PEDIATRIC EMERGENCY DEPARTMENT CLINICAL GUIDELINE:
NON- OCCUPATIONAL EXPOSURE TO BLOOD-BORNE PATHOGENS
(HIV, Hepatitis B, AND Hepatitis C)

General Definition:
- Blood-borne pathogens are infectious agents that can be transmitted through contact with blood or certain other body fluids. The primary pathogens are HIV, Hepatitis B, and C.

Before Proceeding:
- In cases of pediatric sexual abuse/assault, please read the separate Comer ER Sexual Abuse/Assault clinical guideline BEFORE proceeding.
- If the patient is an EMPLOYEE or VOLUNTEER of University of Chicago and sustained the exposure while providing patient care, do NOT use this guideline:
  o Page the NEEDLESTICK HOTLINE at pager #9990 and follow their instructions.

1. Document the Exposure
   - Record the date & time of exposure and mechanism of injury (i.e sexual assault, bite)
   - Record if any witnesses present, especially in a non-sexual assault scenario.
   - Record if others may have been exposed.
   - Record any details/knowledge of the exposure source (i.e. HIV status if known)

2. Evaluate the Exposure and Risk
   - Fluids capable of transmitting a pathogen include: blood, semen, vaginal secretions, amniotic fluid, peritoneal fluid, CSF, synovial fluid, and pleural fluid.
   - Fluids NOT capable of transmitting a pathogen include: urine, saliva, stool, emesis, nasal secretions, tears, and sweat.
   - Document vaccination history, esp Hepatitis B. (Click the immunization tab in the PER trackboard to query the IDPH system for the patient’s immunizations)
   - Risk from different exposures for HIV, Hep B, and Hep C. Use this data to discuss risk with patient and family.

<table>
<thead>
<tr>
<th>Exposure Type</th>
<th>HIV Risk</th>
<th>Hep B Risk</th>
<th>Hep C Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percutaneous needle stick</td>
<td>0.3 – 0.67%</td>
<td>22 – 62%</td>
<td>0 – 7%</td>
</tr>
<tr>
<td>Blood splashed in mouth or eye</td>
<td>0.09%</td>
<td>0.3 – 9%</td>
<td>Low Risk</td>
</tr>
<tr>
<td>Receptive anal intercourse</td>
<td>0.5 – 3%</td>
<td>&gt; 3%</td>
<td>Low Risk</td>
</tr>
<tr>
<td>Receptive vaginal intercourse</td>
<td>0.1 – 0.2%</td>
<td>&gt; 1%</td>
<td>Very Low Risk</td>
</tr>
<tr>
<td>Insertive anal intercourse</td>
<td>0.065%</td>
<td>&gt; 1%</td>
<td>Very Low Risk</td>
</tr>
<tr>
<td>Insertive vaginal intercourse</td>
<td>0.05%</td>
<td>&gt; 0.5%</td>
<td>Very Low Risk</td>
</tr>
<tr>
<td>Oral sex w/ejaculation</td>
<td>Very low risk</td>
<td>Low risk</td>
<td>Very Low Risk</td>
</tr>
<tr>
<td>Human bite with blood</td>
<td>Very low risk</td>
<td>Moderate risk</td>
<td>Low Risk</td>
</tr>
</tbody>
</table>

*The risk of acquiring Hep B is highly dependent on the source’s viral antigen status. Transmission of Hep B during sexual activity has been well documented but transmission risk has not been determined and risk is estimated based on Hep B being 10-100 times more infectious than HIV.*
   - **Hepatitis B & C** – Acute hepatitis panel AND Hepatitis B Surface Antibody (separate orders)
   - **HIV** – HIV1/HIV2 Antibody Antigen Screen
   - **General labs** – CMP (ER 1&2) and CBC with differential
   - Perform additional STI testing as per Comer ER Sexual Abuse/Assault clinical guideline.

