HACKETTSTOWN REGIONAL MEDICAL CENTER
Administrative Policy and Procedure

SECTION: Employee Health

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TITLE: BLOODBORNE PATHOGENS

PURPOSE:

To outline the process for evaluation and treatment of occupational exposure to blood and/or other infectious body fluids.

POLICY:

It is the policy of Hackettstown Regional Medical Center to offer post-exposure evaluation and treatment of all occupational exposures, in accordance with OSHA's Bloodborne Pathogen Standard, 29 CFR Part 1910.1030, Occupational Exposure to Bloodborne Pathogens: Final Rule, December 6, 1991.

PROCEDURE:

All health care workers (HCW) who sustain an occupational exposure to blood and/or other potentially infectious body fluids should report the incident and make every effort to initiate post-exposure treatment **within 1-2 hours** of exposure in order to assess the need for, and begin post-exposure chemoprophylaxis. (See Post Exposure Policy in Employee Health Manual)

1. Reporting the Exposure:

a. The employee must report any exposure to blood or body fluid (needle stick, puncture, wound, mucous membrane or a non-intact skin contact) to his/her **Supervisor, the Director of Nursing, or Administrative Coordinator immediately**.

b. The employee completes an Employee Injury Report and obtains signature of his/her supervisor or of the individual to whom the incident was reported. The report should include the route of exposure, the circumstances under which the exposure incident occurred, and the source patient's identification if known. The employee should take the completed form to the Employee Health Office.

c. When the Employee Health Office is closed, the Supervisor or Administrative Coordinator will direct the employee to be seen in the Emergency Department.

d. If the employee is seen in the Emergency Department, it is the employee's responsibility to notify the Employee Health Office of the incident on the next business day.

2. Post-exposure Treatment:

a. The employee will present to the Employee Health Office with the completed Employee Injury Report signed by his/her manager, or manager in charge at the time of the incident, and will receive a medical evaluation and emergency care according to an accepted standard of care. The incident, if applicable, will be recorded on the OSHA Log.

b. When the Employee Health Office is closed, the employee will be directed to the Emergency Department by his/her immediate supervisor for treatment, testing and identification of the source individual. The employee's supervisor will then notify the Administrative Coordinator of the incident

c. The Emergency Department Physician will counsel the employee and obtain consent for HIV, HBV (HbsAg & HbsAb) and HCV testing. The results will be sent to Employee Health.

d. Post-exposure prophylaxis will be offered when medically indicated according to the U.S. Public Health Service. (See Post Exposure Treatment Algorithm)

e. If the source individual can be identified, the Director of Nursing or Administrative Coordinator will contact the source individual's physician and request HIV, HBV and HCV testing be performed on the source individual. The results will be sent to Employee Health. The test results will be documented on the employee's medical record. In the event that the source is known to be HIV-positive, chemoprophylaxis must be offered.

f. The following information will be included in the employee's medical record: a copy of the injury report, the source individual's test results and all medical records relevant to the employee's treatment and follow-up.

g. A copy of the Employee Health Nurse's or Physician's written opinion will be discussed with the employee following completion of the evaluation. (See Post Exposure Treatment Algorithm)

h. Employee Health will send a letter with the test results to the employee and source's physician.

3. Emergency Department Procedure:

a. Every effort will be made for the employee to be seen quickly in the Emergency Department. The Employee Health Nurse will notify the Emergency Department Unit Coordinator that the employee must be seen. When the Employee Health office is closed, the Administrative Coordinator will notify the Emergency Department.

b. The Emergency Department Physician will counsel the employee and obtain consents for HIV, HBV, and HCV testing, with the results going to Employee Health.

c. The employee will be referred to the Employee Health Office for follow-up care.

d. Copies of the Emergency Department record and the Employee Injury Report will be forwarded to the Employee Health Office.

e. A Tetanus Booster will be offered. If the exposure was from a clean source, a booster is needed every 10 years. If the source is contaminated the booster is needed every 5 years. The Emergency Department Physician will determine whether or not a Tetanus injection is needed and offer the injection to the employee. (If exposure is from a clean source and the employee was vaccinated within the last 10 years, no booster is required. If the exposure is from a contaminated source, and the employee was vaccinated within 5 years, no vaccination is required.) (See Post Exposure Treatment Algorithm)

