

COVID-19 and HAI Updates and Q&A Webinars for Long-Term Care and Congregate Residential Settings

December 16th, 2022

Housekeeping

- All attendees in listen-only mode
- Submit questions via Q&A pod to All Panelists
- Slides and recording will be made available later
- For continuing education credit, complete evaluation at <u>https://redcap.dph.illinois.gov/surveys/?s=NFLE4FMC9KTWKEHE</u>by December 30th, 2022
 - Credit only available for the live session
 - Must be registered individually to receive credit



Agenda

- Upcoming Events & Webinars
- Potential Posters for Preventing COVID-19 Transmission
- Evidenced-based Guidelines for the Prevention of CAUTI (Catheter associated Urinary Tract Infection)
- Open Q & A



Upcoming Infection Prevention and Control Updates 1:00 pm - 2:00 pm

Date	Infection Control Topic	Registration Link
Friday, January 6 th	Facility Assessment and Infection Risk Assessment in Long Term Care - Part 2	https://illinois.webex.com/illinois/onstage/g.php?M TID=e256d87336db875da5401867770b44c4d
Friday, January 27 th	*Environmental Cleaning, Disinfection, and Monitoring*	https://illinois.webex.com/illinois/onstage/g.php?M TID=e256d87336db875da5401867770b44c4d
Friday, February 10 th	How to Perform a Root Cause Analysis (RCA)	https://illinois.webex.com/illinois/onstage/g.php?M TID=ec00ad9f307c2c6b3a440a67ff7ac87f3
Friday, February 24 th	Outbreak Detection and Control	https://illinois.webex.com/illinois/onstage/g.php?M TID=ee579379913781c752510e95fbae8f306

*We highly recommend facilities encourage anyone involved in environmental services to attend this presentation

Continued Education will be offered. It will only be for the live presentation. Please ensure when registering that your name and email are correctly spelled. To receive the continued education, you must complete a training survey, which will be provided with the link to the recording.



Presented by

Illinois Health Care Association Hektoen Institute of Medicine Illinois Department of Public Health



BUILDING AN INFECTION PREVENTION PROGRAM IT'S MORE THAN JUST COVID-19

LTC COVID-19 Vaccination Reporting

Update

- Emergency Rules for Ill. Adm. Code, Title 77, parts 295, 300, 330, 340, 350, 370, 380, 390 were renewed. Effective 12/11 (300), 12/12
- Facilities that are not required to report COVID-19 aggregate vaccination data into the National Healthcare Safety Network (NHSN), must report this data to IDPH weekly using a Smartsheet form located at this link: <u>https://dph.illinois.gov/covid19/ltc-vaccination-testing-reporting.html</u>
- The Smartsheet form has been updated to reflect recent changes in CDC/IDPH guidance and simplified



Telligen's New Campaign To Assist Nursing Homes To Increase COVID-19 Vaccination Rates & Reduce Resident Mortality Rates

FACT SHEET: Biden Administration Announces Six-Week Campaign to Get More Americans their Updated COVID-19 Vaccine Before End of the Year

Administration Prioritie

BRIEFING ROOM > STATEMENTS AND RELEASES

CMS requested QIOs across the country to increase efforts to assist nursing homes to:

- Increase Up-to-Date vaccination rates for residents and staff
- Provide educational materials to increase the use of COVID-19 Therapeutics

Telligen Action Steps:

- Quality Improvement Facilitators are contacting NHs in Illinois with low Resident Up to Date vaccine rates
- Offering NHSN reporting support, coaching, strategies, and resources
- Providing live and on demand educational events
- Technical Assistance Contact <u>nursinghome@telligen.com</u>

Telligen Events

For all other events, visit our website: <u>https://www.telligenqiconnect.com/calendar</u>

Don't miss out on these upcoming events:





Is an ongoing series that will focus on a new topic each week and include information, tools and tips to increase vaccination rates. You will hear from other nursing homes about common challenges to increase booster rates and what's working for them.

