

IC Education for Hartford Hospital Medical Staff 2016

HARTFORD HOSPITAL COMMITMENT TO INFECTION CONTROL

In order to prevent the spread of communicable diseases between patients, hospital personnel and visitors, special procedures must be followed by all persons directly or indirectly involved in patient care. Below is an abbreviated version of the most important aspects of infection control at Hartford Hospital. It is not a substitute for the Infection Control Manual. Providers are still responsible for following Infection Control policies. Details and policies are available on the Hartford Hospital Intranet in the Infection Control Manual on line. In addition, Infection Control and the Department of Infectious Diseases can be reached at 972-2878 for consultation at any time.

Hand Hygiene

Performing Hand Hygiene is the single most important procedure for preventing hospital-acquired (nosocomial) infections. Traditional hand washing with soap and water is, of course, available and encouraged. In addition, antiseptic alcohol based instant hand sanitizer (Purell) is also available throughout the facility. This method of hand hygiene has shown strong evidence of being safe and effective. Purell can be used whenever you would normally perform hand hygiene unless hands are visibly soiled. If hands are visibly soiled, traditional soap and water wash should be performed.

- Both artificial and long natural fingernails have been implicated in disease transmission. At Hartford Hospital, long natural fingernails and artificial fingernails are not allowed for any staff that touches patients. Natural fingernails must be kept to a length of less than ¼ inch beyond the tip.
- Recognize that Hartford Hospital has strict policies for hand hygiene. Failure to perform hand hygiene before and after patient interaction results in a hand hygiene violation which will be reported to your department chairman.

Food and Drinks on Nursing Units

- Eating, drinking, applying cosmetics or lip balm, and handling contact lenses are prohibited by OSHA in work areas where there is a reasonable likelihood of occupational exposure (i.e., patient rooms, nursing stations, charting areas).
- When asked by nursing staff not to eat or drink on their units, please comply. Violations of this policy will be reported to your department chairman.

Sharps Safety

- Healthcare workers should take precautions to prevent injuries caused by needles, scalpels and other sharp instruments or devices during procedures; when cleaning used instruments; during disposal of used needles; and when handling sharp instruments after procedure.
- Needles must not be recapped, purposely bent or broken by hand, removed from disposable syringes, or otherwise manipulated by hand. After they are used, disposable sharps must be disposed of as close as practical to the use area in appropriate needle disposal containers.
 - A variety of safety needle devices are available for use at Hartford Hospital. Some of these items include:
 - IV catheters
 - Retractable syringes for injection
 - ABG syringes
 - Phlebotomy devices (vacutainers)
 - Butterfly needles
 - Fingerstick devices

Multiple Drug Resistant Organisms and Epidemiologically Significant Organisms

Drug resistant pathogens are a growing threat to all patients. More than 70% of the bacteria that cause hospital-associated infections are resistant to at least one of the drugs most commonly used to treat them. Multiple drug resistant organisms (MDROs) and Epidemiologically Significant Organisms (ESO) are those pathogens deemed to be of particular importance to infection control and patient safety at Hartford Hospital. These organisms include, but are not limited to, Methicillin Resistant *Staphylococcus aureus* (MRSA), Vancomycin Resistant *Enterococcus* (VRE), Extended Spectrum Beta Lactamase producers (ESBL), Carbapenem Resistant Enterobacteriaeae (CRE, KPC), and *Clostridium difficile*.

Strategies to Prevent the Transmission of MDRO/ESO

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- Meticulous hand hygiene is essential to preventing the transmission of MDRO/ESO.
- In addition to the use of Standard Precautions, patients known to be colonized or infected with MDRO/ESO are required to be placed on Contact Precautions (see above section on Contact Precautions).
 - a. Any equipment used in the room of a patient on Contact Precautions must be disinfected upon removal from precautions room (i.e.: your stethoscope).
 - b. Please see the video: *Contact Precautions – Using PPE* in the Education Resources of the Infection Control Manual. (<http://media.harthosp.org/ermweb/jsp/portal/hhtv/portal.jsp>)
- The Infection Control Manual also has additional policies specific to Clostridium difficile and MDRO/ESO that should be reviewed for detailed instructions on these organisms.
- The Department of Pathology/Division of Microbiology distributes information on antimicrobial susceptibility profiles for sentinel organisms. This information is updated annually and is available through Microbiology. Antibiotic Stewardship is done in coordination with Infectious Diseases, Pharmacy and Microbiology.

