Recommendations for Management of Bloodborne Pathogen Exposure of Occupationally Exposed Persons

Guidelines for persons (not covered by UNCHC/OHS, UEOHC or CHS)

- Exposed contract employees who are working at UNC Healthcare are referred to the Emergency Department.
- Outside agency employees (e.g. EMS, firefighters, health care workers) who sustain an exposure in the field and bring a source patient to UNC Emergency Department

*Outside agency employees who sustain an exposure in the field may present to ED but if there is no source patient available, no opportunity to obtain blood sample, or it is an unknown source-then, counsel the exposed person- determine if exposure has occurred and provide treatment per CDC protocol.

* It is the responsibility of the ED Attending to obtain source patient testing via contact with the source patient's primary care physician. Follow-up for the injured employee should be arranged with that person's OH provider.

SOURCE PATIENT:

When the source patient is admitted to UNC ED	*When the source patient is admitted as UNC inpatient*
RESPONSIBILITIES OF ED STAFF TREATING SOURCE PATIENT 1. The Emergency Department MD will obtain source patient testing, for HIV, HBsAg and anti-HCV using CPOE order "Source Patient Testing" for all blood exposures 2. The MD will be responsible for counseling the source patient (informed consent is NOT required).The order will be entered using Dr. Weber's OHS physician code which is #207605. 3. The source patient's WEBCIS record will include the Name and phone # of the Occupational Health Provider of the exposed person and the name of the exposed person and their contact information.	RESPONSIBILITIES OF NURSING HOUSE SUPERVISOR 1. The Nursing House Supervisor will be responsible for counseling the source patient (informed consent is NOT required) 2. The ED or Nursing House Supervisor will call the Microbiology Laboratory (966-4053) and request HIV (Rapid) testing, HBsAg, and anti-HCV for source patient 3. In addition, the Nursing Supervisor or ED will provide the name and phone # of the physician to contact with results.

EXPOSED PERSON:

1.Upon arrival in the ED, the exposed person should call his/her agency, report the incident and discuss appropriate follow-up per agency protocol.

2. Emergency Department MD/staff assesses whether exposure has occurred to a potentially infective fluid when the person is seen at triage station or is checked into ED.

3. If no exposure has occurred: Person obtains first aid and returns to work (if able). Advise employee to report incident to their OH provider

4. If exposure has occurred: Person remains in the ED and CDC guidelines are followed (see table 1.)

5. The ED physician will provide the injured contract employee the results for the rapid HIV test. If the HIV (Rapid) test is reported as positive then for the purposes of providing post-exposure prophylaxis (PEP) the test should be considered as accurate even if the confirmatory test is not available.

6. I**f PEP is necessary, a script should be written to provide a starter set of medications as per this Guideline**. The Adult ID Consult service may be contacted for difficult cases (e.g., pregnant exposed person, contra-indications to recommended drugs, underlying diseases that might complicate therapy should as renal or liver failure). The Adult ID Consult can be reached via 966-4131 (ask for ID physician on call).Provide the consult with name and unit number of the source patient and the name and the location of the exposed person.

1. Obtain the following tests on the exposed person: HIV(#8055), HBsAg(#8056).Anti-HBsAg (quantitative test #8220) and anti-HVC(#8057). PEP for HBV can be provided within 7 days-(≥10mlU/ml of anti-HBsAg is protective). PEP is not available for HCV.
2. If HIV PEP is to be provided the following baseline tests should be obtained: Pregnancy test (if applicable), CBC with differential, CPK, renal function (BUN, Creatinine), LFTs (ALT), Bilirubin, Amylase, Glucose, Electrolytes (NA, K, Cl, CO_2), and UA.

*If the HCV status of the source patient is unknown at the time of the exposure (and unknown to the ED treating MD) but later confirmed to be HCV positive, it should be the responsibility of the exposed employee's OH Provider to do baseline HCV testing and all additional testing per CDC guidelines. If the source patient is known to be HCV positive, baseline testing should be done on the exposed person at time of exposure.

MICROBIOLOGY LAB RESPONSIBILITIES:

1. Testing for HIV is done Monday through Friday at 8:00 AM (ELISA), 3:00 PM (Rapid), and at 8:30 PM (Rapid). On the weekend the test is run at 12:00 PM (Rapid) and 8:00 PM (Rapid). The laboratory will make every attempt to run source patient HIV (Rapid) testing on an emergent basis.
2. If there is blood in the lab, specimen will be brought to Immunology lab for testing on the next run. If there is no blood in the lab, the phlebotomist will go to the source patient and obtain the specimen.
3. The Microbiology Laboratory will contact the Emergency Department MD and provide the results of the source patient's HIV test.

