

Indwelling urinary catheter (Foley) irrigation



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■ Introduction

Guidelines don't recommend routine irrigation of an indwelling urinary (Foley) catheter. However, obstructions sometimes occur and require irrigation. To relieve an obstruction caused by clots, mucus, or other causes, you may use an intermittent method of irrigation.^[1] You should irrigate the catheter through a closed system whenever possible to decrease the risk of infection.^[2] If you anticipate an obstruction, you can use closed continuous irrigation to prevent it.^[1] (See the "[Bladder irrigation, continuous](#)" procedure.)

Signs and symptoms of potential catheter obstruction include absence of urine flow from the catheter, urine flow bypassing the catheter, and suprapubic pain that becomes more pronounced as the bladder fills. Vasovagal signs and symptoms, such as sweating, tachycardia, and hypotension, can also occur if the obstruction remains unrelieved.^[3]

Before initiating catheter irrigation, you can use a bladder scanner to confirm whether a decrease in urine output is due to a blockage or reduced urine in the bladder, thereby decreasing the number of unnecessary irrigations and minimizing breaks in the closed drainage system.^[4]

Change the catheter if an obstruction occurs, and it's likely that the catheter material is contributing to the obstruction.^[2] Review the need for the catheter daily, and remove the catheter as soon as it's no longer necessary to prevent catheter-associated urinary tract infection (CAUTI).^{[1][2][4][5]}

♦ **Hospital-acquired condition alert:** Keep in mind that the Centers for Medicare and Medicaid Services considers CAUTI a hospital-acquired condition *because it can be reasonably prevented using a variety of best practices*. When caring for a patient with an indwelling urinary catheter, be sure to follow evidence-based CAUTI prevention practices—such as performing hand hygiene before and after any catheter manipulation; maintaining a sterile, continuously closed drainage system; maintaining unobstructed urine flow; emptying the collection bag regularly; replacing the catheter and drainage system using sterile technique when breaks in sterile technique, disconnection, or leakage occur; and discontinuing the catheter as soon as it's no longer clinically indicated—to reduce the risk of CAUTI.^{[1][2][4][6][7]} ♦

■ Equipment

- 30- to 60-mL sterile syringe
- Clamp
- Disinfectant pads
- Fluid-impermeable pad
- Gloves

- Graduated receptacle
- Prescribed sterile irrigating solution (such as normal saline solution)
- Sterile basin
- Sterile drape
- Optional: new drainage bag, other personal protective equipment

Commercially packaged irrigation kits containing sterile irrigating solution, a graduated receptacle, and a 50-mL syringe are available in some facilities.

■ Preparation of Equipment

Inspect all equipment and supplies. If a product is expired, is defective, or has compromised integrity, remove it from patient use, label it as expired or defective, and report the expiration or defect as directed by your facility.

Let the irrigation solution warm to room temperature *to prevent vesical spasms during instillation of solution.*^[3] Never heat the solution on a burner or in a microwave oven, *because hot irrigating solution can injure the patient's bladder.*

■ Implementation

- Verify the practitioner's order.
- Gather and prepare the necessary equipment and supplies.
- Perform hand hygiene.^{[8][9][10][11][12][13]}
- Confirm the patient's identity using at least two patient identifiers.^[14]
- Provide privacy.^{[15][16][17][18]}
- Explain the procedure to the patient and family (if appropriate) according to their individual communication and learning needs *to increase their understanding, allay their fears, and enhance cooperation.*^[19]
- Raise the bed to waist level before providing care *to prevent caregiver back strain.*^[20]
- Perform hand hygiene.^{[2][8][9][10][11][12][13]}
- Put on gloves and, as needed, other personal protective equipment *to comply with standard precautions.*^{[21][22][23]}
- Empty the catheter drainage bag into a graduated receptacle. While emptying the drainage bag, avoid splashing and don't allow the drainage spigot to come in contact with the nonsterile collecting container.^{[1][2][24]} Measure the amount of urine and note its color and characteristics before irrigation.
- Remove and discard your gloves.^[23]
- Perform hand hygiene.^{[2][8][9][10][11][12][13]}
- Put on a new set of gloves.^{[22][23]}
- Expose the catheter's connection between the catheter and the drainage bag tubing and place a fluid-impermeable pad under it *to protect the bed linens.*^[3]
- Clamp the catheter tubing below the aspiration port.
- Create a sterile field at the patient's bedside using a sterile drape.
- Using sterile no-touch technique, pour the prescribed amount of sterile irrigating solution into a sterile basin.
- Place the tip of the syringe into the solution and fill the syringe with the appropriate amount of irrigating solution.

- Trace the tubing from the patient to the point of origin *to make sure that you're accessing the proper port before beginning irrigation.*^{[25][26]}

For irrigation through the aspiration port (if permitted by the device manufacturer)

- Disinfect the aspiration port thoroughly with a disinfectant pad and then allow it to dry completely *to remove as many bacterial contaminants as possible.*^[3]
- While maintaining the sterility of the syringe tip, attach the syringe to the aspiration port.
- Instill the irrigating solution into the catheter. If necessary, repeat the procedure until you've instilled the prescribed amount of irrigating solution.
- Remove the syringe and unclamp the drainage tube *to allow the irrigating solution and urine to flow into the drainage bag.* Note the color and characteristics of the drainage, and measure it *to make sure the patient hasn't retained the irrigating solution.*

For open manual irrigation through the drainage port

- Disconnect the catheter from the drainage bag.^[3]
- Disinfect the catheter drainage port thoroughly with a disinfectant pad and allow it to dry.^[3]
- While maintaining the sterility of the syringe tip, attach the syringe to the drainage port.
- Instill the irrigating solution into the catheter, as directed, and then draw back on the plunger *to evacuate any clot or debris.*^[3]
- Empty the syringe into the graduated container.
- Continue to irrigate, as directed, until you achieve a clear or clot-free return.^[3]
- Connect a new drainage bag, as directed.^[3]

Completing the procedure

- Make sure that the catheter tubing is secured to the patient's leg and that the catheter and drainage tubing are free from kinking and dependent loops *to allow the free flow of urine.* Keep the drainage bag below the level of the patient's bladder *to prevent backflow of urine into the bladder, which increases the risk of CAUTI.*^[2]
- Return the bed to the lowest position *to prevent falls and maintain the patient's safety.*^[27]
- Discard used supplies in appropriate receptacles.^[23]
- Remove and discard your gloves and, if worn, other personal protective equipment.^[23]
- Perform hand hygiene.^{[8][9][10][11][12][13]}
- Document the procedure.^{[28][29][30][31]}

■ Special Considerations

- Stop the procedure and notify the practitioner if you meet resistance during instillation of the irrigating solution; don't try to force the solution into the bladder. If an indwelling catheter becomes totally obstructed, obtain an order to remove it and replace it with a new one *to prevent bladder distention, acute kidney failure, urinary stasis, and subsequent infection.*
- Use caution if the patient had open bladder surgery or kidney transplantation, *because increased pressure on the suture lines can result in suture line disruption and extravasation of urine.*^[3]
- Encourage a catheterized patient who isn't on restricted fluid intake to increase intake to 30 mL/kg/day *to flush the urinary system and reduce sediment formation.*^[5]
- The Joint Commission issued a sentinel event alert related to managing risk during transition to new International Organization for Standardization tubing standards that were designed to

prevent dangerous tubing misconnections, which can lead to serious patient injury and death. During the transition, make sure to trace each tubing and catheter from the patient to the point of origin before connecting or reconnecting any device or infusion, at any care transition (such as a new setting or service), and as part of the handoff process; route tubes and catheters having different purposes in different standardized directions; when there are different access sites or several bags hanging, label the tubing at both the distal and proximal ends; use tubing and equipment only as intended; and store medications for different delivery routes in separate locations.²⁶

■ Complications

Complications associated with irrigation of an indwelling urinary catheter may include:

- CAUTI
- bladder spasm
- lower abdominal pain
- leakage around the catheter
- altered fluid balance.³

■ Documentation

Documentation associated with indwelling urinary catheter irrigation includes:

- date and time of irrigation
- type and volume of irrigating solution
- amount, color, and consistency of return urine
- patient's tolerance of the procedure
- any resistance during instillation of the solution
 - practitioner notified
 - date and time of notification
 - prescribed interventions
 - patient's response to those interventions
- intake and output
- whether the return volume was less than the amount of solution instilled
- teaching provided to the patient and parents or guardians
 - understanding of that teaching
 - follow-up teaching needed.

This procedure has been reviewed by the Academy of Medical-Surgical Nurses.



