Chettinad Dental College & Research Institute

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POLICY REGARDING PREVENTIVE IMMUNISATION OF STUDENTS ,

TEACHERS WHO ARE LIKELY TO BE EXPOSED TO COMMUNICABLE DISEASES

STANDARD OPERATING PROCEDURES

UNIVERSAL AND STANDARD PRECAUTIONS

Standard Precautions is a set of infection prevention and control practices including the use of personal protective equipment designed to protect health care workers and patients from contact with infectious agents in recognized and unrecognized sources of infection. They are recommended for health care workers when having contact with all patients wherever health care is delivered, regardless of patient diagnoses or presumed infectious status (CDC). Implementation of these Precautions is the primary strategy for successful nosocomial infection control.

Standard Precautions

- blood
- body fluids, secretions, and excretions except sweat, regardless of whether they contain visible blood
- non-intact skin
- mucous membranes.

Universal precautions

Universal precautions are "to protect PATIENTS and STAFF from the spread of blood borne viruses (HIV/Hepatitis) or other harmful microorganisms that may be present in blood or body fluids.

VACCINATION AND IMMUNIZATION:

Three-Dose Hepatitis B Vaccine Schedule of Administration

The hepatitis B vaccine as a three-dose series on a 0, 1, and 6-month schedule.

- 1st Shot – The day of vaccination
- 2nd Shot - At least one month (or 28 days) after the 1st shot
- 3rd Shot -. 6 months after first injection

Rule to remember the minimum time in between shots in the series:

- Dose 2 should be separated by dose 1 by at least one month (4 weeks or 28 days)
- Dose 3 should be separated by dose 2 by at least 2 months (8 weeks) AND from dose 1 by at least 4 months (16 weeks).

What happens if vaccine records are not there and no idea if a person ever got shot 1 or 2. There is no concern with repeating the HBV vaccine series, one has to start the series from shot 1. A hepatitis B vaccine “non-responder" refers to a person who does not develop protective surface antibodies after completing full series of the hepatitis B vaccine and for whom an acute or chronic hepatitis B infection has been ruled out.

Although the majority of persons vaccinated against hepatitis B successfully respond to vaccination, an estimated 5-15% of persons may not respond .It is also possible that a person who does not respond to the vaccine may already be infected with hepatitis B. Therefore, testing

for the presence of the hepatitis B virus (hepatitis B surface antigen or HBsAg) is recommended before diagnosing a person as a "vaccine non-responder."

Vaccination and antibody status of exposed person	HBsAg seropositive	Treatment when source is HBsAg negative	Treatment when source is not tested or status is unknown
Unvaccinated	HBIG* × 1 and initiate HB vaccine series	Initiate HB vaccine series	Initiate HB
Previously vaccinated			
Known responder†	No treatment	No treatment	
Known nonresponder	HBIG* × 2 or HBIG* × 1 and initiate revaccination	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; (2) if inadequate,† HBIG × 1 and vaccine booster	No treatment	Test exposed person for anti-HBs: (1) if adequate,† no treatment; (2) if inadequate,† initiate revaccination

HBsAg, Hepatitis B surface antigen; *HBIG*, hepatitis B immune globulin; *HB*, hepatitis vaccine; *anti-HBs*, antibody to hepatitis B surface antigen.
*Dose 0.06 mg/kg IM.
†Responder is defined as a person with adequate serum levels of anti-HBs (≥10 mIU/ml); inadequate vaccination defined as serum anti-HBs <10 mIU/ml.

POST-EXPOSURE PROPHYLAXIS

Exposure to blood, tissue, or other body fluids like semen, vaginal secretions, cerebrospinal, pleural, peritoneal, pericardial, synovial, and amniotic fluids have a potential risk of transmission of blood borne pathogens to healthcare workers and therefore post-exposure prophylaxis should be considered If there is:

- A percutaneous injury (for example, a needle stick or cut with a sharp object).
- Contact with mucous membrane or non-intact skin (for example, skin chapped or abraded or dermatitis).
- Prolonged contact with intact skin or contact that involves extensive areas of skin.

STEPS TO BE TAKEN FOLLOWING AN EXPOSURE

Allow site to bleed

1. Cuts to be washed with plenty of soap and running water
2. Splashes into nose, mouth, skin to be flushed with water
3. Mucous membrane like eyes/mouth to be irrigated with clean water or saline for 5 minutes
4. Pricked finger should not be put into mouth
5. Do not squeeze blood from wound, this causes trauma and inflammation –increases the risk of transmission
6. Do not use bleach , alcohol, betadine or iodine, which may be caustic and cause trauma
7. Report immediately to the supervisor – an incident reporting form is available which is filled out and documented for follow-up

Testing of source

Testing of the source for HIV, HBsAg and HCV should be done as early as possible after counseling (rapid testing if available) if infective status is not known already.

