

Nursing Home Patient Safety Series: Preventing and Managing Urinary Tract Infections in Nursing Facilities



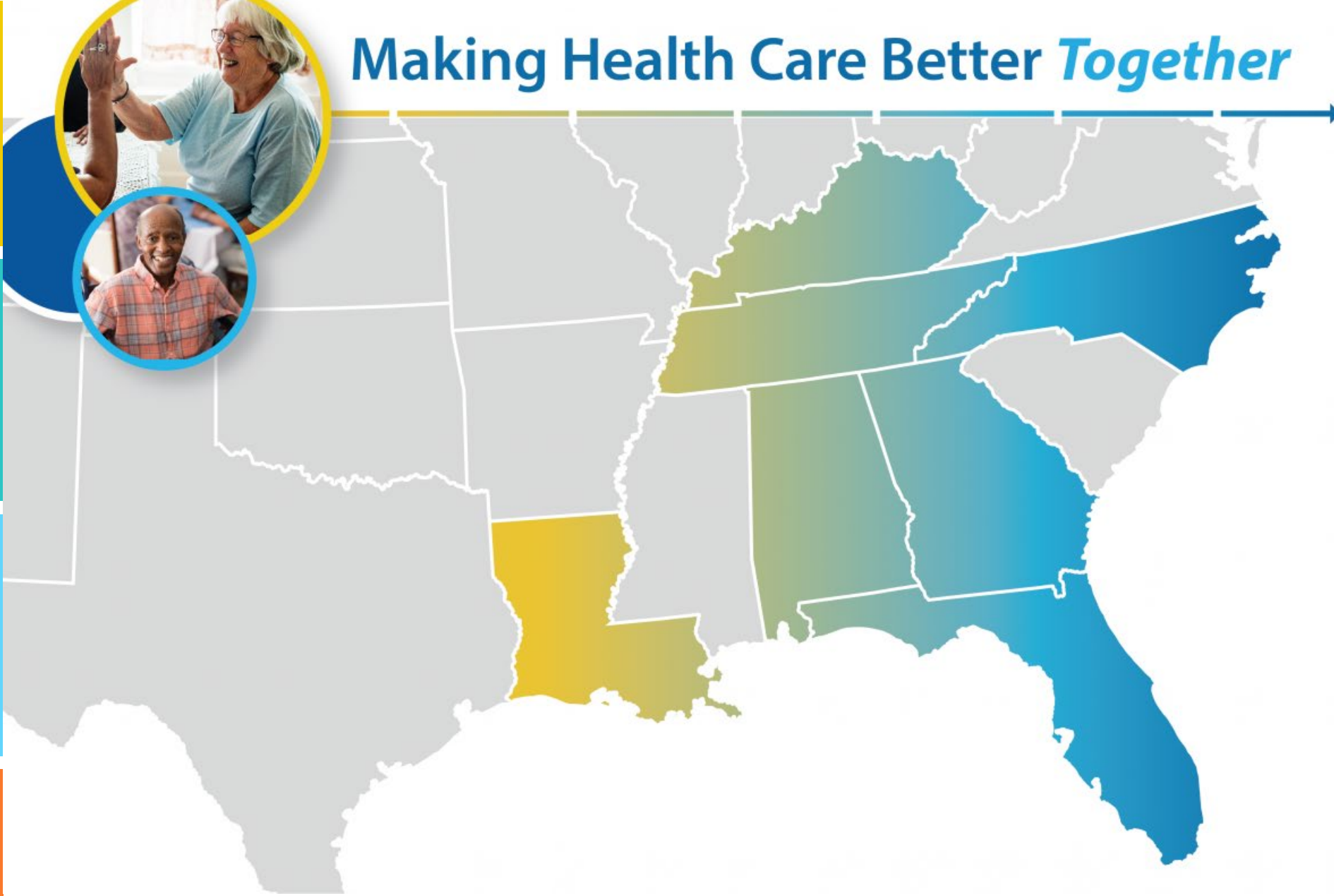
Erica Umeakunne, MSN, MPH, APRN, CIC
Infection Prevention Specialist

July 12, 2023

 **ALLIANT**
HEALTH SOLUTIONS

QIN-QIO
Quality Innovation Network -
Quality Improvement Organizations
CENTERS FOR MEDICARE & MEDICAID SERVICES
QUALITY IMPROVEMENT & INNOVATION GROUP

Making Health Care Better *Together*



About Alliant Health Solutions

Erica Umeakunne, MSN, MPH, APRN, CIC

INFECTION PREVENTION SPECIALIST

Erica Umeakunne is an adult-gerontology nurse practitioner and infection preventionist with experience in primary care, critical care, health care administration and public health.

She previously served as the interim hospital epidemiology director for a large health care system in Atlanta and as a nurse consultant in the Center for Disease Control and Prevention's (CDC) Division of Healthcare Quality Promotion. While at CDC, she served as an infection prevention and control (IPC) subject matter expert for domestic and international IPC initiatives and emergency responses, including Ebola outbreaks and, most recently, the COVID-19 pandemic.

Erica enjoys reading, traveling, family time and outdoor activities.

Contact: Erica.Umeakunne@allianthealth.org

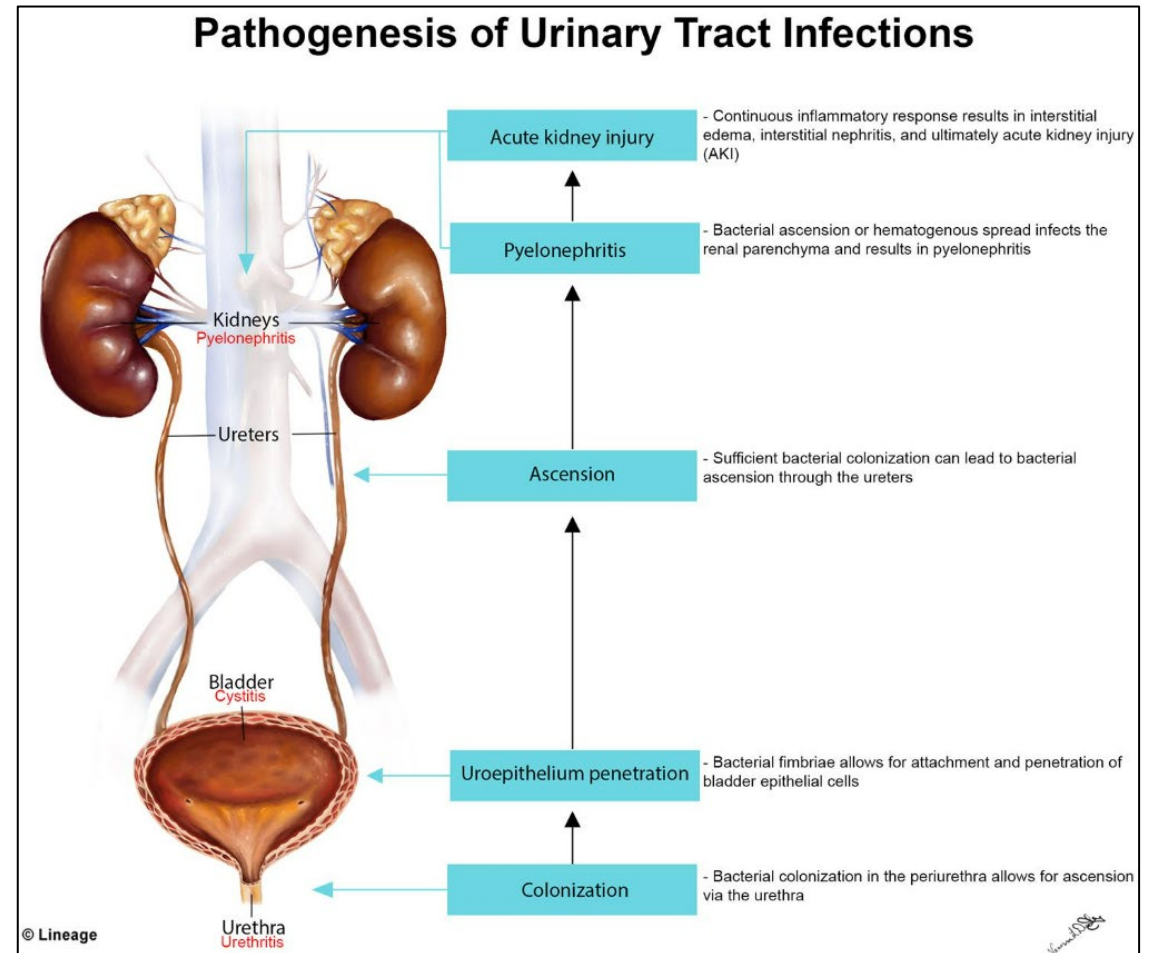


Objectives

- Review strategies to reduce health care-associated urinary tract infections (UTIs) in residents.
- Discuss infection prevention strategies, including clinical, nursing and surveillance interventions, that will reduce the burden of urinary tract infections in nursing facilities.
- Share Alliant Health Solutions quality improvement resources to support UTI prevention initiatives.

