prevent overfilling.
Sharps disposal containers are inspected and maintained or replaced by Alison Takacs, B.S. (Biochemistry; Extension 124) or Kaylie Jones, M.S. (SER; Extension 121) whenever necessary to prevent overfilling.

**Personal Protective Equipment (PPE)**
PPE is provided to our employees at no cost to them. Training in the use of the appropriate PPE for specific tasks or procedures is provided by Dr. Catchpole.

The types of PPE available to employees are as follows:

- Latex and nitrile gloves, face masks, face shields, & goggles.

PPE are in BioSafety Stations located in the Hallway outside the Biochemistry/SER/ Molecular Ophthalmology/ERG Laboratories and the Pediatric Nurse’s Station and may be obtained through Laboratory personnel; each lab is responsible for ensuring that potentially exposed personnel have appropriate PPE available for use.

All employees using PPE must observe the following precautions:

- Wash hands immediately or as soon as feasible after removing gloves or other PPE.

- Remove PPE after it becomes contaminated and before leaving the work area.

- Used PPE may be disposed of in Biohazardous waste containers present in each laboratory.

- Wear appropriate gloves when it is 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 or 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 used PPE is as follows:

Gloves and masks are disposed of in Biohazardous waste containers located in the Biochemistry, SER, Molecular Ophthalmology and Nurse’s station. Reusable gloves, face shields, goggles can be copiously rinsed with soap and water (acid) followed by wiping or rinsing with 70% ethanol/water. PPE can be further rinsed with water.

**Housekeeping**

Regulated Biohazardous waste is placed in containers which are closable, constructed to contain all contents and prevent leakage, appropriately labeled and closed prior to removal to prevent spillage or protrusion of contents during handling. Never compress bags or contents by hand as objects may protrude and cause injury.

The procedure for handling contaminated sharps is:

Tubes, transfer pipets, glass pipets, capillaries and other glassware that comes in contact with blood or other biological materials is to be rinsed with 10% bleach before placing in Biohazardous Waste containers or red plastic containers identified to contain Sharps for disposal; located in all laboratories and adjacent to locations designated for phlebotomy.

If items are to be re-used, they need to be rinsed with bleach and copious amounts of water prior to being placed with glassware designated for routine washing. Alternatively, item can be bleached, rinsed and placed for acid washing.

Other items or surfaces that may potentially be exposed to BBP are to be cleaned as soon as possible with 70% ethanol/water or 10% bleach.

Broken glassware that may be contaminated is only picked up using mechanical means, such as a brush and dustpan.

**Laundry**

Contaminated articles will be laundered under supervision of Dr. Catchpole. Contaminated articles should be placed in leak-proof bags or containers and properly labeled for laundering. If necessary, PPE will be worn during the laundering process. Typically, bleach is used for decontamination of articles.

**Labels**

![BIOHAZARD](image)
The following labeling methods for BioHazardous Waste (BHW) are used in this facility:

- **BHW boxes have symbols on box and on red bags inside boxes**
- **Sharps containers have BHW symbols**
- **Centrifuges where blood & biological specimens are processed have BHW symbols**
- **Freezers and refrigerators containing stored biological specimens and BHW materials have the BHW symbol affixed**
- **Cabinets containing BHW disposal units are equipped with BHW symbols**
- **Fume hoods where blood & biological specimens are processed have BHW symbols**
- **Cabinet containing BHW labeling supplies has this symbol**

Employees are to notify Dr. Catchpole if they discover regulated waste containers, refrigerators containing blood or OPIM, contaminated equipment, etc., without proper labels.

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### HEPATITIS B VACCINATION

Hepatitis B is a serious, life-threatening disease that can be prevented by using a vaccine. Therefore, maintenance of immunity in employees is an essential part of our prevention and infection control program. Optimal use of immunizing agents (i.e., the hepatitis B vaccination series and hepatitis B immune globulin [HBIG]) protects the health of our employees and their families and patients from the disease.

Yolanda Castañeda, BSN, will provide training to employees on hepatitis B vaccinations, addressing safety, benefits, efficacy, methods of administration, and availability.

The Hepatitis B vaccination series is available at no cost after initial employee training and within 10 days of initial assignment to all 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.