Post Exposure Prophylaxis (PEP) For HIV

PEP is recommended for the following conditions

1. When the exposure source is HIV Reactive
2. When source patient is at high risk of HIV
3. When the status of source patient is unknown
4. Exposure of per-cutaneous, mucous membrane, non intact skin by infectious source material

The pharmacological regimen to be followed for post exposure prophylaxis is --

- Basic regimen: zidovudine (300 mg)+lamivudine (150mg), 12 hourly x 4 weeks
- Expanded regimen: basic regimen + nelfinavir 750 mg 8 hourly x 4 weeks
- PEP to be stopped before 8 weeks in case patient is found HIV negative

Infection control of Communicable Disease among health care workers:

The objectives usually include the following:

(a) educating personnel about the principles of infection control and stressing individual responsibility for infection control

(b) monitoring and investigating potentially harmful infectious exposures and outbreaks among personnel

(c) providing care to personnel for work-related illnesses or exposures

(d) identifying work-related infection risks and instituting appropriate preventive measures

(e) containing costs by preventing infectious diseases that result in absenteeism and disability.

Disease/problem	**Work restriction**	**Duration**
Conjunctivitis	Restrict from patient contact and contact with the patient's environment	Until discharge ceases
Diarrheal diseases Acute stage (diarrhea with other symptoms)	Restrict from patient contact, contact with the patient's environment, or food handling	Until symptoms resolve
Convalescent stage, Salmonella spp.	Restrict from care of high-risk patients	Until symptoms resolve; consult regarding need for negative stool culture
Enteroviral infections	Restrict from care of infants, neonates, and	Until symptoms resolve

	immunocompromised patients and their environments	
Hepatitis A	Restrict from patient contact, contact with patient's environment, and food handling	Until 7 days after onset of jaundice
Hepatitis B Personnel with acute or chronic hepatitis B surface antigemia who do not perform exposure prone procedures	No restriction unless epidemiologically linked to transmission of infection	
Personnel with acute or chronic hepatitis B e antigenemia who perform exposure-prone procedures	Do not perform exposure-prone invasive procedures until expert opinion	Until hepatitis B e antigen is negative
Herpes simplex Genital Hands (herpetic whitlow)	No restriction Restrict from patient	 Until lesions heal

Oro-facial	contact and contact with the patient's environment Evaluate for need to restrict from care of high-risk patients	
Human immunodeficiency virus	Do not perform exposure-prone invasive procedures until expert review been sought.	
Measles Active Post-exposure	Exclude from duty Exclude from duty	Until 7 days after the rash appears From 12th day after 1st exposure through 26th day after last exposure or until 9 days after onset of parotitis
Pediculosis	Restrict from patient	Until treated and

	contact	observed to be free of adult and immature lice
Pertussis Active	Exclude from duty	From beginning of catarrhal stage IB through 3rd wk after onset of paroxysms or until 5 days after start of effective antimicrobial therapy
Postexposure asymptomatic Post-exposure-symptomatic personnel	No restriction, Exclude from duty	 Until 5 days after start of effective antibiotic therapy
Rubella Active	Exclude from duty	Until 5 days after rash appears
Post-exposure		From 7th day after 1st exposure through 21st day after last exposure

Scabies Staphylococcus aureus infection Active, draining skin lesions	Restrict from patient contact Restrict from contact with patients	Until cleared by medical evaluation Until lesions have resolved
Carrier state	No restriction, unless personnel are epidemiologically linked to transmission of the organism	
Streptococcal infection - group A	Restrict from patient care contact with patient's or food handling	Until 24 hours after adequate treatment started
Tuberculosis Active disease	Exclude from duty	Until proved noninfectious
Varicella Active	Exclude from duty	Until all lesions dry and crust

Post-exposure	Exclude from duty	From 10th day after 1st exposure through 21st day
Zoster Localized, in healthy	Cover lesions; restrict from care of high-risk	Until all lesions dry and crust
Generalized or localized in immune-suppressed person	Restrict from patient contact	Until all lesions dry and crust
Viral respiratory infections	Consider excluding from the care of high risk acute febrile patients or contact with their environment during community outbreak of RSV and influenza	Until acute symptoms resolve

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