



FY 23 Infection Prevention Education

For Licensed Independent Providers



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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, health care-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 the hand hygiene of health care staff and physicians

Hand Hygiene

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

- Before and after every patient encounter and after glove removal
- Always wash for a minimum of 15 seconds before rinsing o 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 always occur:

- Before touching a patient.
- Before clean/aseptic procedures.
- After body fluid exposure/risk.
- After touching a patient.
- After touching patient surroundings.
- Prior to donning gloves and after removing gloves.

GLOVES ARE NEVER A SUBSTITUTE FOR HAND HYGIENE!



Personal protective equipment (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 a face shield when performing procedures that may create splashes or sprays of blood or body fluids.
- **Prescription glasses are not adequate substitutes for goggles**
- Wear a mask and eye protection when in close proximity (3 ft) to a patient who is coughing or sneezing.
 - Wear a gown when your 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 will 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 discharged before clearance the health department will be notified to follow the patient



Influenza (Flu)

It has been documented that the flu can be transmitted from patients to healthcare workers and from healthcare workers to patients

- 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 Jacksonville Memorial Hospital Hospital. Medical or religion 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 Infection prevention evaluation and approval

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

Health care providers must adhere to universal masking in public/ patient care areas until Memorial Health declares masks are optional (based on System unity and COVID-19 community transmission levels

The COVID-19 vaccine is mandatory for all JMH employees. Religious and medical exemptions are subject to review.



Catheter Associated Urinary Tract Infection (CAUTI)

Catheter associated urinary tract infections, often referred to as CAUTI, is the most common healthcare associated infections (HAI).

Thirty percent of all HAIs reported are CAUTIs. Annually, there are 13,000 deaths attributed to these infections.

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

There are core and supplemental measures all organizations and providers should follow to prevent catheter associated urinary tract infections.

Core measures are a set of standards that have been shown, through scientific evidence to improve patient outcomes.

Supplemental measures are additional interventions or actions that could further improve outcomes if an organization chooses to implement.



CAUTI Prevention Core Measures:

Insert catheters only for **appropriate indications**:

Urinary retention/ Obstruction, Critically ill (ICCU status) 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 persons insert and maintain catheters • Insert catheters using aseptic technique and sterile equipment
- Maintain a closed drainage system
- Maintain unobstructed urine flow
- Hand hygiene and standard precautions



CAUTI Prevention Supplemental Measures:

- Alternatives to indwelling urinary catheterization
- Portable ultrasound devices to reduce unnecessary catheterizations
- Antimicrobial /antiseptic impregnated catheters.

Physician Responsibility:

Review urinary catheter necessity daily and remove promptly when not needed.

Memorial Health System has implemented all of the core measures with improved outcomes.

Nursing staff provide further education to patients 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, is preventable, and costs 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
 - Patient requires medications that likely cause phlebitis peripherally (e.g. chemo, TPN, vasoactive meds)
- 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 any contact with the line
- Scrub the hub for at least 15 seconds prior to use of the line
- Complete aseptic technique with dressing changes
- Needleless connectors must be changed every 7 days and PRN
- Question necessity of the line at least daily
- Does my 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 done with **sterile technique**
 - For no blood return, or sluggish blood return, **CathFlo (Activace)** **should be used to 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 into 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 resistant organisms while limiting the unintended consequences of developing of *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 list is not all inclusive...

1. Infection Prevention

- **hand hygiene before and after every patient encounter,**
- **aseptic technique used in all invasive procedures,**
- **and 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 the facility's antibiogram for organism trends and sensitivities,
- treat an infection, not colonization.

3. Prevent Transmission

- Transmission based isolation precautions for MDRO's 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's rooms identified with MDRO's.



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 these SSIs will be confined to the incision and one third will be confined to the organ or spaces accessed during the surgical procedure.

The majority of 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 remove 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.
- Hands 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 that 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 Health-System Pharmacists (ASHP), Surgical Infection Society (SIS), and the Society for Healthcare Epidemiology of America (SHEA) guidelines for antimicrobial prophylaxis in surgery.

Please refer to the Infection Prevention policy:

Antimicrobial Prophylaxis for Surgical Procedures



TCU Antibiotic Utilization

JMH Transitional Care Unit cares for an elderly population with many co-morbidities. Antimicrobial therapy must be used judiciously to avoid resident complications such as renal failure and C difficile infections.

Considerations:

- Always follow clinical pathways or recommended treatment guidelines
- De-escalate antibiotics when culture results are available
- Transition from IV to PO when possible
- Document a reason for the antibiotic therapy, and a stop date

JMH reports TCU antibiotic utilization to NHSN



TCU Antibiotic Utilization

For FY22, the table below represents TCU data that is being collected and reported to NHSN. Infection Prevention & Pharmacists monitor the data for trends.

TCU antimicrobial stewardship				
month	urine cultures ordered	new abx for UTI	new antimicrobial starts (all reasons doc)	met NHSN criteria for UTI
Oct-21	3	2	4	0
Nov-21	3	1	1	0
Dec-21	4	3	3	0
Jan-22	3	2	2	1 SUTI
Feb-22	3	1	1	0
Mar-22	3	0	1	0
Apr-22	2	0	1	0
May-22	1	0	4	0
Jun-22	2	0	5	0
Jul-22	5	3	6	0
Aug-22	4	2	11	0
Sep-22	7	4	11	0
fy 22	40	18	50	1





[memorial.health](https://www.memorial.health)

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