

# Frequently Asked Questions (FAQ) on CAUTI Prevention in Long-Term Care

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Disclaimer: Some answers to the following FAQ are based on scientific evidence; others are based on practical hygiene issues of daily living.

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## CAUTIS

### 1. **Should we check for UA every 30 days?**

No. Screening for and treatment of catheter associated asymptomatic bacteriuria are not recommended to reduce subsequent catheter associated bacteriuria or CAUTI in patients with short-term or long-term indwelling urethral catheters.<sup>i</sup> The U.S. Preventive Services Task Force recommends against performing screening urinalyses.<sup>ii</sup>

### 2. **How soon does a resident develop bacteriuria after a Foley catheter is inserted?**

Presence of a urinary catheter can lead to a level of bacteriuria in the range of greater than 100,000 organisms/mL of urine within 24-48 hours.<sup>iii</sup>

In a 2000 review of literature<sup>iv</sup> on urinary tract infections related to the use of urinary catheters, it was reported that 26 percent of patients who have indwelling catheters for two to 10 days will develop bacteriuria. Some catheterized patients with bacteriuria and a urinary catheter will develop symptomatic CAUTI, and others may develop a bloodstream infection.

## PREVENTION OF CAUTIS

### 1. **Does cranberry juice help prevent urinary tract infections (UTIs)?**

A 2013 Agency for Healthcare Research & Quality<sup>v</sup> (AHRQ) review of the literature noted the use of cranberry-containing products (e.g. juice, capsules/tablets, extracts) demonstrated mixed results with decreasing urinary tract infections in the long term care setting. At this time, no recommendation can be made.

### 2. **Does irrigation help prevent UTIs?**

The Centers for Disease Control and Prevention (CDC, 2009)<sup>vi</sup> does not recommend routine bladder irrigation unless obstruction is anticipated (e.g. after bladder or prostatic surgery).

## HAND HYGIENE

### 1. **Are alcohol-based hand rubs superior to soap and water?**

Yes, if hands are not visibly soiled, use an alcohol-based hand rub for routinely decontaminating hands in clinical situations such as:

- Before having direct contact with residents

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- Before inserting indwelling urinary catheters or other invasive devices that do not require a surgical procedure
- After having contact with a resident's intact skin (e.g. when taking a pulse or blood pressure, and lifting a resident)
- After having contact with body fluids or excretions, mucous membranes, nonintact skin and wound dressings if hands are not visibly soiled
- If moving from a contaminated body site to a clean body site during resident care
- After having contact with inanimate objects (including medical equipment) in the immediate vicinity of the resident
- After removing gloves

When hands are visibly dirty or are visibly soiled with blood or other body fluids, wash hands with soap and water.<sup>vii</sup> Any needlestick or similar injuries that involve exposure to blood or body fluids should be washed with copious amounts of water and soap.

### 2. Is it okay to wash gloves?

No. Perform hand hygiene before **and** after wearing gloves, but do not wash or reuse gloves after caring for a resident. Change gloves during resident care if moving from a contaminated body site to a clean body site, or completing a resident task involving potential soiling (e.g. removing a dressing or soiled brief). Remove gloves after caring for the resident.

## BARRIER PRECAUTIONS

### 1. Why is it important to use gloves and gowns when possible during assistance with intimate (e.g. toileting, bathing) activities of daily living?

Research has shown that residents with a urinary catheter have a higher chance of having multi-drug resistant organisms in their groin.<sup>viii,ix</sup> By using gowns and gloves during intimate ADLs such as AM and PM care, nursing home care providers can avoid contaminating their own hands and clothing due to splashing, and therefore minimize the risk of infecting others with multi-drug resistant organisms.<sup>x,xi</sup>

### 2. Should a gown be worn for Foley catheter insertion?

Generally, a gown is not routinely worn during insertion of a urinary catheter. However, if your nursing home is using an enhanced standard precautions model, then a gown might be worn. For example, a gown would be worn when anticipating or having potential contact with all moist body fluids (e.g. diarrhea) during the catheter insertion.

### 3. When the resident has a Foley catheter, should the gown be put on at the beginning of the bath or just when Foley catheter care is given?

If a resident has a Foley catheter, it is recommended that a gown be put on before beginning the bath.

### 4. Gloves are usually worn at the beginning for routine bathing. Should they be changed and replaced before Foley catheter care?

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At this time, the national project team is not aware of evidence that shows the risks or benefits of changing gloves prior to providing Foley catheter care as part of the general bathing process. However, there is no harm in changing gloves, performing hand hygiene and re-gloving before performing Foley catheter care.

### **5. Should gloves be removed after Foley catheter care with hand hygiene afterwards, and then clean gloves put on for the remainder of the bath?**

Again, there is no evidence at this time that shows the risks or benefits of changing gloves after catheter care but there is no harm in doing so.

### **6. Or, should Foley catheter care be done at the end of the bath, then peri-anal care?**

The general recommendation is to move from the cleaner area to the less clean area. The HICPAC guidelines state to perform hand hygiene immediately before and after insertion or any manipulation of the catheter device or site, and to not clean the periurethral area with antiseptics to prevent CAUTI while the catheter is in place; routine hygiene (e.g. cleansing of the meatal surface during daily bathing or showering) is appropriate.

## CATHETER MANAGEMENT

### **1. Why is it important to use the smallest size catheter for a resident if I need to insert a catheter?**

This will help to reduce urethral and bladder injury (e.g. irritation, hemorrhage, ulceration).

### **2. What should I do if a resident wants a catheter due to dignity issues but there are no appropriate indications for a catheter?**

This request is rare. The Centers for Medicare and Medicaid Services<sup>xii</sup> requires a valid clinical rationale and medical justification (e.g. urinary retention, stage 3 decubitus to the sacral area, etc.) for an indwelling catheter.

Due to resident choice, this can become a gray area. Documentation and the care plan should reflect education (e.g. infection risk and potential mortality with a urinary catheter) and attempts to prevent catheterization (e.g. toileting program, trials with different incontinence briefs). The physician may be reluctant to give the catheter insertion order. There may be value with consulting with the state surveying agency for additional guidance.

### **3. Should we change urinary catheters every 30 days?**

No, there is little evidence to suggest any benefit that routine catheter or drainage bag changes prevent CAUTI.<sup>xiii</sup>

### **4. Are there any recommendations on when a chronic indwelling Foley catheter should be changed for a resident in long term care setting?**

HICPAC/CDC CAUTI Prevention Guideline states, “Changing indwelling catheters or drainage bags at routine, fixed intervals is not recommended. Rather, it is suggested to change catheters and drainage

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bags based on clinical indications such as infection, obstruction, or when the closed system is compromised."<sup>xiv</sup>

The Infectious Diseases Society of America (IDSA) in their Guidelines on Diagnosis, Prevention and Treatment of CAUTI does include the following recommendation for a patient with an indwelling Foley in whom symptomatic CAUTI is suspected:

" 45. A urine specimen for culture should be obtained prior to initiating antimicrobial therapy for presumed CA-UTI because of the wide spectrum of potential infecting organisms and the increased likelihood of antimicrobial resistance....

46. If an indwelling catheter has been in place for **12 weeks** at the onset of CA-UTI and is still indicated, the catheter should be replaced to hasten resolution of symptoms and to reduce the risk of subsequent CA-bacteriuria and CA-UTI.

i. The urine culture should be obtained from the freshly placed catheter prior to the initiation of antimicrobial therapy to help guide treatment.

ii. If use of the catheter can be discontinued, a culture of a voided midstream urine specimen should be obtained prior to the initiation of antimicrobial therapy to help guide treatment..."<sup>xv</sup>

### ANTIBIOTIC STEWARDSHIP

#### I. Does prescribing prophylactic antibiotics help prevent UTIs?

The CDC<sup>ii</sup> notes there are no benefits of antimicrobial prophylaxis in patients who have short-term and long-term urinary catheterization. This was supported in a 2013 AHRQ<sup>i</sup> review of the literature.

Residents with or without urinary catheters, with asymptomatic bacteriuria, should not be treated with antimicrobial therapy.<sup>xvi</sup> Overuse of antibiotics can lead to antimicrobial resistance, medication adverse events, and potential *Clostridium difficile* infection.

### DRAINAGE BAG CARE

#### I. What is the recommended way of maintaining, cleaning and storing catheter drainage bags when not in use?

The manufacturer may recommend their product is for single-use only and should not be reused due to a potential safety risk to the resident (e.g. infection, compromised structural integrity leading to device failure, etc.).

An alternative approach is to perform a multi-disciplinary risk assessment that addresses the benefits and disadvantages of reusing the leg drainage bags. Advantages include cost savings and decreased environmental waste. The assessment should be documented and approved by the organization's safety committee.

If leg drainage bags will be reused, it is important to develop a policy and procedure that includes:

- Performing hand hygiene and wearing personal protective equipment (PPE)

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- Adhering to aseptic technique
- Wiping all connecting tips with an alcohol wipe
- Ensuring the connecting tips are kept covered and clean while being stored
- Washing the exterior of the bag and leg straps
- Rinsing the interior of the bag with diluted vinegar, full strength distilled white vinegar (5% acidity), diluted bleach (1:10 ratio) or antimicrobial liquid soap
- Storing the bag
- Replacing the leg and drainage bag on a schedule (e.g. weekly) and as needed

### **2. If we have long-term residents who use leg bags during the day, how often should we change these?**

Please see the answer in Question #1.

### **3. Is it good practice to change from a large drainage bag at night to a leg bag during the day for rehab residents? What is the best practice?**

Please see the answer in Question #1.

## OTHER

### **1. What is the best way to store a urine collection (graduated) container after it is rinsed: right side up or placed on a paper towel upside down?**

There is currently no research or evidence-based recommendation that addresses the best method to store urine collection containers after they are rinsed. However, there are several key things to remember to ensure best practices and prevent infection.

- Place a resident identifier (e.g. name, initials) on the urine collection container, not on the cap.
- Never share a urine collection container between residents.
- Store the urine collection container in the resident's bathroom.
- Be careful not to contaminate the container with the drainage spigot/outlet tube.
- Ensure there is a policy that addresses the how frequent the container will be changed (e.g. weekly, monthly, etc.). Consider changing the container with the same frequency as changing the bedpans and urinals.
- Only trained staff should empty the urine collection bag and rinse/store the containers.
  - If a resident or family member requests education and training, an instructional session should be arranged that reviews the importance of hand hygiene, proper technique, etc. The resident/family member should then demonstrate how to properly care for and store the container.

### **2. How can we clean dignity covers?**

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Dignity covers for Foley catheter collection bags should be on a routine laundry schedule (e.g. weekly, monthly, etc.). They should also be laundered when soiled.

### 3. Do you have any resources regarding bladder training, Foley catheters, and rehabilitation?

Bladder training is a process to teach a resident to manage and empty their bladder without the need for instrumentation or a device. Some bladders require training to become reflex bladders and others will need training as contractile bladders. All methods of bladder management involve a degree of training and routine. It is important not to allow the bladder to remain empty (e.g. by indwelling catheter on free drainage) as this will reduce its capacity and strength. To maintain or increase bladder strength and capacity, the bladder should be trained to regularly hold a volume of urine. Developing a bladder management program for rehab residents for example, will help prevent UTIs, bladder overdistention and kidney damage.

The type of management program will depend on many factors. Some of them include:

- Level of injury and extent of loss of normal urinary system function
- Susceptibility to infection, including overall medical and surgical history
- Can/will the resident adhere to the program?
  - Ability to sit, stand and ambulate
  - Lifestyle (is the resident highly active, etc.)
- Availability of clinically effective products/systems

The object of bladder training is to maintain the resident's bladder at the appropriate volumes for optimum overall health. Methods of bladder retraining are supplemented by monitoring fluid intake to prevent UTIs and control urine volume and concentration, developing scheduled times for urination, and using body positions to facilitate voiding.

Successful bladder training is an interdisciplinary function. Ideally, the three disciplines of nursing, physical therapy (PT) and occupational therapy (OT) work together:

- Bladder training often begins when OT and nursing agree that the resident is physically and functionally able to begin.
- In general, PT assesses the ability of the resident to "transfer" him/herself. They also assess if a wheelchair is needed, and if so, what type.
- OT assesses if other equipment is needed and the resident's actual abilities and disabilities.
- Finally, nursing provides the follow-through and reinforcement on a daily basis. As always, nursing is also responsible for overall physical assessment, and is often the coordinator or "case manager" of the efforts of other disciplines.
- All disciplines are expected to document the effectiveness (or lack) of their efforts.
- Ideally, the plan is to train the resident as well as other providers and family members. Training also includes education about medications and their side effects, recognizing symptoms of a UTI and urine volume issues.

Sample bladder training protocol (Vanderbilt):

<http://www.mc.vanderbilt.edu/surgery/trauma/Protocols/Bladder%20Training%20Protocol.pdf>

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