



CLINICAL POLICY

Indwelling Urinary Catheter/Straight Catheterization/Suprapubic Catheter: Insertion, Routine Care and Irrigation

A. EFFECTIVE DATE:

May 25, 2022

B. PURPOSE:

To maintain compliance with evidence-based guidelines with the goal of preventing catheter-associated urinary tract infections (CAUTIs).

C. POLICY:

All staff will adhere to the evidence-based guidelines for indwelling urinary catheter insertion, assessment and documentation, performance of routine catheter care, catheter irrigation, and obtaining urine specimens, utilizing the catheter-associated urinary tract infection (CAUTI) bundle according to the procedures outlined below.

D. SCOPE:

This policy applies to all inpatient units, Emergency Department, and procedural areas in which patients have indwelling urinary catheters.

E. DEFINITIONS:

1. CAUTI: A urinary tract infection that occurs in a patient who has had an indwelling urinary catheter in place for greater than two calendar days before onset of the event or within one calendar day after removal of indwelling urinary catheter. A catheter is defined as a drainage tube that is inserted into the bladder through the urethra, is left in place, and is connected to a closed drainage system. The catheter is sometimes called a "Foley catheter" or indwelling urinary catheter. CAUTI surveillance does not include straight in-and-out catheterizations. Suprapubic catheters and other urological diversions are also not included in CAUTI surveillance.

2. PREVENTION BUNDLE: Avoid unnecessary urinary catheters; Insert urinary catheters using aseptic technique; Maintain catheters based on recommended guidelines (daily care); Review catheter necessity daily and remove promptly when no longer needed.

F. ACUTE URINARY RETENTION: PRE-INDWELLING URINARY CATHETER INSERTION PROTOCOL

MATERIAL(S) NEEDED:

Bladder scanner, gloves, straight-catheterization kit.

PROCEDURE:

If patient is unable to spontaneously void and acute urinary retention is suspected, the Registered Nurse will perform the following BEFORE placing an indwelling urinary catheter:

1. Perform bladder scan (Nurse Aid or Medical Assistant may perform bladder scan as delegated by the Registered Nurse).

*Note a patient exhibiting symptoms of urinary retention including abdominal and/or suprapubic discomfort, restlessness, or distress will require intervention regardless of bladder scan volume.

a. If bladder scan is > 300mL (>500ml for orthopedic surgery patients), the patient has not voided, and acute urinary retention is suspected, the Registered Nurse shall contact the provider to determine if intermittent straight catheterization is needed

If intermittent straight catheterization is needed and ordered:

- i. Straight catheterize patient x 1
- ii. Assess for spontaneous voiding and monitor urinary output for the next 4 hours

b. If bladder scan is < 300mL (<500ml for orthopedic surgery patients), continue to monitor and provide adjunct therapy to promote spontaneous voiding. Perform bladder scan as needed and follow steps 1(a) if bladder scan exceeds 300mL (500ml for orthopedic surgery patients)

2. If patient does not void within the next 4 hours or is experiencing discomfort, perform bladder scan and repeat steps 1(a) or 1(b). Perform a maximum of two straight catheterization attempts.
3. If patient does not void within the next 4 hours, or experiences discomfort, perform bladder scan again and collaborate with provider about appropriateness of continued intermittent straight catheterization versus indwelling urinary catheter insertion.
4. Document all urine output and interventions in the medical record, including:
 - a. Bladder scan time(s) and urine volume of each
 - b. All urine output from spontaneous voiding and from straight catheterization(s)

Relevant assessment findings (dysuria, bladder distention, feelings of bladder fullness or discomfort, lack of sensation to void)

G. INDWELLING URINARY CATHETER PROTOCOL

MATERIAL(S) NEEDED:

Indwelling urinary catheter kit, gloves.