She will provide a medical evaluation covering the employee’s need for the hepatitis vaccine, a recommendation and certification of whether the vaccine was administered or declined. A copy of the health care professional's written opinion will be provided to the employee within 15 days of the evaluation and a copy kept in this safety binder.
If an employee declines the vaccination, the employee must sign a declination form (see Appendix A). Employees who decline may request and obtain the vaccination at a later date at no cost. Documentation of vaccination and titer verification or the vaccination refusal form will be kept in this Safety binder which will be located at one of the RFSW BioSafety Stations.

### POST EXPOSURE EVALUATION AND FOLLOWUP

Should a Blood Borne Pathogen exposure incident occur, contact Dr. Catchpole at 214-363-3911 Extension 136 or Yolanda Castañeda at Extension 110. They will immediately conduct a confidential medical evaluation and recommend preventative procedures.

Following initial first aid (clean the wound, flush eyes or other mucous membrane, etc.), the following activities will be performed:

- Document the routes of exposure and how the exposure occurred.
- Identify and document the source individual (unless the employer can establish that identification is unfeasible 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 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.

### PROCEDURES FOR EVALUATING THE CIRCUMSTANCES SURROUNDING AN EXPOSURE
**Dr. Catchpole** and/or **Yolanda Castañeda** 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 (including type and brand)
- protective equipment or clothing that was used at the time of the exposure incident (gloves, eye shields, etc.)
- location of the incident (testing room, laboratory, etc.)
- procedure being performed when the incident occurred
- employee’s training

**Dr. Catchpole** and/or **Yolanda Castañeda** will record all percutaneous injuries from contaminated sharps in a Sharps Injury Log.

Refer to Sharps Injury Log in Appendix D.

Revisions to this ECP may be necessary and include an evaluation of safer devices, adding employees to the exposure determination list, etc.

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**EMPLOYEE TRAINING**

All employees who have occupational exposure to bloodborne pathogens receive initial and annual training conducted by **Dr. Catchpole**.

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 OSHA bloodborne pathogen 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 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 for interactive questions and answers with the person conducting the training session.

Yolanda Castañeda will provide 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.

Biosafety training materials for the RFSW are available in the Safety Binders located at the two RFSW Safety Stations.

RECORD KEEPING

Training Records are completed for each employee upon completion of training. These documents will be kept for at least three years in the Safety Binders located at the two RFSW Safety Stations.

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 Dr. Catchpole.

Medical Records
Medical records are maintained for each employee with occupational exposure in accordance with 29 CFR 1910.1020, "Access to Employee Exposure and Medical Records."

Dr. Catchpole is responsible for maintenance of the required medical records. These confidential records are kept in files of the Human Resources department of the RFSW 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 Wanda Brownmiller, Human Resources, RFSW.
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 Dr. Catchpole.

Sharps Injury Log
In addition to the 1904 Recordkeeping Requirements, all percutaneous injuries from contaminated sharps are also recorded in a Sharps Injury Log.
(See Appendix E of this Biosafety Binder)
All incidences must include at least:
- date of the injury
- type and brand of the device involved (syringe, suture needle)
- work area where the incident occurred
- explanation of how the incident occurred.
- This log is reviewed as part of the annual program evaluation and maintained for at least five years following the end of the calendar year covered. If a copy is requested by anyone, it must have any personal identifiers removed from the report.
HEPATITIS B VACCINE DECLINATION FORM (MANDATORY)

The Retina Foundation of the Southwest offers the hepatitis B vaccine to employees and volunteers who work in areas where their duties may involve exposure to blood or other potentially infectious materials. The vaccination is free of charge, and consists of three (3) immunizations.

*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.*

Employee Name: (printed) ______________________ Date: ________________

Employee Signature: ______________________
APPENDIX B: RESOURCES

• OSHA (Occupational Safety and Health Administration) 2003. Model Plans and Programs for the OSHA Bloodborne Pathogens and Hazard Communications Standards.
  o http://www.osha.gov/dcsp/compliance_assistance/quickstarts/health_care/index.html#step1


• Texas does not have an OSHA-approved BBP policy
  (https://www.osha.gov/dcsp/osp/approved_state_plans.html )
APPENDIX C: BLOODBORNE PATHOGENS DEFINITIONS

**Blood:** Human blood, human blood components, and products made from human blood.

**Bloodborne Pathogens:** 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 the Human Immunodeficiency Virus (HIV).

**Contaminated:** The presence or the reasonably anticipated presence of blood or OPIM on a surface, or in, or on an item.

