PURPOSE:

To outline procedures associated with the evaluation and management of Occupational exposures to Blood Borne Pathogens. Post exposure management is one component of a comprehensive Exposure Control Plan. These procedures apply to the following exposures: patient to employee; employee to patient; patient to patient; public service worker, and health care worker.

SCOPE:

All Parkland Health & Hospital System (“Parkland”) facilities, including but not limited to hospitals, ambulatory surgery centers, clinics, and all corporate departments/divisions.

PROCEDURE:

1. Policy Statement
   
   A. The post exposure management process addresses the following:
      
      1) Ensures that all healthcare workers (HCW) receive timely and appropriate evaluation according to evidence based guidelines
      
      2) Satisfies Occupational Safety and Health Administration (OSHA) and Texas State Department of Health Services (TSDHS) regulations
      
      3) Occupational Health Services (OHS) partners with the Dallas County Health & Human Services Department, Communicable Disease Division
   

2. Responsibility
   
   A. OHS is responsible for implementation of this procedure unless otherwise noted.

   B. Operational managers are responsible for relieving their employees in the event of an exposure so that they can receive timely treatment.

3. Guidelines
A. Immediate Actions: for any healthcare worker with an exposure the following steps should be taken immediately

1) Treat the exposure site
   a) Injured skin or wound should be emergently cleaned with soap and running water for two minutes
   b) Mild bleeding should be allowed to continue. Aspiration and/or forced bleeding of wound incision are not recommended
   c) Antiseptics, bleach, or other cleansing agents should not be used
   d) Mucous membranes should be rinsed with water for two minutes
   e) Exposed eyes should be flushed with water or saline for two minutes

2) The exposure should be immediately reported to the healthcare worker’s supervisor

3) The HCW should immediately present to OHS during normal business hours or page Occupational Health Service & Needlestick pager.

4) After normal business hours, weekends, and Parkland observed holidays, the exposed person should page the After-hours Needlestick or Splash/Exposure pager. The Nursing Administrative Officer (NAO) will return your page

5) Exposed victim is required to follow up with OHS on next business day

6) Parkland paid employees must complete an Injury on Duty form located on the Spotlight drop-down menu on the Parkland intranet home page under the “Employee Injury on Duty and Lab Requisition Forms” link. The Injury on Duty form should be scanned and e-mailed to Workers’ Compensation via IRM@phhs.org. Additionally a safety post must be completed.

B. Initial Intake

1) The treating clinician (either OHS nurse or NAO) will collect information from the victim regarding: evaluation of exposure site and initial treatment, type of body fluids exposed to, type and duration of exposure.
2) Complete the Blood/Bodily Fluid Exposure lab requisition form available on the Spotlight drop-down menu on the Parkland intranet home page under the “Employee Injury on Duty and Lab Requisition Forms” link. The Blood/Bodily Fluid Exposure Lab requisition form should be sent with the blood work to the lab.

3) HIV Post Exposure Prophylaxis (PEP) medication according to protocol will be offered for all exposures while the evaluation is proceeding. Goal is to ensure that the first dose of medication is received within two hours of exposure.

4) The preferred initial regimen is Truvada/Raltegravir. OHS Director and/or Infectious Diseases consultant may adjust regimen as needed on a case by case basis. If the victim is pregnant Obstetrics should be consulted prior to administration of PEP.

5) The on call OHS nurse is available for consultation at any time regarding the process.

C. Evaluation of the Source

1) Not all occupational exposures will have a known source (e.g. needle stick injury occurring when placing sharps in a sharps box). If the source of the exposure is known the following steps should occur.

2) At time of exposure, the source’s blood should be collected for HIV, Hep BsAg, and Hepatitis C. If the HIV is negative and the treating clinician has determined that the source has HIV risk factors, HIV-1 NAAT will also be collected. Phlebotomy will process blood under the authority of the OHS Director and Associate CMO Outpatient/Ambulatory, Medical Affairs Office.

3) Verbal consent should be obtained from the source patient prior to testing; written consent is not required.

4) HIV testing as per state law may be performed in the event of an occupational exposure even if the source patient does not give consent.
5) If the source person is a patient, no orders for exposure related testing should be entered in the patient’s medical record. The source patient should not be charged for the testing.

6) Laboratory services will process the source patient testing using an established confidential code so that all results are confidential. Results will be available within three hours and available to the treating clinician. Final copies will be available for the OHS record.

7) Results of the testing will not be placed in the source patient’s medical record. If any of the source patient’s testing is abnormal OHS will notify the source’s attending who will be responsible for appropriate counseling and follow up of the patient.

8) These procedures also apply when the source patient is deceased.

9) The same procedures also apply if the exposure involves an employee as the exposed person and a second employee as the source.

10) The same evaluation of source process applies to exposures in which the exposed person is a patient; in these cases both Infection Prevention and Patient Safety & Clinical Risk Management should be involved in the management of the exposure.

11) It is recommended that victims who are healthcare workers at Parkland, but employees of other organizations seek their post exposure management care with their employer’s healthcare provider. In these cases the process for evaluation of the source remains the same. OHS will be responsible for communicating the source results to the victim’s care provider.