Prevention of Central Line Bloodstream Infections

Central venous catheters (CVCs) are being increasingly utilized in the outpatient and inpatient settings to provide long term venous access. CVCs disrupt the integrity of the skin inviting bacteria and/or fungi to the blood stream. Bloodstream infections related to CVCs prolong hospitalization up to 7 days, increase costs up to \$35,000 per BSI and cause up to 5,000 deaths in the U.S. annually.

The central line bundle is a group of EVIDENCE-BASED interventions for patients with intravascular catheters that, when implemented together, result in better outcomes than when implemented individually.

Key components are:

- An electronic checklist must be completed by an assistant during insertion.
- An electronic procedure note must accompany the checklist completed by the clinician inserting the catheter for every ATTEMPT or placement.
- Hand Hygiene done by the practitioner before insertion.
- Maximal Barrier Precautions upon insertion (extra-large sterile body drape, hair covering, sterile gown, mask and sterile gloves).
- Chlorhexidine gluconate skin preparation.
- Optimal catheter site selection (subclavian preferred/not femoral unless emergent).
- Evaluate line necessity EVERY DAY.
- Prompt removal of unnecessary lines.
- Replace catheters inserted under emergent conditions and insert a new catheter at a different site within 48 hours.
- Always clean ports with an alcohol wipe before introducing any medications into bloodstream.
- Always clean ports with an alcohol wipe before introducing any medications or fluids into the catheter. Apply a Curocap to all catheter hubs.
- Daily chlorhexidine gluconate baths in the ICUs are required for each patient.

Preventing Surgical Site Infections

An infection is considered a surgical site infection (SSI) when it occurs at the site of surgery within 30-90 days of the procedure. The time period is determined by the category of surgery. Prevention of SSIs is an important patient safety issue.

Signs and symptoms of an SSI may include fever, redness, swelling, heat or pain at the surgical site. Wound dehiscence or drainage may also be indicative of a SSI.

Steps to prevent SSI include:

- Adhere to sterile technique during surgical and invasive procedures
- Monitor and maintain normal glycemia
- Maintain normothermia
- Perform proper skin preparation using appropriate antiseptic agents and when necessary, hair removal techniques (clipping or depilatories only, *never* shave the surgical site).
- Use proper insertion and catheter care protocols.
- Remove devices as soon as possible such as urinary catheters, central venous catheters and drains.
- Evaluate necessity of devices EVERY DAY.

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- Start prophylactic antibiotics promptly by giving the initial dose within one hour preceding the incision.
- Use the appropriate antimicrobial and dosing.
- Repeat the dose during surgery as needed to maintain blood levels.
- Stop prophylactic antimicrobials within 24 hours.
- Practice good hand hygiene before and after examining a surgical wound.
- Do not operate with open sores on hands.

Catheter Acquired Urinary Tract Infections (CAUTI)

Infections of the urinary tract are the most common HAI, accounting for approximately 30% of the total number reported from acute care hospitals, affecting 600,000-800,000 patients per year. 15-25% of hospitalized patients receive urinary catheters during their hospital stay. Although these infections usually resolve in healthy patients after removal of the catheter, the infections can lead to a variety of serious complications such as bacteremia and rarely death. Each catheterized patient has a 3-7% daily risk of developing a CAUTI in the acute care setting.

Per the CDC indwelling urinary catheters should be inserted ONLY when necessary and left in place only for as long as necessary. Appropriate urinary catheter use includes:

- As acute urinary retention or bladder outlet obstruction.
- Obtain accurate output in critically ill patients.
- Selected surgical procedures.
- To assist in healing of open sacral or perineal wounds.
- Patient requires prolonged immobilization.
- To improve comfort for end of life care.

Urinary catheterization should not be used:

- As a means of obtaining urine for testing for patients who can voluntarily void.
- As a substitute for nursing care in the incontinent patient.
- Solely for the convenience of patient care personnel.

4 key components to prevent CAUTI from the provider perspective:

1. Insert for acceptable indications and by validated staff when possible.
2. Provider evaluates the patient daily to see if the patient still meets the indications for continued catheterization.
3. Proper catheter maintenance daily and as needed.
4. Prompt removal of the catheter when no longer indicated.

