

Strategies to reduce catheter-associated urinary tract infections or CA-UTIs

Urinary Health in Continuing Care Settings



We know that:

- Indwelling urinary catheters always increase the risk of a urinary tract infection.
- Indwelling catheters should only be used in clients who have specific care needs or meet certain criteria.
- For residents who do require an indwelling catheter, the risk of infection can be reduced by following best practices or a bundle approach for CA-UTI prevention that focus on **proper use, insertion, and maintenance of catheters.**

A catheter-associated urinary tract infection (CA-UTI) is a laboratory confirmed culture of bacteria in the urinary tract and clinical signs and symptoms of a urinary tract infection in a resident with an indwelling urinary catheter.

What is a bundle approach in resident care?

A collection of practices that can reduce the risk of harm or infection.

What is in a CA-UTI prevention bundle?

- Practice hand hygiene.
- Avoid unnecessary urinary catheters.
- Insert urinary catheters using aseptic technique.
- Maintain urinary catheters based on best practice guidelines.
- Follow policies and procedures to support best practices.

Appropriate reasons for urinary catheter insertion in continuing care:

- Urinary tract obstruction.
- Neurogenic bladder with retention.
- Stage 3 or 4 open pressure ulcers.
- Prolonged immobilization (e.g. unstable spinal or pelvic fractures).
- Comfort or palliative care (if requested).
- Resident/caregiver choice (with education regarding the associated risks).

**75-80% of
all UTIs in LTC
are catheter-
associated.**

How to insert urinary catheters using the aseptic technique:

- Only health care workers trained in sterile or aseptic technique should insert urinary catheters.
- First steps: hand hygiene and pre-cleansing of perineum
- Use sterile equipment:
 - » gloves, a drape and sponges
 - » sterile or antiseptic solution for cleaning urinary meatus
 - » single-use sterile lubricant jelly for catheter insertion
 - » use smallest catheter size possible
- Secure catheter and tubing to prevent movement or injury.

Best practices for maintaining an indwelling urinary catheter:

- Practice good hand hygiene before and after resident contact.
- Use gloves to manipulate catheter or the drainage system.
- Maintain unobstructed flow of urine by making sure that:
 - » tubing and catheter are free of kinks and secure
 - » tubing and drainage bag are below level of bladder
 - » drainage bag does not touch the floor
- Maintain a sterile, continuous closed drainage system by:
 - » ensuring catheter is not disconnected from tubing. If necessary, the connection junction must be disinfected before separation and reconnection of new tubing
 - » emptying drainage bag regularly with a separate

clean container for each resident

- » preventing contact between drain tip and collection container
- Provide perineal care at least daily plus after bowel movements or contamination.

Do not insert an indwelling urinary catheter for staff convenience or specimen collection.

Practices to avoid

- Do not perform bladder or catheter irrigation unless medically necessary.
- Do not routinely replace catheters without signs of obstruction or infection.
- Do not send a urine for C&S unless there are symptoms of infection.
- Do not send a repeat urine for C&S after antibiotics unless symptoms have not improved.

Policies and procedures that support CA-UTI reduction practices should focus on:

- Appropriate catheter use, alternatives to catheters, and when to review the need for a catheter.
- Only HCWs who are trained and demonstrate competency in aseptic technique should insert urinary catheters.
- Checklists for routine maintenance of urinary catheters.
- Outcome surveillance for healthcare acquired UTIs/ CA-UTIs or process surveillance for bundle compliance to monitor facility practices.

Summary

- 75-80% of all UTIs are found in residents with indwelling urinary catheters.
- Bundles of care that focus on appropriate use, insertion and maintenance of catheters, along with good hand hygiene, will improve resident outcomes and reduce the risk of CA-UTIs in continuing care.

Additional Online Resources

Guidelines for the Prevention and Treatment of Urinary Tract Infections (UTIs) in Continuing Care Settings

<http://www.health.gov.sk.ca/UTI-guidelines-apr2013>

CDC: Catheter-Associated Urinary Tract Infection

http://www.cdc.gov/hai/pdfs/uti/CA-UTI_tagged.pdf

CMS.gov. - CAUTI http://partnershipforpatients.cms.gov/p4p_resources/tsp-catheterassociatedurinarytractinfections/toolcatheter-associatedurinarytractinfectionscauti.html

Pennsylvania PSU http://patientsafetyauthority.org/EducationalTools/PatientSafetyTools/cauti/pages/cath_care.aspx