Prevention of Hospital Acquired Infections

National Patient Safety Goal #7
Course Goals

After completing this course, you should be able to:

1. Name 3 basic principles of infection prevention.
2. Name 2 MDRO’s seen at the hospital.
4. Name two methods to prevent Surgical Site Infections.
Infection Prevention Starts with the Basics

- **Hand Hygiene** is the single most important method to prevent the spread of germs.
  - Use alcohol gel or soap and water
- **Use Standard Precautions** for all patient care
  - Hand hygiene, appropriate personal protective equipment based on anticipated exposure to blood or body fluids (gloves, gowns, eyewear)
- **Respiratory Etiquette/Hygiene** for all
  - Cover that cough
  - If unable to cover cough, use a surgical mask
- **Clean the environment** using a hospital-approved disinfectant
Multi-Drug Resistant Organisms (MDRO’s)

- When organisms become resistant to many of the antibiotics usually used for treatment, they are called MDRO.
- Examples of MDRO’s include:
  - Methicillin Resistant Staph Aureus - MRSA
  - Vancomycin Resistant Enterococcus - VRE
  - Clostridium difficile – C. diff
Contact Precautions

- Contact Precautions are used to reduce the transmission of MDRO’s
- Purple Contact Precaution sign
- All Contact Precautions rooms use bleach protocol for cleaning
- Must wear gown and gloves upon entry into the room
- Have dedicated equipment kept in the room
- Private room
Isolation Signs

CONTACT PRECAUTIONS

Bleach Protocol When Patient Discharged

WHEN YOU ENTER THE ROOM, EVEN IF YOU ARE NOT GOING TO BE IN DIRECT CONTACT WITH THE PATIENT OR EQUIPMENT, YOU MUST:

1. WEAR GLOVES
2. WEAR A DISPOSABLE GOWN
3. WASH HANDS WHEN YOU ENTER AND LEAVE THE ROOM
Don (apply) PPE in the following order before entering the Exam or Treatment room.

<table>
<thead>
<tr>
<th>Step</th>
<th>PPE Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hand hygiene</td>
<td>Use either soap &amp; water for 15 seconds or alcohol degermer until dry.</td>
</tr>
<tr>
<td>2</td>
<td>Head surgical cover or hood</td>
<td>Completely cover your hair.</td>
</tr>
<tr>
<td>3</td>
<td>Isolation gown</td>
<td>Fasten at the back of your neck and your waist.</td>
</tr>
<tr>
<td>4</td>
<td>Mask or N95 respirator</td>
<td>Secure ties or elastic bands at the middle of the hand and neck. Fit the mask snug to your face. Fit check the respirator.</td>
</tr>
<tr>
<td>5</td>
<td>Goggles or face shield</td>
<td>Place over your face and eyes and adjust to fit.</td>
</tr>
<tr>
<td>6</td>
<td>Gloves</td>
<td>Gloves must cover the cuffs of your gown.</td>
</tr>
</tbody>
</table>
## Remove PPE in the following order before exiting Exam or Treatment room. (Discard in regular waste container)

1. **Remove gloves.**
   - Peel off one glove. Hold it in the other gloved hand. Peel off second glove over both gloves.

   ![Removing gloves](image1)

2. **Remove gown.**
   - Unfasten the tie at your neck, then at your waist. Turn the gown inside out. Fold or roll the gown into a bundle. Place in a container.

   ![Removing gown](image2)

3. **Hand hygiene**
   - Use either soap & water for 15 seconds or alcohol degermer until dry.

   ![Hand hygiene](image3)

4. **Remove goggles or face shield.**
   - Place over your face and eyes and adjust to fit.

   ![Removing goggles](image4)

5. **Remove mask and head cover.**
   - Discard in a waste container.

   ![Removing mask](image5)

6. **Hand hygiene**
   - Use either soap & water for 15 seconds or alcohol degermer until dry.

