Memorial Health

Infection Prevention & Control Education

For Licensed Independent Providers

Updated: April 2025

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According to the Centers for Disease Control and Prevention (CDC), each year, millions of people acquire an infection while receiving care, treatment, and services in a health care organization.

Consequently, healthcare associated infections (HAIs) are a patient safety issue affecting all types of health care organizations.

One of the most important ways to address HAIs is by improving hand hygiene of health care staff and physicians.

Hand Hygiene

To prevent the transmission of infections, you must use effective hand hygiene.

Always wash for a minimum of 15 seconds before rinsing. Scrub between fingers, around thumbs, and wrists. Pay attention to cuticles and fingernails.

You can use alcohol-based hand sanitizers instead of soap and water unless:

- Your hands are visibly soiled
- You have been in contact with a patient with diarrhea

Hand Hygiene

Hand hygiene should occur:

- When entering and exiting a patient room
- Before touching a patient
- Before clean/aseptic procedures
- After bodily fluid exposure/risk
- After touching a patient
- After touching patient surroundings
- Prior to donning gloves and after doffing gloves

Gloves are never a substitute for hand hygiene

PPE with standard and isolation precautions

Follow standard precautions and/or isolation precautions if applicable. By following standard precautions, you protect yourself and others from exposure to bloodborne pathogens and communicable diseases.

- Wear a mask that covers the nose and mouth along with goggles or face shield when performing procedures that may create splashes or sprays of blood or body fluids.
- Prescription glasses are not an adequate substitution for goggles.
- Wear a mask and eye protection when in close proximity (3ft) to a patient who is coughing or sneezing.
- Wear a gown when clothing could be soiled with blood or other body fluids.
- Wear gloves anytime you may have contact with blood or other body fluids or any potentially infectious material.
- Remember that wearing gloves does not replace hand washing.

Mycobacterium Tuberculosis (MTB)

- If a patient has signs and symptoms of TB, airborne isolation must be initiated.
- These patients must remain in airborne isolation until the diagnosis of MTB has been ruled out or until they begin responding to therapy.
  - The infection prevention department must be consulted to discontinue airborne isolation.
- Patients are no longer considered contagious when 3 sputum AFB smears are negative, collected at least 8-24 hours apart.
- If discharge before clearance, the health department will be notified to follow the patient.

Influenza (Flu)

Flu is transmitted via respiratory droplets.

- Frequent hand hygiene is critical.
- The single best way to prevent the flu is to get the flu vaccine each season.
- It takes approximately 14 days after receiving the flu vaccine to be fully protected against the flu
- The flu vaccine for employees is mandatory at Memorial Health. Medical or religious exemptions will be subject to review.
- Droplet isolation is required for 7 days, even when treated with antiviral therapy.

COVID-19

Patients are managed with airborne and contact isolation precautions. An Infection Prevention policy is available on the JMH intranet.

Isolation precautions may be discontinued with IP evaluation and approval.

You must be fit tested annually to safely wear a N-95

Catheter Associated Urinary Tract Infection (CAUTI)

CAUTIs are the most common healthcare associated infection.

CAUTIS increases the hospital length of stay by 2-4 days and contributes to unnecessary antimicrobial use.

CAUTI Prevention

Insert catheters only for appropriate indications:

Urinary retention/obstruction, critically ill for accurate output measurement, medical immobility requirement, patient end of life, perioperative in selected procedures for short term use, assisting in pressure ulcer healing for incontinent patients.

- Leave catheters in place only as long as needed
- Only properly trained person insert and maintain catheters using aseptic technique and sterile equipment
- Maintain a closed drainage system
- Maintain unobstructed urine flow
- Hand hygiene and standard precautions

CAUTI Prevention

Consider alternative to indwelling urinary catheterization

Physician responsibility:

Review urinary catheter necessity daily and remove promptly when not needed

Nursing staff provide further education to patient and families related to CAUTI prevention

Central Line Associated Blood Stream Infection (CLABSI)

Infection is the most common life-threatening complication associated with CVCs. Each catheter related blood stream infection is life threatening, preventable, and cost approximately $50,000.

What can physicians do to prevent central line infections?

- Insert CVCs only when indicated
- Use aseptic insertion technique
- Appropriate line maintenance
- Question the necessity of the line daily
- Discontinue as soon as possible

What are the appropriate indications for central line use?

