

Urinary Catheterization

Site Applicability

All PHC sites

Skill Level:

Indwelling/Intermittent Catheters:

Profession	Setting	Skill Level	Additional Education Requirements
RN/NP, RPN or LPN, ESN	All sites	Basic	None

Coudé Tip Catheters:

Profession	Setting	Skill Level	Additional Education Requirements
RN/RPN/NP	All sites	Basic	None
LPN	All sites	With additional education	Successful completion of additional education in Appendix B
ESN	All sites	With collaborative support of an RN and additional education	Successful completion of additional education in Appendix B

Requirements

1. An order is required for insertion of an indwelling urinary catheter.
2. RNs and RPNs are authorized to insert intermittent urinary catheters as a **Nurse Initiated Activity** without an order where a nursing diagnosis of urinary retention is made.
3. An order is required for lidocaine jelly.
4. An indwelling urinary catheter may be removed at the nurse's discretion except in the following circumstances:
 - a. There is documentation of a difficult insertion.
 - b. Patient underwent bladder / uro-gynecological or rectal surgery.
 - c. Any time there is an order to the contrary.

Need To Know:

- Potential contraindications to nurse-initiated catheterization:
 - trauma or recent surgery to bladder, prostate or urinary tract – obtain order (in some cases urologist will be required to insert catheter).
 - history of urological carcinoma or enlarged prostate – proceed with caution, collaborate with physician/NP prior to catheterization.
- Indication for insertion of catheter must be documented in the patient chart.
- Indications for catheterization include (See [Appendix A](#)) :
 - Peri-operative for selected surgical procedures or as required for bladder irrigation.
 - Urinary retention – unresolved with intermittent catheterization.
 - Strict monitoring of urine output and no other means are sufficient.
 - Perinatal care:
 - Before an instrumental/assisted delivery.
 - Management of severe or worsening pre-eclampsia.
 - Retention associated with epidural pain management during labour.
 - Facilitation of healing of sacral or perineal Stage III or IV pressure injuries/wounds/incisions/donor sites or flaps.
 - Immobilization with inability to void with alternative measures (e.g. urinals, condom catheter, and intermittent catheterization).
 - Improved comfort for end-of-life care.
- Components of care recommended for all patients to prevent or reduce the risk of catheter-associated UTI include:

1. Avoid unnecessary urinary catheters
 2. Insert urinary catheters using sterile technique. Use smallest catheter size that allows for proper drainage.
 3. Ensure daily consideration of catheter necessity and remove promptly.
 4. Follow best practice guidelines for maintaining catheters:
 - Regular catheter care. Minimum twice a day and after bowel movements.
 - Keep the drainage bag closed and below the level of the bladder,
 - Ensure adequate fluid intake,
 - Use clean, patient specific, single use measuring container to empty bag. Do not reuse.
- Nurses at Providence Health Care will adhere to the above components of care, embedded in the [Urinary Catheters: Management for the Prevention of UTI](#) protocol in order to prevent catheter-associated UTIs.

- Routine changes of catheters are not recommended
- Catheter irrigation is not recommended (except irrigation as ordered e.g. following urological surgery/procedures or to manage hematuria).
- A Coudé tip catheter is used to bypass an obstruction such as an enlarged prostate that may make a regular tip catheter difficult to insert. A Coudé tip catheter has a firmer, narrowed, rounded and curved tip in comparison to a standard Foley catheter.
- A separate order is not required for a Coudé tip catheter if there is an existing order to insert an indwelling catheter.
- When inserting a Coudé tip catheter the rounded tip needs to be facing upwards. Failure to do so could result in damage to the urethral wall. Do not rotate the catheter while inserting it. The balloon inflation port indicates the direction of the curved tip and should be facing upwards at all times during insertion.