Register Here

Ask an Expert Series (NEW)

Thursdays 11-11:30 a.m. CT

This weekly webinar series alternates between case study reviews with Telligen's Infection Preventionist and Q&A discussions with Telligen's Pharmacist

Designed to accommodate your busy schedule, this 30-minute come-and-go-as-you-need series is targeted towards nursing home staff and is an opportunity for open discussion and Q&A.

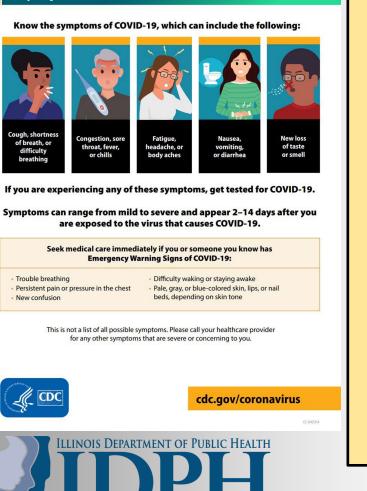
- **Denton Chancy, PharmD** will cover COVID-19 vaccination topics and therapeutics
- Jaime Zapata, CIC will cover topics to strengthen your infection prevention and control program
- <u>Register Here</u>



Preventing COVID-19 Transmission Everyone has a Role in Preventing the Spread of COVID-19

Symptoms of COVID-19

https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.htm



DTECTING HEALTH. IMPROVING LIVE

If any of the following apply, we ask that you postpone your visit for the health and safety of your

loved one and others:

- 1) Symptoms of COVID-19
- 2) Have tested positive for COVID-19
- 3) Been exposed to someone that is positive for COVID-19

Wear a mask with the best fit, protection, and comfort for you.

N95 Respirator NIOSH-approved	KN95 Respirator	Disposable Mask Sometimes referred to as "surgical masks" or "medical procedure masks"	Cloth Mask Non-medical, made of fabric
When worn correctly, respirators offer the highest level of protection and filter 95% of particles.	Filtration varies depending on standard. When worn correctly, KN95s provide more protection than disposable masks.	Disposable masks offer more protection than cloth masks.	Layered finely woven cloth masks offer mor protection. Loosely woven cloth masks provide the least protection.
	Masks and respirators sho by children younger than		ov/coronavir
	Use		

Get Vaccinated and Stay Up To Date



COVID-19 vaccines available in the United States are effective at protecting people from getting seriously ill, being hospitalized, and dying. As with other diseases, you are protected best from COVID-19 when you stay up to date with the recommended vaccines, including recommended boosters.



Evidenced-based Guidelines for the Prevention of CAUTI (Catheter associated Urinary Tract Infection)

December 16, 2022

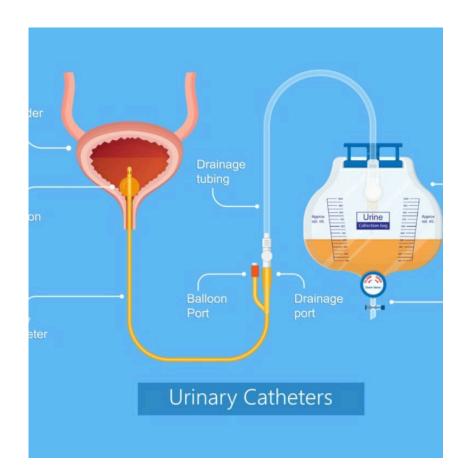
Objectives

At the end of this presentation, you will be able to:

- 1. Identify the risk factors for Catheter associated Urinary Tract Infection (CAUTI) and the pathogenesis of CAUTI.
- 2. Be familiar with the CAUTI definitions for Long Term Care Facilities –Loeb clinical criteria, and the surveillance criteria for McGeer, and National Healthcare Safety Network (NHSN).
- 3. Enumerate the evidence-based guidelines for the prevention of CAUTI.
- 4. Learn what an infection prevention bundle is and example of a CAUTI bundle.

