

Preventing Urinary Tract Infection (UTI) Readmissions in Skilled Nursing Facilities (SNFs)

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Quality Improvement and Innovation Portal (QIIP): Assessments and Data Dashboard



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QIIP Care Transitions Assessment

SNF Pain/Opioids

SNF Care Transitions SNF ADE

SNF Quality Score SNF Antibiotics

Care Transitions

Work with your department leadership team to complete the following assessment. Each item relates to care transition elements that should be in place for a program to improve care transitions within your facility. This Care Transitions Implementation Assessment is supported by published evidence and best practices including, but not limited to, The Joint Commission (TJC), National Quality Forum (NQF), Project RED (Re-Engineered Discharge from the Agency for Healthcare Research and Quality [AHRQ]), Project BOOST (Better Outcomes to Optimize Safe Transitions from the Society of Hospital Medicine), and the Care Transitions Model ([CTM®] also known as the Coleman Model). Select the level of implementation status on the right for each assessment item.

Download Assessment 📩

To understand the rationale and references for each question, click

A. Care Continuum

B. Discharge Planning

C. Quality Improvement of Care Transitions

Open Response

Care Transitions



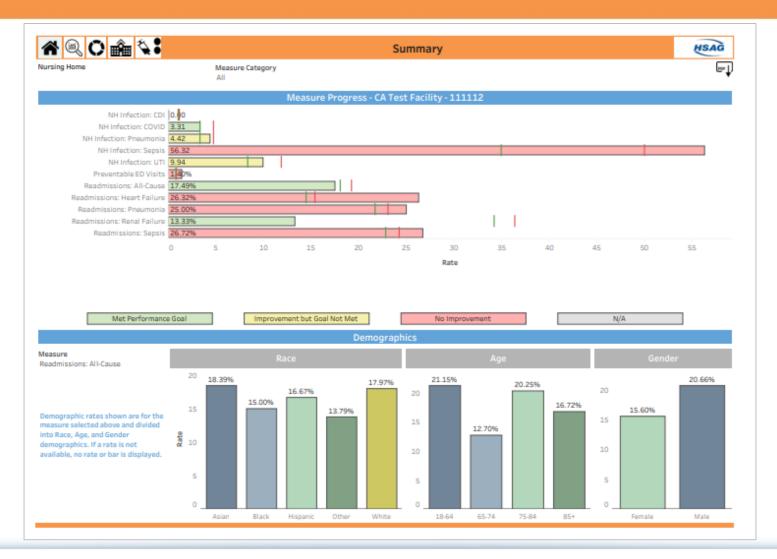
Skilled Nursing Facility (SNF) Care Transitions Assessment

Facility Name:		 	 	 	c	:N: .		_ Asse	ssr	nent	Date	e: .	 	Comp	lete	d by	:_	 			
																				-	

Work with your department leadership team to complete the following assessment. Each item relates to care transition elements that should be in place for a program to improve care transitions within your facility. This Care Transitions Implementation Assessment is supported by published evidence and best practices including, but not limited to, the Joint Commission (TJC), National Quality Forum (NQF), Project RED (Re-Engineered Discharge from the Agency for Healthcare Research and Quality [AHRQ]), Project BOOST (Better Outcomes to Optimize Safe Transitions from the Society of Hospital Medicine), and the Care Transitions Model [[CTM®] also known as the Coleman Model]. Select the level of implementation status on the right for each assessment item. Once this form is complete, please go online and enter your answers.

	Assessment Items	Not implemented/ no plan	Plan to implement/no start date set	Plan to implement/ start date set	In place less than 6 months	In place 6 months or more
A. Ca	re Continuum					
1.	Your facility uses a mechanism for bi-directional feedback with acute care partners to address transition communication gaps of key clinical information during resident transfers (e.g., discharge summary, outstanding tests/lab results, medication list discrepancies). ¹					
2.	Your facility regularly meets with acute care partners to identify and review care transition plans of: ^a a. Super-utilizers (residents with four admissions in one year— or —six emergency department visits within one year).					
	30-day acute care readmissions of residents on high-risk medications (anticoagulants, opioids, antidiabetics, and antipsychotics)					
3.	Your facility monitors the timeliness of provider (medical director, SNFist, etc.) response for resident change-of-condition events. ^{III}					
4.	Your facility uses a risk stratification tool to identify residents who are high risk for readmission to the hospital. $^{\rm iv}$					
B. Dis	scharge Planning					
5.	Your facility provides focused case management for residents at high risk for readmissions to coordinate care addressing: " a. Ability to pay for medications.					
	b. Scheduling of physician follow-up visits.c. Transportation to follow-up visits.					

