

Enloe Medical Center Student Orientation 2008: Infection Prevention and Control

The Basics!

HANDWASHING:



- The best way to prevent the spread of infection.
- 15 second wash before and after each patient contact is the standard.
- Options:
 - Soap and Water (plain or antimicrobial).
 - Alcohol-based Hand Rinse.
 - Don't use if hands are visibly soiled.
 - Don't use when caring for patients with *C. difficile*.

EQUIPMENT DISINFECTION:

- Hospital-approved disinfectant is provided throughout the organization. Check with the Charge Nurse of the unit for which product to use for specific equipment.
- Wear gloves when handling.
- Multi-use equipment must be cleaned between patients, i.e., glucometers, stethoscopes, BP cuffs, IV pumps, thermometers.

STANDARD PRECAUTIONS:

- A system used to prevent the spread of infection (Patient to patient, patient to staff, staff to patient) on a daily basis.
- Use of standard practices are determined by risk of encountering body substances, NOT by diagnosis.
- Consider ALL body fluids potentially infectious including blood, sputum, emesis, wound drainage, urine, stool, all moist body substances, and non-intact skin.

ELEMENTS OF STANDARD PRECAUTIONS:



Gloves

- When contact with body substances is anticipated.
- Always wash hands following removal of gloves and don't wear in common areas of the hospital.
- Change after each patient / procedure or when moving from dirty to clean procedures.
- Wash hands after removing gloves!

Gowns

- Worn when clothing or skin is likely to be soiled.
- Tie at the back.
- Remove when task is complete – don't wear in common areas.



Mask & Protective Eyewear

- For any anticipated splash to mucous membranes of nose, mouth or eyes.
- Use for patients with cough, trach, pneumonia.
- Unless otherwise indicated, use of surgical mask is recommended.
- Clean / disinfect reusable goggles after removal.



Additional Precautions:

- Additional precautions may be required for certain infections or conditions.
- Precautions sign on patient room door indicates barriers required and must be followed.
- Important to communicate this information to medical imaging, clinics etc. when procedures are being booked or when transferring to other floors or facilities!!

ADDITIONAL PRECAUTIONS:

Contact Precautions

- Transmission: by direct contact (person to person) or indirect contact (via equipment, side rails, etc.).
- Gown and gloves required; procedure mask may be indicated.
- Single room may be required.

- i.e. **Diarrheal illnesses (i.e., C. difficile-associated diarrhea)**
Methicillin resistant Staphylococcus aureus (MRSA)
Vancomycin resistance Enterococcus (VRE)



Airborne precautions – *Students not permitted to care for patients on airborne precautions.*

- Transmission: Small particles that move with air currents or on dust particles and are then inhaled.
- N95 Mask required for all patient care. Special fit testing / training required.
- Single, negative pressure room required.

- i.e. **Tuberculosis**
Varicella (chicken pox)
Disseminated varicella zoster (shingles)
Measles



Droplet Precautions



- Transmission: Large particles (droplets) that fall to ground within 3 feet: droplets contact mucous membranes of mouth, nose or eyes of an individual within that 3 feet. area.
- Surgical mask and goggles required for Health Care Worker if within 3 feet of patient.
- Multi-bedded rooms may be used for patients on droplet precautions but must maintain a distance of 3 feet between patients sharing room.

i.e. **Influenza**
Meningococcal Meningitis
Febrile Respiratory Illness

BLOODBORNE PATHOGENS



The **OSHA Bloodborne Pathogen Standards** are intended to protect workers from all known and, as yet, unknown diseases transmitted by blood. The viruses of greatest concern at present, however, are hepatitis B, hepatitis C and HIV.

HIV:

- The human immunodeficiency virus (HIV) attacks the body's immune system and destroys the ability to fight infection. A person infected with HIV may simply carry the virus and remain in apparently normal health for many years. Although many persons infected with HIV go on to develop AIDS or Acquired Immunodeficiency Syndrome, the rate is declining due to new drug treatments. There is still no effective vaccine to prevent HIV infection.

Hepatitis B:

- Hepatitis B virus (HBV) attacks the liver causing hepatitis B viral infection, the major infectious bloodborne hazard you face on the job. Completely healthy people can carry the virus, so it is important to consider all blood as a potential risk.
- Hepatitis B is far more common than HIV and is present in very high concentration in the blood of infected patients. The high blood concentrations give HBV a greater likelihood of infecting exposed persons.
- You can protect yourself from hepatitis B infection simply by receiving a hepatitis B vaccine, a series of three shots in the upper arm over a period of six months. The hepatitis B vaccine is safe. It is very effective in protecting you from getting hepatitis B infection if the series is completed.



Hepatitis C:

- Hepatitis C virus (HCV) also attacks the liver causing hepatitis C viral infection which presents similarly to hepatitis B. Hepatitis C is more insidious than hepatitis B: about three-fourths of people infected with HCV show no outward signs or symptoms but up to 85 percent will go on to develop chronic liver disease. Currently, there is no protective vaccine for this disease.

Healthcare Facility Transmission of HIV, HCV and HBV:

Bloodborne pathogens may be present in blood and other materials including:

- Semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, amniotic fluid and other body fluids visibly contaminated with blood.
- Saliva during dental procedures
- Unfixed tissue or organs other than intact skin from living or dead humans
- Cell or tissue cultures that contain HBV, HCV, or HIV
- Organ cultures, culture media or similar solutions.

Typical routes of transmission for HIV, HCV and HBV in the healthcare setting are:

- Puncture from contaminated sharp such as scalpels, broken glass, needles, or exposed ends of dental wires.
- Blood contact with a preexisting portal of entry (such as a scratch or cut)
- Blood contact with a mucous membrane (mouth, nose or eye)

Work Practice Controls:

- Wash your hands. Washing your hands is your number one protection against infection. The sooner you wash infectious materials off your hands, the less your chance of infection. Hand washing keeps you from transferring contamination from your hands to other people or objects or to other areas of your own body.
- Handle sharps with care. Never bend, shear, break or recap contaminated needles or other sharps. Immediately after use, dispose of contaminated sharps in an appropriate puncture-resistant, leak proof container. Do not allow containers to overfill. Use sharps safety devices whenever appropriate.
- Minimize splashing, spraying, spattering or generation of droplets when performing procedures involving blood or potentially infectious materials.
- Do not eat, drink, smoke, apply cosmetics or lip balms or handle contact lenses in work areas where exposure may occur.
- Do not keep food or beverages in refrigerators, freezers or cabinets; on countertops or bench tops, or in any other area where they might be exposed to potentially infectious materials.

Decontamination:

- When cleaning up surfaces use a hospital approved cleaner.
- Do an initial wipe up
- Spray and allow it to stand for ten minutes then wipe up
- Dispose of all wipes in biohazardous containers
- PPE should be removed and disposed of as appropriate

What to do if exposed:

- Immediately wash the exposed skin area, needlesticks and cuts with soap and water. Flush eyes and exposed mucous membranes with large amounts of clean water. Do not use caustic agents, such as bleach.
- Report the exposure to your instructor as soon as it happens. You will be referred by your instructor for an appropriate post-exposure evaluation, counseling and any necessary treatment. Act quickly because treatment for some infections should start right away.