4. Source Patient Consent and Testing:

a. The Director of Nursing or Administrative Coordinator will notify the source patient's Physician of the exposure and request an order for post-exposure testing. All source patients, if known, are **REQUIRED** to be asked to be tested.

b. The source patient's Physician will explain to his/her patient the reason for testing, counsel the patient and obtain a signature on the post-exposure patient blood draw consent form (available in the Nursing Administrative Office). This allows the results of the testing to be shared with the employee and the Employee Health Nurse.

c. The charges for testing the patient will be sent to Employee Health and not billed to the patient.

d. The Employee Health Nurse will receive a copy of the source patient's test results to share with the exposed employee. If the source patient's Physician refuses to approach the patient/family for source testing, or the source patient refuses testing, the source patient will be treated as "unknown." The employee will be notified of this and follow-up blood testing will be provided according to the appropriate algorithm.

5. Evaluation:

A medical evaluation and follow-up will be immediately available to any employee following an exposure incident.

a. Testing of the source individual's blood, after consent has been obtained, will be done to determine if the source is infected with HBC, HVC, and HIV. The results of this testing will be made available to the exposed employee after counseling the employee regarding confidentiality of medical information.

b. Testing of the exposed employee's blood for HBV, HCV, and HIV will be done to obtain a baseline guide after informed consent has been obtained.

c. Post-exposure prophylaxis, when medically indicated, will be as indicated by the algorithm.

d. The exposed employee will receive additional counseling and evaluation as necessary.

e. The Employee Health Nurse or Physician responsible for evaluating the employee after an exposure incident will be provided with:
   1. A copy of OSHA documents 500-6 "Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Postexposure Prophylaxis."
   2. A copy of the incident report form with documentation of exposure and circumstances under which the exposure occurred;
   3. Results of the source individual's blood test if/when available; and
   4. Medical records relevant to the appropriate treatment of the employee including vaccination status of the employee.

f. The employee will be supplied with a copy of the evaluation health care professional's written opinion following completion of the evaluation.
   1. The written evaluation will include: 1) recommendation for Hepatitis B vaccination for the employee; 2) documentation that the employee has been informed of the results of the post-exposure evaluation and follow-up; and 3) documentation that the employee has been informed about any medical conditions resulting from exposure to blood or other potentially infectious material which may require further evaluation or treatment.
   2. All other findings or diagnosis will remain confidential and will not be included in the written report.

6. Treatment Protocols

Occupational exposure is defined as contact with blood or other potentially infectious body fluids via percutaneous, mucous membrane, or non-intact skin (cutaneous) routes while working.

Hepatitis B Virus:

a. Nosocomial transmission of Hepatitis B virus (HBV) is believed to occur most often by parenteral exposure (inoculation through the skin and into the blood stream) to HbsAg positive blood. Transmission can occur either from an acutely ill patient or from an asymptomatic patient who has developed a chronic HBV carrier and may not be aware of his HBV status.

b. The risk of Hepatitis B disease in health care workers is best correlated with the degree of blood contact rather than the extent of patient contact. Although HbsAg has been detected in saliva, urine, semen, breast milk, tears, sweat, synovial fluid and bile, the frequency with which these body fluids contribute to the hospital infection is low. The mechanisms of transmission are listed below in order of importance.

1. Overt parenteral: Direct percutaneous inoculation by needles contaminated with serum or plasma (transfusion, contaminated needle stick, tattooing).
2. Inapparent parenteral: Contamination of cutaneous cuts, abrasions, lacerations, contamination of mucosal surfaces by infective secretions (blood, saliva, semen and vaginal fluids).

c. For accidental percutaneous (needle stick, laceration or bite) or permucosal (ocula or mucous membrane) exposure to blood, the decision to provide prophylaxis must include consideration of several factors: The blood source, the HbsAg status of the source, and the HBV vaccination status of the exposed person.

d. For known exposure to HBV of an unvaccinated employee, HBIG will be considered.