■ Related Procedures

- [Indwelling urinary catheter \(Foley\) insertion, assigned female at birth, home care](#)
- [Indwelling urinary catheter \(Foley\) insertion, assigned male at birth, home care](#)
- [Indwelling urinary catheter \(Foley\) irrigation, home care](#)
- [Indwelling urinary catheter \(Foley\) irrigation, pediatric](#)
- [Indwelling urinary catheter \(Foley\) removal, home care](#)

■ References

([Rating System for the Hierarchy of Evidence for Intervention/Treatment Questions](#))

1. Patel, P. K., et al. (2023). Strategies to prevent catheter-associated urinary tract infections in acute-care hospitals: 2022 update. *Infection Control and Hospital Epidemiology*, 44(8), 1209–1231. Retrieved October 2025 from <https://doi.org/10.1017/ice.2023.137> (Level I)
2. Healthcare Infection Control Practices Advisory Committee. (2010, revised 2019). *Guideline for prevention of catheter-associated urinary tract infections 2009*. Retrieved October 2025 from <https://www.cdc.gov/infection-control/media/pdfs/Guideline-CAUTI-H.pdf> (Level I)
3. Agency for Clinical Innovation. (2022). *Bladder irrigation: Management of haematuria*. Retrieved October 2025 from https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0009/497088/ACI_0195-Urology-Haem-toolkit_F.pdf (Level VII)
4. Association of Professionals in Infection Control and Epidemiology . (2025). *Preventing catheter-associated urinary tract infections (CAUTI)*. Retrieved October 2025 from https://apic.org/wp-content/uploads/2025/07/2025_CAUTI_Implementation_Guide-2.pdf (Level IV)
5. Herter, R., & Kazer, M. W. (2010). Best practices in urinary catheter care. *Home Healthcare Nurse*, 28(6), 342–349. Retrieved October 2025 from <https://doi.org/10.1097/nhh.0b013e3181df5d79>
[Abstract](#) | [Complete Reference](#)
6. Jarrett, N., & Callahan, M. (2016). *Evidence-based guidelines for selected hospital-acquired conditions: Final report*. Retrieved October 2025 from <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Downloads/2016-HAC-Report.pdf>
7. Agency for Healthcare Research and Quality. (2015). *Toolkit for reducing catheter-associated urinary tract infections in hospital units: Implementation guide*. Retrieved October 2025 from <https://www.ahrq.gov/hai/cauti-tools/impl-guide/index.html>
8. The Joint Commission. (2025). Standard NPSG.07.01.01. *Comprehensive accreditation manual for hospitals*. (Level VII)
9. Centers for Disease Control and Prevention. (2002). Guideline for hand hygiene in health-care settings: Recommendations of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force. *MMWR Recommendations and Reports*, 51(RR-16), 1–45. Retrieved October 2025 from <https://www.cdc.gov/mmwr/pdf/rr/rr5116.pdf> (Level VII)
10. World Health Organization (WHO). (2009). *WHO guidelines on hand hygiene in health care: First global patient safety challenge, clean care is safer care*. Retrieved October 2025 from https://iris.who.int/bitstream/handle/10665/44102/9789241597906_eng.pdf (Level VII)
11. Accreditation Commission for Health Care. (2025). Standard 07.02.05. *Accreditation requirements for acute care hospitals*. (Level VII)
12. Centers for Medicare and Medicaid Services. (2024). Condition of participation: Infection prevention and control and antibiotic stewardship programs. 42 C.F.R. § 482.42.
13. DNV GL-Healthcare USA, Inc. (2024). IC.1.SR.3f. *NIAHO® accreditation requirements, interpretive guidelines and surveyor guidance – revision 24* (Level VII)
14. The Joint Commission. (2025). Standard NPSG.01.01.01. *Comprehensive accreditation manual for hospitals*. (Level VII)
15. Accreditation Commission for Health Care. (2025). Standard 15.01.07. *Accreditation requirements for acute care hospitals*. (Level VII)
16. Centers for Medicare and Medicaid Services. (2024). Condition of participation: Patient's rights. 42 C.F.R. § 482.13(c)(1).
17. The Joint Commission. (2025). Standard RI.01.01.01. *Comprehensive accreditation manual for hospitals*. (Level VII)
18. DNV GL-Healthcare USA, Inc. (2024). PR.2.SR.5. *NIAHO® accreditation requirements, interpretive guidelines and surveyor guidance – revision 24* (Level VII)