Urinary Tract Infection (UTI)

- The urinary tract is one of the most common sites of healthcare-associated infections, accounting for 20% of infections reported by long-term care facilities (LTCFs).
- In the LTCF resident, risk factors for developing bacteriuria and urinary tract infection include age-related changes to the genitourinary tract, co-morbid conditions resulting in neurogenic bladder, and instrumentation required to manage bladder voiding.
- Approximately 5% to 7% of LTCF residents have an indwelling urinary catheter. An indwelling urinary catheter is a tube placed in the bladder to drain urine.
- Rates of UTI is higher in catheterized vs non catheterized residents



Epidemiology of Catheter Associated Urinary Tract Infection (CAUTI)

- The most important risk factor for developing a catheter-associated UTI (CAUTI) is **prolonged use of the urinary catheter**. Every day that the urinary catheter is in place increases the resident's risk of CAUTI **up to 7% per day**.
- The point prevalence of asymptomatic bacteriuria in LTC residents can range from 25-50%
- 50-70% of CAUTI are thought to be preventable with recommended infection control measures.
- Catheter-associated UTI (CAUTI) can lead to such complications as cystitis, pyelonephritis, bacteremia, and septic shock.
- LTCF residents with chronic indwelling catheter are more likely to have UTIs with multi-drug resistant organisms (MDROs).

Source: Urinary Tract Infection (UTI) Event for Long-term Care Facilities https://www.cdc.gov/hai/ca_uti/uti.html

Pathogenesis of Catheter Associated Urinary Infection (CAUTI)

Source of Microorganisms causing CAUTI

1. Endogenous – via meatal, rectal or vaginal colonization

2. **Exogenous** – via contaminated hands of healthcare personnel or equipment

Entry Pathways for Microorganism

1. Extraluminal route – outside surface of the catheter

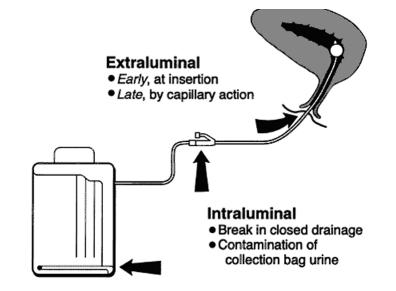
-lack of asepsis during insertion

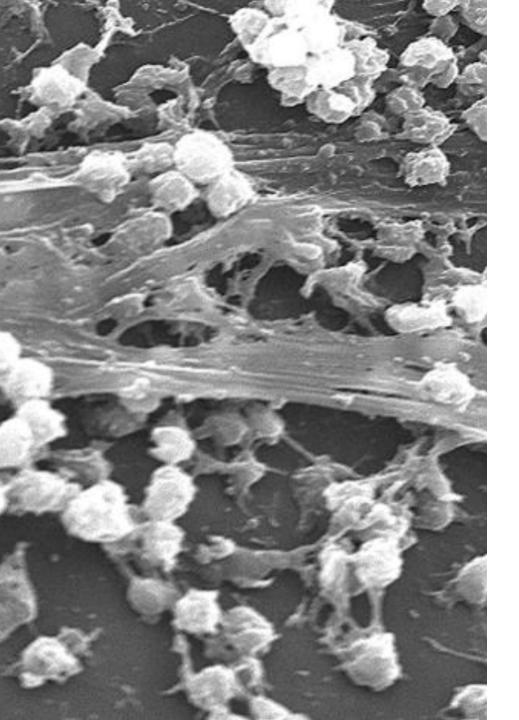
- 2. Intraluminal route inside of the catheter and the drainage bag
 - poor catheter care and maintenance

Most frequent microorganisms associated with CAUTI

Escherichia coli (21.4 percent) and *Candida spp* (21 percent), followed by *Enterococcus spp* (14.9 percent), *Pseudomonas aeruginosa*

Source: https://www.cdc.gov/infectioncontrol/guidelines/cauti/background.html





Biofilm

- Biofilms are complex structures that include bacteria, host cells, and cellular by-products. Biofilm formation within invasive medical devices is proposed as a primary mechanism in the development of certain infections, such as CAUTI.
- This "slimey coating" may be clearly visible upon catheter removal on indwelling Foleys that have been in place for extended periods of time.
- The dense extracellular matrix of biofilm and the outer layer of cells may protect the bacteria from antibiotics and normal host defense mechanisms of the white blood cells, such as phagocytosis.

