Infection Prevention

The Keys to Protecting Your Patients

**Key #1: Hand Hygiene:** Use alcohol based hand sanitizers prior to and after leaving a patient’s room, after touching a patient or touching anything in a patient’s room. If your hands are visibly soiled or have been contaminated with blood, body fluids or excreta, or if the patient has *Clostridium difficile* associated diarrhea, you must thoroughly wash hands with soap and water.

**Key #2:** The Second key in protecting your patients is to protect yourself. Complete the Immunization Screen and get the N-95 mask fit test and annual PPD or serum quantiferon testing.

**Key #3:** Don’t be the source of transmitting infections from one patient to another. Follow Standard and Transmission-Based precautions.

**Standard Precautions**
Use protective barriers for ALL contact with:
- Blood
- All body fluids
- Secretions
- Excretions except sweat
- Non-intact skin
- Mucous membranes

**Transmission-Based “Isolation” Precautions** will vary within each of the institutions where you practice. Isolation is governed by hospital policy - it is a facility-wide patient management system designed to prevent the spread of potentially infectious organisms to patients, employees and others in the clinical environment.

**Key #4: Think TB!** *(Mycobacterium tuberculosis)*
- Spread from person to person via droplet nuclei expelled into the air (e.g., cough, sneeze, etc.)
  - High incidence of TB exposure in individuals that are foreign born in countries where TB is endemic.
  - Vaccination with BCG should not deter you from investigating possible TB as BCG is given to individuals living in endemic areas.

<table>
<thead>
<tr>
<th>Latent Infection</th>
<th>Active Disease (Pulm.)</th>
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<tbody>
<tr>
<td>PPD usually positive</td>
<td>PPD positive or negative</td>
</tr>
<tr>
<td>Serum quantiferon usually positive</td>
<td>Serum quantiferon positive or negative</td>
</tr>
<tr>
<td>CXR usually normal</td>
<td>CXR usually abnormal</td>
</tr>
<tr>
<td>Sputum AFB smear and cultures negative</td>
<td>Sputum smear and cultures positive</td>
</tr>
<tr>
<td>Asymptomatic</td>
<td>Symptomatic: cough, fever, weight loss, night sweats</td>
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<table>
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<tr>
<th>Not infectious</th>
<th>Often infectious</th>
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<tbody>
<tr>
<td>Not reportable</td>
<td>A case of TB requires reporting to the Denver Public TB clinic or State Health Department</td>
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Indications for Tuberculin skin testing (PPD) or serum quantiferon testing - Annual for most healthcare workers depending on the risk of the institution. (This is based on the CDC guidelines and the number of active TB cases seen within one year at an institution).

Additional testing based on the following risk factors:

- Exposure to a known active TB case
- Immuno-Compromised (HIV or receiving monoclonal antibody therapy)
- Illicit drug use
- Homeless
- Born in, visitor from or travel to endemic areas (e.g., most undeveloped nations)
- Healthcare workers
- Prisons
- Nursing home residents

Isolation: Airborne Precautions in negative pressure room

An N95 “fit-tested” mask must be used for all healthcare workers entering rooms of patients in isolation for TB

Treatment for Disease: 4 drug therapy initially, due to rate of drug resistance in Colorado (12%) - Directly observed therapy (DOT) is considered standard of care.

Key #5: Protect yourself against exposure to bloodborne pathogens (BBP)

How to prevent BBP exposures/infection:
- Don’t bend, break, clip or recap needle
- Properly dispose of sharps
- Wear gloves, gowns, and/or face protection when anticipating exposure to body fluids
- Get the Hepatitis B vaccination and ensure you have adequate titers for protection

Two ways to be exposed:
- Parenteral exposure — needle-stick, scalpel cut, broken glass contaminated with blood, etc.
- Splash to mucous membranes — eyes, mouth

What to do if exposed:
Infection Prevention

- Provide immediate first aid
- Wash the area thoroughly with water or soap and water depending on area exposed
- Do not use caustic agents, such as bleach or alcohol to clean area
- Notify the person in charge
- Report to designated clinic or if after hours, to the ED of the hospital where the exposure occurred ASAP. (See pages 58-59 for workers’ compensation procedures.)
- Both the source patient’s and your blood will be drawn and tested for HIV, viral hepatitis, etc.
- After the first 48 hours, follow-up with designated WC medical providers. (See pages 58-59 for workers’ compensation provider sites.)

Key #6: Notify Infection Control of any communicable diseases so they can report them to the Colorado Department of Public Health and Environment (CDPHE).

Types of Required Reportable Diseases
- Vaccine Preventable Diseases (e.g. *H. influenza*, Influenza, etc.)
- Foodborne, Enteric and Liver Disease
- Sexually Transmitted Diseases
- Zoonotic Disease
- Meningitis-Encephalitis
- Other important reportable diseases (e.g., TB, Malaria, Legionnaires, etc.)

Why report?
- Directs case-specific public health interventions
- Monitors the epidemiology of diseases

Notify Infection Prevention immediately for suspected or confirmed cases of:
- *Neisseria meningitidis* invasive disease
- *Haemophilus influenzae* invasive disease
- *M. tuberculosis*

Key #7: Stay in touch with Infection Prevention and Control (IPC). IPC is your ally. Call them for questions, problems, exposures or concerns. Each hospital has an IPC office and specialist support.

IF IN DOUBT—call the hospital operator and ask for IPC

*It is not a case we are treating; it is a living, palpitating, alas, too often suffering fellow creature.* ~John Brown