FOLLOW-UP CARE:

1. The ED physician will give the exposed person written instructions to follow-up with their own OH Provider.
2. The OH provider of the exposed person should contact UNCH OHS when the source patient testing has been completed to obtain the results of testing. UNCHC OHS will also provide any pertinent test results for the exposed person if any testing was ordered by the UNC ED.
3. The OH provider of the exposed person will be responsible for all follow-up management of the employee unless arrangements have been made for the employee to be seen in ID clinic (only would be for a positive HIV exposure).
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Emergency Department-Overview of Management for Bloodborne Pathogen Exposures

Definition of Exposure

Percutaneous injury (e.g. needlestick or cut with a sharp object) or contact of the mucous membrane or nonintact skin (e.g. exposed skin that is chapped, abraded, or afflicted with dermatitis) with a potentially infectious material. A human bite that breaks the skin is also considered an exposure (two way).

Definition of Potentially Infectious Materials

Potentially infectious materials include blood, tissue, specified body fluids (semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, amniotic fluid, any visibly bloody body fluid), and medical equipment or environmental surfaces contaminated with these bloody substances. Feces, nasal secretions, saliva, sputum, sweat, tears, urine and vomitus are not considered potentially infectious unless they are visibly

Recommended HIV Postexposure Prophylaxis for Percutaneous Injuries

1. Exposures generally NOT requiring PEP
    a) Unknown source
    b) Source unknown HIV status
    c) Source HIV negative
    d) Blood or contaminated fluid exposure on intact skin
2. Exposures for which PEP is recommended
    a) Percutaneous exposure of blood or a contaminated fluid
    b) Exposure of non-intact skin or mucous membranes to blood or a contaminated fluid
3. Recommended PEP – **IN ORDER OF PREFERENCE**
    i. Truvada (emtricitabine 200 mg and tenofovir 300 mg) one tablet PO 1x/day plus Raltegravir (400 mg PO 2x/day)
    ii. If Raltegravir contra-indicated provide: Truvada (emtricitabine 200 mg and tenofovir 300 mg) one tablet PO 1x/day plus Kaletra (lopinavir 200 mg/ritonavir 50 mg tablets) two tablets PO2x/day
    iii. If Truvada contra-indicated provide Combivir (lamivudine 150 mg and zidovudine 300 mg) one tablet PO 2x/day plus Raltegravir (400 mg PO 2x/day)
    iv. Alternatively, at the discretion of the ED attending, the following regimen can be used: Truvada (emtricitabine 200 mg and tenofovir 300 mg) one tablet PO 1x/day plus Ritonavir (100 mg PO 1x/day) and Darunavir (800 mg PO 1x/day)

3. Recommended PEP for pregnant women

    a. Truvada (emtricitabine 200 mg and tenofovir 300 mg) one tablet PO 1x/day plus Raltegravir (400 mg PO 2x/day)Treatment of pregnant women should be discussed with their OB .

Table 3. Recommended Postexposure Prophylaxis for Exposure to Hepatitis B Virus

		Treatment	
Vaccination and antibody status of exposed workers *	Source HBsAg ᴛ Positive	Source HBsAg ᴛ Negative	Source Unknown or not available for testing
Unvaccinated	HBIG§ x1 and initiate HB vaccine series¶	Initiate HB vaccine series	Initiate HB vaccine series
Previously vaccinated Known responder**	No treatment	No treatment	No treatment
Known non responder ᴛᴛ	HBIG x1 and initiate revaccination or HBIG x2 §§	No treatment	If known high risk source, treat as if source were HBsAg positive
Antibody response unknown	Test exposed person for anti-HBs 1. If adequate,** no treatment is necessary 2. If inadequate, ᴛᴛ administer HBIG x1 and vaccine booster	No treatment	Test exposed person for anti-HBs 1. If adequate, ** no treatment is necessary 2. If inadequate, ᴛᴛ administer vaccine booster and recheck titer in 1-2 months

*Persons who have previously been infected with HBV are immune to reinfection and do not require PEP

T Hepatitis B surface antigen

§ Hepatitis B immune globulin, dose is 0.06 mL/kg intramuscularly

¶ Hepatitis B vaccine

** A responder is a person with adequate levels of serum antibody to HBsAg (i.e. anti-HBs ≥10mlU/ml)

TT A non responder is a person with inadequate response to vaccination (i.e. serum anti-HBs <10mlU/ml)

§§ The option of giving one dose of HBIG and reinitiating the vaccine series is preferred for nonresponders who have not completed a second 3-dose vaccine series. For persons who previously completed a second vaccine series but failed to respond, two doses of HBIG are preferred

All appropriate policies are available on the hospital intranet on the Occupational Health website (listed under Hospital Departments). Do not use confidential packets that are in the cabinet; those packets are only to be used for UNC Health Care employees /UEOHC employees or Orange County employees

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