Source: <u>https://phil.cdc.gov/Details.aspx?pid=7488</u>; APIC CAUTI Prevention Implementation Guide: https://apic.org/wp-content/uploads/2019/02/APIC_CAUTI_IG_FIN_REVD0815.pdf

CAUTI Definitions for Long-Term Care Facilities

1. Loeb Criteria are Designed for Clinical Use

• meant to be a minimum set of **signs and symptoms** which, when met, indicate that the resident likely has an infection and that an antibiotic might be indicated, even if the infection has not been confirmed by diagnostic testing.

Source: Loeb and McGeer Criteria | A PRACTICAL GUIDE FOR USE IN LONG-TERM CARE https://www.health.state.mn.us/diseases/antibioticresistance/hcp/asp/ltc/loebmcgeer.pdf

Minimum Criteria for Initiation of Antibiotics in Long-Term Care Residents

Suspected Urinary Tract Infection

NO indwelling catheter:

- Acute dysuria
- or
- Fever (>37.9°C [100°F] or a 1.5°C [2.4°F] increase above baseline temperature) and at least one of the following:
 - New or worsening:
 - Urgency
 - Frequency
 - Suprapubic pain
 - Gross hematuria
 - Costovertebral angle tenderness
 - Urinary incontinence

WITH indwelling catheter (Foley or suprapubic):

- At least one of the following:
 - Fever (>37.9°C [100°F] or a 1.5°C [2.4°F] increase above baseline temperature)
 - New costovertebral tenderness
 - Rigors
 - New onset of delirium

Note: Foul smelling or cloudy urine is not a valid indication for initiating antibiotics. Asymptomatic bacteriuria should not be treated with antibiotics.

CAUTI <u>Surveillance</u> Definition for Long Term Care Facilities

1. McGeer Surveillance Criteria

- are used for retrospectively counting true infections.
- To meet the criteria for definitive infection, more diagnostic information (e.g., positive laboratory tests) is often necessary.
- not intended for informing antibiotic initiation because they depend on information that might not be available when that decision must be made

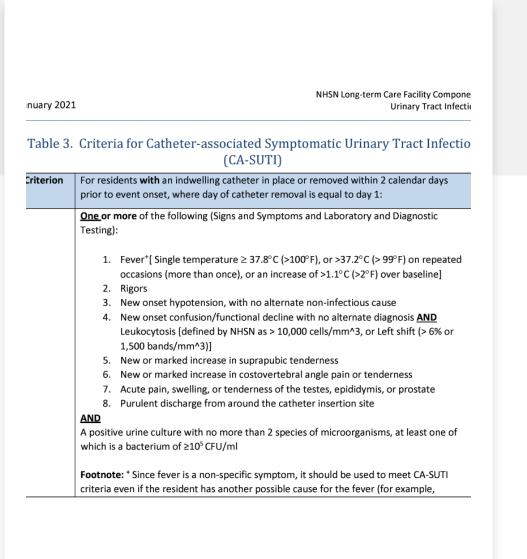
UTI with indwelling catheter	 Must fulfill both 1 AND 2. 1. At least one of the following sign or symptom Fever, rigors, or new-onset hypotension, with no alternate site of infection Either acute change in mental status or acute functional decline, with no alternate diagnosis and leukocytosis New-onset suprapubic pain or costovertebral angle pain or tenderness Purulent discharge from around the catheter or acute pain, swelling, or tenderness of the testes, epididymis, or prostate 2.Urinary catheter specimen culture with ≥ 10⁵ cfu/mL of any organism(s) 	 Recent catheter trauma, catheter obstruction, or new onset hematuria are useful localizing signs that are consistent with UTI but are not necessary for diagnosis Urinary catheter specimens for culture should be collected after replacement of the catheter if it has been in place >14 d 		

Source: Loeb and McGeer Criteria | A PRACTICAL GUIDE FOR USE IN LONG-TERM CARE https://www.health.state.mn.us/diseases/antibioticresistance/hcp/asp/ltc/loebmcgeer.pdf

CAUTI <u>Surveillance</u> Definition for Long Term Care Facilities

2. NHSN (National Healthcare Safety Network) Surveillance Criteria

- NHSN UTI Event reporting is currently available for certified skilled nursing facilities and nursing homes and intermediate and chronic care facilities for the developmentally disabled
- are used for active, resident-based, prospective surveillance of events.
- For UTI, the criteria is based on laboratory results + specific signs and/or symptoms.
- Participation in NHSN reporting can provide a way for facilities to benchmark infection rates with other U.S. facilities.
- NHSN criteria are not intended for clinical decision making.



Evidenced-based Guidelines for CAUTI Prevention Appropriate Urinary Catheter Use

- 1. Insert catheters **only for appropriate indications**, and leave in place **only as long as needed.**
- **2. Minimize urinary catheter use and duration of use** in all residents, particularly those at higher risk for CAUTI or mortality from catheterization such as **women, the elderly, and persons with impaired immunity**



Source: Urinary Tract infection (UTI) NHSN LTCF CDC https://www.cdc.gov/nhsn/ltc/uti/index.htmlhttps://www.cdc.gov/nhsn/ltc/uti/index.html

Indications for Appropriate Catheter Use

Resident has acute urinary retention or bladder outlet obstruction.

Need for accurate measurements of urinary output in critically ill residents.

To assist in healing of open sacral or perineal wounds in incontinent residents.



Resident requires prolonged immobilization (e.g., potentially unstable thoracic or lumbar spine, multiple traumatic injuries such as pelvic fractures).

To improve comfort for end of life care if needed.

Source: Urinary Tract infection (UTI) NHSN LTCF CDC https://www.cdc.gov/nhsn/ltc/uti/index.htmlhttps://www.cdc.gov/nhsn/ltc/uti/index.html

Inappropriate Uses of Indwelling Catheters

• As a substitute for nursing care of the resident with incontinence.

• As a means of obtaining urine for culture or other diagnostic tests when the patient can voluntarily void.



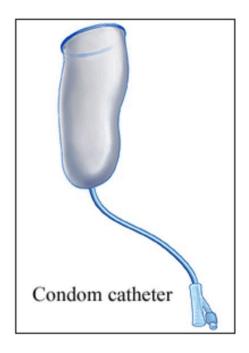
Source: Recommendations | CAUTI Guidelines | https://www.cdc.gov/infectioncontrol/guidelines/cauti/recommendations.html

Consider using alternatives to indwelling urethral catheterization in selected residents when appropriate

Consider alternatives to chronic indwelling catheters, such as **intermittent catheterization**, in **spinal cord injury patients**.

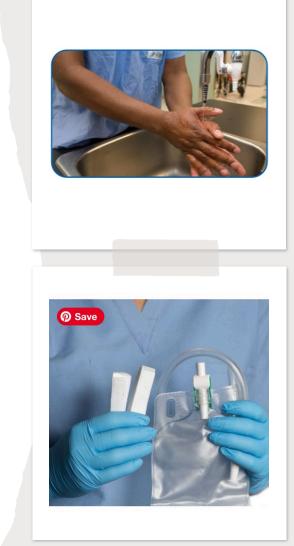
Intermittent catheterization is preferable to indwelling urethral or suprapubic catheters in residents with bladder emptying dysfunction.

Apply **external condom catheters** for male patients **without** urinary retention or bladder outlet obstruction



Proper Techniques for Urinary Catheter Insertion

- A. Perform hand hygiene immediately before and after insertion or any manipulation of the catheter device or site.
- B. Ensure that **only properly trained persons** (e.g., health care personnel, family members, or residents themselves) who know the correct technique of aseptic catheter insertion and maintenance are given this responsibility
- C. In the **non-acute care setting**, **clean (i.e., non-sterile) technique** for intermittent catheterization is an acceptable and more practical alternative to sterile technique for residents requiring chronic intermittent catheterization.
- D. If intermittent catheterization is used, perform it at **regular intervals** to prevent bladder overdistension.



Proper Techniques for Urinary Catheter Insertion

Continuation

- E. Unless otherwise clinically indicated, consider using the **smallest bore catheter possible**, consistent with good drainage, to minimize bladder neck and urethral trauma.
- F. Properly **secure** indwelling catheters after insertion to prevent movement and urethral traction
- G. If ultrasound bladder scanners are used, ensure that indications for use are clearly stated, nursing staff are trained in their use, and equipment is adequately cleaned and disinfected in between patients.



Proper Techniques for Urinary Catheter Maintenance

- A. Following aseptic insertion of the urinary catheter, **maintain a closed drainage system.**
- B. If breaks in aseptic technique, disconnection, or leakage occur, **replace** the catheter and collecting system using aseptic technique and sterile equipment.
- C. Maintain **unobstructed** urine flow.
- D. Keep the catheter and collecting tube **free from kinking**.
- E. Keep the collecting bag **below the level of the bladder at all times**.

Do not rest the bag on the floor.



Proper Techniques for Urinary Catheter <u>Maintenance</u>

Continuation

E. Empty the collecting bag **regularly** using a separate, clean collecting container for each patient; avoid splashing, and prevent contact of the drainage spigot with the nonsterile collecting container.

F. Use Standard Precautions, including the use of gloves and gown as appropriate, during any **manipulation** of the catheter or collecting system.

G. Unless clinical indications exist (e.g., in residents with bacteriuria upon catheter removal post urologic surgery), do **not** use systemic antimicrobials routinely to prevent CAUTI in residents requiring either short or long-term catheterization.

H. Do **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.

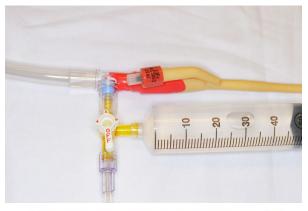
Source: Recommendations | CAUTI Guidelines | https://www.cdc.gov/infectioncontrol/guidelines/cauti/recommendations.html

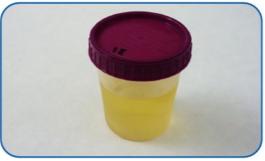




Catheter Materials, Management of Obstruction, and Specimen Collection

- A. If the CAUTI rate is **not** decreasing after implementing a comprehensive strategy to reduce rates of CAUTI, consider using **antimicrobial/antiseptic-impregnated catheters**.
- B. If **obstruction** occurs and it is likely that the catheter material is contributing to obstruction, **change the catheter**.
- C. Obtain urine samples **aseptically**.
- If a **small volume** of fresh urine is needed for examination (i.e., urinalysis or culture), aspirate the urine from the needleless sampling port with a sterile syringe/cannula adapter after cleansing the port with a disinfectant.
- Obtain large volumes of urine for special analyses (not culture) aseptically from the drainage bag.





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Source: Recommendations | CAUTI Guidelines | https://www.cdc.gov/infectioncontrol/guidelines/cauti/recommendations.html

The DO's of Indwelling Urinary Catheter Care

- Do perform peri-care using only soap and water
- Do keep the catheter and tubing from kinking and becoming obstructed
- Do keep catheter systems closed when using urine collection bags or leg bags
- Do replace catheters and collection bags that become disconnected
- Do ensure the resident's identifier/implementation date is on their urine collection containers
- Do make sure to disinfect the sampling port before obtaining a sample

Source: Catheter Care Do's and Don'ts AHRQ Safety Program for Long-Term Care: HAIs/CAUTI https://www.ahrq.gov/hai/quality/tools/cauti-ltc/modules/resources/tools/prevent/do-dont.html



The DON'Ts of Indwelling Urinary Catheter Care

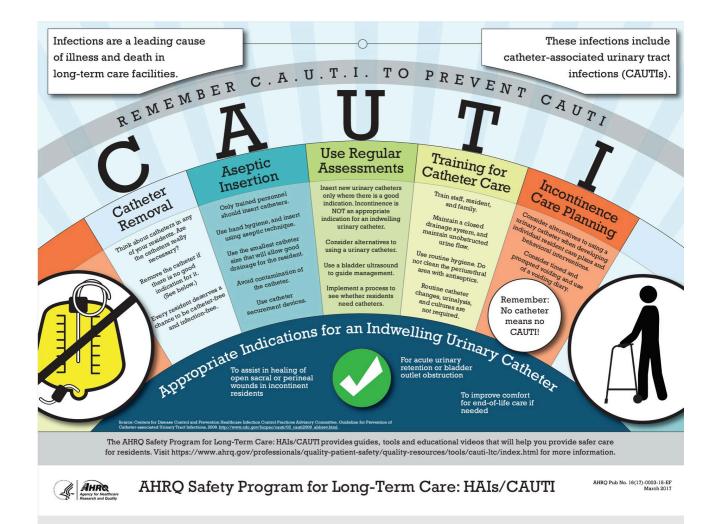
- Don't change catheters or drainage bags at routine, fixed intervals
- **Don't** administer routine antimicrobial prophylaxis
- Don't use antiseptics to cleanse the periurethral area while a catheter is in place
- **Don't** clean the periurethral area vigorously
- **Don't** irrigate the bladder with antimicrobials
- Don't instill antiseptic or antimicrobial solutions into drainage bags
- Don't routinely screen for asymptomatic bacteriuria
- Don't contaminate the catheter outlet valve during collection bag emptying

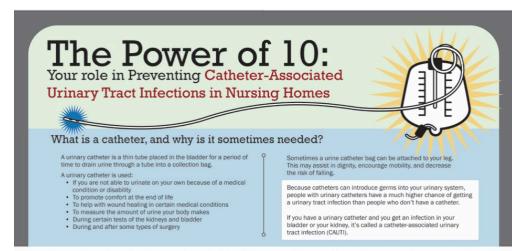
Source: Catheter Care Do's and Don'ts AHRQ Safety Program for Long-Term Care: HAIs/CAUTI https://www.ahrq.gov/hai/quality/tools/cauti-ltc/modules/resources/tools/prevent/do-dont.html



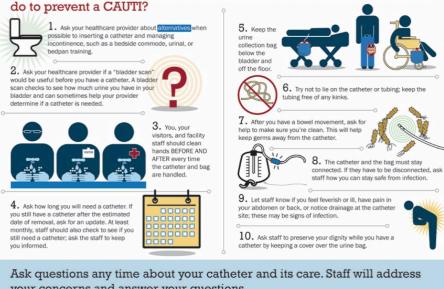
Infection Prevention Care Bundles

• are simple sets of evidence-based practices that, when implemented collectively, improve the reliability of their delivery and improve patient/resident outcome





As a nursing home resident, family member, or loved one, what can you



your concerns and answer your questions.

ology of America.

anals in Infection Control and Epidemiology



Source: APIC|CAUTI Implementation Guide. https://apic.org/wp-content/uploads/2019/02/APIC CAUTI IG FIN REVD0815.pdf



Thank you!



Submit questions via Q&A pod to All Panelists

Please do not resubmit a single question multiple times

Slides and recording will be made available after the session.



Reminders

- For continuing education credit, please fill out the following evaluation by December 30th, 2022:
 - For continuing education credit, complete evaluation at <u>https://redcap.dph.illinois.gov/surveys/?s=NFLE4FMC9KTWKEHE</u>
- SIREN Registration
 - To receive situational awareness from IDPH, please use this link to guide you to the correct registration instructions for your public health related classification: <u>http://www.dph.illinois.gov/siren</u>
- NHSN Assistance:
 - Contact Telligen: nursinghome@telligen.com