Infection Prevention and Control
Annual Education 2017

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Infection Prevention and Control Department
Objectives

After you complete this Computer-Based Learning (CBL) module, you should be able to:

– Describe proper techniques for hand hygiene.
– Describe standard precautions designed to prevent transmission of blood borne pathogens.
– Describe proper disposal of biohazardous waste
– Describe proper storage of food, medication, linen, and clean equipment.
– Describe appropriate response to potential exposures to infectious disease.
– List the risks of TB transmission, prevention and control measures, screening and exposure mediation.
– Describe the transmission risk of flu, identify prevention methods and the benefits of flu vaccine.
Hand Hygiene

• Perform hand hygiene:
  – BEFORE eating, touching a patient or an aseptic or clean procedure;
  – AFTER body fluid exposure, touching a patient or their surroundings, using the toilet and when removing gloves.

• Wash hands with soap and water if:
  – Visibly dirty/soiled, or
  – If the patient has diarrhea; whether or not Clostridium difficile has been confirmed.

• Use alcohol based hand sanitizer for routinely decontaminating hands if hands are not visibly soiled (including prior to procedures requiring aseptic technique).

• Foam In, Foam Out whenever you enter or leave a patient room.
Standard Precautions and Respiratory Etiquette

• Standard Precautions
  – All staff must follow Standard Precautions.
  – This includes the use of hand hygiene and appropriate PPE before caring for any patient or if you anticipate any exposure to blood or body fluids.

• Respiratory Etiquette
  – Cover your mouth and nose with a tissue when coughing.
  – Place a surgical mask on a coughing patient if the patient can tolerate it.
  – Perform correct hand hygiene after contact with respiratory secretions.
  – In common waiting areas, separate persons with respiratory infections at least 3 feet apart, if possible.
Personal Protective Equipment

• Wear Personal Protective Equipment (PPE) whenever you anticipate contact with blood or body fluids.
  – For example, wear gloves when drawing blood.
• Don appropriate PPE **before** beginning the task or entering the patient’s room.
• Remove PPE and perform hand hygiene **before** moving on to the next patient or task.
Safe Injection Practices

• Practice basic principles of aseptic technique when preparing and administering parenteral medications.
• Use a sterile, single-use, disposable needle and syringe for each injection you give.
• Never use a single-use needle/syringe to administer intravenous medication to multiple patients.
• Do not reinsert the same needle into a multiple-dose vial or solution container (for example, saline bag).
  — This prevents contamination of injection equipment and medication.
• Do not prepare injectable medications in the same workspace where used needle/syringes are disassembled.
Food and Medication Safety

- **Each day**, check patient refrigerators used for food and medication for:
  - Cleanliness,
  - Expired food and medication, and
  - Proper temperature.

- Document your findings on a temperature log.
- Do not store food or medication or specimens in the same refrigerator.
- **No associate food allowed in clinical areas!**
- **Covered** drinks are allowed in pre-designated clean zones only.
Biohazard Waste

- Use **red** biohazard bags for **disposable** items that are so saturated with blood that you can squeeze blood from the item.
- Change sharps containers when 3/4 full and as necessary.
- Always use sharp safety devices correctly.
- Always place biohazardous waste in a biohazard bin, located in the soiled utility room in each department.
- **Never** place sharps, bloody items and red bags in patient linen.
Equipment Cleaning

- Cleaning patient care equipment is the **shared responsibility** of Sterile Processing/Patient Care Equipment, Environmental Services, patient care associates, and ancillary services.
- **All users** are responsible for ensuring that equipment is clean before using it on a patient.
- **Equipment not identified as clean is considered dirty.**
- Clean equipment before using it on a patient.
- At a minimum, clean equipment whenever it is visibly soiled.
- Also, clean patient care equipment before and after use on different patients.
- Clean equipment at predetermined frequencies (example: weekly), or as determined by hospital policy.
Determining If Equipment is Clean

• Identify clean equipment by one of three methods:
  1. Equipment with a **plastic covering** is considered clean.
  2. Equipment **stored in a clean unoccupied patient room** is considered clean.
  3. Equipment **stored in the supply room** is considered clean.

