MANAGEMENT OF HEPATITIS B

A. DISCUSSION

1. This guideline describes departmental recommendations for the evaluation and management of inmates infected with the Hepatitis B virus (HBV).

2. Hepatitis B is a liver disease caused by infection with the Hepatitis B virus.

3. Transmission: HBV is spread by contact with the blood or other potentially infectious materials of an infected person. It is considered a bloodborne pathogen in the OSHA guideline. Hepatitis B is also considered a sexually transmitted disease. HBV is found in highest concentrations in blood and in lower concentrations in other body fluids e.g. semen, vaginal secretions and wound exudates.

4. The average incubation period is 60 to 90 days with a range from six weeks to six months. HBsAg may appear as soon as two weeks after exposure and rarely can be as long as six to nine months.

B. ACTION

1. Disease and Treatment

   a. In adults, only approximately half of newly acquired HBV infections are symptomatic, and approximately 1% of reported cases result in acute liver failure and death. .HBV infection can be self-limited or chronic.

   b. Usual signs and symptoms of HBV infection include fever, fatigue, muscle or joint pain, loss of appetite, nausea, and vomiting.

   c. A very small number of people, about one percent, develop life-threatening acute fulminant hepatitis from the virus. These people may suddenly collapse with fatigue, have yellowing of the skin and eyes (jaundice), and develop swelling in the abdomen. Acute fulminant hepatitis develops very suddenly and can be fatal even if treated.

   d. About 90 percent of the total number of people infected with HBV will develop antibodies against the disease and will totally clear the virus from their bodies.

   e. About five to ten percent of adults who are infected with HBV will never develop antibodies to the virus and will become chronic Hepatitis B carriers.. Chronic carriers will usually have ongoing inflammation of the liver and may eventually develop cirrhosis and liver cancer.

f. Inmates with chronic liver disease due to Hepatitis B will be enrolled in Chronic Illness clinic for evaluation.

g. Persons who are HBsAg positive need medical monitoring and may benefit from treatment.

h. Treatment:

•For acute infection, treatment is supportive; there is no medication available.

•For chronic infection, several antiviral drugs are available: adefovir dipivoxil, interferon alfa-2b, pegylated interferon alfa-2a, lamivudine, entecavir, tenovofir, and telbivudine.

•Inmates with chronic HBV infection require medical evaluation and regular monitoring in Chronic Illness Clinic to determine whether disease is progressing and to identify liver damage or hepatocellular carcinoma.

2. Prevention

a. Hepatitis B vaccine is available to prevent Hepatitis B infection. See HSB 15.03.30, *Immunization Requirements for Inmates* for departmental guidelines to immunize inmates.

b. When it is identified that an inmate has been infected with HBV, tests for Hepatitis A and C should be done, if not already ordered.

c. If the inmate tests negative for Hepatitis A, he should be given Hepatitis A vaccine. See HSB 15.03.30, Immunization *Requirements for Inmates*.

d. If the test for Hepatitis A is positive (IgM or IgG antibody), vaccine should not be given.

e. If the inmate tests positive for Hepatitis C antibody, the inmate will be referred to the Gastrointestinal Chronic Illness clinic for follow-up. See supplement # 3 Management of Hepatitis C.

3. Postexposure Follow-Up

a. Significant exposure is defined in supplement # 4 Bloodborne Pathogens (HBV, HCV, HIV) Significant Exposures.

b. If possible, the source person should be tested for bloodborne pathogens including HCV, HBV and HIV. Decisions for follow-up and Post Exposure Prophylaxis (PEP) will be based on the status of the source blood. See HSB

c. 15.03.43 Management of Bloodborne Pathogen Exposures and supplement # 5 *Recommended postexposure prophylaxis for exposure to hepatitis B virus*.

d. Determine the exposed inmates Hepatitis B vaccine status. See DC4-710A, *Immunization Record*.

e. The exposed person will have to be tested for anti-HBs (HBsAntibody-HBsAb) and ALT.

f. If the exposed person is positive for HBsAb (anti-HBs) with an adequate titer of 10 mIU/mL or higher this indicates immunity and no further action is needed.

g. If the result is HBsAb negative (anti-HBs) with a titer of <10 mIU/mL, refer to Supplement #5 for post exposure prophylaxis; a retest for HBsAg and HBsAb (anti-HBs) in four to six months may be done as determined by the Clinician.

h. Referral for medical evaluation and treatment will be done for any exposed person who is HBsAg positive and/or has an elevated ALT.