Hartford Hospital Universal Influenza Prevention Program

Influenza is a communicable disease that generally occurs during the late fall and winter months and can cause disability and death. Influenza is transmitted by respiratory droplets that can be propelled by coughing or sneezing, or conveyed by self-inoculation (touching a contaminated surface and then touching your eyes, nose or mouth). Adults can infect others the day prior to feeling ill. Healthcare workers can transmit the flu to their patients, co-workers and families. Transmission of the flu can be reduced or prevented by a combination of hand hygiene, covering coughs/sneezes, masking, staying home when ill, and vaccination. These practices are consistent with current accepted infection control recommendations and Hartford Hospital infection control practices. They are also consistent with the Hartford Hospital core values of Safety and Integrity. For these reasons, Hartford Hospital instituted an annual requirement for vaccination of employees and licensed independent practitioners (together referred to as "staff") for influenza prevention. An annual vaccination tag or exemption tag is required to be displayed with your hospital badge.

Exceptions to vaccination are made for verified medical contraindications or verified religious reason. Exempted staff members are required to wear a mask when in locations that present the potential for interaction with patients in areas such as, but not limited to, clinical units, hallways, and lobbies during the declared flu season.

Infection Control Precautions

STANDARD PRECAUTIONS	To reduce the risk of transmission of bloodborne and other pathogens in Hartford Hospital, STANDARD PRECAUTIONS are used. These precautions were previously referred to as UNIVERSAL PRECAUTIONS. Standard Precautions apply to all patients regardless of their diagnosis or infection status.
BARRIER PRECAUTIONS	<ul style="list-style-type: none"> ▪ All healthcare workers should routinely use appropriate barrier precautions to prevent skin and mucous membrane exposure when contact with body substances of any patient is anticipated. ▪ Gloves must be worn for touching any substance, mucous membrane, or non-intact skin of any patient, for handling items or surfaces soiled with body substances and for performing any vascular access procedures. Gloves must be worn when performing venipuncture. Gloves must be changed after contact with each patient. Hands must be washed with soap and water or waterless hand sanitizer before glove use and after glove removal. ▪ Protective eyewear and masks must be worn during procedures that are likely to generate droplets of blood or body fluids to prevent exposure of mucous membranes of the mouth, nose and eyes. <ul style="list-style-type: none"> ○ Glasses with side shields, goggles, surgical masks or face shields should be used. ▪ Moisture resistant gowns must be worn during procedures that are likely to result in contact with blood or other body fluids.
TRANSMISSION-BASED PRECAUTIONS	<p>Transmission-Based Precautions are designed for patients documented or suspected to be infected or colonized with highly transmissible or epidemiologically important pathogens for which additional precautions beyond Standard Precautions are needed to interrupt transmission.</p> <ul style="list-style-type: none"> ▪ Transmission-Based Precautions are indicated by signs posted outside the patient room. ▪ All staff entering room must follow the directions on the signs which indicate type of personal protective equipment required to enter the room. ▪ Failure to comply with use of personal protective equipment for any type of transmission-based precautions shall result in an isolation violation which will be reported to your supervisor or department chairman. ▪ Please refer to Infection Control Manual for complete listing of diseases/organisms to determine appropriate precautions and PPE required.
AIRBORNE PRECAUTIONS	<ul style="list-style-type: none"> ▪ Used for patients known or suspected of having a disease that is spread by the airborne route. ▪ Patient must be placed in a room with negative pressure. <ul style="list-style-type: none"> ○ The door to the room MUST BE CLOSED TO MAINTAIN NEGATIVE PRESSURE. ▪ Staff is required to wear a fit-tested N95 respirator to enter the room. Make sure that you wear the correct size respirator. Annual fit testing is required.
DROPLET PRECAUTIONS	<ul style="list-style-type: none"> ▪ Used for patients known or suspected to have illnesses transmitted by droplet transmission of infectious agents. ▪ Droplet transmission involves contact of the conjunctivae or mucous membranes of the nose or mouth of a susceptible person with large particle droplets containing microorganisms generated from a person who exhibits a clinical disease or who is a carrier of the microorganism. ▪ Droplet precautions require the use of a surgical mask or procedure mask by healthcare providers.
CHICKEN POX AND SHINGLES PRECAUTIONS	<ul style="list-style-type: none"> ▪ Indicated by a white sign placed outside the door. ▪ NON-immune staff should not enter room if possible. ▪ If non-immune person needs to enter room, an N-95 mask must be worn in addition to any other required PPE. ▪ Immune staff does not need to wear a mask, but must wear other required PPE.
PROTECTIVE ENVIRONMENT PRECAUTIONS	In addition to Transmission-based Precautions, we also have precautions for patients who are highly susceptible to communicable diseases.