QIIP Infection and Readmission Summary Data





OBJECTIVES

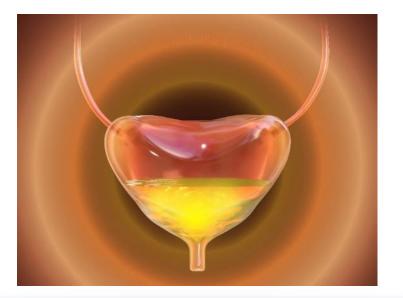
- Describe the risk of healthcareassociated UTIs in SNFs.
- Review the evidence-based clinical practices shown to prevent UTIs and catheter-associated UTIs (CAUTIs).
- Discuss strategies to reduce healthcareassociated UTIs and CAUTIs.
- Discuss adherence monitoring and feedback.
- Review the HSAG UTI Prevention Bundle and Change Package.







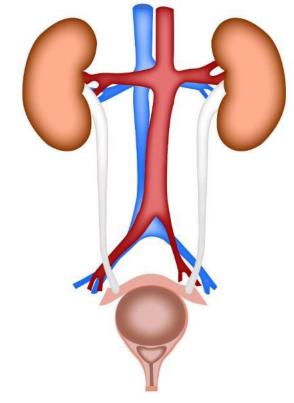
Overview of UTIs





Refresher—Pathophysiology of UTIs

- Most common HAI
- Occurs when bacterium invades urinary epithelium cells
- Typically introduced via the urethra
- Mechanisms of development
 - Ability of pathogen to produce infection
 - Strength of individual's defenses/immune system
- Lower UTI (most common)
 - Bladder and/or urethra
 - Cystitis (bladder infection)
- Upper UTI (most serious)
 - Ureters, renal pelvis, or kidney tissue
 - Pyelonephritis*
- Most common in women
 - 60% of women will experience a UTI
 - 10% of men will experience a UTI





HAI = Healthcare-Associated Infection

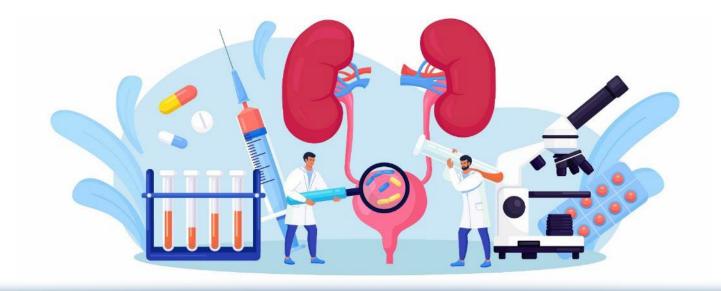
*Bacterial infection causing inflammation of the kidneys

The Ohio State University. Urinary Tract Infection Case Study. October 2019. u.osu.edu/utieducation/pathophysiology-of-uti

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Types and Symptoms of UTIs





CDC Defined UTIs—High-Level Overview

Symptomatic UTI (SUTI)

- Positive culture
 Plus
- Signs and symptoms such as dysuria, fever, costovertebral angle pain, hematuria, increased incontinence, urgency, and/or frequency

Asymptomatic Bacteremia UTI (ABUTI)

- Positive culture
 But
- No signs or symptoms

CAUTI

 Indwelling urinary catheter

Plus

- Positive culture
 Plus
- Signs and symptoms such as dysuria, fever, costovertebral angle pain, and/or hematuria



What Is Bacteriuria?