Equipment and Supplies:



1. Pericare/ catheter care supplies (e.g. disposable wash cloth and pH-balanced cleanser, pre-moistened perineal wipes)
2. Disposable catheter insertion tray
3. Chlorhexidine (CHG) 2% un-tinted antiseptic solution - 100 mL bottle
*** use Normal Saline (NS) 500 mL bottle if allergy or sensitivity to CHG present***
4. Sterile specimen container (order required to send to lab)
5. Labeled graduated cylinder
6. Lidocaine jelly (Urojet) as ordered (for larger catheter sizes, Coudé or 3 way catheter insertion)
7. 2 Sterile catheters – smallest gauge possible to reduce urethral trauma (regular Foley usually 12 to 14 Fr for females, 14 to 16 Fr, for males. Small size FR (12 or below) are not used for catheterization in males as advancing to the hub can result in catheter looping back into the urethra)
 - For Coudé tip catheters – sizes 14 to 16 Fr are the recommended sizes for males, however, other sizes may be used if clinically indicated.
 - For Intermittent Catheterizations - use clear straight catheter
 - For short and long term catheterizations – use Lubricath catheter
 - For continuous bladder irrigation, use 3-way catheter
 - For allergy to latex – use silicone coated or hydro-gel coated catheter

For indwelling catheter:

8. 10 mL syringe if changing indwelling catheter (to empty balloon) (check balloon volume on the catheter itself)
9. Sterile urinary drainage bag (bag with urometer only if hourly in & out measurement)
10. Catheter fixation device (e.g. Statlock or Cath-secure)

Procedure:

Steps	
1.	Assess for allergy/ sensitivity to chlorhexidine. If patient has known or suspected allergy to chlorhexidine, use Normal Saline as cleansing agent.
2.	Gather equipment.
3.	Explain procedure to the patient/resident.
4.	Perform hand hygiene.
5.	Assist patient into supine position with legs spread and feet together (females). Whenever possible have a second person to assist for patient positioning &/or light source.
6.	Perform peri care.
7.	Perform hand hygiene.
8.	Open catheterization kit and catheter. Prepare sterile field.
9.	Add meatal preparation solution (chlorhexidine or normal saline) to tray.
10.	Apply sterile gloves.
11.	Check balloon port for required inflation volume (do not inflate balloon prior to insertion) to ensure you have the appropriate sized syringe with sterile water.
12.	Generously coat the distal portion (2 to 5 cm) of the catheter with lubricant.
13.	Apply sterile drape. 
14.	For females, separate labia using non-dominant hand. For males, hold the penis with the non dominant hand.
15.	To instill the lidocaine jelly on males; with the non-dominant hand, lift the penis to a position perpendicular to patient/resident's body and apply light upward traction. Using the dominant hand, instill the lidocaine jelly into the urethra as per instructions. Hold the penis such that the meatus is held closed to prevent jelly from draining out. Hold for 1-2 minutes to allow lidocaine to take effect. Continue holding the penis with the non-dominant hand.
16.	Using dominant hand to handle forceps, cleanse per-urethral mucosa with chlorhexidine or NS (if allergy to chlorhexidine). For female: cleanse a wiping front to back, one swipe per swab. Wipe the far labial fold, the near labial fold, and directly over center of urethral meatus. Discard swab away from sterile field. For males; cleanse in circular motion from urethral meatus down to base of glans. Repeat three times using new cotton each time.
17.	Pick up catheter with (still sterile) dominant hand. Hold end of catheter loosely coiled in palm.

18.	In males, lift the penis to a position perpendicular to patient body and apply light upward traction (with non-dominant hand)
19.	<p>Identify the urinary meatus and gently insert.</p> <p>*NOTE: for Coudé tip catheter, gently insert with curved tip pointing up. The balloon port indicates the direction of the tip and should be up at all times during insertion. Do not rotate the catheter when inserting Coudé.</p>  <p>DO NOT FORCE. If you meet resistance with insertion, hold the catheter in place and ask the patient to take several deep breaths, then continue to try and insert. If you continue to meet resistance, remove catheter and notify the MRP</p>
20.	When urine flows; for males, continue to advance the catheter and continue to insert until it is close to the hub. For females, continue to advance the catheter until approximately half the length of the catheter has been inserted.
21.	Collect urine specimen into sterile container (if required; see equipment # 3)
22.	Intermittent insertion - allow drainage of urine into sterile container until there is no more flow. Evaluate amount, colour, odor and quality of urine. Remove catheter when no further urine flow
23.	<p>Indwelling catheter - Inflate balloon, using correct amount of sterile water (usually 10 mL) - volume required printed on balloon valve and exterior packaging of product – see image)</p> 
24.	Gently pull catheter until inflated balloon is snug against bladder neck.
25.	Connect catheter to drainage system.
26.	Secure catheter without tension on tubing using fixation device. For males, secure to the anterior upper thigh to prevent downward traction. For females, secure to the mid/lower thigh.

27.	Place drainage bag below level of bladder.
28.	Evaluate catheter function and amount, color, odor, and quality of urine.
29.	Perform catheter care to remove any residual chlorhexidine or lubricant.
30.	Remove gloves, dispose of equipment appropriately, wash hands.

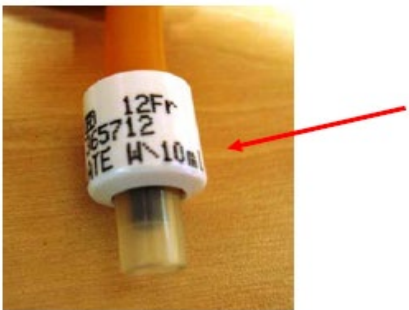
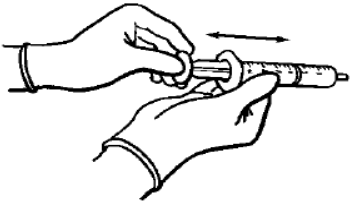
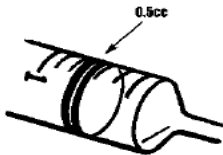
Adapted From the University of Ottawa Department of Emergency Medicine Medical & Surgical Clinical Procedures.
<http://www.med.uottawa.ca/procedures/ucath/>, Elsevier Skills and VCH Practice Guideline D-00-12-30109

Following Insertion

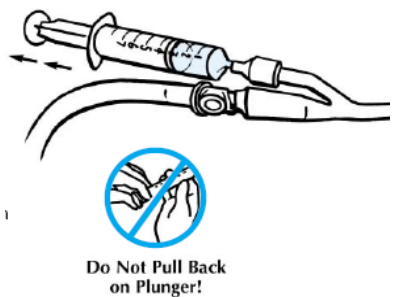
If **any signs or symptoms of allergic reaction or anaphylaxis** (to the catheter or chlorhexidine or an unknown cause)

- Call for help, have a colleague contact MRP or designate stat
- Remove Catheter
- Perform peri-care with soap and water to remove any residual chlorhexidine
- Follow [Anaphylaxis: Initial Emergency Management](#) (Adult and Pediatric)

To remove catheter:

1. Wash hands and put on clean gloves	
2. Check balloon valve for actual volume of inflation	
2. Using 10 mL (or larger as appropriate) syringe - Slide the syringe plunger up and down the syringe to loosen.	
3. Pull back on plunger to approximately 0.5 mL to prevent adherence	

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<p>4. Insert syringe into inflation valve and let the balloon “volunteer” its water. Allow the pressure to force the plunger back. This takes approximately 30 seconds.</p> <p>Do NOT pull back on plunger. Forceful or rapid aspiration may cause the inflation lumen within the foley to collapse</p>	
<p>5. If balloon does not deflate, reposition patient to ensure no catheter traction or compression. If this doesn't work, apply <i>gentle, slow</i> aspiration.</p>	
<p>6. Gently remove catheter from patient and dispose of in garbage. Wash hands.</p>	
<p>7. Perform pericare.</p>	
<p>8. Monitor patient for signs and symptoms of urinary retention post catheter removal.</p>	

Documentation:

- Using site specific system (interdisciplinary notes, nurses' notes, case notes, electronic medical record), document:
 - The indication for catheterization including bladder scanner volume, if applicable.
 - Size and type of catheter inserted.
 - Cleansing solution used; Chlorhexidine or Normal Saline (if allergy to Chlorhexidine)
 - Amount of water in balloon for indwelling catheter.
 - Assessment of urine, colour, quantity, odour. Specimens obtained and sent (if required)
 - Patient's response to procedure.
 - Record urine volume as per unit policy/ orders
- At Cerner sites that document in IView, document:
 - Pericare – cleansing of perineal area when no urinary catheter is present.
 - Interactive View and I&O → Adult Quick View → Activities of Daily Living → Personal Care Provided → Peri care
 - Catheter Care- cleansing of perineal area when urinary catheter in situ
 - Interactive View and I&O → Adult Lines- Devices → Urinary Catheter
- Implement daily reminder system/ cues (e.g. labels) when indwelling catheter inserted

Related Standards and Resources:

- [B-00-13-10121](#) – Urinary Catheters: Management for the Prevention of UTI
- [B-00-12-10100](#) – Bladder Scanner Use

3. [B-00-12-10128](#) – Urinary Catheters: Urinary Catheters: Coudé Tip Catheter Insertion
4. [Elsevier Skills](#) online text (Use Chrome)

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Appendices

[Appendix A](#) – Decision to Insert Catheter

[Appendix B](#) – Additional Education

Appendix A

DECISION TO INSERT CATHETER

Signs & Symptoms of Urinary Retention

- Palpable bladder / Dull sound with percussion
- Lower abdominal pain/tenderness
- Increased BP in absence of pain or hypertension
- Inability to void despite urge/ Small frequent voids (less than 50 mL)
- Diaphoresis/restlessness
- Incontinence/leakage

NO CATHETER	INTERMITTENT (IN AND OUT) CATHETER	SHORT TERM CATHETER (0 to 7 DAYS)	LONG TERM CATHETER (MORE THAN 7 DAYS)
	Clear straight	Lubricath *	Lubricath *
<ul style="list-style-type: none"> ○ Continent ○ Incontinent with intact skin ○ No strict in & outs being recorded (or able to assist with own) 	<ul style="list-style-type: none"> ○ Sterile C & S ○ Bladder volume 200 mL or more (bladder scanner) AND symptoms of retention / difficulty voiding ○ Unexplained agitation ○ Unexplained bladder distension ○ To determine bladder volume (PVR) when no bladder scanner available ○ As per prescriber order 	<ul style="list-style-type: none"> ○ Acute retention/obstruction ○ Monitoring in & out in Critical Care ○ Aid in surgical procedure ○ Wound healing ○ Specific order (e.g. irrigation) 	<ul style="list-style-type: none"> ○ Chronic Retention ○ Management of stage 3 & 4 ulcers ○ Palliative Care ○ Specific order
<p>* For latex allergy use a silicone uncoated or lubr-sil hydrogel coated catheter For patients with obstruction (e.g. prostatomegaly) consider Coude catheter (advanced nursing skill/urology). For irrigation use 3-way catheter.</p>			
Catheter Insertion			
<ul style="list-style-type: none"> ○ Choose appropriate catheter type, size and drainage system. Choose smallest catheter appropriate. (Regular Foley; Usually 12 to 14 Fr for females, 14 to 16 Fr for males) ○ Perform hand hygiene before & after insertion or any manipulation of catheter ○ Perform pericare before & after insertion of catheter ○ Use sterile Chlorhexidine 2% aqueous (no alcohol) to cleanse (unless patient has allergy or sensitivity, then use NS) ○ Use sterile technique and sterile equipment ○ Document all assessments and interventions 			
Catheter Maintenance			
<ul style="list-style-type: none"> ○ Ensure daily consideration of need for indwelling catheter, remove if appropriate ○ Ensure catheter properly secured – system closed and to gravity drainage ○ Catheter Care Q shift and PRN ○ Fluid intake 1500 mL/day (unless fluid restricted) ○ Avoid irrigation (unless CBI). Catheter change is preferred over irrigation ○ Use clean, patient specific graduated cylinder every time bag emptied ○ Avoid routine catheter changes. 			
Catheter Removal			
<ul style="list-style-type: none"> ○ Obtain order for removal if catheter inserted by a urologist or if uro-gynaecological or rectal surgery ○ In the absence of a specific order, other catheter removals are considered a RN initiated activity ○ Consider catheter removal as close to 2400 hours as possible ○ Consider proactive measures to facilitate voiding and correct transient causes of retention/incontinence ○ If patient has not voided 6 hours post catheter removal, consider/ assess for retention – if symptomatic and volume by scanner 200 mL or more, perform in & out ○ If in & out required more than 3 times in 24 hours, discuss with physician/NP. ○ Use nursing interventions to encourage natural voiding (e.g. privacy, fluid intake, sound of running water, warm bedpan etc) 			