7. Hepatitis C Virus:

a. Nosocomial transmission of Hepatitis C virus (HCV) is believed to be through parenteral exposure to blood from anti-HCV positive patients, transmission highest with hollow-bore needles.

b. The incidence of anti-HCV conversion, after a percutaneous exposure from an HCV positive source is 1.8%.

c. Limited data is available on the risk of transmission from sexual, household, and perinatal exposures.

d. There is no post-exposure prophylaxis available for exposure to anti-HCV positive blood. Immune globulin is not recommended because it does not appear to be effective in preventing Hepatitis C infection.

e. Post-exposure treatment and follow-up should include the following:
   1. Baseline testing of source for anti-HCV, if source is known.
   2. Baseline and six-month follow-up testing of the exposed employee for anti-HCV and liver function blood test. Six-month testing is only necessary if source patient tests positive or if the source is unknown.

8. Human Immunodeficiency Virus (HIV):

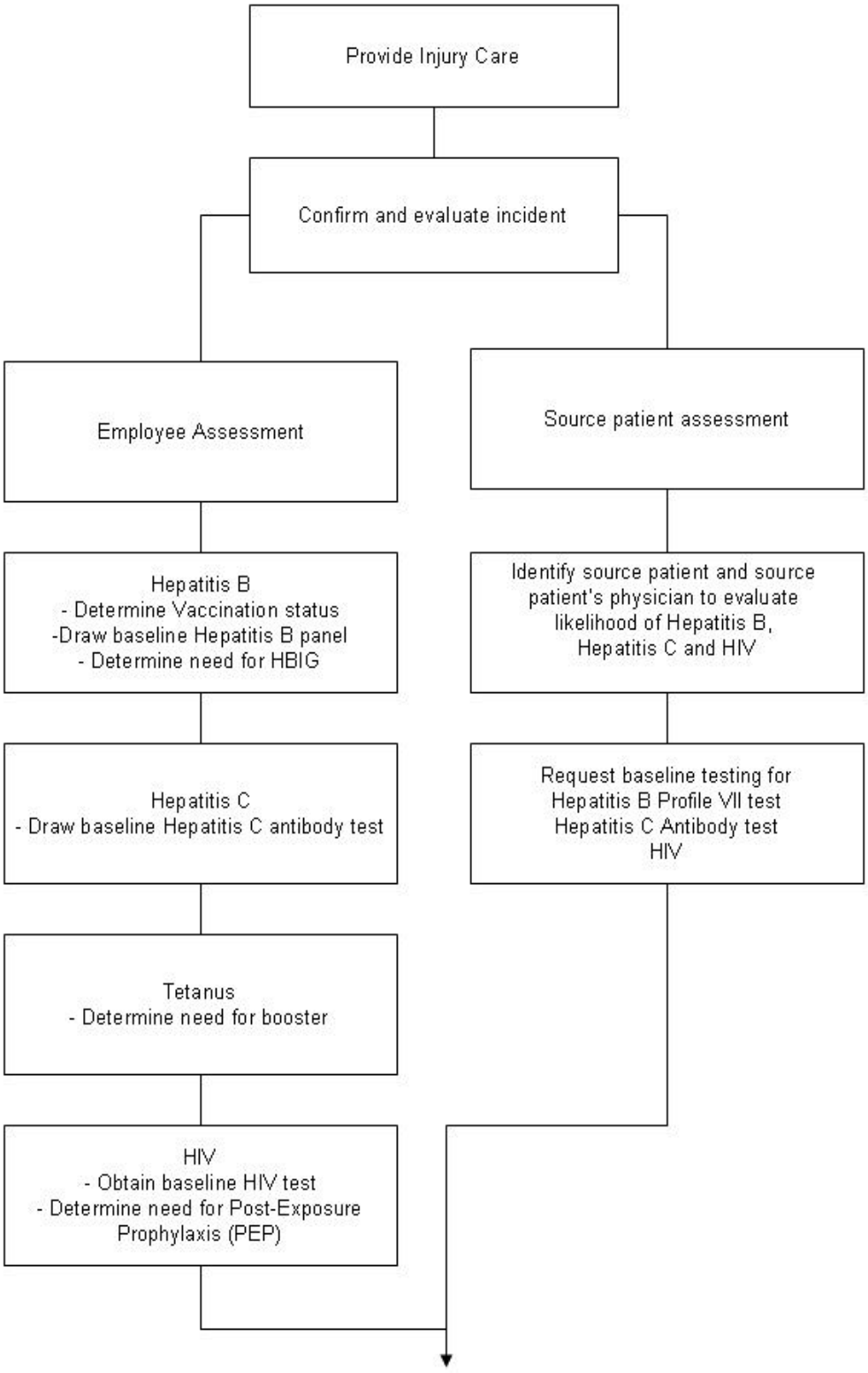
a. Nosocomial transmission of HIV to health care workers from all types of reported percutaneous exposures to HIV-infected blood is 0.3%. While the risk of transmission to health care workers remains low, the outcome, should infection occur, is likely to be fatal.

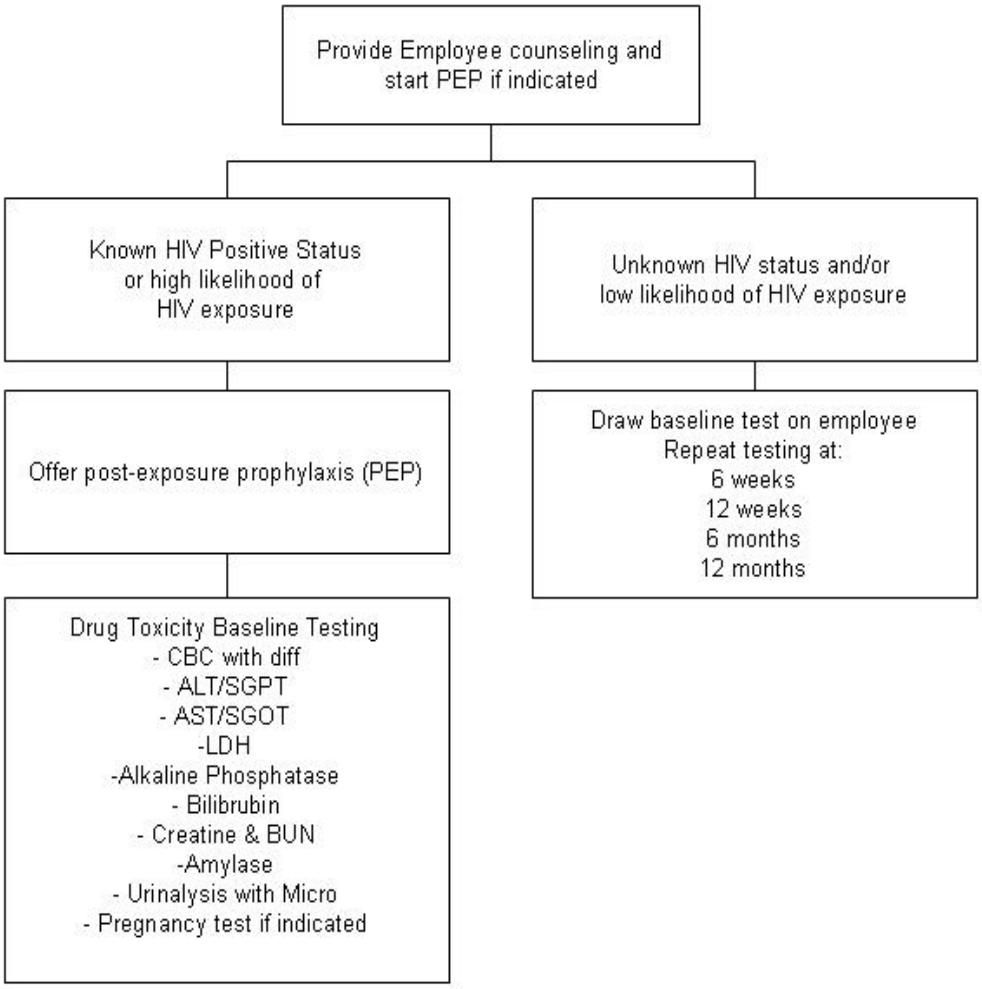
b. The risk of exposure to the Health Care Worker following percutaneous exposure is correlated to the type of exposure, the amount of blood involved and the HIV status of the source.

c. The risk of exposure should be explained to the employee prior to collecting serum for HIV antibody testing, and written consent must be obtained.

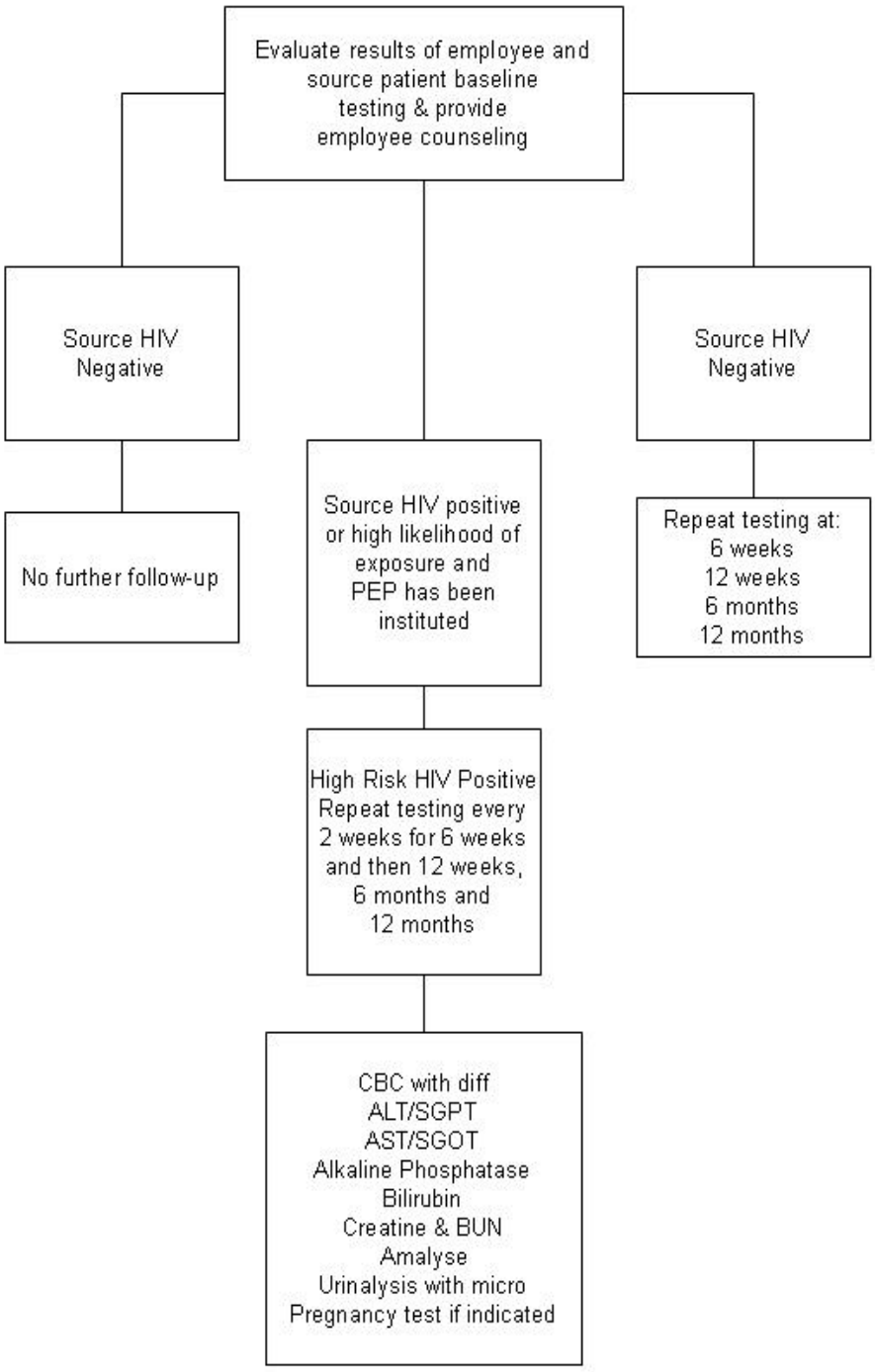
d. The exposed employee must be evaluated promptly for the possibility of post-exposure chemoprophylaxis. (See Post Exposure Treatment Algorithm.)

POST EXPOSURE TREATMENT ALGORITHM

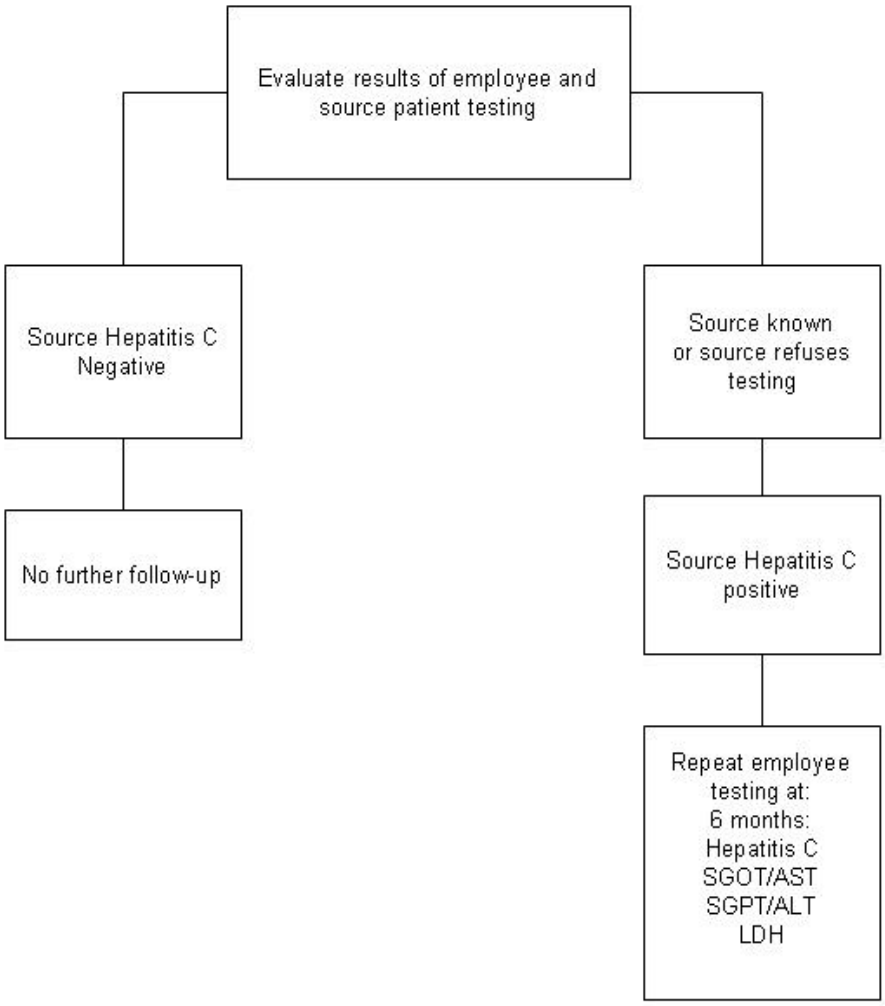



Provide Employee counseling and start PEP if indicated
Known HIV Positive Status or high likelihood of HIV exposure
Unknown HIV status and/or low likelihood of HIV exposure
Offer post-exposure prophylaxis (PEP)
Draw baseline test on employee
Repeat testing at:
6 weeks
12 weeks
6 months
12 months
Drug Toxicity Baseline Testing
- CBC with diff
- ALT/SGPT
- AST/SGOT
-LDH
-Alkaline Phosphatase
- Bilibrubin
- Creatine & BUN
-Amylase
- Urinalysis with Micro
- Pregnancy test if indicated

HIV POST-EXPOSURE FOLLOW-UP ALGORITHM



HCV POST-EXPOSURE FOLLOW-UP ALGORITHM



HBV POST-EXPOSURE FOLLOW-UP ALGORITHM