- Bacteria that can be present in the bladder, but not cause infection.
- Present in up to 50% of long-term care (LTC) residents.
- Does not increase mortality.
- Does **not** require antibiotics.
- Risk increases with use of indwelling catheters.
 - 3%–10% increase of bacteria for each catheter day.
 - 100% of residents with a catheter for
 30 days or more will have bacteriuria.





Observing Possible Symptoms of UTI

- Flank pain/tenderness
 - Facial grimaces
 - Moans or cries
 - Massages lower back kidney area
- Restlessness, shaking/chills
- Fever
 - >100°F (>37.8°C)
 - >2°F (1.1°C) increase above baseline
- Hypotension*
 - Significant change in baseline blood
 pressure (BP) or a systolic BP <90





*Much lower than normal blood pressure

<u>https://www.cdc.gov/nhsn/pdfs/ltc/ltcf-uti-protocol-current.pdf</u>. Bates B. Interpretation of urinalysis and urine culture for UTI treatment. USPharm. 2013;38(11):65-68.

Observing Possible Symptoms of UTI (cont.)

- Acute dysuria (painful urination)
- Urinary frequency
- Urinary urgency
- New urinary incontinence
- Gross hematuria (blood in urine)
- Change in mental status
 - Altered mental status
 independent of other
 symptoms is not an indication
 to send a urine culture
- Change in intake or output







Risk Factors for UTI





LTC Residents at Risk



- LTC residents at high risk for developing a UTI may have:
 - Challenges with activities of daily living (ADLs)
 - Mobility challenges
 - Chronic conditions
 - Cognitive deterioration



Risk Factors—Comorbidities

- Diabetes
- Heart disease
- Renal disease
- Immunocompromised
- Dementia/Alzheimer's
- History of UTIs





Risk Factors—Aging Related

- Age-related changes to genitourinary^{*} tract
- Neurogenic bladder**
- Bladder and bowel incontinence
- Mobility issues
- Poor fluid intake



* Relating to the genital and urinary organs.





Risk Factors—Device Associated

- Improper insertion technique
 - Straight catheter
 - Intermittent catheterization
 - Indwelling urinary catheter
- Use of an indwelling urinary catheter
- Improper maintenance







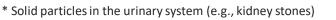
UTIs and Beyond



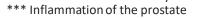


Complications of UTIs

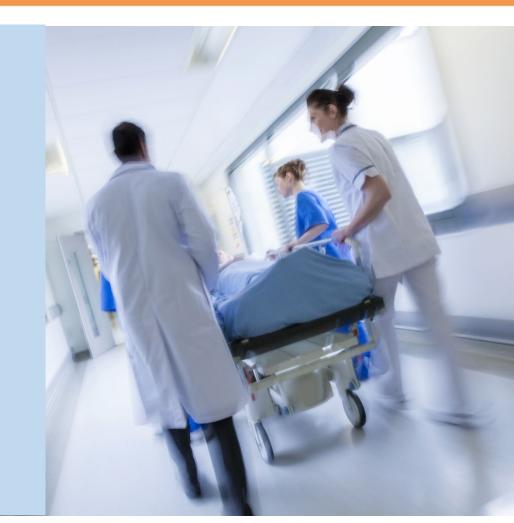
- Persistent/chronic UTIs
- Chronic urinary incontinence
- Urinary calculi*
- Pyelonephritis**
- Renal abscess
- Chronic prostatitis***
- Prostatic abscess
- Renal failure
- Functional decline
- Sepsis
- Hospitalization
- Death



** Inflammation of the kidneys



CDC. LTCF UTI Protocols. Available at: www.cdc.gov/nhsn/pdfs/ltc/ltcf-uti-protocol-current.pdf





UTIs Progression to Urosepsis

- Sepsis caused by a UTI is known as urosepsis.
- Urosepsis is an infection of the urinary tract that leads to a systemic response to the infection.
- ~ 25% of sepsis cases are caused by a UTI.
- Early diagnosis and treatment for UTI is critical.
- Monitor all residents with UTI for early signs of sepsis.
 - Temperature >38.3° C/>100.4° F
 - Heart rate <u>>90/minute</u> (or 2 standard deviations above normal)
 - Altered mental status
 - Respiratory rate <u>>22</u>
 - Systolic blood pressure <100







