URINARY CATHETER MANAGEMENT

Urinary Catheter Management Protocol includes:

I. Sterile Urinary Catheter Insertion
II. Urinary Catheter Care
III. Sterile Bladder Irrigation
IV. Sterile Bladder Instillation
V. Urine Specimen Collection with and without a Sample Port

I. STERILE URINARY CATHETER INSERTION

Purpose: To properly and safely insert urinary catheter using sterile technique.

Clinical Considerations: Sterile technique is critical to the procedure of urinary catheter insertion and must be maintained at all times. Urinary catheter insertion kit, packaging, and supplies may vary from patient to patient. Unless the existing catheter is clogged and requires immediate change, make sure the patient is adequately hydrated to produce urine prior to changing the catheter.

Assemble Supplies:
- Indwelling urethral, intermittent urethral or suprapubic catheter of appropriate type and size per physician’s orders
- Urinary catheter insertion kit
- Drainage bag if applicable (leg bag or bed bag)
- Syringe if removing an existing indwelling urinary catheter
- Basin; mild soap and tap water
- Washcloths or paper towels
- Towel
- Chux or “blue pads”

Preparation:

1. Read physician’s order for detailed instructions specific to the patient.
2. Explain and prepare the patient for the procedure.
3. Prior to performing the procedure, assemble appropriate supplies and plan all actions.
4. Utilize appropriate infection control techniques while preparing, using, and discarding supplies.
5. Position patient for ease of procedure using pillows if necessary.

Procedure:

1. Wash hands.
2. Assemble all equipment and place within easy reach.
3. Transfer or assist patient into lying (female) or semi-lying (male) position in wheelchair or bed; use pillows for support, place chux or “blue pads” under patient’s groin/buttocks.

4. Wash hands and apply clean gloves.

5. **Suprapubic catheter:**
   a. thoroughly wash around stoma and abdomen with mild soap and tap water; thoroughly rinse and pat dry.
   b. using a felt tip marker, make a mark on currently inserted catheter at stoma/belly; during removal, note the angle of insertion and the length of catheter visible as a guide for replacement.

6. Attach empty syringe to currently inserted catheter balloon valve and completely deflate balloon; gently and smoothly remove catheter; visually inspect catheter and discard.

7. **Indwelling urethral or intermittent urethral catheter:**
   a. Wash the perineal area with mild soap and tap water; thoroughly rinse and pat dry (already completed for suprapubic).

8. Remove gloves and wash hands.

9. Remove the urinary catheterization tray from the outer plastic wrap.

10. Open the catheterization tray by folding the top paper flap away from self and grasp the next two flaps and pull to each side; pull the last flap toward self.

11. Remove the paper drape on the top of the tray; Female: tuck under groin / buttocks; Male: place over legs just beneath gland; Suprapubic: place over patient’s groin area.

12. If urinary catheter is packaged separately, open package while maintaining sterility of contents for later use.

13. Apply sterile gloves using sterile technique and designate a STERILE and dirty hand for urethral insertion.

14. Place urinary catheter in sterile catheter tray.

15. Place fenestrated drape over the genital area or suprapubic stoma so that the urethral opening or stoma can be seen through the “hole” in the sterile sheet. Make sure that the sterile gloved hand does not touch the bed, patient, or anything non-sterile.

16. **Indwelling urethral or suprapubic catheter:** Attach pre-filled syringe to balloon port for inflation after insertion of urinary catheter.

17. Open the lubricant package.

18. Squeeze the lubricant onto the urinary catheter:
   a. All female urethral catheters - first two (2) inches of catheter
   b. All male urethral catheters - entire length of catheter
   c. Suprapubic – first four (4) inches of catheter.


20. Spread the labia or hold the penis at 90 degree angle to body with designated dirty hand; your dirty hand is now contaminated and must not touch the urinary catheter or sterile supplies for duration of procedure.
21. Place the urinary catheter tray on the paper drape.
22. With sterile hand, clean catheter entrance site using swab(s) and discard swab(s) away from the sterile field.
   a. Indwelling urethral or intermittent urethral catheter:
      Male – front to back of urethra then around penis head;
      Female – down over urethral opening;
   b. Suprapubic catheter – center of stoma using circular motion starting at the stoma and moving away from stoma site up to one inch around stoma.
23. Repeat previous step until all of the swabs have been used.
24. Grasp the urinary catheter with the sterile hand and insert it into the urethra or stoma while positioning distal opening into tray to catch urine.
25. If unable to advance catheter, notify the direct supervisor or the On-Call Nurse Manager immediately.
26. Indwelling urethral catheter:
   a. Advance catheter into urethra UNTIL URINE IS RETURNING INTO TRAY; 20 or 30 minutes of waiting time may be required while holding catheter in place;
   b. If resistance is met due to spasm of the sphincter muscle; pause for a moment until the sphincter muscle relaxes and the urinary catheter is able to advance.
27. Suprapubic catheter: Insert to approximate depth of catheter that was removed, as noted in step 5. b.
28. Allow urine to drain into tray; note the amount and nature of urine.
29. Intermittent urethral catheter: if there is greater than 700mls of urine output, clamp urinary catheter for 5 - 10 minutes to prevent bladder spasms; then release clamp to allow urine to drain; pinch end of catheter to prevent urine dripping and gently remove.
30. Indwelling urethral catheter: ONLY IF URINE IS RETURNING INTO TRAY; Inflate the balloon and gently pull urinary catheter away from patient to position balloon in the neck of bladder.
31. Suprapubic catheter: inflate balloon and gently pull back until you meet slight resistance.
32. Attach new urinary drainage bag to urinary catheter.
33. Secure urinary catheter and bag as appropriate to prevent discomfort; use urinary catheter holder or leg strap as appropriate.
34. Rinse and dry the genitalia or stoma site.
35. Properly dispose of the urine.
36. Properly dispose of or clean all equipment / supplies.
37. Wash hands.
38. Monitor urine output; if greater than 700mls of urine output, clamp urinary catheter for 5 - 10 minutes to prevent bladder spasms; then release clamp allowing urine to drain.
39. Document the procedure, including: tolerance, amount, and nature of urine.
II. CARE OF INDWELLING URETHRAL OR SUPRAPUBIC CATHETER

Purpose: To properly and safely care for indwelling urinary catheter in order to minimize infection and maximize patient comfort.

Clinical Considerations: Indwelling urinary catheter care is critical to ensuring skin integrity and must be performed regularly, at minimum once daily, preferably twice daily. Placement of drainage bag should be rotated from one side to the other side (left leg one day; right leg the following day) for all patients. Perineal area and skin should be assessed with every catheter care procedure.

Assemble Supplies:

- Mild soap and tap water
- Washcloths
- Towel
- Chux or “blue pads”

Preparation:

1. Check physician’s order for detailed instructions specific to the patient.
2. Explain and prepare the patient for the procedure.
3. Prior to performing the procedure, assemble appropriate supplies and plan all actions.
4. Utilize appropriate infection control techniques while preparing, using, and discarding supplies.

Procedure:

1. Wash hands and apply clean gloves.
2. Roll urinary catheter between thumb and forefinger and assess for grit; if grit is detected, assess whether catheter requires irrigation or whether patient’s fluid intake should be increased.
3. Stabilize urinary catheter with one hand to prevent tugging and discomfort.
4. Perform peri care with soap and water.
5. Discard dirty water and prepare a clean supply of mild soapy water and a clean washcloth.
6. Clean with mild soap and tap water from insertion end toward drainage bag using a different section of the washcloth with each pass.
7. Rinse with clean tap water from insertion end toward drainage bag using a different section of the washcloth with each pass.
8. Ensure urinary catheter is secure.
9. Properly dispose of or clean all supplies.
10. Wash hands.
11. Document the procedure, including: tolerance, amount, and nature of urine.
12. Notify the Clinical Manager or the On-Call Nurse Manager with any signs or symptoms of infection or skin breakdown.
III. STERILE IRRIGATION OF INDWELLING URETHRAL OR SUPRAPUBIC CATHETER

**Purpose:** To properly and safely irrigate bladder using sterile technique to ensure free flow of urine from bladder to drainage bag.

**Clinical Considerations:** Indications for bladder irrigation include abnormal amounts of sediment, mucous, and blood or history of bladder stones. Irrigation of an indwelling urinary catheter requires that entrance port and bulb syringe tip remain as clean as possible during procedure.

**Assemble Supplies:**
- Sterile bladder irrigation kit
- Sterile normal saline, sterile water or other prepared sterile solution
- Betadine prep pads
- Alcohol prep pads

**Preparation:**
1. Check physician’s order for detailed instructions specific to the patient.
2. Explain and prepare the patient for the procedure.
3. Prior to performing the procedure, assemble appropriate supplies and plan all actions.
4. Utilize appropriate infection control techniques while preparing, using, and discarding supplies.

**Procedure:**
1. Wash hands and apply clean gloves.
2. Open irrigation kit while maintaining sterility of container and bulb syringe.
3. Place container with bulb syringe upright on clean surface; keep tray within reach.
4. Place drape under connection point of urinary catheter and drainage bag tubing.
5. Remove bulb syringe while maintaining sterility of container and bulb syringe.
6. Fill container with prescribed amount of sterile solution.
7. Return bulb syringe to container and withdraw desired amount of sterile solution into barrel of syringe.
8. Prepare Betadine prep package to store connection end of drainage bag during procedure.
9. Clean connection between urinary catheter and drainage bag with Betadine prep pad; allow to dry.
10. While positioning urinary catheter over irrigation tray, disconnect drainage bag tubing from urinary catheter and place connection end of drainage bag tubing into Betadine prep package with one hand while protecting urinary catheter from contamination with other hand.
11. While holding urinary catheter with one hand, instill desired amount of sterile solution into the bladder via the open end of the urinary catheter.
12. Remove syringe and allow sterile solution / urine to drain back out of the bladder via gravity into the tray provided.

13. Repeat steps #11 and #12 until returning solution / urine is clear.

14. Subtract the amount of sterile solution instilled from the total output (drained amount) to determine actual urine output.

15. Clean distal end of urinary catheter and urinary drainage bag connection with Betadine prep pad; allow to dry.

16. Reattach drainage bag tubing to distal end of urinary catheter and clean with alcohol prep pad.

17. Ensure urinary catheter is secure.

18. Properly dispose of urine / solution.

19. Properly dispose of or clean all equipment / supplies.

20. Wash hands.

IV. STERILE BLADDER INSTILLATION

Purpose: To properly and safely instill medicated solution using sterile technique to treat or prevent infection.

Clinical Considerations: Indications for bladder instillation include specially prepared sterile medicated solution to treat infection or reduce frequency of UTI.

Assemble Supplies:
- Sterile bladder irrigation kit
- Prepared sterile medicated solution
- Betadine prep pads
- Alcohol prep pads

Preparation:
1. Check physician’s order for detailed instructions specific to the patient.
2. Explain and prepare the patient for the procedure.
3. Prior to performing the procedure, assemble appropriate supplies and plan all actions.
4. Utilize appropriate infection control techniques while preparing, using, and discarding supplies.

Procedure:
1. Wash hands and apply clean gloves.
2. Open irrigation kit while maintaining sterility of container and bulb syringe.
3. Place container with bulb syringe upright on clean surface; keep tray within reach.
4. Place drape under connection point of urinary catheter and drainage bag tubing.
5. Remove syringe while maintaining sterility of container and bulb syringe.
6. Fill container with prescribed amount of prepared sterile medicated solution.
7. Return bulb syringe to container and withdraw desired amount of prepared sterile medicated solution into barrel of syringe.
8. Prepare Betadine prep package to store connection end of drainage bag during procedure.
9. Clean connection between urinary catheter and drainage bag with Betadine prep pad; allow to dry.
10. While positioning urinary catheter over irrigation tray, disconnect drainage bag tubing from urinary catheter and place connection end of drainage bag tubing into Betadine prep package with one hand while protecting urinary catheter from contamination with other hand.
11. While holding urinary catheter with one hand, instill prescribed amount of prepared sterile medicated solution into the bladder via the open end of the urinary catheter. Maintain sterility and properly kink catheter to prevent solution drainage between instillations until prescribed amount has been instilled. Up to 300 mls of prepared sterile medicated solution may be prescribed to treat the entire bladder lining.
12. Use clamp or manually kink urinary catheter to maintain prepared sterile medication solution in the bladder for prescribed length of time.
13. When prescribed instillation time has elapsed, remove clamp or kink and allow solution to drain via gravity into the tray provided.
14. Subtract the amount of medicated solution instilled from the total output (drained amount) to determine actual urine output.
15. Clean distal end of urinary catheter and urinary drainage bag connection with Betadine prep pad; allow to dry.
16. Reattach drainage bag tubing to distal end of urinary catheter and clean with alcohol prep pad.
17. Ensure urinary catheter is secure.
18. Properly dispose of urine / solution.
19. Properly dispose of or clean all equipment / supplies.
20. Wash hands.
V. URINE SPECIMEN COLLECTION WITH AND WITHOUT A SAMPLE PORT

Urine Specimen Collection with a Sample Port

Purpose: To obtain a sterile urine specimen from an indwelling catheter with the least risk of contamination.