**Contaminated Sharps:** Any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes.

**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 infectious particles and the surface or item is rendered safe for handling, use, or disposal.

**Engineering Controls:** Controls (e.g., sharps containers, needless systems and sharps with engineered sharp injury protection) that isolate or remove the bloodborne pathogens hazard from the workplace.

**Engineered sharps injury protection:** A physical attribute built into a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, which effectively reduces the risk of an exposure incident by a mechanism such as barrier creation, blunting, encapsulation, withdrawal or other effective mechanisms; or a physical attribute built into any other type of needle device, or into a non-needle sharp, which effectively reduces the risk of an exposure incident.

**Exposure incident:** A specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that result from the performance of an employee’s duties.

**HBV:** Hepatitis B virus

**HCV:** Hepatitis C virus

**HIV:** Human immunodeficiency virus

**Needleless system:** A device that does not utilize needles for the withdrawal of body fluids after initial venous or arterial access is established, the administration of
medication of fluids, and any other procedure involving the potential for an exposure incident.

**Occupational exposure:** Reasonable anticipated skin, eye mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee’s duties.

**OSHA:** Occupational Health & Safety Administration, Washington, DC.

**Other Potentially Infectious Materials (OPIM):**

1. **All** moist body substances to include the following: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any other body fluid that is visibly contaminated with blood such as saliva or vomitus, and all body fluids in situations, such as emergency response, where it is difficult or impossible to differentiate between body fluids;

2. Any unfixed human tissue or organ (other than intact skin) from a human (living or dead); and

3. Any HIV, HBV, HCV-containing cell or tissue culture, organ cultures, and medium or other solutions; and blood, organs, or other tissues from experimental animals containing HIV, HBV, or HCV.

**Personal Protective Equipment (PPE):** Specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, employee owned scrubs, pants, shirts, or blouses) not intended to function as protection against a hazard are not considered to be PPE.

**Regulated Waste:**

- Liquid or semi-liquid blood or OPIM; items that are caked with dried blood or OPIM; and items that are capable of releasing these materials when handled or compressed;
- Sharps containers and all contaminated sharps;
- Containers with recognizable fluid blood or body fluids that cannot be emptied;
- Microbiology laboratory waste and blood specimens;
- Pathology waste;
- Human dialysis waste materials including arterial lines and dialysate membranes;
- Transfusion bags/tubing and heart/lung perfusion tubing.

**Sharp:** any object used or encountered 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.
**Sharps Injury:** any injury caused by a sharp, including, but not limited to, cuts, abrasions, needlesticks or human bites.

**Sharps Injury Log:** a written or electronic record satisfying the requirements of the Standard.

**Universal Precautions:** an approach to infection control. According to the concept of universal precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, HCV, and other bloodborne pathogens.

**Work practice controls:** means controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

Guidelines for the Use of Safety Feature Evaluation Sheets

Example Sharps Evaluation Forms
**Example Safety Syringe Evaluation Form**

**ECRI's Needlestick-Prevention Device Evaluation Form example:**

**Sharps Disposal Container Evaluation Form**
### APPENDIX D: SHARPS INJURY LOG FOR RFSW

Complete all sections of this form. A copy of this form will be kept on file in the RFSW Human Resources department for a minimum of 5 years after the incident.

<table>
<thead>
<tr>
<th>Case Number</th>
<th>Date</th>
<th>Employee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td></td>
<td></td>
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<tr>
<td>2)</td>
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<td>3)</td>
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<td>4)</td>
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<tr>
<td>5)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## SHARPS INJURY FORM FOR RFSW

<table>
<thead>
<tr>
<th>Case/Report number:</th>
<th>Date filed:</th>
</tr>
</thead>
</table>

### Injured Employee:
- Lab:  
- Home Phone:  

### Date and Time of Injury:
- Job title of Employee:  
- Location where incident occurred:  

### Body Part Injured:
- Type of Device (e.g. syringe, suture needle) and Brand and Model:  

### Brief Description of How the Incident Occurred
[i.e., action being performed (disposal, injection, etc.), substances involved, body part injured]:

### Injured Employee’s opinion as to whether there are any other work practice controls or sharps devices that could have prevented this injury:

### Did employee receive medical consultation and followup?:

### Other comments:

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Employee Signature: __________________________
Date: __________________________

Supervisor Signature: __________________________
Date: __________________________