Urinary Tract Infections (UTIs)

- Most common sites of healthcare-associated infections
 - Accounts for up to 20% of infections reported by long-term care facilities (LTCFs)
- Risk factors for developing bacteriuria and UTI:
 - Age-related changes to the genitourinary tract
 - Comorbid conditions resulting in neurogenic bladder
 - Instrumentation required to manage bladder voiding
- Complications:
 - Cystitis
 - Pyelonephritis
 - Bacteremia
 - Septic shock
 - Declined resident function and mobility
 - Acute care hospitalizations
 - Increased mortality



<https://u.osu.edu/utieducation/pathophysiology-of-uti/>

<https://www.cdc.gov/nhsn/pdfs/ltc/ltnf-manual-508.pdf>

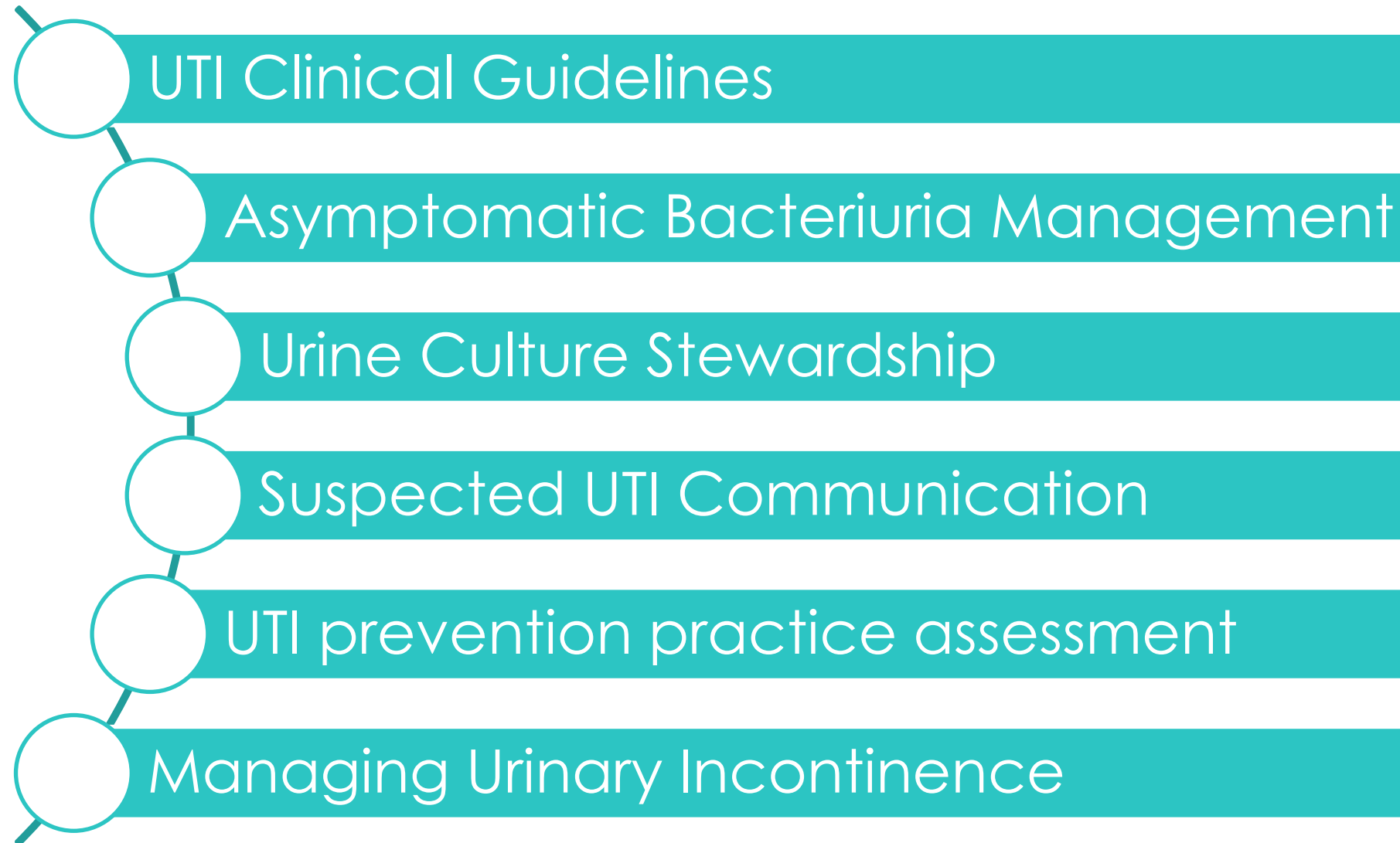
Urinary Tract Infections (UTIs) & Sepsis: Disparities

- Race/Ethnicity
 - Sepsis-related mortality rates are higher in Blacks, Native Americans, and Hispanics (Prest et al., 2021)
 - Lower in Asians
 - Sepsis-related mortality rates declined in Blacks, Hispanics, and Asians (Prest et al., 2021)
 - Increased in Whites and Native Americans
- Gender
 - Men with catheter-associated bacteriuria have approximately twice the odds of developing bacteremia compared to females (Conway et al., 2015).
 - Highlights the need for early catheter removal, in-out catheterization, or use of condom catheters instead of indwelling urethral catheters to patients at the highest risk for catheter-associated urosepsis
- Age
 - 25% of elderly patients hospitalized for sepsis were discharged to post-acute care facilities (DiMeglio et al., 2018)
 - Older adults' urosepsis mortality risk factors (Peach et al., 2016):
 - Functional dependency
 - Number of comorbidities
 - Low serum albumin
- Location
 - Majority of sepsis-related deaths occurred in the hospital (Prest et al., 2021)
 - Percentage of deaths in the nursing home decreased (Prest et al., 2021)
 - Percentage of deaths in home and hospice increased (Prest et al., 2021)
 - Recurrent infection sepsis most common cause of readmission LTCF population (DiMeglio et al., 2018)
 - Associated with poor long-term outcomes and mortality

**See end of presentation for citations*

Clinical and Nursing Considerations

Clinical & Nursing Considerations



UTI Clinical Guidelines and Resources

- [CDC Catheter-associated Urinary Tract Infection \(CAUTI\) Guidance](#)
- [Diagnosis, Prevention, and Treatment of Catheter-Associated Urinary Tract Infection in Adults: 2009 International Clinical Practice Guidelines from the Infectious Diseases Society of America](#)
- [Infectious Disease Society of America \(IDSA\) Clinical Practice Guideline for the Management of Asymptomatic Bacteriuria: 2019 Update by the Infectious Diseases Society of America](#)
- [Agency for Healthcare Research & Quality \(AHRQ\) Nursing Home Antimicrobial Stewardship Guide: Minimum Criteria for Common Infections Toolkit](#)
- [American Urological Association: Guidelines](#)

UTI Clinical Guidelines and Resources

- [American Academy of Family Physicians: Urinary Tract Infections/Dysuria](#)
- [International Clinical Practice Guidelines for the Treatment of Acute Uncomplicated Cystitis and Pyelonephritis in Women: A 2010 Update by the Infectious Diseases Society of America and the European Society for Microbiology and Infectious Diseases](#)
- [IDSA 2023 Guidance on the Treatment of Antimicrobial Resistant Gram-Negative Infections](#)
- [Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America Guidelines for Developing an Institutional Program to Enhance Antimicrobial Stewardship](#)

Asymptomatic Bacteriuria (ASB)

- Presence of one or more species of bacteria growing in the urine at specified quantitative counts ($\geq 10^5$ colony-forming units [CFU]/mL or $\geq 10^8$ CFU/L), irrespective of the presence of pyuria, in the absence of signs or symptoms attributable to urinary tract infection (UTI) (e.g., dysuria, frequency, urgency, fever, flank pain)
- Positive urine culture in a patient with no signs or symptoms of a urinary tract infection, often associated with pyuria (urine containing ≥ 10 white blood cells per high-powered field)

Population	Prevalence of ASB	Prevalence of Pyuria in Persons With ASB
Healthy premenopausal women	1–5%	32%
Women 70–90 years old	11–16%	
Female long-term care residents	25–50%	90%
Male long-term care residents	15–50%	90%
Women with diabetes	9–27%	70%
Men with diabetes	1–11%	
People receiving hemodialysis	25%	90%
Presence of indwelling urinary catheter	> 90%	50–100%

Asymptomatic Bacteriuria (ASB)

- The majority of patients/residents with ASB and/or asymptomatic pyuria **SHOULD NOT** be treated.
- Studies have demonstrated that treatment of ASB does not prevent UTIs.
 - Treatment associated with adverse events related to antibiotic use and the development of future UTIs that are antibiotic resistant.
- Exceptions
 - Pregnant patients: treatment prevents preterm labor and pyelonephritis.
 - Patients about to undergo a urologic procedure in which mucosal bleeding is expected (not urinary catheter placement): treatment prevents urosepsis.

TABLE 1

Screening for Asymptomatic Bacteriuria in Adults: Clinical Summary of the USPSTF Recommendation

Population	This applies to adults 18 years and older and pregnant persons of any age without signs and symptoms of a urinary tract infection. It does not apply to persons who have chronic medical or urinary tract conditions or are hospitalized or living in institutions such as nursing homes.	
Recommendation	For pregnant persons: Grade B Screen persons who are pregnant for asymptomatic bacteriuria with a urine culture.	For nonpregnant adults: Grade D Do not screen adults who are not pregnant for asymptomatic bacteriuria.
What's new?	This recommendation is consistent with the 2008 USPSTF recommendation. The USPSTF continues to recommend screening for pregnant persons and recommends against screening for nonpregnant adults.	
How to implement this recommendation?	Screen. Screen pregnant persons for asymptomatic bacteriuria using a mid-stream, clean-catch urine culture at the first prenatal visit or at 12 to 16 weeks of gestation, whichever is earlier. A urine culture showing >100,000 CFU/mL of a single uropathogen or >10,000 CFU/mL if the pathogen is group B streptococcus indicates treatment.	
Where to read the full recommendation statement?	Visit the USPSTF website to read the full recommendation statement. This includes more details on the rationale of the recommendation, including benefits and harms; supporting evidence; and recommendations of others.	

Note: For a summary of the evidence systematically reviewed in making this recommendation, the full recommendation statement, and supporting documents, go to <https://www.uspreventiveservicestaskforce.org/>.

CFU = colony-forming units; USPSTF = U.S. Preventive Services Task Force.

How Can I Prevent Unnecessary Treatment of ASB?

- Do not order urine cultures unless your patient has signs and symptoms of a UTI, including in patients undergoing preoperative evaluation or patients with urinary catheters (except in pregnant patients or those about to undergo a urologic procedure in which mucosal bleeding is expected).
- Establish appropriate indications for urine cultures.
 - Foul-smelling or cloudy urine does not indicate a UTI.
 - Delirium, insomnia, and falls alone do not indicate a UTI.