PROCEDURE:

Once indwelling urinary catheter is ordered and inserted for the appropriate indications:

- a. Need for continuing use of indwelling catheters is evaluated daily and documented on the Pelvis/Genitourinary (GU) tab of the assessment flowsheet in the medical record. Refer to the [Urinary Catheter \(Indwelling\): Order and Removal Protocol](#)
- b. The daily review will include consideration of alternative methods of maintaining continence

1. Hand hygiene must be performed before and after handling of the catheter site or apparatus.
2. Gloves must be worn during any manipulation of the catheter or collecting system.
3. Routine catheter/perineal care is performed once a shift, as needed, or following any episode of fecal incontinence. Periurethral use of antiseptics is to be avoided while the catheter is in place.
4. Urinary catheters must be securely anchored to the upper anterior thigh to prevent excessive tension on the catheter which can lead to urethral trauma and tears.
5. Indwelling urinary catheter stabilization device used to anchor catheters must be changed every 7 days and include the date of application and staff member's initials on the anchor pad. Changing the site location from one leg to another is recommended in order to prevent skin irritation.
6. Catheters and drainage bags are changed only when clinically necessary, for example with specimen collection, infection, obstruction, or compromise of the closed system.
7. All indwelling catheters must be connected to a sterile, closed urinary drainage system. When possible, a system with pre-connected and sealed catheter-tubing junctions should be used.
 - a. If any breaks in aseptic technique, disconnection, or leakage occur when a pre-connected, tamper-proof catheter/collection system is used, the entire system (new insertion kit) should be replaced using aseptic technique and sterile equipment (catheters placed by urology may be exempt from this recommendation)
8. Exceptions to a pre-connected and sealed urinary drainage system are patients receiving frequent urinary catheter irrigations as a result of clot clearance, continuous bladder irrigations, need for bladder pressure monitoring, or patients who are undergoing leg bag teaching.
9. The urinary catheter drainage system must be maintained to allow unobstructed urine flow, including:
 - a. Keeping the catheter and collection tubing free from kinking and dependent loops by arranging the drainage tubing in a straight line, over the patient's leg and securing the tubing to the sheets with the attached green sheet clip
 - b. Positioning urinary drainage bags below the level of the bladder at all times to prevent reflux of contaminated urine from the bag to the bladder. Bags must never rest on the floor, on top of the patient, or on top of a bed or stretcher
 - c. Empty drainage bags frequently enough to maintain urine flow and prevent reflux, usually when they are one- half to two-thirds full, and prior to patient transport
 - i. A separate clean collection container is used for each patient
 - ii. Care is taken to avoid splashing and to prevent contact between the drainage spigot and the non-sterile collecting container
 - iii. The end of the bag spigot is wiped clean with an alcohol wipe after emptying
10. All new urinary drainage bags must be dated. The tamper-proof catheter collection systems provide an orange square sticker for placement on the drainage bag to allow for the documentation of the date, time, department and initials.
11. It is a recommendation that patients with a chronic indwelling urinary catheter in place upon admission should have the catheter replaced prior to collecting urine specimens as ordered by the provider. The information must be documented in the medical record.
12. Urine samples for laboratory testing (e.g. urinalysis or culture) must never be obtained from the drainage bag – refer to "Obtaining Urine Specimens from Indwelling Urinary Catheters" procedure below.

13. Routine irrigation of the bladder is not recommended and requires a practitioner order.

H. INSERTION OF INDWELLING AND STRAIGHT URINARY CATHETERS

MATERIAL(S) NEEDED:

Indwelling urinary catheter insertion kit or urinary straight catheterization kit, gloves

PROCEDURE:

A process entailing two Registered Nurses is required for insertion of all indwelling urinary catheters (with the exception of procedural areas where sterile procedures are performed).

1. The observing RN's responsibility is to:

- a. Confirm catheter appropriateness
 - b. Ensure proper technique and procedure is maintained throughout the insertion
 - c. Ensure supplies for aseptic technique are readily available
 - d. Stop the line if the sterile technique is compromised to prevent CAUTI
2. Insertion technique: Refer to Elsevier Clinical Skills page labeled: [Urinary Catheter: Straight and Indwelling \(Foley\) Catheter Insertion and Specimen Collection \(Female\)](#)

OR

3. [Urinary Catheter: Straight and Indwelling \(Foley\), and Coudé Catheter Insertion and Specimen Collection \(Male\)](#) and follow quick sheet

I. INSERTION OF SUPRAPUBIC CATHETER

Refer to primary providing team and/or urology for insertion and replacement of suprapubic catheters

J. ROUTINE CARE OF INDWELLING URINARY CATHETERS

MATERIAL(S) NEEDED:

No-rinse, self-sudsing, disposable wash cloths, gloves.

PROCEDURE:

The RN, CNA, or MA will:

1. Perform routine catheter care once a shift. Refer to Elsevier Clinical Skills page labeled: [Urinary Catheter: Indwelling \(Foley\) Catheter Care](#) and follow quick sheet instructions using no-rinse, self-sudsing, disposable wash cloths.
2. Report to the practitioner any pain associated with the catheter, any suspicion of catheter blockage or temperature > 101°F or 100.4°F in neutropenic patients.