12) Victims who are Public Safety Workers may have been exposed prior to the patient arriving at Parkland. The same procedures for evaluation of the source and communication of the results to the victim’s healthcare provider apply. Exposures involving Public Safety Workers are reportable to the Dallas County Health Department.

D. OHS Evaluation of the Victim
1) OHS full evaluation will occur at time of initial intake.

2) Results of all source testing are to be reviewed with the victim; the victim is informed of requirements for confidentiality and nondisclosure.

3) HIV PEP will be discontinued for exposures in which the source is HIV negative.

4) If either the HIV test or the viral load is positive HIV PEP is recommended. Informed consent from the victim is obtained for PEP; if PEP is recommended, but declined by the victim the clinician must obtain signature on declination form.

5) If the source is positive for a blood borne pathogen, baseline blood testing is offered for the appropriate pathogen (Hepatitis BsAg, HIV, or Hepatitis C) to the employee. If the employee consents to baseline blood collection but not to HIV testing at the time, the sample will be drawn and held for up to 90 days.

6) The treating clinician will determine need for Hepatitis B PEP. The following chart should be used to assist in evaluation:

<table>
<thead>
<tr>
<th>Victim Vaccination Status</th>
<th>HepBsAg Status of Source</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HepBsAg positive</td>
</tr>
<tr>
<td>Unvaccinated</td>
<td>HepBIG x 1; Start Hep B vaccine series</td>
</tr>
<tr>
<td>Vaccinated: responder</td>
<td>No treatment</td>
</tr>
<tr>
<td>Vaccinated: Non responder</td>
<td>HBIG &amp; start Hep B vaccine series or HBIG x 2</td>
</tr>
<tr>
<td>Vaccinated: Response status unknown</td>
<td>Test for anti-HBs If responder: no treatment If non-responder: HBIG x 1 and vaccine booster</td>
</tr>
</tbody>
</table>
E. A Contaminated Sharps Injury Reporting Form for all exposures involving sharps injuries at Parkland is reported to the Texas Department of Health monthly.

1) Monitoring and Long-term Follow up of the Victim

2) Employees receiving HIV PEP:

3) CBC, creatinine, amylase, liver function tests and urinalysis will be done at baseline, 2 weeks, and in 4 weeks at the end of treatment. HIV testing will be done at baseline, 1 month and 3 months

4) Employees exposed to HIV:
   a) HIV testing will be done at baseline, 1 month and 3 months.

5) Employees exposed to Hepatitis B:
   a) In cases without documented immunity in which employee received Hep B vaccine, HepBsAb will be done at 4 months

6) Employees exposed to Hepatitis C:
   a) Baseline liver panel and HCV antibody
   b) HCV RNA and liver panel at 1 month and 3 months
   c) HCV antibody and liver panel at 6 months

7) Employees exposed to Unknown Source:
   a) Will follow the guidelines for monitoring outlined above for persons exposed to HIV, Hepatitis B, and Hepatitis C

8) Obstetrics should be consulted for any employees who are pregnant regarding monitoring and long-term follow up of the victim.

9) If any employees seroconvert the OHS Director is responsible for counseling the employee and arranging for ongoing medical care and follow up.
EQUIPMENT:
N/A

DEFINITIONS:

Blood borne Pathogen: A pathogen that is largely transmitted by the blood borne route and a major occupational risk for healthcare workers and public safety workers. Hepatitis B virus, Hepatitis C virus and the Human Immunodeficiency Viruses are the most common blood borne pathogens in occupational exposures.

Exposure: Any exposure to blood or other potentially infectious material; exposures may occur percutaneous (e.g. needle sticks, sharps injuries, lacerations), via mucous membranes (e.g. splashes to the mouth or eyes) or through non-intact skin (e.g. abraded skin, wounds, etc.). A human bite that breaks the skin is considered an exposure to both the person bitten as well as the person inflicting the bite.

Healthcare Worker: Paid and unpaid persons who may encounter exposure to blood or other body fluids during the course of their duties. Volunteers, students and licensed independent practitioners are healthcare workers.

Public Safety Worker: A certified emergency medical services employee or paramedic, firefighter, peace officer, first responder who rendered assistance at the scene of an emergency or during transport to the hospital, or a person who voluntarily assists someone with urgent care in good faith as a “good Samaritan”.

Source: Any individual, living or dead, whose blood or other potentially infectious material may be a source of occupational exposure to the healthcare worker

Victim: The healthcare worker who is exposed to blood or other potentially infectious material

REFERENCES:

CDC. Updated U.S. Public Health Service guidelines for the management of occupational exposures to HIV and recommendations for Post exposure
Prophylaxis. MMWR 2005: 54 (No. RR-9).  
http://www.cdc.gov/MMWR/preview/mmwrhtml/rr5011a1.htm

CDC. Updated U.S. Public Health Service guidelines for the management of occupational exposures to HBV, HCV, and HIV and recommendations for post exposure prophylaxis. MMWR 2001: 50 (No. RR-11). Available from:  
http://www.cdc.gov/MMWR/preview/MMWRhtml/rr5011a1.htm

Texas Department of State Health Services. Blood Borne Pathogens (Contaminated sharps Injuries; Needle stick Prevention.  
https://www.dshs.state.tx.us/idcu/health/infection_control/bloodborne_pathogens/


OSHA Bloodborne Pathogen Standard 1910.1030.