Symptom of UTI – Order Urine Test	Not a Symptom of UTI – No Urine Test
<ul style="list-style-type: none">✓ Pain or burning with urination✓ Pain in the lower belly✓ Pain in the sides and low back✓ New or sudden urine leakage✓ Strong urge to urinate often✓ Fever✓ Blood in the urine that is new	<ul style="list-style-type: none">✓ Foul or strong urine odor✓ Confusion, irritability or change in behavior✓ Loss of balance✓ New onset of falls✓ Cloudy or dark urine✓ Poor appetite✓ Long standing incontinence

Agency for Healthcare Research and Quality: UTI Diagnosis and Treatment Best Practices



- Explain how to distinguish ASB from a UTI
- Discuss the patient populations who should and should not be tested and treated for ASB
- Recommend empiric treatments for UTIs
- Discuss opportunities for de-escalation of antibiotic therapy for UTIs after additional clinical data are available
- Discuss reasonable durations of antibiotic therapy for UTIs

<https://www.ahrq.gov/antibiotic-use/acute-care/diagnosis/uti.html>

Urine Culture Ordering Stewardship

- Send urinalysis (UA) and urine cultures when patients have symptoms of UTI
- Do not order in the absence of signs and symptoms of UTI, including patients with urinary catheters and those undergoing preoperative evaluation (unless urinary mucosal bleeding is anticipated)
 - Do not send urine cultures for:
 - Foul-smelling or cloudy urine
 - Routinely on admission or preoperatively
 - Routinely before or after a catheter change
 - As part of a fever workup, if there are no signs or symptoms localizing to the urinary tract
 - As a test of cure
- Establish urine culture protocols
- Work with the lab to determine from where and why urine cultures are being sent to identify targets for improvement
- Consider reflex testing protocols/criteria with the lab and medical director/specialists
- Develop tools in the electronic health record to prompt providers to document indications for sending a urine culture

Urine Culture Ordering Stewardship in Residents WITHOUT Indwelling Urinary Catheters



Appropriate Uses of Urine Cultures

- Dysuria, urgent or frequent urination, suprapubic pain or tenderness, flank pain or costovertebral angle tenderness, acute hematuria, or pelvic discomfort
- New onset or worsening sepsis with no identifiable cause
- Fever or altered mental status without evidence of another source on history, physical examination, or laboratory testing
- Screening for asymptomatic bacteriuria (ASB)
 - Early pregnancy
 - Prior to certain urology procedures
- Preoperative evaluations prior to urologic surgeries where mucosal bleeding is anticipated
- In spinal cord injury patients: increased spasticity, autonomic dysreflexia, sense of unease

Inappropriate Uses of Urine Cultures

- Odorous, cloudy, or discolored urine in the absence of other localizing signs/symptoms
- Reflex urine cultures based on urinalysis results, such as pyuria, in the absence of other indications
- Urine culture to document response to therapy unless symptoms fail to resolve
- Screening for ASB in most groups
- Preoperative evaluations in most groups

Urine Culture Ordering Stewardship in Residents WITH Indwelling Urinary Catheters



Appropriate Uses of Urine Cultures

- Presence of symptoms suggestive of a urinary tract infection (UTI). For example;
 - Flank pain or costovertebral angle tenderness,
 - acute hematuria,
 - new pelvic discomfort
- New onset or worsening sepsis without evidence of another source on history, physical examination, or laboratory testing
- Fever or altered mental status without evidence of another source on history, physical examination, or laboratory testing
- In spinal cord injury patients: increased spasticity, autonomic dysreflexia, sense of unease



Inappropriate Uses of Urine Cultures

- Odorous, cloudy, or discolored urine in the absence of other localizing signs/symptoms
- Reflex urine cultures based on urinalysis results, such as pyuria, in the absence of other indications (Absence of pyuria suggests a diagnosis other than CAUTI)
- Urine culture to document response to therapy unless symptoms are failing to resolve

Urine Culture Ordering Stewardship in Residents WITH Indwelling Urinary Catheters: Urine Culture Collection

Prior to Collection

- Determine the number of days the urinary catheter has been in place; if greater than 14 days, consider replacing the catheter prior to specimen collection. Ensure that appropriate indications for culture collection are present.
- Obtain a facility approved urine collection kit.
- Never collect a urine culture from the collection bag.


Collection

- Perform hand hygiene and don gloves.
- Occlude the catheter tubing a minimum of three inches below the collection port.
- When urine is visible under the sampling port, scrub the port with a disinfectant wipe.
- Use an aseptic technique to collect the specimen using a facility-approved collection device.
- If needed, transfer the specimen to a facility-approved container and label it according to hospital policy. Make sure to indicate the date and time the culture was collected.
- Prepare the specimen for transport per facility policies for specimen handling.
- Doff gloves and perform hand hygiene.

Post-collection

- Transport the specimen to the laboratory or refrigerate immediately; follow the manufacturer's instructions for your collection tube regarding the amount of time the specimen is stable when at room temperature or refrigerated.
- If significant delay is anticipated (e.g., regional laboratory), consider using a collection tube that contains a preservative such as boric acid to prevent the overgrowth of contaminating organisms or using a collection device that already contains a preservative.

Communication Checklist: Suspected UTIs

 Communication Checklist: Signs and Symptoms Associated with Suspected Urinary Tract Infections (UTIs)	
This tool can: <ul style="list-style-type: none"> Provide a framework for change in condition communication when signs and symptoms of UTIs are identified. Prepare for change in communication conversations. Be modified to include facility specific prompts or UTI prevention strategies. 	
SBAR Prompts	Notes
Altered mental status: mental status is different than baseline	Baseline: Current signs/symptoms: Date or hour changes first identified:
Current vital signs	Temp: _____ Route: _____ Baseline Temp: _____ B/P: _____ Pulse: _____ RR: _____
Patient has documented goals of care related to antibiotic use	Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, describe:
Patient has a diagnosis of advanced dementia and is unable to report or validate symptoms	Yes <input type="checkbox"/> No <input type="checkbox"/>
Observation of signs or symptoms of distress (e.g., agitation, new refusal of care or number of staff needed to provide care)	Briefly describe signs or symptoms: Frequency signs or symptoms are observed: Date or hour symptoms first observed:
Patient has started new medications within the past seven days	Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, Name of Medication: _____ dose: _____ date started: _____ Name of Medication: _____ dose: _____ date started: _____ Name of Medication: _____ dose: _____ date started: _____
Change in eating or drinking patterns or level of assistance from the patient's norm (e.g., was eating independently with a set-up, but now requiring encouragement or spoon-feeding)	Briefly describe change:
Clinical signs/symptoms	Check all that apply: <input type="checkbox"/> Painful urination (dysuria) <input type="checkbox"/> Lower abdominal (suprapubic) pain or tenderness <input type="checkbox"/> Low back pain (costovertebral angle pain) or tenderness <input type="checkbox"/> Visible blood in urine <input type="checkbox"/> New or worsening urinary urgency, frequency or incontinence

Continued on next page

Patient has history of urinary symptoms and urinary tract infections	Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, Date of most recent episode: _____ Number of episodes in last x months: _____ What did the prior culture grow? _____ What did the susceptibilities show? _____
Patient has history of MDROs	Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, Date of most recent treatment: _____ Organism: _____
Patient is currently receiving dialysis	Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, type: <input type="checkbox"/> Hemodialysis <input type="checkbox"/> Peritoneal Does the patient have any urine output? Yes <input type="checkbox"/> No <input type="checkbox"/>
Patient has an indwelling catheter? How often changed? Diagnoses? Due for change?	Yes <input type="checkbox"/> No <input type="checkbox"/> Diagnosis for indwelling catheter: _____ Date of most recent catheter change: _____
Request initiation of facility hydration protocol. (e.g., encourage _____ fluids x _____ HRS and monitor for a change. Send a urine specimen if change in baseline temp over 2.0 degrees or change in urine)	
Request order to send urine specimen via straight catheterization or clean catch	
If antibiotic ordered, request a review of antibiotic order when microbiology specimen results are ready (e.g., three days from order date)	



Resources:

AHRQ Suspected UTI SBAR Toolkit:
<https://www.ahrq.gov/nhguidetoolkits/determine-whether-to-treat/toolkit-suspected-uti-sbar.html>

Interact® 4.5 Symptoms of UTI Care Path:
<https://pathway-interact.com/tools/>

SBAR Tool: Guidelines + Worksheet:
http://forms.ihl.org/tools/sbar-toolkit?utm_referrer=http%3A%2F%2Fwww.ihl.org%2F

This material was prepared by Alliant Health Solutions, a Quality Innovation Network - Quality Improvement Organization (QIN - QIO) under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services (HHS). Views expressed in this material do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS. Publication No. 2200W-AR6, TOL-NH-973-10/06/21

- Provides a framework for change in condition communication when signs/symptoms of UTI identified
- Helps nursing home staff and prescribing clinicians communicate about suspected UTIs and facilitates appropriate antibiotic prescribing
- [Agency for Healthcare Research & Quality \(AHRQ Toolkit\)](#) includes:
 - Suspected UTI SBAR form
 - A clinician letter
 - Not All "Infections" Need Antibiotics*
 - Urinalysis and UTIs: Improving Care

<https://quality.allianthealth.org/wp-content/uploads/2021/10/Communication-Checklist - Signs-and-Symptoms-Associated-with-Suspected-Urinary-Tract-Infections-UTIs.pdf>

Interventions for Residents (Regardless of Urinary Catheter Status)

Hand hygiene

Treatment of atrophic vaginitis as UTI prophylaxis

Interventions to improve management of urinary incontinence

Implementation of effective IPC program

Interventions to Improve Management of Urinary Incontinence



Indwelling Urinary Catheters: Indications



Appropriate Uses of Indwelling Urinary Catheters

- Patient has acute urinary retention or bladder outlet obstruction
- Need for accurate measurements of urinary output in critically ill patients
- Perioperative use for selected surgical procedures
- To assist in the healing of open sacral or perineal wounds in incontinent patients.
- Patient 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

Inappropriate Uses of Indwelling Urinary Catheters

- As a substitute for nursing care of the patient or resident with incontinence
- As a means of obtaining urine for culture or other diagnostic tests when the patient can voluntarily void
- For prolonged postoperative duration without appropriate indications

<https://www.cdc.gov/infectioncontrol/guidelines/cauti/recommendations.html>



Urinary Catheter: Observation

2

Instructions: Observe patients with urinary catheters in place. Observe each practice and record the observation. In the column on the right, sum (across) the total number of “Yes” and the total number of observations (“Yes” + “No”). Sum all categories (down) for overall performance.

Urinary catheter: Observation Categories		Patient 1	Patient 2	Patient 3	Patient 4	Summary of Observations	
						Yes	Total Observed
1	Is the catheter properly secured to the patient?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
2	Is there unobstructed flow from the catheter into the bag?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
3	Is the collection bag below the level of the bladder?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
4	Are the bag and tubing off of the floor?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Total YES and TOTAL OBSERVED							

https://quality.allianthealth.org/media_library/urinary-catheter-quick-observation-tool/

Catheter-Associated Urinary Tract Infection (CAUTI) Prevention Strategies

A gap analysis is a tool used to assess the difference between actual practice and expected performance. It is useful to compare best practice guidelines against your currently accepted practices. It is important to assess practice through observation and audit rather than relying on if a policy is in place, as practice can vary from policy.