19. The Joint Commission. (2025). Standard PC.02.01.21. *Comprehensive accreditation manual for hospitals*. (Level VII)
20. Waters, T. R., et al. (2009). *Safe patient handling training for schools of nursing*. Retrieved October 2025 from <https://www.cdc.gov/niosh/docs/2009-127/pdfs/2009-127.pdf> (Level VII)
21. Accreditation Commission for Health Care. (2025). Standard 07.02.04. *Accreditation requirements for acute care hospitals*. (Level VII)
22. Siegel, J. D., et al. (2007, revised 2024). *2007 guideline for isolation precautions: Preventing transmission of infectious agents in healthcare settings*. Retrieved October 2025 from <https://www.cdc.gov/infection-control/media/pdfs/Guideline-Isolation-H.pdf> (Level VII)
23. Occupational Safety and Health Administration. (2019). *Bloodborne pathogens, standard number 1910.1030*. Retrieved October 2025 from <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030> (Level VII)
24. Pamaighari, P. (2022). Urinary drainage bags: Emptying, changing, and securing. *The JBI EBP Database*. AN: JBI-ES-2300-3. (Level V)
25. U.S. Food and Drug Administration. (2023). *Examples of medical device misconnections*. Retrieved October 2025 from <https://www.fda.gov/medical-devices/medical-device-connectors/examples-medical-device-misconnections>
26. The Joint Commission. (2014). *Sentinel event alert 53: Managing risk during transition to new ISO tubing connector standards*. Retrieved October 2025 from <https://www.jointcommission.org/en-us/knowledge-library/newsletters/sentinel-event-alert/issue-53> (Level VII)
27. Ganz, D. A., et al. (2013). *Preventing falls in hospitals: A toolkit for improving quality of care* (AHRQ Publication No. 13-0015-EF). Agency for Healthcare Research and Quality. Retrieved October 2025 from <https://www.ahrq.gov/sites/default/files/publications/files/fallpxtoolkit.pdf> (Level VII)
28. The Joint Commission. (2025). Standard RC.01.03.01. *Comprehensive accreditation manual for hospitals*. (Level VII)
29. Accreditation Commission for Health Care. (2025). Standard 10.00.03. *Accreditation requirements for acute care hospitals*. (Level VII)
30. Centers for Medicare and Medicaid Services. (2024). Condition of participation: Medical record services. 42 C.F.R. § 482.24(b).
31. DNV GL-Healthcare USA, Inc. (2024). MR.2.SR.1. *NIAHO® accreditation requirements, interpretive guidelines and surveyor guidance – revision 24* (Level VII)

■ Additional References

- Lucas, A., & Ward, C.W. (2022). Manual and continuous bladder irrigation: Best practices. *Nursing 2022*, 52(7), 31-36. Retrieved October 2025 from
- Ramezani, F., et al. (2018). Efficacy of bladder irrigation in preventing urinary tract infections associated with short-term catheterization in comatose patients: A randomized controlled clinical trial. *American Journal of Infection Control*, 46(1), e45–e50. Retrieved October 2025 from <https://doi.org/10.1016/j.ajic.2018.05.009> (Level II)
- Schaeffer, A. J. (2023). Placement and management of urinary bladder catheters in adults. In: *UpToDate*, Richie, J. P. (Ed.). [UpToDate Full Text](#)
- Weber, J., et al. (2017). Standardizing practice for intermittent irrigation of indwelling urinary catheters. *Journal of Nursing Care Quality*, 32(3), 202–206. Retrieved October 2025 from <https://doi.org/10.1097/ncq.0000000000000228> (Level VI)
[Abstract](#) | [Complete Reference](#)

Rating System for the Hierarchy of Evidence for Intervention/Treatment Questions

The following leveling system is adapted from *Evidence-Based practice in nursing & healthcare: A guide to best practice*, Fifth edition, by Bernadette Mazurek Melnyk and Ellen Fineout-Overholt (2023).

Level I	Evidence from a systematic review or meta-analysis of all relevant randomized controlled trials (RCTs)
Level II	Evidence from well-designed single RCTs (experimental)
Level III	Evidence from well-designed nonrandomized controlled trials (quasi-experimental), systematic reviews of a complete body of evidence, and intervention studies using mixed methods
Level IV	Evidence from well-designed case-control and cohort studies (observational)
Level V	Evidence from systematic reviews of qualitative and descriptive studies
Level VI	Evidence from single descriptive and qualitative studies, evidence-based practice implementation, and quality improvement projects
Level VII	Evidence from expert opinion, expert committee reports, and literature reviews

Data from Gyatt, G., & Rennie D. (2002). *Users' guides to the medical literature*. American Medical Association; Harris, R. P., et al. (2001). *Current methods of the U.S. Preventative Services Task Force: A review of the process*. *American Journal of Preventative Medicine*, 20, 21-35.