Preventing UTIs





General Prevention Strategies

- Frequent and consistent hand hygiene
 - Staff and residents
 - Before and after toileting
- Purposeful rounding
 - Offer toileting
- Frequent changing of incontinent pads
 - Avoid prolonged exposure to soiled pads
- Proper perineal care
 - Morning and HS (bedtime)
- Encourage fluids (unless restriction)
 - Water within reach
 - Avoid caffeine





HSAG UTI Prevention Toolkit—Action Plan

	Quality Improvemen Organizations Sharing Rnowledge. Improving Health C CENTERS FOR MEDICARE & MEDICAID SERVI			9	
Nursing H	Healome Name:	and Control Post-Acute Plan Prioriti Ithcare-Associated Infections (HAIs us will decrease by) Urinary Tra	act Infection	s (UTIs)Date:((Internal Nursing Home Goa
Concern HAI UTIS	High rate of HAI UTIs	Action 1. Review and update policies and procedures to reflect current evidence-based practices. 2. Identify UTI prevention champions for each area/unit. 3. Conduct education with teach-back for staff, including nurses and nursing assistants. This includes: Pathophysiology of a UTI. Clinical signs and symptoms of a UTI. Risk factors of a UTI. Planning	Person(s)	Completion	Evaluation of Effectiveness 100% of policies and procedu updated. 100% of the staff received education for UTIs and prevention bundles. % of the residents were screened for risk of UTI. % of the residents implementation of the UTI bundle. Perform audits/w
	Action Plannir Action Plannir Action Pla	Series: Action Plannin <u>ng Slides</u> (PDF) ng Recording unning Tools to Download Plan Template (Word)		w	Compliance goal:(
		Plan Template (VVord) Plan Template (PDF)			

Why is an action plan important?

- Step-by-step plan to achieve a goal
- Tool to design, assign, and track implementation of an initiative

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HSAG UTI Prevention Toolkit—Screen

Risk Factors for Urinary Tract Infections (UTIs)

Use this list of evidence-based risk factors for identifying residents that are at a higher risk of acquiring a UTI. If a resident has three or more of these, assessment of a possible UTI is advised.

$\mathbf{\mathbf{S}}$	Risk
	 Increased Age with Below Conditions Residents who are 65 years old and older are at higher risk due to presence of bacteria and weaker immune systems Elderly males Prostatic hypertrophy Bladder/Kidney stone Bacterial Prostatitis Elderly women Prolapsed uterus
	Bacteria Exposure Possible contact with bacteria from a recent hospitalization
	Prior UTI History of UTI puts residents at higher risk
	 Bowel and/or Bladder Incontinence May not completely empty bladder Bacteria contact with perineal area
	Urinary Catheter Prolonged catheter use can provide a route for bacteria or fungus to enter the body
	Dementia/Alzheimer's Confusion/Forgetfulness to toilet Poor toileting habits Incontinent
	Residents with Chronic Conditions Diabetes Heart disease Kidney disease Those with immune system changes (difficulty in fighting off infections)
	Poor Fluid Intake Dehydration
	Mobility Issues Decreased mobility/Functional impairment may result in incomplete bladder emptying

One-page screening tool to identify residents **most** at risk for developing a UTI



HSAG UTI Risk Assessment. <u>https://www.hsag.com/medicare-providers/nursing-homes/infection-prevention/#Urinary Tract Infections</u>