CORE Prevention Strategies = Strategies that should always be in place.

ENHANCED Prevention Strategies = Strategies to be considered in addition to core strategies when:

- There is evidence that the core strategies are being implemented and adhered to consistently.
- There is evidence that CAUTI rates are not decreasing.

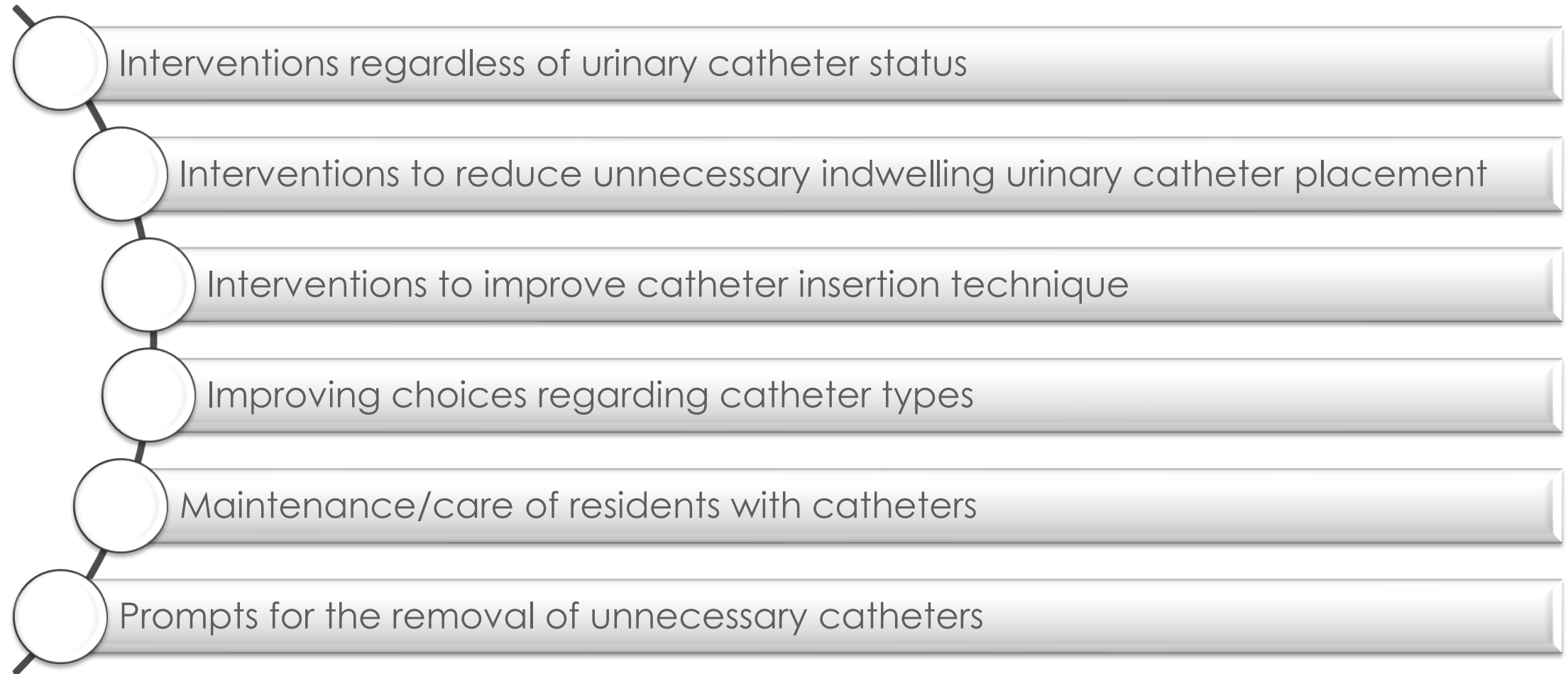
Gap Analysis Questions	Yes	No	If answered question "No" – identify the Specific Action plan(s) including persons responsible and timeline to complete.
Patient and Family Education			
1a) The patient and family have been educated about their urinary catheter, such as symptoms of a urinary tract infection, catheter care, and what the patient and family can do to help prevent an infection [4]. • If Patient and Family Advisory Committee available, consider having them review educational materials prior to publication	<input type="checkbox"/>	<input type="checkbox"/>	
1b) If the patient is to be discharged with an indwelling catheter in place, the patient and family have been educated on how to care for the catheter and symptoms of infection, using teach back method to ensure patient's understanding.	<input type="checkbox"/>	<input type="checkbox"/>	
Appropriate Catheter Use			
2a) The facility has a process in place to insert urinary catheters only when necessary, following CDC/HICPAC indications for urinary catheter insertion and use [1,3,4].	<input type="checkbox"/>	<input type="checkbox"/>	
2b) Include insertion criteria into urinary catheter order process [1]. • Utilize the electronic health record to hard wire insertion criteria into order.	<input type="checkbox"/>	<input type="checkbox"/>	
2c) The facility has a process in place to consider the use of alternatives to urinary catheter placement, including [1-4]: • Use of condom catheters • Straight catheterization • Use of external female catheters	<input type="checkbox"/>	<input type="checkbox"/>	
2d) The facility uses a portable ultrasound device to assess the patient's urine volume to reduce unnecessary catheter insertions prior to making a decision regarding catheter placement [2-4].	<input type="checkbox"/>	<input type="checkbox"/>	
The facility's indwelling catheter placement practices include the following indications for appropriate placement [1-4]:	<input type="checkbox"/>	<input type="checkbox"/>	
2e) Management of acute urinary retention and urinary obstruction (consider use of bladder scanner to assess urinary retention).	<input type="checkbox"/>	<input type="checkbox"/>	
2f) Strict urine output monitoring in critically ill patients (consider alternatives other than indwelling catheters to measure urine output) [1-4].	<input type="checkbox"/>	<input type="checkbox"/>	
2g) Perioperative use for selected surgical procedures such as [1-4]: • GU surgery or other surgery on contiguous structures of the GU tract • Anticipated prolonged duration of surgery (catheters inserted for this reason should be removed in PACU) • Patients anticipated to receive large-volume infusions or diuretics during surgery • Need for intraoperative monitoring of urinary output	<input type="checkbox"/>	<input type="checkbox"/>	

CAUTI Prevention Strategies Resource

- [CAUTI GAP Assessment Tool](#)
- Used to assess the difference between actual practice and expected performance
- Compare best practice guidelines against your currently accepted practices
- CAUTI GAP Analysis Areas:
 - Patient and family education
 - Appropriate catheter use
 - Catheter insertion practices
 - Catheter maintenance practices
 - Urine culturing practices
 - Indwelling catheter removal
 - Documentation
 - Staff education
 - Monitoring and evaluating
 - Infrastructure

https://quality.allianthealth.org/wp-content/uploads/2021/11/CAUTI-Gap-Assessment-Tool_2SOW-AHS-TO3-HQIC-1058-10.29.21.pdf

Systematic Review of Interventions to Reduce Urinary Tract Infections in Nursing Home Residents (2017)



Home Patient Safety Series: Reducing Facility-Associated Infections and Hospitalizations Related to UTI, Sepsis, Pneumonia, and COVID-19



Erica Umeakunne, MSN, MPH, APRN, CIC
Infection Prevention Specialist

0:06 / 28:27

October 19, 2022



<https://www.youtube.com/watch?v=YqrKDqU7DwM>

Surveillance

Surveillance Plan

- Annual infection prevention plans should include a surveillance section describing:
 - Surveillance method (total/targeted/combination)
 - Populations (patient, resident, staff, those with specific risk factors, etc.)
 - Events monitored (UTI, C. diff, etc.)
 - Other high-risk events, such as TST conversions, C. auris, CRE, etc.
 - Regular evaluation to ensure it meets organizational goals and objectives and to ensure methodologies are current
 - Efforts to select event types with standardized and nationally recognized benchmarking data
 - NHSN for healthcare-associated infection data
 - McGeer Criteria

Identifying an Infection Event: Notification

Notification triggers are situations when unit staff should contact the surveillance team about a potential infection event.

Examples include:

- New antibiotic start.
- New microbiology test ordered.
- Changes in resident condition that may indicate an infection.

Work with frontline staff to develop a list of triggers and determine when the surveillance team should be notified, who is responsible for the notification, and how often it occurs.



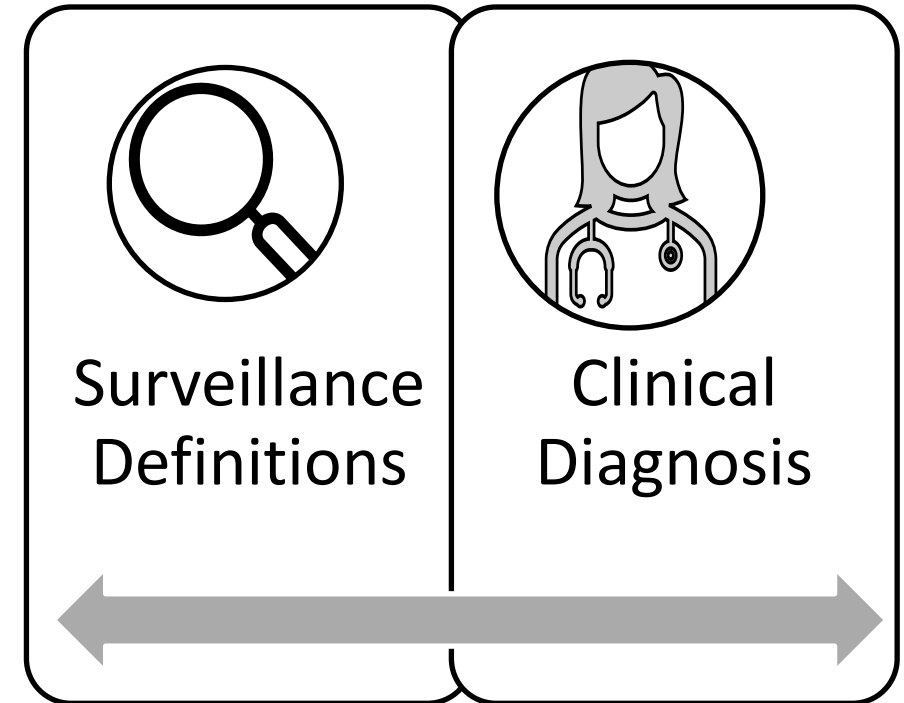
How do you track UTIs in your facility?