• Other cleaning tips:
  – Clean your **computer** at the **beginning of your shift** by wiping the keyboard and mouse with a disinfectant wipe.
  – Remember to access **Stanley carts** with **clean hands only**!
Disinfectants

• Unless otherwise specified, use the general hospital approved disinfectant disposable wipes to clean equipment.
• See product label for proper specified contact time.
  – Know the contact time for disinfectants when using them.
Linen Storage

• Keep **clean** linen covered at all times.
• Place **soiled** linen in **blue** linen bags.
• Do not mix soiled linen with sharps or red bag waste.
• Put **nothing** other than linen down the linen chute.
Occupational Health Basics

• Get the **Hepatitis B vaccine**.
  – It is available at **no charge** to associates considered “at risk.”
  – Occupational Health administers it in three doses.
    • It is safe and effective. Just do it!

• Use **safe work practices** such as the neutral zone in surgery or a splashguard in the lab.

• Use **engineering controls**, such as safety syringes and needleless IV tubing, whenever possible.
Blood Borne Pathogen Exposure

If you experience a blood borne pathogen exposure, immediately:

1. Stop what you are doing.
2. Clean the affected area.
3. Notify your supervisor.
4. Contact:
   • Occupational Health, if your exposure occurred during normal business hours.
   • The Emergency Department after normal business hours for an immediate medical evaluation.
Tuberculosis (TB) Bacterium: Basics

• Tuberculosis (TB) disease is caused by a bacterium called *Mycobacterium tuberculosis* (*M. tuberculosis*).

• *Mycobacterium tuberculosis*:
  – Is transferred through the air when a person coughs, sneezes, sings, talks, or breathes.
    • The particles are so small that normal air currents keep them airborne and can spread them throughout a room or building unless isolation measures are used.
  – May cause infection when you *inhale* the organism exhaled by a person with TB disease.
TB Infection: High-Risk Groups

• Contact with known or suspected infectious TB disease individuals.
• Traveled from or visited in countries within the last 5 years where TB is common.
  • Examples: Asia, Africa, Latin America
• People who live or work in congregate settings among individuals who are at increased risk for TB disease.
  – Examples: Prisons, homeless shelters
• Healthcare workers who serve individuals who are at increased risk for TB disease.
• Populations defined locally as high risk for latent TB infection or TB disease.
TB Exposures

• Persons who spend a lot of **time in enclosed spaces** with people who have TB disease are at the highest risk of becoming infected with *M. tuberculosis*.

• In the hospital this may include other patients and healthcare associates.
  – These persons are identified by Infection Prevention and Occupational Health through associate interviews and chart review.

• Occupational Health and Infection Prevention are responsible for ensuring that these individuals are **notified and evaluated for significant exposure**.
  – This activity is called a **contact investigation**.
Latent TB Infection

- Not everyone who is infected with TB bacteria becomes sick.
- A person who is infected with \textit{M. tuberculosis} but does not have TB disease is said to have a \textbf{latent TB infection}.
- For such individuals, the only sign of TB infection is a positive reaction to the tuberculin skin test or TB blood test.
- Overall, without treatment, about 5% to 10% of infected persons will develop TB disease.
  - About half of those people who develop TB will do so within the first two years of infection.
  - For persons whose immune systems are weak, especially those with HIV infection, the risk of developing TB disease is considerably higher than for persons with normal immune systems.

\textit{Source: Centers for Disease Control and Prevention,}\n\texttt{http://www.cdc.gov/tb/publications/factsheets/general/ltbiandactivetb.htm}
TB Screening Criteria

**Symptoms without explanation** *(score)*
- Cough > 2 weeks* (3)
- Hemoptysis or bloody sputum* (5)
- Fever/chills/night sweats* (2)
- Weight loss > 10 lbs* in last 6 months (2)
- HIV Positive (2)
- History of TB (even if on meds) (4)

**Recent is defined as 2 years** *(score)*
- Recent exposure to TB (2)
- Recent incarceration/jail time (2)
- Recent homelessness or in shelter (2)
- Foreign born; in US less than 5 years (1)
- Recent travel to Asia, Africa, Latin America, E. Europe (1)

If patient meets a score of => 5:
- Place in Airborne Isolation, or,
- Have patient wear surgical mask and notify physician
Prevent Transmission: Isolate Early

Based on the TB screening criteria, if the patient is a high risk for TB or presents with signs and symptoms of TB:

– Place the patient in an AIIR (airborne infection isolation room).
  • If unable to place the patient in an AIIR, place a surgical mask on the patient.
– Notify Infection Prevention and Control.
– Notify the doctor.
– Give the patient the Patient Information Sheet for TB.
Controlling TB Transmission

• What you can do:
  – Place all patients with suspected or confirmed TB in an airborne infection isolation room (AIIR).
    • Keep door closed.
  – Perform daily checks of negative pressure for in use AIIR.
  – All associates who may enter an AIIR must:
    • Be fit-tested for an N95 respirator.
    • Perform fit check prior to each use.
    • Wear an N95 respirator prior to entering an AIIR.
The Flu

• The flu virus is spread by respiratory droplets when people with the virus:
  – Cough,
  – Sneeze, or
  – Talk.

• Most healthy adults might be able to infect others:
  – 1 day before symptoms develop, and
  – Up to 5 days after becoming sick.

• The illness usually lasts one to two weeks.
• Getting the flu vaccine is your best protection against the flu.
Flu Vaccines

There are two types of flu vaccine:

1. The flu shot
   • **Regular** – for individuals age 6 months and older
   • **High dose** – for age 65 and older
   • **Intradermal** – for ages 18 – 64
   • **Flublok** – an egg-free influenza vaccine (restrictions apply; consult Occupational Health)

2. The *nasal spray* vaccine
   • This is made with a weakened flu virus.
   • May be used for non-pregnant individuals ages 2-49.
Flu Vaccines, continued

• The influenza vaccine is safe and effective.
• Serious side effects from the vaccine are very rare.
• It takes approximately 2 weeks for protection to develop after vaccination and lasts through the flu season.
## Vaccination Myths and Facts

<table>
<thead>
<tr>
<th>Myth</th>
<th>Fact</th>
</tr>
</thead>
<tbody>
<tr>
<td>“The flu vaccine will give me the flu.”</td>
<td>• The flu shot has killed viruses.</td>
</tr>
<tr>
<td></td>
<td>• The nasal spray has weakened viruses.</td>
</tr>
<tr>
<td></td>
<td>• Neither will cause the flu.</td>
</tr>
<tr>
<td>“I got a flu vaccine last year, so don’t need one this year.”</td>
<td>Each year a new flu vaccine is made to protect against the viruses likely to cause disease in the upcoming flu season.</td>
</tr>
<tr>
<td>“Flu vaccines are not safe.”</td>
<td>Flu vaccines have been given safely for more than 50 years.</td>
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</tbody>
</table>
Vaccination Myths and Facts, cont.

<table>
<thead>
<tr>
<th>Myth</th>
<th>Fact</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I’m healthy. I don’t need a flu vaccine.”</td>
<td>Anyone can get the flu.</td>
</tr>
<tr>
<td>“The flu is not too bad.”</td>
<td>The flu is the ninth leading cause of death annually in the U.S.</td>
</tr>
<tr>
<td>“Antibiotics can fight the flu.”</td>
<td>• Antibiotics fight bacteria.</td>
</tr>
<tr>
<td></td>
<td>• Flu is cause by a virus.</td>
</tr>
</tbody>
</table>
Steps to Prevent Spreading Flu

- **Wash your hands** often.
- **Cover your nose and mouth** with a tissue when you cough or sneeze.
- **Avoid touching** your **eyes, nose, and mouth**.
  - Germs spread this way.
Protect Yourself

• If you think you may be exposed, contact Occupational Health.
• If exposure is confirmed, follow up as instructed by the Occupational Health nurse.
• If you are ill with an infectious disease, don’t forget to:
  – Call the confidential sick call line at 678-312-2567
  – E-mail sickcall@gwinnettmedicalcenter.org.
Congratulations!

• You have completed this CBL module.
• Click on take the Infection Prevention and Control/Flu/TB Test.
• Questions?
  – Contact Infection Prevention and Control Dept.