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## Care of Health Care Workers

Health care workers (HCW) are at risk of acquiring infection through occupational exposure.<sup>2</sup> Hospital employees can also transmit infections to patients and other employees. Thus, an employee's health programme must be in place to prevent and manage infections in hospital staff.

Employees' health should be reviewed at recruitment, including immunization history and previous exposures to communicable diseases (e.g. tuberculosis) and immune status. Some previous infections such as varicella-zoster virus may be assessed by serological tests.

Immunization recommended for staff includes: hepatitis A and B, influenza, measles, mumps, rubella, tetanus, and diphtheria. Immunization against varicella, rabies may be considered in specific cases. The Mantoux skin test will document a previous tuberculosis (TB) exposure.

Specific post-exposure policies must be developed, and compliance ensured for a number of infectious diseases for example: human immunodeficiency virus (HIV), viral hepatitis, severe acute respiratory syndrome (SARS), varicella, rubella and tuberculosis.

Health care workers with infections should report their illnesses/incident to staff clinics for further evaluation and management.

### Exposure to human immunodeficiency virus (HIV)

The route of transmission for HIV is person to person via sexual contact, sharing of needles contaminated with HIV, infusions that are contaminated with HIV, transplantation of organs or tissues that are infected with HIV.<sup>11</sup>



The risk of a health care worker acquiring HIV after a needlestick or other “sharps” injury is less than 0.5%.<sup>11</sup> Risk reduction must be undertaken for all bloodborne pathogens, including: adherence to standard precautions using personal protective equipment and appropriate use of safety devices and a needle disposal system to limit sharps exposure. Training for health care workers in safe sharps practice should be ongoing.

Information on preventive measures must be provided to all staff with potential exposure to blood and blood products. Policies which are in keeping with the local and national guidelines must include screening of patients, disposal of sharps and wastes, protective clothing, managing inoculation accidents, sterilization and disinfection.

Hospital policy must include measures to obtain serological testing of source patients promptly where necessary, usually with the patient’s informed consent. Post exposure prophylaxis should be started as per local or national guidelines.

## Exposure to hepatitis B virus

The route of transmission for hepatitis B virus is through body substances such as blood and blood products, saliva, cerebrospinal fluid, peritoneal, pleural, pericardial and synovial fluid, amniotic fluid, semen and vaginal secretions and any other body fluid containing blood.<sup>11</sup> Following standard precautions is important, but immunization is the best way of preventing transmission to health care staff.

All HCWs at risk must be vaccinated.

Staff infected with blood-borne pathogens may transmit these infections to patients and require careful evaluation with respect to their duties. This status should not be used as cause for discrimination.

## Exposure to hepatitis C virus

The route of infection is mainly parenteral. Sexual transmission does occur but is far less frequent.<sup>11</sup> No post exposure therapy is available for hepatitis C, but seroconversion (if any) must be documented. As for hepatitis B viral infection, the source person must be tested for HCV infection. For any occupational exposure to bloodborne pathogens, counselling and appropriate clinical and serological follow-up must be provided.

## Sharp injuries

Needlestick injuries are the most common of sharps injuries, although other contaminated sharp instruments may also cause injuries. All health care workers with potential exposure should be vaccinated. For other personnel, the risk of hepatitis B, hepatitis C and HIV infection should be assessed and appropriate immunization or chemoprophylactic steps taken.

Immediate treatment of such injuries should encourage washing thoroughly with running water and an antiseptic solution. Consult the infection control team for further advice.

An incident reporting system should be in place. It should not be seen as punitive; active support by managers should encourage prompt and accurate reporting.

## Tuberculosis

Health care workers have varying risks for exposure to tuberculosis (TB). Health care workers at the greatest risk of exposure are those working in TB-risk areas such as medical wards, chest clinics, bronchoscopy units, radiology units, TB laboratories, HIV wards and autopsy rooms. If a staff member has been exposed to TB they should report to the Infection Control Practitioner or the Staff Health Nurse depending on the hospital protocol for health care worker exposures.

## Meningococcal meningitis

Transmission of meningococci to health care staff is most likely within 24 hours of admission of the patient, prior to the patient receiving appropriate antibiotic/chemoprophylaxis. Health care workers in close respiratory contact with such cases should receive chemoprophylaxis with ciprofloxacin or an effective alternative agent. Close respiratory contact with the patient includes mouth-to-mouth contact, sharing of drink containers or cigarettes.

## SARS

The health care facility should have a clear set of guidelines for preventing staff exposure to SARS. Health care workers in contact with suspected or



probable SARS patients should be monitored daily for signs and symptoms of SARS, particularly for changes in temperature. If staff members indicate any signs or symptoms of SARS, they should be assessed by the infection control practitioner or the infection control team as to the appropriateness of home isolation. (See Chapter 6 for infection control procedures for SARS infections).

## Other infections; varicella, influenza, pertussis, diphtheria, rabies

Transmission of these micro-organisms may be uncommon, but policies to manage staff exposure should be developed. Vaccination of hospital staff against varicella is recommended. Influenza vaccinations should be given yearly. Rabies vaccinations may be appropriate in some facilities in countries where rabies is enzootic.