# Appendix II

# Standard Precautions and Pre- and Post-exposure Guidelines (Hepatitis B)

Prevention of exposure is the primary strategy to reduce the risk of occupational blood-borne pathogen infections.

**Standard work precautions**

a. Proper application or protective measures.
b. Hand washing.
c. Careful handling of sharp instruments.
d. Safe techniques.
e. Sterilization and disinfection.
f. Disposal of disposables/reusable.
g. Use of personal barrier (gloves, masks, gowns/aprons/protective eye care, foot cover).
h. Immunization against HBV.

Immediately after an exposure injury, the wound should be washed thoroughly under running water and squeezed (not sucked) to encourage bleeding. The site of injury should then be wiped with an alcohol impregnated swab and covered with a waterproof dressing.

Comprehensive education should be provided to all healthcare workers regarding the possible risks and prevention of blood-borne infections after an occupational exposure, as well as the principles of post-exposure management and the importance of seeking urgent advice following any occupational exposure immediately after it occurs.

**Pre-exposure prophylaxis with hepatitis B vaccine**

| | | |
|---|---|---|
| 1st dose | 20 mcg | at elected date |
| 2nd dose | 20 mcg | 1 month later |
| 3rd dose | 20 mcg | 6 months after 1st dose |

Children under 10 years of age should be given half of the above dosage at the same time intervals.

## Post-exposure prophylaxis

At risk workers must report all needle stick injuries. Post-exposure prophylaxis will depend on identification of the source of exposure, determination of the carrier status of the source if possible and the antibody status of the worker.

### Guidelines for post-exposure hepatitis B immunoprophylaxis of unvaccinated persons who have a discrete identifiable exposure to blood or body fluids that contain blood

| Cause of exposure | | Suggested action |
|---|---|---|
| | Percutaneous (e.g. bite or needlestick) or mucosal exposure to HBsAg-positive blood or body fluids contain blood | Administer hepatitis B vaccine and hepatitis B immune globulin (HBIG)* |
| Discrete exposure to an HBsAg positive source | Sexual or needle-sharing contact of an HBsAg-positive person | Administer hepatitis B vaccine and HBIG* |
| | Victim of sexual assualt/abuse by a perpetrator who is HBsAg-positive | Administer hepatitis B vaccine |
| Discrete exposure to a source with unknown HBsAg status | Victim of sexual assualt/abuse by a perpetrator with unknown HBsAg status | Administer hepatitis B vaccine |
| | Percutaneous (e.g. bite or needlestick) or mucosal exposure to blood or body fluids that contain blood from a source with unknown HBsAg status | Administer hepatitis B vaccine |

* Immunoprophylaxis should be administered as soon as possible, preferably within ≤ 24 hours. Studies are limited on the maximum interval after exposure during which postexposure prophylaxis is effective, but the interval is unlikely to exceed 7 days for percutaneous exposures and 14 days for sexual exposures. Dose of HBIG is 0.05-0.07 ml/kg. The hepatitis B vaccine series should be completed.
Hepatitis B surface antigen (HBsAg).

The following recommendations are made regarding HBV:

- All healthcare workers should be vaccinated against HBV, and the combined hepatitis A/ HBV vaccine is recommended for healthcare workers with chronic HCV infection, or other liver problems.
- When necessary, post-exposure prophylaxis with HBV vaccine, hepatitis B immunoglobulin (HBIG) or both should be started within 24 hours and no later than one week after exposure.
- HBsAg-positive healthcare workers should receive clinical evaluation and their serostatus, as well as risk for hepatitis D, should be assessed.
- Serological follow-up is not recommended when post-exposure management is managed according to these recommendations.

The following recommendations are made regarding HCV:

- Currently, there is no available vaccine for HCV.
- It is unclear whether treating acute HCV infection (with pegylated or unpegylated interferon with or without ribavirin) is more effective than treating early chronic HCV infection.
- HCV antibody and liver function tests should be done at exposure, and either 3 or 6 months later.
- Follow-up with HCV viral load testing, if liver function tests are abnormal.

**Reference**

1. Center for Disease Control and Prevention. Hepatitis B Guidelines 2006. http://www.cdc.gov/std/treatment/2006/hepatitis-b