HSAG UTI Prevention Toolkit—Prevent

Urinary Tract Infection (UTI) Bundle | Risk and Action Tool If residents have any of the identified UTI risk factors below, the related action plan may assist in prevention of the infection. Risk Action Increased responsibility for staff to protect residents. Increased · Consistently perform hand hygiene-washing with soap and water or using an alcohol-based Age sanitizer. Practice standard precautions—assume all blood, body fluids, and environmental surfaces could be contaminated with germs. · Monitor for signs and symptoms of UTI. Bacteria Exposure Utilize UTI bundle for prevention. Prior UTI Utilize UTI bundle for prevention. · Consistently perform hand hygiene-washing with soap and water or using an alcohol-based Bowel and/or sanitizer. Practice standard precautions—assume all blood, body fluids, and environmental surfaces Bladder could be contaminated with germs. Incontinence · Provide regular opportunities for residents to empty their bladder. Check incontinent pads frequently. Avoid extended periods of skin exposure to urine and/or feces. Proper perineal care—cleaning females from front to back/cleaning males' foreskin if present. Dementia/ Provide regular opportunities for residents to empty their bladder. Alzheimer's Check incontinent pads frequently. Avoid extended periods of skin exposure to urine and/or feces. Proper perineal care—cleaning females from front to back/cleaning males' foreskin if present. Residents · Increased responsibility for staff to protect residents with Chronic · Consistently perform hand hygiene-washing with soap and water or using an alcohol-based Conditions/ sanitizer. Neurogenic Practice standard precautions—assume all blood, body fluids, and environmental surfaces Bladder be contaminated with germs. Neurogenic bladder—avoid unnecessary catheterization: when needed, follow protocols to provide appropriate catheter care. Poor Intake/ • Offer fluids frequently—unless on a fluid restriction. Dehydration • Maintain water supply within residents reach. Avoid fluids with caffeine—can cause dehydration. Avoid extreme heat—can cause dehydration. · Provide regular opportunities for residents to empty their bladder. Mobility Issues Check incontinent pads frequently. Avoid extended periods of skin exposure to urine and/or feces. Proper perineal care—cleaning females from front to back/cleaning males' foreskin if present.

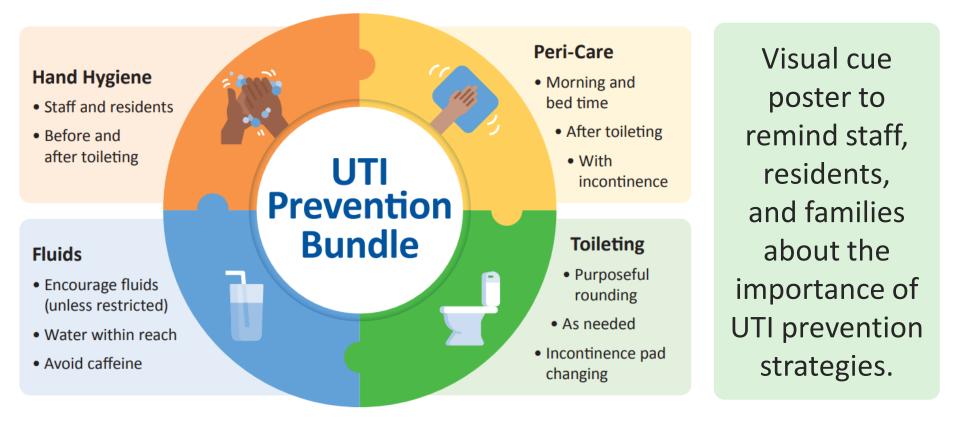
UTI Prevention Bundle Strategies Tool



HSAG UTI Bundle Risk and Action Tool. <u>https://www.hsag.com/medicare-providers/nursing-homes/infection-prevention/#Urinary_Tract_Infections</u>



HSAG UTI Prevention Toolkit—Bundle Poster





HSAG UTI Prevention Toolkit—Identify

Urinary Tract Infection (UTI) Signs and Symptoms Assessment

Use this list of UTI signs and symptoms to assess if a resident may need further testing to identify if a UTI is present. There may be one or more signs or symptoms. If any signs or symptoms are identified, the next step is to report, as further testing is recommended.

Any Change in the Resident's Condition Should Be Reported Immediately

	Sign/Symptom
	Acute dysuria (painful urination) Observe for:
	Facial grimaces or winces.
	 Vocalization of pain (moans, cries, gasps, groans).
_	Bracing of furniture or room equipment.
	Fever >100°F (>37.8°C) or >2°F (>1.1°C) Increase Above Baseline
ew o	or worsening:
	Urinary frequency or urgency
	Urinary dribbling (unable to empty bladder)
	Urinary incontinence
	Gross hematuria (blood in the urine)
	Flank pain/tenderness
	Facial grimaces or winces
	Vocalization of pain (moans, cries, gasps, groans)
	Massaging or rubbing of lower back at kidney area
	Restlessness (difficulty keeping still, constant shifting of position, rocking side-to-side)
	Change in mental status
	Shaking/Chills
	Hypotension (Significant Decrease in Baseline BP or a Systolic BP<90)
	Changes in Intake or Output
	ninder: nditions such as dementia or Alzheimer's, as well as medications can mask some of the above symptoms

One-page assessment checklist to assist in identifying possible UTIs



HSAG UTI Signs and Symptoms Assessment. <u>https://www.hsag.com/medicare-providers/nursing-homes/infection-prevention/#Urinary_Tract_Infections</u>



HSAG UTI Prevention Toolkit—Compliance

Quality Improvement Organizations Juning Roweldwise Improving Haltin Care. CINTERS FOR MEDICARE & MEDICARO SERVICES			1		
UT	Prevention Bund	lle Observation and Q	uality Tool		
ate: <u>4/4/2023</u> Patient Census: Jnit: <u>Test</u>					
omplete for Each Resident With UTI Prevention Bundle Implemented: Comments	Resident 1	Resident 2	Resident 3	Resident 4	_
rect Observation Room #					_
 Staff performed hand hygiene before and after toileting. 	Yes	Yes	No	Yes	
	Yes	Yes			e Compliance Observations
3. Purposerur rounding to oner toneting dz nours.	Yes	No	otal %		
 Routine changing of incontinence pad or brief. 			80%		
5. Water pitcher full and within reach.	Yes	No	75%	5 75%	75% 75%
(If not on fluid restriction)	Yes	Yes			
6. Fluids encouraged during purposeful rounding.			60%		
(If not on fluid restriction)	Yes	No	50%	50%	50%
7. AM pericare completed.	Yes	Yes	40%		
8. HS pericare completed.	Yes	No		25	5% 25%
Total Positive Per Patient	8	4	20%		
Total % Adherence Per Patient	100.0%	50.0%	12 10%		
			1	2 3 4	5 6 7 8
"What gets measure	-	nanaged	2. Re 3. Pu 4. Ro 5. Wa 6. Flu	off performed hand hygiene before sident assisted with hand hygiene rposeful rounding to offer toileting utine changing of incontinence pa ater pitcher full and within reach. (I ilds encouraged during purposeful	and after toileting. before and after toileting. 3 Q2 hours. 1 or brief.
– <i>P. Druc</i>	Ker			I pericare completed. pericare completed.	

www.goodreads.com/author/quotes/12008.Peter F Drucker







Indwelling Urinary Catheters





Appropriate Indications for Urinary Catheters

- Acute urinary retention or obstruction
- Prolonged immobilization due to unstable spine or pelvic fracture
- Neurogenic bladder
- Healing of perineal and sacral wounds in incontinent patients

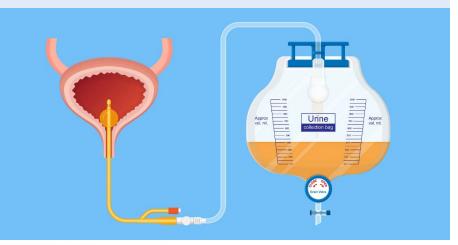
 Stage III and IV wounds
- Hospice, comfort care, palliative care for end of life
- Chronic indwelling urinary catheter on admission
 - Evaluate when admitted to confirm necessity



CAUTI Prevention Practices

- Insert catheters only for appropriate indications.
- Leave in place only as long as needed.
- Ensure catheters are inserted and maintained by properly trained staff.
- Perform hand hygiene.
- Use aseptic technique and sterile equipment for insertion.
- Maintain closed drainage system and unobstructed urine flow.

- Use portable ultrasound devices (bladder scanners) to assess urinary retention to reduce unnecessary catheterizations.
- Implement an improvement program to achieve appropriate use of catheters.