- a) We do not track UTIs in my facility.
- b) We track UTIs based on clinician diagnosis and/or documentation.
- c) We use the McGeer surveillance criteria.
- d) We use the National Healthcare Safety Network (NHSN) UTI surveillance definitions.



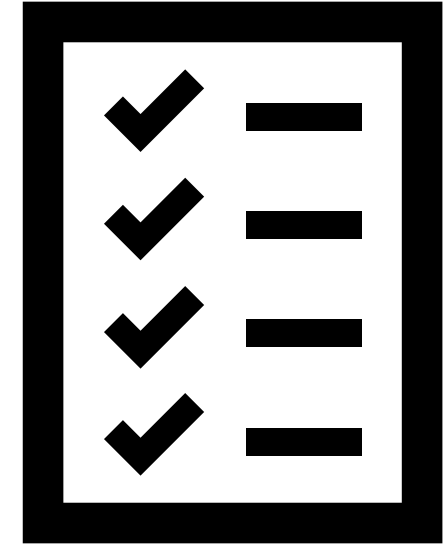
What Is the Difference Between a Surveillance Definition of an Infection and a Clinical Diagnosis?

- Surveillance Definition
 - Designed to study and identify trends in a population
 - Allows confidence in the aggregation and analysis of data
 - Use of surveillance definitions essential to ensure the same thing is counted
- Clinical Diagnosis
 - Patient or resident specific
 - ALL available diagnostic data considered in a clinical diagnosis, including additional clinical, epidemiological and laboratory data not used for surveillance
 - May be made even when a surveillance definition may not be met



What Is the Revised McGeer Criteria?

- Evidence-based, standardized guidance for infection surveillance activities in long-term care facilities (LTCF)
- Designed to define infections for surveillance purposes more broadly
 - Represented syndromes capture a variety of clinically relevant infections that occur in the LTCF population
- Surveillance criteria are not intended to inform antibiotic initiation



Stone, N. D., Ashraf, M. S., Calder, J., Crnich, C. J., Crossley, K., Drinka, P. J., Gould, C. V., Juthani-Mehta, M., Lautenbach, E., Loeb, M., Maccannell, T., Malani, P. N., Mody, L., Mylotte, J. M., Nicolle, L. E., Roghmann, M. C., Schweon, S. J., Simor, A. E., Smith, P. W., Stevenson, K. B., ... Society for Healthcare Epidemiology Long-Term Care Special Interest Group (2012). Surveillance definitions of infections in long-term care facilities: revisiting the McGeer criteria. *Infection control and hospital epidemiology*, 33(10), 965-977.
<https://doi.org/10.1086/667743>

Patient Name: _____ MRN: _____ Location: _____

Date of Infection: _____ Date of Review: _____ Reviewed by: _____

UTI: ☐ evaluated ☐ criteria met RTI: ☐ evaluated ☐ criteria met SSTI: ☐ evaluated ☐ criteria met GITI: ☐ evaluated ☐ criteria met

Table 1. Constitutional Criteria for Infection			
Fever	Leukocytosis	Acute Mental Status Change	Acute Functional Decline
Single oral temp $>37.8^{\circ}\text{C}$ (100°F), OR Repeated oral temp $>37.2^{\circ}\text{C}$ (99°F), OR Repeated rectal temp $>37.5^{\circ}\text{C}$ (99.5°F), OR Single temp $>1.1^{\circ}\text{C}$ (2°F) from baseline from any site	$>14,000$ WBC / mm^3 , OR $>6\%$ band, OR $\geq 1,500$ bands / mm^3	Acute onset, AND Fluctuating course, AND Inattention, AND Either disorganized thinking, OR altered level of consciousness	3-point increase in baseline ADL score according to the following items: 1. Bed mobility 2. Transfer 3. Locomotion within LTCF 4. Dressing 5. Toilet use 6. Personal hygiene 7. Eating [Each scored from 0 (independent) to 4 (total dependence)]

Table 2. Urinary Tract Infection (UTI) Surveillance Definitions		
Syndrome	Criteria	Selected Comments*
UTI without indwelling catheter	<p>Must fulfill both 1 AND 2.</p> <p>1. At least one of the following sign or symptom</p> <ul style="list-style-type: none"> Acute dysuria or pain, swelling, or tenderness of testes, epididymis, or prostate Fever or leukocytosis, and ≥ 1 of the following: <ul style="list-style-type: none"> Acute costovertebral angle pain or tenderness Suprapubic pain Gross hematuria New or marked increase in incontinence New or marked increase in urgency New or marked increase in frequency If no fever or leukocytosis, then ≥ 2 of the following: <ul style="list-style-type: none"> Suprapubic pain Gross hematuria New or marked increase in incontinence New or marked increase in urgency New or marked increase in frequency <p>2. At least one of the following microbiologic criteria</p> <ul style="list-style-type: none"> $\geq 10^3$ cfu/mL of no more than 2 species of organisms in a voided urine sample $\geq 10^3$ cfu/mL of any organism(s) in a specimen collected by an in-and-out catheter 	<p>The following 2 comments apply to both UTI with or without catheter:</p> <ul style="list-style-type: none"> UTI can be diagnosed without localizing symptoms if a blood isolate is the same as the organism isolated from urine and there is no alternate site of infection In the absence of a clear alternate source of infection, fever or rigors with a positive urine culture result in the non-catheterized resident or acute confusion in the catheterized resident will often be treated as UTI. However, evidence suggests that most of these episodes are likely not due to infection of a urinary source. <p>Urine specimens for culture should be processed as soon as possible, preferably within 1-2 h</p> <p>If urine specimens cannot be processed within 30 min of collection, they should be refrigerated and used for culture within 24 h</p>
UTI with indwelling catheter	<p>Must fulfill both 1 AND 2.</p> <p>1. At least one of the following sign or symptom</p> <ul style="list-style-type: none"> 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 <p>2. Urinary catheter specimen culture with $\geq 10^3$ cfu/mL of any organism(s)</p>	<ul style="list-style-type: none"> 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
<input type="checkbox"/> UTI criteria met		<input type="checkbox"/> UTI criteria NOT met

* Refer to original article (Stone ND, et al. Infect Control Hosp Epidemiol 2012;33:965-77) for full comments

HAI Surveillance: Revised McGeer Criteria Checklist Tool

- Revised McGeer Criteria Checklist Tool
 - https://quality.allianthealth.org/media_library/revised-mcgeer-criteria-surveillance-checklist-tool/
- Checklist worksheet to document HAI-specific data and guide documentation of met criteria
- Includes forms to work up all infections listed in the Revised McGeer Surveillance Criteria
 - Constitutional Criteria for Infection
 - Fever
 - Leukocytosis
 - Mental status change
 - Functional decline
 - UTIs
 - Respiratory Tract Infections (RTIs)
 - Skin and Soft Tissue Infections (SSTIs)
 - Gastrointestinal Tract Infections

Case Study

Mr. Smith has been a Sunshine Health Nursing Facility resident for the past year. Mr. Smith is a 72-year-old male with a history of congestive heart failure, type II diabetes, and benign prostatic hypertrophy (BPH), and an enlarged prostate. He has a history of urge incontinence due to his BPH.

On June 10th, Mr. Smith reports new onset of pain while urinating (dysuria) to the night nurse. Mr. Smith rates the pain as 7/10 when urinating only. He also reports an increase in urgency to urinate and frequent voiding. His last set of vitals is listed as Oral temp. 101.7 °F, HR 101, BP 159/93, RR 20, Pulse ox 98% room air. The nurse collected a urine specimen ordered by the clinician. The urine culture report has returned, noting Escherichia coli, > 100,000 cfu/ml.

Is this a healthcare-associated UTI? If so, does it meet the Revised McGeer Criteria for UTIs?

Case Study

Mr. Smith has been a **Sunshine Health Nursing Facility resident for the past year**. Mr. Smith is a 72-year-old male with a history of congestive heart failure, type II diabetes, benign prostatic hypertrophy (BPH), and an enlarged prostate. He has a history of urge incontinence due to his BPH.

On June 10th, Mr. Smith reports **new onset of pain while urinating (dysuria)** to the night nurse. Mr. Smith rates the pain as 7/10 when urinating only. He also reports an **increase in urgency to urinate and frequent voiding**. His last set of vitals is listed as **Oral temp 101.7 °F**, HR 101, BP 159/93, RR 20, Pulse ox 98% room air. The nurse collected a urine specimen ordered by the clinician. The urine culture report has returned, noting **Escherichia coli, > 100,000 cfu/ml**.

Is this a healthcare-associated UTI? If so, does it meet the Revised McGeer Criteria for UTIs?

YES

Table 1. Constitutional Criteria for Infection			
Fever	Leukocytosis	Acute Mental Status Change	Acute Functional Decline
Single oral temp $>37.8^{\circ}\text{C}$ (100°F), OR Repeated oral temp $>37.2^{\circ}\text{C}$ (99°F), OR Repeated rectal temp $>37.5^{\circ}\text{C}$ (99.5°F), OR Single temp $>1.1^{\circ}\text{C}$ (2°F) from baseline from any site	$>14,000$ WBC / mm^3 , OR $>6\%$ band, OR $\geq 1,500$ bands / mm^3	Acute onset, AND Fluctuating course, AND Inattention, AND Either disorganized thinking, OR altered level of consciousness	3-point increase in baseline ADL score according to the following items: 1. Bed mobility 2. Transfer 3. Locomotion within LTCF 4. Dressing 5. Toilet use 6. Personal hygiene 7. Eating [Each scored from 0 (independent) to 4 (total dependence)]