K. ROUTINE CARE OF SUPRAPUBIC CATHETERS

MATERIAL(S) NEEDED:

No-rinse, self-sudsing, disposable wash cloths, gloves.

PROCEDURE:

The RN, CNA, or MA will:

1. Perform routine catheter care once a shift. Refer to Elsevier Clinical Skills page labeled: [Urinary Catheter: Suprapubic Catheter Care](#) and follow quick sheet instructions using no-rinse, self-sudsing, disposable wash cloths.

2. Report to the practitioner any pain associated with the catheter, any suspicion of catheter blockage or temperature > 101°F or 100.4°F in neutropenic patients.

J. EMPTYING URINARY DRAINAGE BAG

MATERIALS NEEDED:

Gloves, measuring container, alcohol wipe.

PROCEDURE:

The RN, CNA or MA will:

1. Perform hand hygiene and don gloves.
2. Unhook the emptying spout from its holder on the drainage bag.
3. Position the measuring container underneath the emptying spout.
4. Unclamp the emptying spout and allow all of the urine to drain into the measuring container, being sure to avoid touching the tip of the spout with hands, side of the measuring container or the floor.
5. Re-clamp the empty spout after all urine has drained.
6. Wipe the emptying spout with an alcohol wipe and return it to its holder.
7. Document the urine output in the medical record.

K. MANUAL IRRIGATION OF INDWELLING URINARY CATHETERS

MATERIALS NEEDED:

- a. Small blue underpad (Chux)
- b. Sterile irrigation kit
- c. Sterile urinary catheter plug with cap
- d. Irrigation fluid: sterile normal saline (unless otherwise specified)
- e. Sterile gloves
- f. Non-Sterile gloves
- g. Sterile drape
- h. Chlorhexidine wipes
- i. Non-sterile drainage container
- j. Gown and goggles-PPE is used in anticipation of potential splashing

PROCEDURE:

The purpose of manual indwelling catheter irrigation is to flush mineral deposits, mucous shreds, or clots preventing constant drainage of urine from the catheter tube. This procedure should not be routinely utilized for troubleshooting decreased urine output in the absence of mineral deposits, mucous, clots, or hematuria and requires a provider order. A break in the pre-connected, sealed catheter-tubing junction, or disconnection of tubing, contributes to increased risk of infection and possible CAUTI. **Irrigation of the catheter should be used as a last resort.** The RN will:

1. Consider troubleshooting techniques prior to irrigation:

- a. Attempt to restore urine flow by inspecting the drainage system for obstructions, or by very gently “milking” the tubing to clear possible blockage, milk toward the bag
 - b. Assess the possible cause of plugging: infection, inadequate fluid intake, alteration of pH of urine
2. In the event that catheter irrigation is indicated: verify provider order. Note: RNs should not perform manual bladder irrigation on patients with open bladder or renal transplant, refer to urology
3. Explain the procedure to the patient.
4. Gather materials needed (as listed above) and place on a cleansurface.
5. Perform hand hygiene and ensure aseptic technique will be used during irrigation procedure.
6. Assemble equipment.
7. Pour sterile normal saline (approximately 200mL) into sterile irrigation kit container.
8. Place patient in semi-reclining position with a waterproof, absorbent pad under buttocks and a drape over pubic area to avoid exposure.
9. Put on sterile gloves.
10. Cleanse junction of catheter and drainage tubing thoroughly with chlorhexidine wipe.
11. Carefully disconnect tubing from catheter, holding the catheter upright, cap the drainage tube with sterile cap from catheter plug package. Secure drainage tubing close to patient on bed.
12. Connect syringe to catheter and gently aspirate in an attempt to dislodge mineral deposits, mucous, or clots. If initial aspiration restores flow, proceed to step 15. If flow is not restored, proceed to step 13.
13. Draw up 60mL of sterile normal saline into syringe and gently irrigate catheter by flushing in and drawing back to evacuate any clot or debris. If resistance is encountered reasonable pressure can be used (except in renal transplant or bladder surgery). Empty each returned syringe directly into non-sterile container making sure not to contaminate sterile syringe.
14. Repeat irrigation procedure until urine is free from clot or debris.
15. Cleanse the end of the catheter and the end of the tubing with a clean chlorhexidine wipe after removing protective cap and aseptically reconnect the urinary catheter to the drainage bag tubing.
16. Discard irrigation returns in toilet.
17. Perform hand hygiene.
18. Calculate the difference between volume infused and volume returned and document in the medical record.
19. Document in the patient’s medical record:
 - a. Type and amount of irrigant used
 - b. Color and characteristic of the returning fluid
 - c. Communication with provider, including any difficulty irrigating the catheter