   ![Hand hygiene](image6)
Patient-Centered Education

• “We Care” poster/handout provides the patient and/or family with information regarding infection control measures for hand hygiene practices, respiratory hygiene practices and contact precautions according to the patient’s condition.

• The information is discussed with the patient and family on the day patient enters the hospital, or as soon as possible (for example, within 24 – 48 hours).

• The patient’s understanding of this information is evaluated and documented in clinical CIS.

• The information provided to the patient may be in any form of media.
Admission Infection Prevention Education

Welcome. Please help us prevent the spread of infection:

Wash your hands or use hand sanitiser before you eat, before you touch your nose, mouth or eyes, and after using the bathroom.

Examine staff to shorten their hands before patient care. Rinse them if they drop.

Cover your nose and mouth with a tissue or paper towel. Please wash or use an alcohol-based hand rub.

Tell the visitor to wash their hands before and after patient care.

Lead and follow instructions given by your healthcare team.

Eliminate source when you please by wiping hands, using alcohol-based hand rub, and cleaning surfaces often.

SMC Infection Control & Epidemiology Department, 4/09
Prevention of Central Line Associated Blood Stream Infections (CLABSI)

• The use of the Central Line Bundle has shown to decrease the incidence of CLABSI.
  – Compliance with hand hygiene
  – Use of maximal barrier precautions (large drape, gown, mask, gloves, cap)
  – Use of 2% chlorhexidine solution for skin antisepsis
  – Selection of optimal site for the catheter
  – Daily review and documentation of the need for the line, with prompt removal if line is deemed unnecessary
Prevention of Surgical Site Infections (SSI)

• **Preoperative**
  – Administer the correct prophylactic antibiotics at least 15 minutes prior to incision but NO greater than one hour.
  – Use clippers instead of razors if hair removal is needed
  – Make certain patients shower or bathe with Chlorhexidine gluconate (CHG) on at least the last night before surgery
  – Use only hospital-approved antiseptic agent for skin preparation
Prevention of Surgical Site Infections (SSI)

• **Intraoperative**
  – Traffic control – limit number of personnel in room and keep door closed

• **Postoperative**
  – Protect a closed incision for 24-48 postoperatively with a sterile dressing
  – Wash hand before and after dressing changes, and any contact with the surgical site
  – Maintain adequate glycemic control
Prevention of Catheter Associated Urinary Tract Infections (CAUTI)

- Limit use and duration of indwelling urinary catheters
- Insert urinary catheters using aseptic technique
  - One attempt at insertion allowed for each catheter
- Secure catheters for unobstructed urine flow and drainage
  - Statlock required to reduce pistoning and tension
- Keep tubing off floor and without dependent loops
- Maintain sterility of the urine collection system
- Use one urinal/cylinder for each patient to empty collection bag
- Do not allow bag drain spigot to touch the floor
- Replace urine collection system when required
- Provide gentle perineal care daily and as needed
- Clean catheter tubing at perineal area at least daily and as needed with soap and water
- Collect urine samples aseptically via sample port
- Aggressively scrub sample port with alcohol swab prior to obtaining sample
Additional Information

• For information about isolation and precautions, infection prevention practices, the Infection Control Manual is available on the intranet under policies/infection control manual.

http://portal.stanfordmed.org/policies/infectioncontrolmanual/Pages/default.aspx
Infection Control Manual

If you have questions regarding patient placement, please refer to policy 5.10 (pending approval).

For questions about bloodborne pathogens, please refer to the Bloodborne Pathogen Exposure Control Plan.

For an overview of newly-created/reviewed/revised policies, please refer to the Infection Control Manual Change Summary (PDF).

Section 1: Infection Control Program Organization

1.10 Infection Control and Prevention Program (PDF)
1.15 Infection Control and Prevention Program: National Patient Safety Goals (PDF)
1.20 Healthcare-associated Infections - Definitions for Surveillance National Healthcare Safety Network (PDF)
1.30 Infection Control Responsibilities for Department Managers (PDF)
1.40 Infection Control Responsibilities for Employees, Housestaff,