Table 2. Urinary Tract Infection (UTI) Surveillance Definitions		
Syndrome	Criteria	Selected Comments*
UTI without indwelling catheter	<p>Must fulfill both 1 AND 2.</p> <p>1. At least one of the following sign or symptom</p> <ul style="list-style-type: none"> Acute dysuria or pain, swelling, or tenderness of testes, epididymis, or prostate Fever or leukocytosis, and ≥ 1 of the following: <ul style="list-style-type: none"> Acute costovertebral angle pain or tenderness Suprapubic pain Gross hematuria New or marked increase in incontinence New or marked increase in urgency New or marked increase in frequency If no fever or leukocytosis, then ≥ 2 of the following: <ul style="list-style-type: none"> Suprapubic pain Gross hematuria New or marked increase in incontinence New or marked increase in urgency New or marked increase in frequency <p>2. At least one of the following microbiologic criteria</p> <ul style="list-style-type: none"> $\geq 10^5$ cfu/mL of no more than 2 species of organisms in a voided urine sample $\geq 10^2$ cfu/mL of any organism(s) in a specimen collected by an in-and-out catheter 	<p>The following 2 comments apply to both UTI with or without catheter:</p> <ul style="list-style-type: none"> UTI can be diagnosed without localizing symptoms if a blood isolate is the same as the organism isolated from urine and there is no alternate site of infection In the absence of a clear alternate source of infection, fever or rigors with a positive urine culture result in the non-catheterized resident or acute confusion in the catheterized resident will often be treated as UTI. However, evidence suggests that most of these episodes are likely not due to infection of a urinary source. <ul style="list-style-type: none"> Urine specimens for culture should be processed as soon as possible, preferably within 1-2 h If urine specimens cannot be processed within 30 min of collection, they should be refrigerated and used for culture within 24 h
UTI with indwelling catheter	<p>Must fulfill both 1 AND 2.</p> <p>1. At least one of the following sign or symptom</p> <ul style="list-style-type: none"> 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 <p>2. Urinary catheter specimen culture with $\geq 10^5$ cfu/mL of any organism(s)</p>	<ul style="list-style-type: none"> Recent catheter trauma, catheter obstruction, or new onset hematuria are useful localizing signs that are consistent with UTI but are not necessary for diagnosis <ul style="list-style-type: none"> Urinary catheter specimens for culture should be collected after replacement of the catheter if it has been in place >14 d
<div> <input type="checkbox"/> UTI criteria met <input type="checkbox"/> UTI criteria NOT met </div>		

https://quality.allianthealth.org/media_library/revised-mcgeer-criteria-surveillance-checklist-tool/

Healthcare-Associated Infection (HAI) Surveillance and Dashboard Tool

- [AHS HAI Surveillance & Dashboard Tool](#)
 - Modifiable spreadsheet (with automated formulas) designed to support nursing facility infection prevention and control (IPC) surveillance
 - Line lists
 - Data tables
 - Graphs
 - Track and visualize facility-wide healthcare-associated infections (HAIs) and hand hygiene compliance
 - UTIs
 - Respiratory Tract Infections (RTIs)
 - Skin and Soft Tissue Infections (SSTIs)
 - Gastrointestinal Tract Infections
 - Hyperlinked resources
 - HAI surveillance definitions
 - Rates and calculations
 - Guidance and audit tools

Healthcare-associated Infection (HAI) Surveillance & Dashboard Tool



Bite Sized Learning Video

0:04 / 10:31

ALLIANT
HEALTH SOLUTIONS

QIN-QIO
Quality Innovation Network -
Quality Improvement Organizations
CENTERS FOR MEDICARE & MEDICAID SERVICES
QUALITY IMPROVEMENT & INNOVATION GROUP

HAI Surveillance & Dashboard Tool Bite-sized Learning



Alliant QIO
175 subscribers

Subscribe

0



Share

Save



<https://www.youtube.com/watch?v=aaS42k5xHZA>

ALLIANT
HEALTH SOLUTIONS

QIN-QIO
Quality Innovation Network -
Quality Improvement Organizations
CENTERS FOR MEDICARE & MEDICAID SERVICES
QUALITY IMPROVEMENT & INNOVATION GROUP

Healthcare-associated Infection (HAI) Surveillance and Dashboard Tool: UTI Surveillance

[illegible]

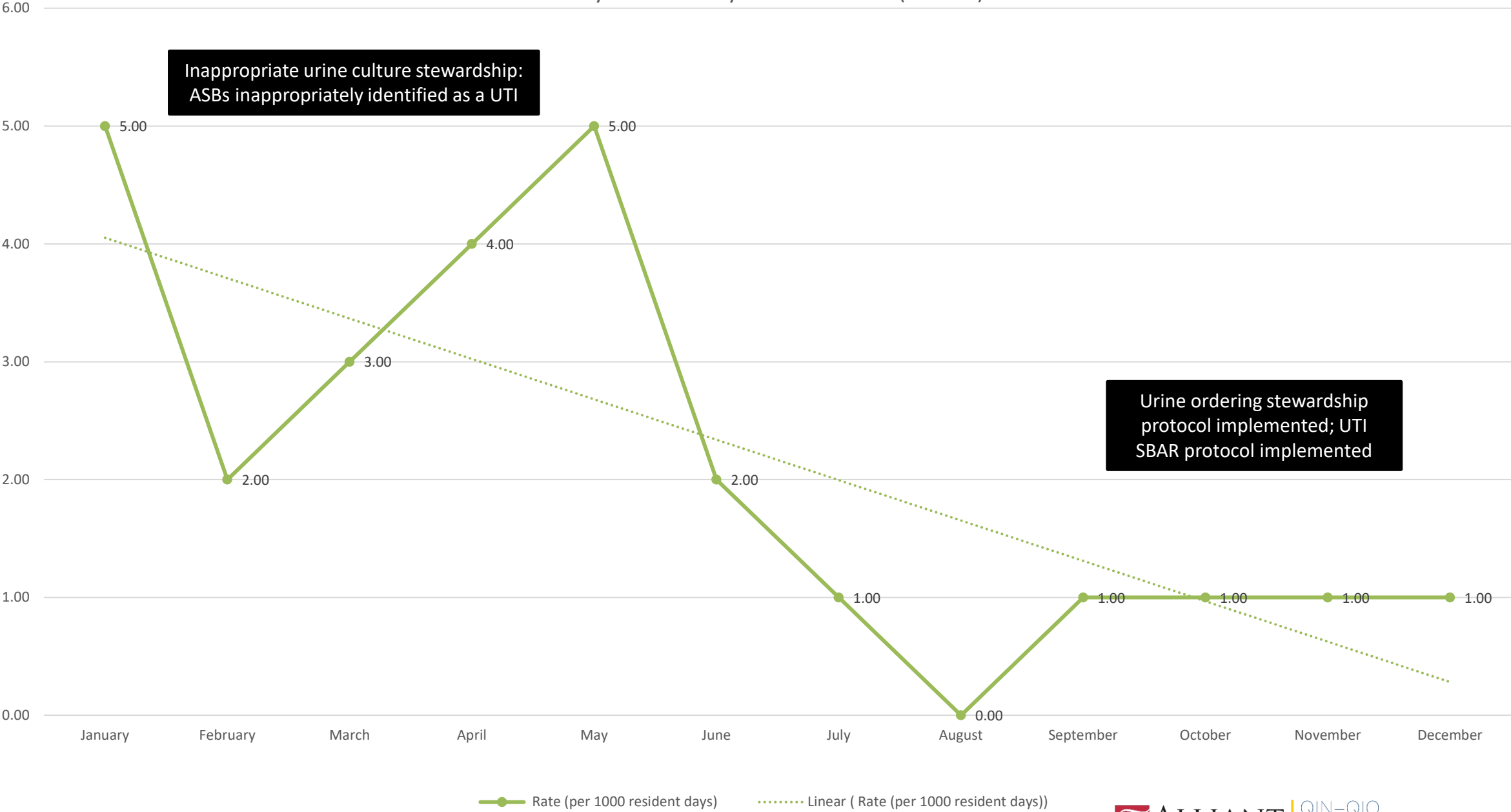
Month	Facility-wide total indwelling urinary catheter days (FY2023)	Total resident days	Indwelling urinary catheter utilization
January	78	1500	0.05
February	34	1100	0.03
March	56	1200	0.05
April	25	1300	0.02
May	82	1000	0.08
June	33	1000	0.03
July	45	1000	0.05
August	55	1000	0.06
September	75	900	0.08
October	45	800	0.06
November	66	1000	0.07
December	53	1210	0.04
Total	647	13010	0.05

[illegible]

Surveillance: “Cleaning” the Data

Age	Sex	Current Location	Admission Date	Indwelling catheter (Yes or No)	Catheter Insertion date (if applicable)	Culture collection date	Culture results	Date of onset or when all criteria met	Comments
64	F	2N	2/1/2023	No	n/a	6/12/2023	<i>Proteus mirabilis</i>	6/12/2023	confusion; positive urine culture (proteus mirabilis > 100,000 cfu/ml)
71	M	1S	3/3/2023	Yes	6/2/2023	6/18/2023	<i>Candida auris</i>	6/18/2023	foul-smelling urine; positive urine culture (candida auris > 100,000 cfu/ml)
82	F	1N	12/1/2022	No	n/a	6/29/2023	<i>E. coli</i>	6/29/2023	Fall on 6/29/2023; positive urine culture (E. coli > 10,000 cfu/ml)
89	M	2S	4/17/2023	No	n/a	7/1/2023	<i>E. coli</i>	7/1/2023	History of recurrent UTIs; culture ordered at the completion of last round of antibiotics on 7/1/2023; positive urine culture (E. coli > 50,000 cfu/ml)
57	F	2N	1/14/2023	Yes	6/14/2023	6/22/2023	<i>Klebsiella pneumoniae</i>	6/22/2023	Suprapubic pain noted on 6/21/2023; Fever onset on 6/21/2023; positive urine culture (E. coli > 100,000 cfu/ml from urine collected on 1/11/2023)
68	F	1S	10/26/2022	Yes	6/18/2023	6/30/2023	<i>Enterococcus faecalis</i>	6/30/2023	Suprapubic pain and hematuria noted on 6/29/2023; positive urine culture (E. faecalis > 100,000 cfu/ml from urine collected 6/30/2023)

Facility-wide Urinary Tract Infections (FY2023)



Fishbone Diagram Worksheet



QUALITY IMPROVEMENT INITIATIVE

Introduction

The fishbone diagram is a tool to help the RCA team identify the causes and effects of an event and get to the root cause. The problem or effect is identified at the head or mouth of the fish. Contributing causes are listed on the smaller "bones" under various cause categories. A fishbone diagram can be helpful in identifying all causes for a problem. The team looks at the categories and thinks of all the factors affecting the problem or event. Use the fishbone diagram to keep the team focused on the causes of the problem, rather than the symptoms or the solutions.

