

Indications for an Indwelling (Foley) Catheter

2013



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Indications for an Indwelling (Foley) Catheter

- Short-term for acute urinary retention
- Sudden and complete inability to void
- Need for immediate and rapid bladder decompression
- Temporary relief of bladder outlet obstruction secondary to:
 - Enlarged prostate gland
 - Urethral stricture
 - Obstructing pelvic organ prolapse
 - Urologic or prolonged surgical procedure
 - Chronic urethral obstruction or urinary retention, surgical interventions, and/or the use of intermittent catheterization has failed or is not feasible
 - Irreversible medical conditions are present (e.g., metastatic terminal disease, coma, end stages, or other conditions)
 - Presence of stage III or IV pressure ulcers that are not healing because of continual urine leakage
 - Instances where a caregiver is not present (usually in the home-care setting) to provide incontinence care

Signs and Symptoms of UTIs in Patients With and Without Indwelling (Foley) Catheters

Without a catheter, the patient must have 3 of the following symptoms:

- Fever (≥ 38 C) or chills
- New or increased burning pain on urination, frequency, or urgency
- New flank or suprapubic pain
- Change in character of urine (bloody, foul smelling, etc.) **OR** lab report of new pyuria or microscopic hematuria
- Worsening of mental or functional status

With a catheter, the patient must have 2 of the following symptoms:

- Fever (≥ 38 C) or chills
- New flank pain or suprapubic pain or tenderness
- Change in character of urine (bloody, foul smelling, etc.) **OR** lab report of new pyuria or microscopic hematuria
- Worsening of mental or functional status

Local findings of obstruction, leakage, mucosal trauma, or hematuria

Fever is the most frequent clinical presentation of UTI in the chronically catheterized resident

Catheter obstruction is often a precipitating event for fever and systemic infection

Fever with hematuria or **catheter obstruction** has a high probability of being from a urinary source

Care Practices for Preventing Indwelling Catheter-Related Complications

- Use catheter sizes of 14 Fr or 16 Fr, as larger diameter catheters can result in a UTI, result in greater leakage (urine bypassing the catheter), and are more likely to obstruct periurethral glands and normal urethral secretions.
- Use a 10 cc balloon (instilled with 10 cc sterile water), as a larger balloon (30 cc) will increase the volume of urine that pools below the level of the catheter drainage eyes, thus increasing the risk of infection.
- Minimize urethral trauma during catheter insertion by using generous amounts of sterile lubricant.
- Maintenance of the aseptic, closed-catheter system as opening the system doubles the risk of introducing a new bacterial strain. Remember to:
 - Disinfect catheter/collecting tube junction when disconnecting or reconnecting.
 - Disinfect the sampling port before and after sampling urine.
- Perineal hygiene with emphasis on correct techniques for meatal cleansing. Always cleanse women from front (meatal area) to back (anus) to avoid spreading bacteria from the rectum to the vagina and urethra. Avoid use of bactericidal solution or gel to the meatus as this practice does not reduce the risk for CAUTI.
- Caregivers should always wear disposable gloves followed by hand washing before and after handling catheters as up to 15% of UTIs occur in clusters as a result of cross-infection. Hand sanitizers are recommended.

- Ensure that the drainage bag is below level of the bladder and/or in a dependent position.
- Regular emptying of the collecting bag, at least every 8 hours (or with volumes greater than 400 mL) to avoid stasis and migration of bacteria.
- Replacement of the entire catheter system if obstruction or leakage occurs.
- Do not clamp during transport of patients and empty drainage bag prior to transport
- Minimize urethral trauma by stabilizing or anchoring the catheter, which will prevent urethra trauma secondary to tension from catheter. It is recommended that the catheter be anchored to the inner thigh in women and upper thigh or lower abdomen for men.
- Maintain adequate hydration to continuously flush the system (30 mL/kg body weight/day).
- Separate and label (patient name, type of excrement) graduated containers for each patient and each patient drain as bacteria may be transmitted by sequentially touching emptying spouts in the same contaminated collection container. The spigot or spout on the drainage bag should not be allowed to touch the sides of the graduated container when emptying the bag.
- With multiple drainage devices for one patient, keep drainage devices on opposite sides of the bed. Keep drainage devices in semi-private rooms on opposite sides of the room.
- If possible, catheterized patients should not share the same room to avoid transmission.
- Irrigation should be reserved only for urology and genitourinary trauma patients

(who are likely to have tissue/blood clots obstructing drainage) and are done by specific orders. Standard practice of catheter irrigation to “washout” the bacteria has been shown that the use of such irrigation to prevent or eradicate bacteria in indwelling catheters is ineffective, as more organisms will gain entry to the irrigated catheters through disconnection of the system.

- Do not take urine cultures from old catheter system. If there is a strong suspicion of infection, obtain sample from a newly inserted catheter.
- Urine acidification (ingestion of cranberry juice, Hiprex 1GM BID in combination with ascorbic acid 1GM BID) is often recommended in clinical practice. Urine acidification has been proposed to prevent or slow catheter encrustation and diminish bacteriuria.
- Receiving a short course of antibiotics at the time of catheter removal may decrease the likelihood of catheter-acquired infection.
- Clean drainage bags daily with 1:10 bleach solution. Alternatively, a vinegar solution can be used.
- Remove the catheter as soon as medically feasible to reduce and prevent complications.

Adapted from: Newman, D. K. and A. J. Wein. (2009). “Urinary Collection and Management Products.” *Managing and Treating Urinary Incontinence*, 2nd ed. Health Professions Press; Baltimore, MD.



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