Clinical Considerations: Never collect a specimen directly from a drainage bag as it is often concentrated or contaminated.

Assemble Supplies:
- Gloves
- Betadine prep pads
- Syringe
- Sterile specimen container
- Alcohol prep pads

Preparation:
1. Read physician’s order for detailed instructions specific to the patient.
2. Explain and prepare the patient for the procedure.
3. Prior to performing the procedure, assemble appropriate supplies and plan all actions.
4. Utilize appropriate infection control techniques while preparing, using, and discarding supplies.
5. Position patient for ease of procedure using pillows if necessary

Procedure:
1. Wash hands.
2. Assemble all equipment and place within easy reach.
3. Don clean gloves.
4. Occlude the drainage tubing with clamp or rubber band at least three inches below the sample port for 15 to 30 minutes. Urine will collect above the clamp for the specimen.
5. Remove gloves and perform hand hygiene.
6. After waiting allotted time, wash hands and don clean gloves.
7. Clean the sample port with Betadine prep pad, allowing the Betadine to dry.
8. Access with sample port with the syringe.
9. Slowly aspirate the desired amount of urine to be specified. Remove syringe from the specimen port.
10. Transfer the specimen from the syringe into the specimen container.
11. Remove the clamp or rubber band from the drainage tubing. Ensure urine is draining into drain bag.
12. Label the specimen with appropriate information including patient name, date, initials, and time specimen collected. Refrigerate specimen until transport arrives.
13. Clean the sample port with alcohol prep pad.
14. Properly dispose of or clean all supplies.
15. Wash hands.
16. Document the procedure, including: tolerance, amount, and nature of urine.
17. Notify the Clinical Manager or the On-Call Nurse Manager that specimen was obtained and when specimen is picked up for transport.

**Urine Specimen Collection without a Sample Port**

**Purpose:** To obtain a sterile urine specimen from an indwelling catheter with the least risk of contamination.

**Clinical Considerations:** Never collect a specimen from a drainage bag as it is often concentrated or contaminated.

**Assemble Supplies:**
- Gloves
- Betadine prep pads
- Sterile specimen container
- Alcohol prep pads

**Preparation:**
1. Read physician’s order for detailed instructions specific to the patient.
2. Explain and prepare the patient for the procedure.
3. Prior to performing the procedure, assemble appropriate supplies and plan all actions.
4. Utilize appropriate infection control techniques while preparing, using, and discarding supplies.
5. Position patient for ease of procedure using pillows if necessary

**Procedure:**
1. Wash hands.
2. Assemble all equipment and place within easy reach.
3. Don clean gloves.
4. Occlude the urinary catheter with clamp or rubber band for 15 to 30 minutes. Urine will collect in the catheter and bladder above the clamp for the specimen.
5. Remove gloves and perform hand hygiene.
6. After waiting allotted time, wash hands and don clean gloves.
7. Open the Betadine prep package to store connection end of drainage bag during procedure.
8. Clean connection between urinary catheter and drainage bag with Betadine prep pad, allowing Betadine to dry.
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Continuation of Part V. Urine Specimen Collection with and without a Sample Port

9. While positioning urinary catheter over the specimen container, disconnect drainage bag tubing from urinary catheter and place connection end of drainage bag tubing into Betadine prep package with one hand while protecting urinary catheter from contamination with other hand.
10. While holding urinary catheter with one hand, unclamp the catheter and obtain the desired urine specimen.
11. Occlude the urinary catheter with clamp or rubber band.
12. Clean distal end of urinary catheter and urinary drainage bag connection with Betadine prep pad, allowing the Betadine to dry.
13. Reattach drainage bag tubing to distal end of urinary catheter and clean with alcohol prep pad.
14. Unclamp the catheter.
15. Ensure urinary catheter is secure.
16. Label the specimen with appropriate information. Refrigerate specimen until transport arrives.
17. Properly dispose of or clean all supplies.
18. Wash hands.
19. Document the procedure, including: tolerance, amount, and nature of urine.
20. Notify the Clinical Manager or the On-Call Nurse Manager that specimen was obtained and when specimen is picked up for transport.