How To Use

Use this worksheet to identify possible causes of a problem and to sort ideas into useful categories. The team should include members who have personal knowledge of the processes and systems involved in the problem or event being investigated and follow these steps:

1. Agree on the problem statement, also referred to as the effect. This is written at the mouth of the "fish." Be as clear and specific as you can about defining the problem. Be aware of the tendency to define the problem in terms of a solution. For example, "We need more of something." The problem is what happened.
2. Agree on the major categories of causes of the problem, written as branches or "bones" from the main arrow. Major categories in health care settings often include: equipment/supply factors, environmental factors, rules policy/procedure factors, and people/staff factors.
3. Brainstorm all the possible causes of the problem. Ask, "Why does this happen?" As each idea is given, the facilitator writes on the fishbone diagram under the appropriate category. These are contributing or causal factors leading to the problem. Causes can be written in more than one place if they relate to several categories.
4. The team again asks, "Why does this happen?" about each cause. Write sub-causes branching off the cause bones as they are identified.
5. The team continues to ask, "Why?" and generate deeper levels of causes and organizes them under the related categories. This will help identify and then address root causes to prevent future problems.

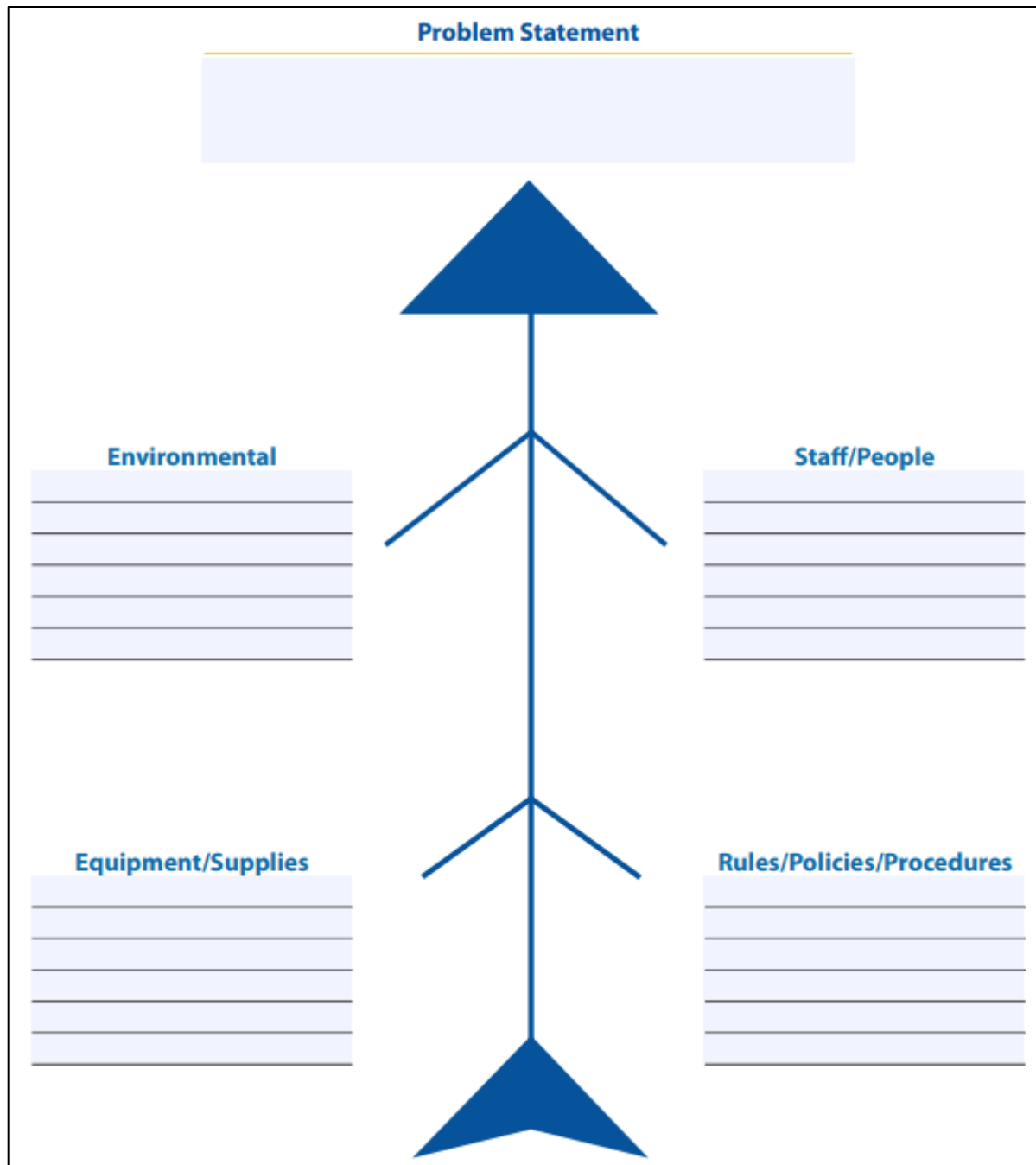
Tips

- Consider drawing your fishbone diagram on a flip chart or large dry erase board.
- Make sure to leave enough space between the major categories on the diagram so that you can add minor detailed causes later.
- When you are brainstorming causes, consider having team members write each cause they can identify on a sticky note and place it on the diagram. Continue going through the group and identifying more factors until all ideas are exhausted. This encourages each team member to participate in the brainstorming activity and voice their opinions.
- Note that the "five-whys" technique is often used in conjunction with the fishbone diagram. Keep asking why until you get to the root cause.
- Another way to help identify the root causes from all the ideas generated is to consider a multi-voting technique. Have each team member identify the top three causes of the problem or event. Ask each team member to place three tally marks or colored sticky dots on the fishbone next to what they believe are the root causes that could be addressed.

Root Cause Analysis

- Fishbone diagram
 - Identify cause and effect to get to a root cause
 - Problem at the head or mouth of fish
 - Contributing factors listed under the smaller bones in various categories
- RCA Trigger Examples
 - ✓ All HAI events
 - ✓ HAIs with subsequent hospital admission
 - ✓ Facility outbreaks
 - ✓ Antibiotic overuse
 - ✓ Low hand hygiene compliance
 - ✓ Inappropriate use of personal protective equipment (PPE)

https://quality.allianthealth.org/wp-content/uploads/2020/10/QII_Fishbone-12SOW-AHSQIN-QIO-TO1QII-20-241_508.pdf

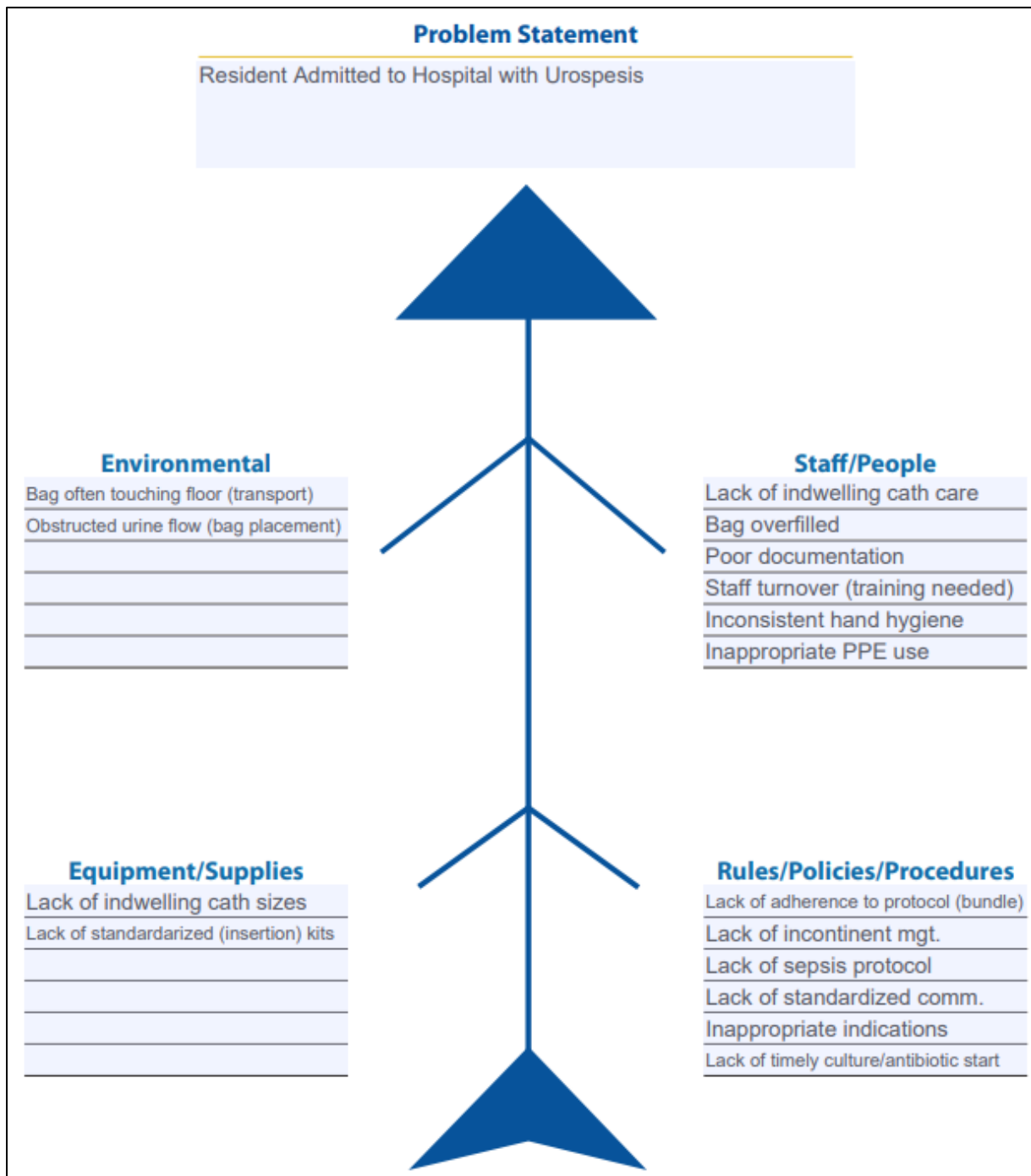


Root Cause Analysis

- Fishbone diagram
 - Identify cause and effect to get to a root cause
 - Problem at the head or mouth of fish
 - Contributing factors listed under the smaller bones in various categories
- [Fishbone Diagram Worksheet \(allianthealth.org\)](http://allianthealth.org)