- Hemodialysis, CRRT, or plasmapheresis
- Frequent administration of blood products
- Hemodynamic monitoring
- Required medications that likely cause phlebitis peripherally (chemo, TPN, vasoactive medications)
- Long-term antibiotic therapy (5 days to 6 months)

What is appropriate central line maintenance?

- Aseptic technique with line insertion and each access
- Hand hygiene before contact with the line
- Scrub the hub for at least 15 seconds prior to line use
- Completing aseptic technique with dressing changes
- Needleless connectors changed every 7 days and PRN
- Question necessity of line at least daily
  - Does the patient have any indications for use?
  - How long has the line been in place?
  - Can a peripheral line be used?

Proper line maintenance is the key to reducing these infections!

How should line complications be handled?

Interventions to stop bleeding at the catheter site must be with sterile technique

For no blood return, or sluggish blood return, CathFlo (Activace) should be used to try and save the line

If migration of the line is suspected, DO NOT push the catheter back into place as bacteria on the catheter may be introduced to the bloodstream.

MDROs, Antimicrobial Stewardship, and You

Much work is occurring to bring national and regulatory attention to the growing problem of antimicrobial resistance.

Strategies to slow the emergence of resistance organisms while limiting the unintended consequences of developing Clostridium difficile is every provider's responsibility.

MDRO management in the hospital utilizes a multifaceted, evidence-based approach with 3 parallel strategies.

Examples are included but the lists is not all inclusive…

1. Infection Prevention

- **Hand hygiene before and after every patient encounter**
- **Aseptic technique used in all invasive procedures**
- **Targeted infection surveillance to provide feedback on infection prevalence and defects identified**

MDROs, Antimicrobial Stewardship, and You

2. Prudent use of antimicrobials:

- Formulary restriction
- Use of facility's antibiogram for organism trends and sensitivities
- Treating only infections, not colonization.

3. Preventing transmission

- Transmission based isolation precautions for MDROs identified with alerts for readmission notification
- Appropriate cleaning of all equipment used in patient care environments and adjunct environmental cleaning with TRU-D ultraviolet light disinfection for patient rooms identified with MDROs.

Surgical Site Infection (SSI) Prevention

Surgical site infections (SSIs) are a serious health concern. Approximately 500,000 SSIs occur every year with significant morbidity and mortality for patients and additional costs for hospitals. Two thirds of the SSIs will be confined to the incision and one third will be confined to the organ or spaces accessed during the surgical procedure.

Most SSIs come from the patient's own endogenous flora such as skin, mucous membranes, or hollow viscera.

Exogenous sources include surgical personnel, operating room environment, and all tools, instruments, and material on the field during the operation.

SSI Prevention:

The Center for Disease Control and Prevention (CDC) has made the following recommendations to prevent SSIs:

- Do not removal hair preoperatively unless the hair is at or around the incision site and will interfere with the operation.
- If hair removal is necessary, use a clipper

Current evidence shows a relationship between hyperglycemia (glucose>200) during the first 48 hours following surgery and an increased risk for SSI

- Tight glucose level control during the perioperative period may lead to better SSI outcomes in diabetic and non-diabetic patients
- Patients should be encouraged to stop using tobacco products (cigarettes, cigars, pipes, or chewing/dipping tobacco) for a minimum of 30 days before elective procedures.
- If the area around the surgical site is grossly contaminated, the CDC recommends removing the gross contamination before beginning the surgical skin prep.

Surgical Hand Antisepsis

- Fingernails should be short and free of artificial nails
- A traditional, standardized, anatomical timed brush scrub may be used for surgical hand antisepsis
- After performing the surgical brush scrub, keep hands up and away from the body, so that water runs from the tips of the fingers towards the elbows.
- Hand must be completely dried prior to donning a sterile gown and gloves
- Alcohol-based surgical hand antisepsis may also be performed
- This product must be rubbed in until thoroughly dry prior to donning a sterile gown and gloves. Do not towel off this product.

Pre-op Antibiotics

It is important to ensure the antibiotics are timed such that the optimal concentration is in the serum/tissue at the time the incision is made.

Jacksonville Memorial Hospital follows the American Society of Health0System Pharmacists (ASHP), Surgical Infection Society (SIS), and the Society for Healthcare Epidemiology of America (SHEA) guidelines for antimicrobial prophylaxis in surgery.

https://www.ashp.org/surgical-guidelines

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