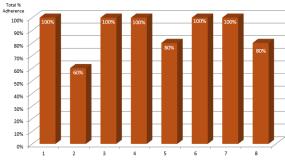




HSAG CAUTI Audit Tool

		Foley Cathet	ter Observation and Qual
ate: 4/1/2023	Resident Census:	22	NPC= Not placed correctly
Unit: North Wing Nu	umber of Resident with Devices:	5	
omplete for each Indwelling Cathete	r Foley in use:	Foley 1	Foley 2
	COMMENTS		
irect observation	ROOM #	101	105
1. Is a closed system being mair	itained?	Yes	Yes
2. Is the Foley secured to the re urethral tension?	sident's body to prevent	Yes	No
dietmantension:	—	165	
3. Is the bag below the level of	the Resident's bladder?	Yes	Yes
4. Is the tubing from the cathet dependent loops?	er to the bag free of	Yes	Yes
5. Is the tubing secured to the b	-		
pulling on the entire system		Yes	No
6. Is the bag hanging free witho		Yes	Yes
Does the resident have an in marked with his/her name an	•	Yes	Yes
8. Does the resident have a "dig	mity hag" in place?	Yes	Yes

Direct Observation - Foley Catheter Maintenance



Maintenance Indicators

1. Is a closed system being maintained?

2. Is the Foley secured to the resident's body to prevent urethral tension?

3. Is the bag below the level of the resident's bladder?

4. Is the tubing from the catheter to the bag free of dependent loops?

5. Is the tubing secured to the bed or chair to prevent pulling on the entire system?

6. Is the bag hanging free without touching the floor?

7. Does the resident have an individual measuring device marked with his/her name and room number?

8. Does the resident have a "dignity bag" in place?

Chart Review--Foley Catheter

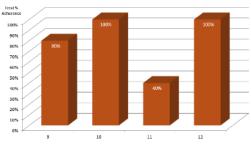


Chart Review Indicators

9. Is there documentation available indicating which department inserted the Foley and is perineal care performed daily?

10. Is there documentation available indicating Foley necessity?

11. Is there documentation available for completion of the insertion bundle?

12. Has there been a check for Foley catheter necessity today?



SDRY CROU

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Treatment of UTIs





Treatment Decisions for UTIs

- Avoid culturing urine of asymptomatic persons unless other signs and symptoms are present.
 - Cultures are not needed for cloudy or foulsmelling urine unless symptomatic.
- Avoid antibiotics for asymptomatic bacteriuria.
- Symptoms that suggest culture of urine and treatment is indicated:
 - Fever
 - Pain (costovertebral angle, suprapubic)
 - Hematuria
 - For non-catheterized residents:
 - Dysuria, urgency, and frequency





Common UTI Myths

These signs/symptoms **do not** necessarily indicate a UTI:

- Urine is cloudy and smells bad
- Urine has bacteria
- Urine has a positive leukocyte esterase (for WBCs)
- Urine contains WBCs
- Urine has nitrates (for bacteria)
- Bacteria in a catheterized urine sample
- Asymptomatic bacteriuria will progress to a UTI
- Falls and acute altered mental status change



HSAG Myths Diagnosis UTIs. <u>https://www.hsag.com/medicare-providers/nursing-homes/infection-prevention/#Urinary Tract Infections</u>



³⁵ www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology/article/reliability-of-nonlocalizing-signs-andsymptoms-as-indicators-of-the-presence-of-infection-in-nursinghome-residents/7293386E2E61A4224C7F71C66D48B835

Key Take-Aways

- A UTI in nursing home residents can be serious, but it is a preventable condition.
- If left untreated, a UTI can progress to urosepsis.
 - High morality rate
- It is critical to recognize and act upon the symptoms associated with UTIs.
- Indwelling urinary catheters significantly increase the risk of UTIs, known as CAUTIs.
- Improper testing for UTIs can lead to overuse of antibiotics to treat ABUTIs.
- Using preventive bundles is a critical step in preventing UTIs.





Our Next Care Coordination Quickinar

Readmissions and End of Life Tuesday, February 6, 2024 | 11 a.m. PT

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Questions?







Thank you!

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