4. Administer STI Treatment as per the Comer ER Sexual Abuse/Assault clinical guideline.

5. Administer Post-Exposure Prophylaxis (PEP) as outlined below
   - **Hepatitis B**
     - Review the patient’s vaccine status with the family or in the Immunization tab.
     - If the exposure is **LESS than 14 days ago** AND
       - The Hep B status of the source is unknown AND the patient completed the primary Hep B vaccine series, NO TREATMENT INDICATED.
       - The Hep B status of the source is unknown AND the patient is unvaccinated, give Hep B vaccine 0.5 ml IM.
     - If exposure is **GREATER than 14 days ago** OR the source is Hep B positive, discuss with Pediatric ID on-call (#4784).
   - **Hepatitis C** – currently no prophylaxis available.
   - **HIV**
     - If the exposure occurred **GREATER than 72 hours ago**: **Test only and do NOT offer HIV PEP.** Go to step 5 of the pathway.
     - If the exposure occurred **LESS than 72 hours ago**: **Test and offer HIV PEP**
       - If the patient or family REFUSES HIV PEP, document the refusal in the medical record and go to step 5.
       - If the patient or family ACCEPTS HIV PEP, page Pediatric ID on-call (#4784) to discuss the case and follow the medication guidelines below.
     - **HIV PEP is taken for 28 days (see page 3 for dosages)**
       - **First dose given in Comer ER** – order thru EPIC using order set #928 (PER: Sexual Abuse/Assault order set)
       - **28-day supply of medications given to patient in Comer ER to take as an outpatient. Do NOT give the family or patient the prescriptions:**
         - Print out discharge prescriptions for the 28 day supply from the disposition tab.
         - Give to the treating nurse to tube to Comer impatient pharmacy (#813).
         - The nurse will call pharmacy at 5-0093 to confirm receipt of prescriptions
         - The nurse will ensure receipt of the medications to give to the patient/family.
         - The patient/family should leave with the medications in hand.
         - Please ensure all of these steps occur prior to discharging the patient.
6. Follow-up (linkage to outpatient care)
   - If the patient does not meet criteria for HIV PEP or refuses HIV PEP, no further follow-up needed with Pediatric ID team. Please ensure patient follows up with PMD in 2 weeks.
   - If the patient accepts HIV PEP
     - Page Pediatric ID (#4784) to discuss the case and the medications.
     - Order the first dose of the HIV PEP medications to be given in Comer ER using the order set PER: IP Sexual Abuse and Sexual Assault.
     - In the order set PER: IP Sexual Abuse and Sexual Assault, go to the Consults section and check off the order for “Specialty Pharmacy Referral”. It is pre-populated with Peds PEP. This order will go to the HIV pharmacist the next working day so they can follow-up on the medications prescribed.
     - Print out the discharge medications for the 28 day supply of outpatient medications via the disposition tab. Follow the instructions above to obtain the medications.
     - Email the patient name, MRN, and date of visit only to the Pediatric ID email list-serve: pedpediatricinfdis@bsd.uchicago.edu
     - Obtain at least 2 phone numbers to contact the family for follow-up – this information is critical for Pediatric ID to contact the family
     - Use this smart phrase in the discharge instructions: .PEPDCFORM
     - Make sure to fill in all the pertinent information in the smart phrase discharge form.
     - Inform family a Pediatric ID team member will contact the family to schedule follow-up in their Wednesday evening clinic at the Friend Family Health Center.
TABLE 1: HIV PEP MEDICATIONS OVERVIEW

<table>
<thead>
<tr>
<th>Patient</th>
<th>First doses given in Comer ED</th>
<th>28-day supply from Comer Inpatient Pharmacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight ≥ 35 kg AND can swallow pills</td>
<td>Truvada (200mg-300mg combo) PO AND Raltegravir 400mg PO</td>
<td>Print out discharge prescriptions using these dosages: Truvada (200mg-300mg combo) 1 tab PO Q 24 hours X 28 days AND Raltegravir 400mg 1 tab PO Q 12 hours X 28 days Give to nurse to obtain medications from Comer inpatient pharmacy.</td>
</tr>
<tr>
<td>Weight &lt; 35 kg AND ≥ 2 years old or cannot swallow pills</td>
<td>Zidovudine AND Lamivudine AND Raltegravir See Table 2 below for weight-based dosing</td>
<td>Print out discharge prescriptions using dosages listed below. Give to nurse to obtain medications from Comer inpatient pharmacy.</td>
</tr>
<tr>
<td>Age &lt; 2 years old or weight &lt; 11kg</td>
<td>Zidovudine Lamivudine Kaletra Discuss specific dosing with Pediatric ID on-call</td>
<td>Print out discharge prescriptions using dosages discussed with Peds ID. Give to nurse to obtain medications from Comer inpatient pharmacy.</td>
</tr>
</tbody>
</table>

TABLE 2: WEIGHT BASED DOSING OF HIV PEP MEDICATIONS

<table>
<thead>
<tr>
<th>Medication</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zidovudine 10mg/mL syrup (Max 300mg/dose)</td>
<td>11kg - &lt;33kg: 9mg/kg/dose PO Q12H X 28 days ≥33kg: 300mg PO Q12H X 28 days</td>
</tr>
<tr>
<td>Lamivudine 10mg/mL syrup (Max 300mg/dose)</td>
<td>11kg - &lt;33kg: 10mg/kg/dose PO Q24H X 28 days ≥33kg: 300mg PO Q24H X 28 days</td>
</tr>
<tr>
<td>Raltegravir 100mg chewable tablets (Max 300mg/dose)</td>
<td>≥11kg - &lt;14kg: 75mg PO Q12H X 28 days 14kg - &lt;20kg: 100mg PO Q12H X 28 days 20kg - &lt;28kg: 150mg PO Q12H X 28 days 28kg - &lt;40kg: 200mg PO Q12H X 28 days ≥40kg: 300mg PO Q12H X 28 days</td>
</tr>
</tbody>
</table>

DISCLAIMER:

This clinical guideline has been developed for the purpose of unifying the general emergency care of patients with suspected exposure to bloodborne pathogens. It is intended to aid, rather than substitute for, professional judgment. It is not intended to serve as a rigid protocol or a written proxy for the standard of care. Failure to comply with this guideline does not represent a breach of the standard of care.