Root Cause Analysis Example: Hospital Admission Due to Urosepsis

[Fishbone Diagram Worksheet
\(allianthealth.org\)](http://allianthealth.org)



Infection Control Resources

Sepsis

[HQIC Sepsis Gap Assessment and Action Steps](#)

[HQIC Sepsis: Spot the Signs Magnet](#)

[HQIC Sepsis Provider Engagement](#)

[AQ Sepsis-ZoneTool](#)

[Recognition and Management of Severe Sepsis and Septic Shock](#)

[SHOW MORE](#)

NHSN

[Joining the Alliant Health Solutions NHSN Group](#)

[Instructions for Submitting C. difficile Data Into NHSN](#)

[5-Step Enrollment for Long-term Care Facilities](#)

[CDC's National Healthcare Safety Network \(NHSN\)](#)

[NHSN Enrollment/ LAN Event Presentation](#)

Training

[Options for Infection Control Training In Nursing Homes
Flyer](#)

Catheter Associated Urinary Tract Infection (CAUTI)

[CAUTI Gap Assessment Tool](#)

[Urinary Catheter Quick Observation Tool](#)

[CDC-HICPAC Guideline for Prevention of CAUTI 2009](#)

[AHRQ Toolkit for Reducing CAUTI in Hospitals](#)

[CDC TAP CAUTI Implementation Guide](#)

[SHOW MORE](#)

Clostridioides Difficile Infection (C. difficile)

[C.difficile Training](#)

[Nursing Home Training Sessions Introduction](#)

[Nursing Home C.difficile Infection](#)

COVID-19

[Invest in Trust \(AHRQ Resource for CNA COVID-19 Vaccines\)](#)

[Nursing Home Staff and Visitor Screening Toolkit – PDF](#)

[Nursing Home Staff and Visitor Screening Toolkit – Excel](#)

Hand Hygiene

[Handwash the FROG Way – Badges – English](#)

[Handwash the FROG Way – Badges – Spanish](#)

[Handwash the FROG Way – Poster – English](#)

[Handwash the FROG Way – Poster – Spanish](#)

[Frequently Asked Questions – Alcohol Based Hand Rub](#)

Antibiotic Stewardship

[Antibiotic Stewardship Basics](#)

[A Field Guide to Antibiotic Stewardship in Outpatient
Settings](#)

[Physician Commitment Letter](#)

[Be Antibiotics Aware](#)

[Taking Your Antibiotics](#)

[SHOW MORE](#)

References

Conway, L. J., Carter, E. J., & Larson, E. L. (2015). Risk Factors for Nosocomial Bacteremia Secondary to Urinary Catheter-Associated Bacteriuria: A Systematic Review. *Urologic Nursing*, 35(4), 191–203. <https://doi.org/10.7257/1053-816x.2015.35.4.191>

DiMeglio, M., Dubensky, J., Schadt, S., Potdar, R., & Laudanski, K. (2018). Factors Underlying Racial Disparities in Sepsis Management. *Healthcare (Basel, Switzerland)*, 6(4), 133. [Factors Underlying Racial Disparities in Sepsis Management](#)

Peach, B. C., Garvan, G. J., Garvan, C. S., & Cimiotti, J. P. (2016). Risk Factors for Urosepsis in Older Adults: A Systematic Review. *Gerontology and Geriatric Medicine*, 2, 2333721416638980–2333721416638980. <https://doi.org/10.1177/2333721416638980>

Prest, J., Sathananthan, M., & Jeganathan, N. (2021). Current Trends in Sepsis-Related Mortality in the United States. *Critical Care Medicine*, 49(8), 1276–1284. <https://doi.org/10.1097/CCM.0000000000005017>

Questions?



Nursing Home and Partnership for Community Health: CMS 12th SOW GOALS



OPIOID UTILIZATION AND MISUSE

Promote opioid
best practices
•
Reduce opioid
adverse drug events
in all settings



PATIENT SAFETY

Reduce hospitalizations
due to c. diff
•
Reduce adverse
drug events
•
Reduce facility
acquired infections



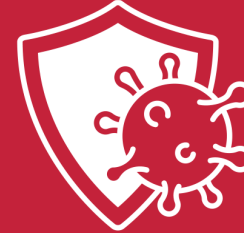
CHRONIC DISEASE SELF- MANAGEMENT

Increase instances of
adequately diagnosed
and controlled
hypertension
•
Increase use of cardiac
rehabilitation programs
•
Reduce instances of
uncontrolled diabetes
•
Identify patients at high-
risk for kidney disease
and improve outcomes



CARE COORDINATION

Convene community
coalitions
•
Reduce avoidable
readmissions,
admissions to hospitals
and preventable
emergency department
visits
•
Identify and promote
optimal care for super
utilizers



COVID-19

Support nursing
homes by establishing
a safe visitor policy
and cohort plan
•
Provide virtual events
to support infection
control and prevention
•
Support nursing
homes and
community coalitions
with emergency
preparedness plans



IMMUNIZATION

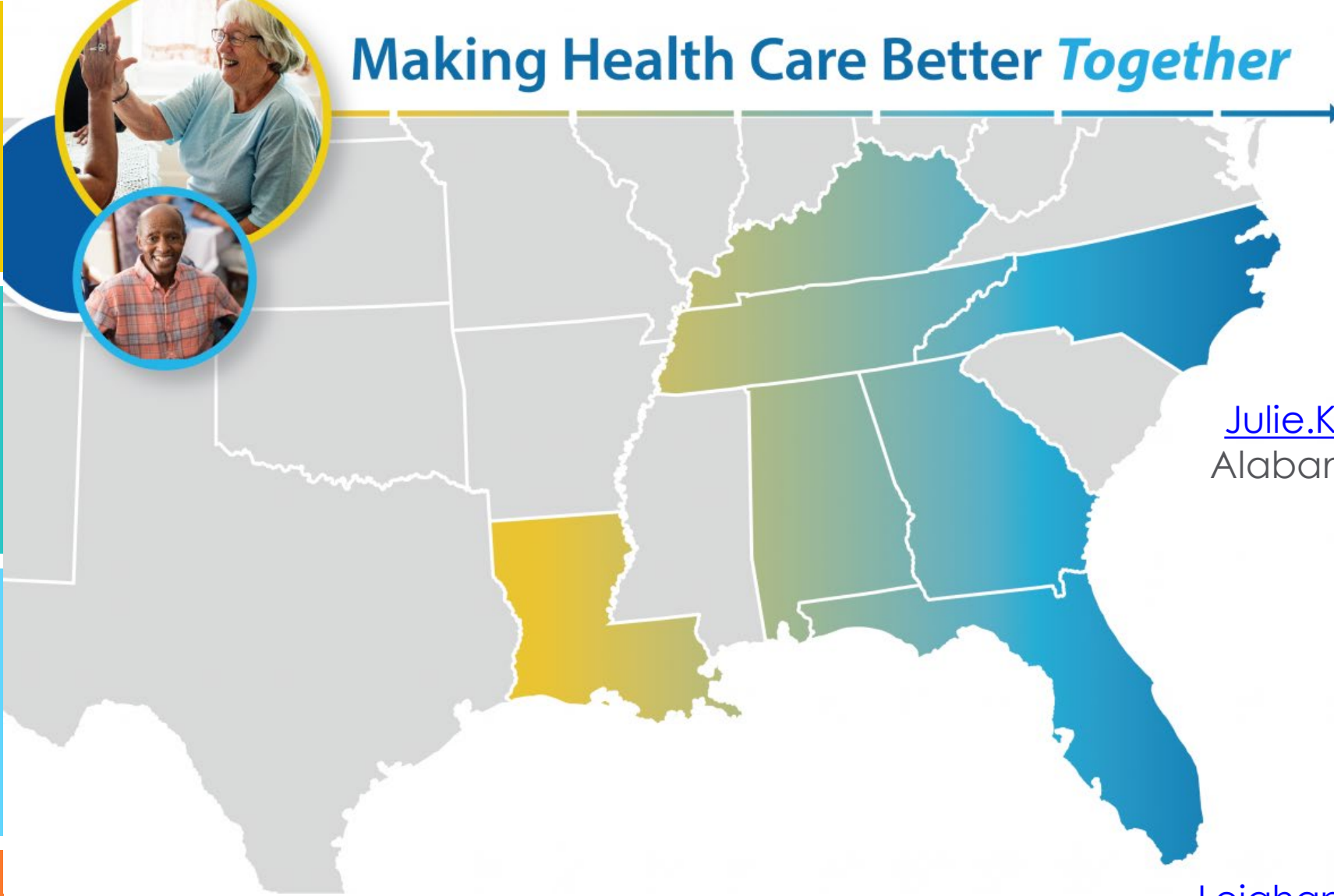
Increase influenza,
pneumococcal,
and COVID-19
vaccination rates



TRAINING

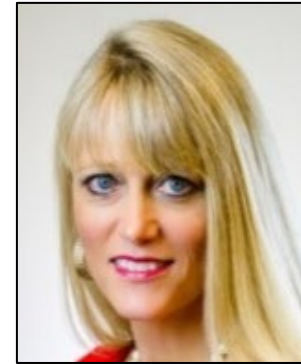
Encourage completion
of infection control and
prevention trainings by
front line clinical and
management staff

Making Health Care Better *Together*



Julie Kueker

Julie.Kueker@AlliantHealth.org
Alabama, Florida and Louisiana



Leighann Sauls

Leighann.Sauls@AlliantHealth.org
Georgia, Kentucky, North Carolina and
Tennessee

Program Directors

Making Health Care Better *Together*



ALABAMA • FLORIDA • GEORGIA • KENTUCKY • LOUISIANA • NORTH CAROLINA • TENNESSEE



@AlliantQIO



Alliant Health Solutions



@AlliantQIO



AlliantQIO

This material was prepared by Alliant Health Solutions, a Quality Innovation Network – Quality Improvement Organization (QIN – QIO) under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services (HHS). Views expressed in this material do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS. Publication No. 12SOW-AHS-QIN-QIO TO1-NH--4039-07/05/23

 **ALLIANT**
HEALTH SOLUTIONS

QIN-QIO
Quality Innovation Network -
Quality Improvement Organizations
CENTERS FOR MEDICARE & MEDICAID SERVICES
EQUALITY IMPROVEMENT & INNOVATION GROUP