Appendix B – Additional Education

Learning Objectives: After completing the education activities, the LPN/ESN will be able to:

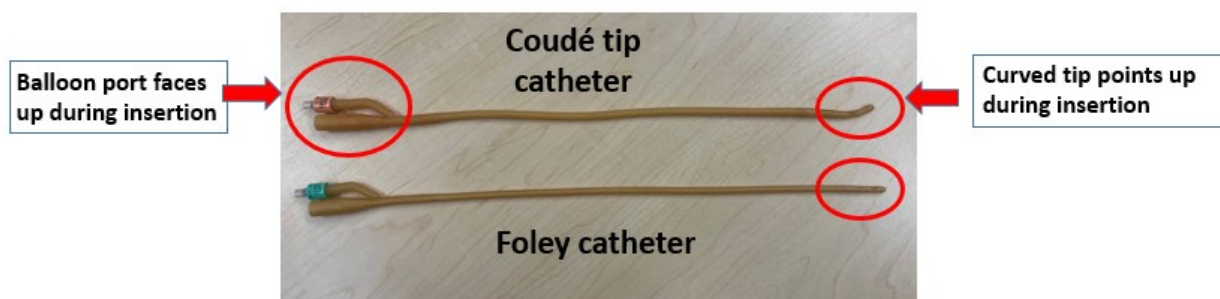
1. Describe the indications for use of a Coudé tip catheter.
2. Describe the physical difference between a Coudé tip catheter and an indwelling (Foley) catheter.
3. Describe and/or demonstrate the position of the tip for insertion of Coudé tip catheter.
4. Describe how to verify tip orientation using position of balloon port.
5. Document insertion of Coudé tip catheter as per Procedure #B-00-12-10099.

Learning Activities:

1. Review Procedure #B-00-12-10099 – Urinary Catheterization and related standards and procedures.
2. State the indications for use of a Coudé tip catheter.
3. Using the attached image below, state the difference in tips between a Coudé tip and indwelling (Foley) catheter.
4. State the position of the tip during insertion of Coudé tip catheter and if available, demonstrate insertion technique on a teaching model.
5. State position of balloon port to ensure proper Coudé tip catheter insertion.
6. Describe what and where to document a Coudé tip catheter insertion in the patient's chart.

Evaluation:

1. The LPN/ESN is able to:
 - a. Verbalize that the indication for use of a Coudé tip catheter is to bypass an obstruction e.g. an enlarged prostate.
 - b. Verbalize the Coudé tip catheter tip is firmer, narrowed, rounded and curved compared to an indwelling catheter tip, which is straight.
 - c. Verbalize and/or demonstrate insertion technique according to the procedure with curved tip pointing up.
 - d. Verbalize that the balloon port position faces up during insertion and that this position verifies tip orientation.
 - e. Document the procedure according to Procedure #B-00-12-10099.



Persons/Groups Consulted:

- PHC Urinary Tract Infection Prevention Committee
- PHC Infection Prevention and Control
- Medical Director Infection Prevention and Control
- CNS Wound, Skin, Ostomies and Continence
- CNS Surgery
- Nurse Educators, Surgery
- Nurse Educator Operating Room and Surgical Day Care SPH
- Nurse Educator Operating Room, DT Procedure Rooms MSJ
- Practice Consultants, Professional Practice
- Executive Director Risk, Patient Safety, IPAC
- Urologist

Revised By:

- PHC Urinary Tract Infection Prevention Committee
Surgeon. Chair UTI Prevention Committee
General Surgeon, former Chair UT Prevention Committee

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	Surgery