L. OBTAINING URINE SPECIMENS FROM INDWELLING/ SUPRAPUBIC URINARY CATHETERS

MATERIALS NEEDED:

Specimen containers, alcohol impregnated caps, CHG wipes, gloves.

PROCEDURE:

1. Urine specimen best practice recommendation: urinary and suprapubic* catheters indwelling for longer than 48 hours should be replaced prior to collection of urinalysis or urine culture (difficult insertion or urology patients may be exempt from this recommendation). Always contact provider for collaboration and order.

2. Specimen collection from indwelling urinary catheter: Refer to Elsevier Clinical Skills page labeled: [Specimen Collection: Urine from Indwelling \(Foley\) Catheter](#) and follow quick sheet instructions.

Alcohol impregnated caps should be placed on the specimen sampling ports. Remove cap and cleanse specimen sampling port with CHG wipe prior to specimen collection.

*Suprapubic catheters are to be inserted/replaced by a competent provider

M. DOCUMENTATION

MATERIALS NEEDED:

None

PROCEDURE:

The Registered Nurse must document in the patient's clinical record:

1. Date and time of catheter upon insertion/removal
2. Type and size of catheter upon insertion
3. Second Registered Nurse's name upon insertion
4. RN must choose appropriate indication for catheter insertion

N. EDUCATION

MATERIALS NEEDED:

Varied

PROCEDURE:

Education should include staff involved in managing indwelling urinary catheters and the importance of prevention. Ongoing education for staff (including practitioners) should also include appropriate indications for urinary catheter use and the proper care and maintenance of catheters. Patient education, including education card located in indwelling urinary catheter insertion kit, is to be given to patient and/or family to assist in preventing Catheter Associated Urinary Tract Infections.

O. MONITORING

MATERIALS:

None

PROCEDURE:

Catheter Associated Urinary Tract Infections (CAUTIs) will be monitored by the Infection Prevention Department. Results will be presented to key stakeholders.

P. ATTACHMENTS

[Appendix 1: URINARY CATHETER INDICATIONS AND NON-INDICATIONS: The Urinary Catheter Pocket Card](#)

Q. REFERENCES:

Magers, TL. Using Evidence-Based Practice to Reduce Catheter-Associated Urinary Catheter Infections. (2013) AJN. 113(6): 34-42.

2009 CDC CAUTI Prevention Guidelines.

R. SEARCH WORDS:

Catheter, Foley, Urinary.

S. ENFORCEMENT:

Violations of this policy or associated procedures may result in appropriate disciplinary measures in accordance with University By-Laws, General Rules of Conduct for All University Employees, applicable collective bargaining agreements, the University of Connecticut Student Code, other applicable University Policies, or as outlined in any procedures document related to this policy.

T. STAKEHOLDER APPROVALS:

On file

U. COMMITTEE APPROVALS:

Nursing Standards Committee

V. FINAL APPROVAL:

- | | |
|---|---------------------------|
| 1. <u>Bruce T. Liang, MD (Signed)</u>
Bruce T. Liang, MD
Interim Chief Executive Officer & EVP for Health Affairs
Dean, School of Medicine | <u>06/06/2022</u>
Date |
| 2. <u>Anne Horbatuck (Signed)</u>
Anne D. Horbatuck, RN, BSN, MBA
Clinical Policy Committee Co-Chair | <u>05/27/2022</u>
Date |
| 3. <u>Scott Allen, MD (Signed)</u>
Scott Allen, MD
Clinical Policy Committee Co-Chair | <u>06/03/2022</u>
Date |
| 4. <u>Caryl Ryan (Signed)</u>
Caryl Ryan, MS, BSN, RN
Chief Operating Officer, JDH
VP Quality and Patient Services & Chief Nursing Officer | <u>06/03/2022</u>
Date |

W. REVISION HISTORY :

Approved: 4/21/2020

Revised: 5/25/22

Reviewed: