

# CAUTI Surveillance Workbook

Long-term care tools and resources



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# LTC CAUTI Surveillance Worksheet

## Purpose:

- The “LTC CAUTI Surveillance Worksheet” is tool that was created to streamline the surveillance process when reviewing a resident’s chart for a suspected catheter associated urinary tract infection (CAUTI). The infection preventionist can review the chart and determine if the documentation meets or doesn’t meet the NHSN criteria, by checking “yes or no”. The form combines the resident’s health assessment and laboratory findings, and gives direction if the infection episode meets NHSN criteria.
- The “Notes” column can be used to help document the chart source. For example, the date and time of a fever can be recorded in this column. Additionally, the urine culture results can also be added.

## Definitions:

- Symptomatic UTI occurs in a resident while having an indwelling urinary catheter in place or removed within the 2 calendar days prior to the event onset (day of removal=Day 1)
- An indwelling urinary catheter should be in place for a minimum of 2 calendar days (Day 1=day of insertion) in order for the symptomatic UTI to be catheter-associated.

## Resources:

For additional information please refer to the checklist, [Centers for Disease Control and Prevention \(CDC\) protocol, Urinary Tract Infection \(UTI\) Event for Long-term Care Facilities, 2015.](#)

# LTC CAUTI Surveillance Worksheet

Date: \_\_\_\_\_

MR #: \_\_\_\_\_

Resident Name: \_\_\_\_\_

Room/Unit #: \_\_\_\_\_

Date of Catheter Insertion: \_\_\_\_\_

**1 or more of the following, with no alternate source:**

YES

NO

Notes

Fever (single oral temperature >100°F or >99°F on repeated occasions, or >2°F over baseline)	<input type="checkbox"/>	<input type="checkbox"/>	
Rigors (shaking chills)	<input type="checkbox"/>	<input type="checkbox"/>	
New onset hypotension with no alternate site of infection	<input type="checkbox"/>	<input type="checkbox"/>	
New onset confusion/functional decline <b>AND</b> Leukocytosis (>14,000 cells/mm <sup>3</sup> or Left Shift with >6% or >1,500 bands/mm <sup>3</sup> )	<input type="checkbox"/>	<input type="checkbox"/>	
New costovertebral angle pain or tenderness	<input type="checkbox"/>	<input type="checkbox"/>	
New or marked increase in suprapubic pain or tenderness	<input type="checkbox"/>	<input type="checkbox"/>	
Acute pain, swelling or tenderness of the testes, epididymis, or prostate	<input type="checkbox"/>	<input type="checkbox"/>	
Purulent discharge (pus) from around the catheter	<input type="checkbox"/>	<input type="checkbox"/>	



**AND**

**Any of the following:**

*If urinary catheter removed within last 2 calendar days:*

YES

NO

Notes

A clean catch (voided) urine culture with 100,000 or more colonies ( $\geq 10^5$ CFU/ml) of no more than 2 species of microorganisms	<input type="checkbox"/>	<input type="checkbox"/>	
Positive culture with 100 or more colonies ( $\geq 10^2$ CFU/ml) of any number of microorganisms from a straight in/out catheter specimen	<input type="checkbox"/>	<input type="checkbox"/>	

*If urinary catheter in place:*

Positive culture with 100,000 or more colonies ( $\geq 10^5$ CFU/ml) of any number of microorganisms from indwelling catheter specimen	<input type="checkbox"/>	<input type="checkbox"/>	
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**Signifies CAUTI**

**CAUTI Case Review**

Date: \_\_\_\_\_

Reviewers: \_\_\_\_\_ Catheter last inserted on: \_\_\_\_\_ Location of Device Insertion: \_\_\_\_\_

Date of first sign or symptom of potential infection: \_\_\_\_\_ Temp: \_\_\_\_\_

Date of positive urine culture: \_\_\_\_\_ Organism(s): \_\_\_\_\_

Date of positive blood culture, if applicable: \_\_\_\_\_ Antibiotic(s): \_\_\_\_\_

Number of days of therapy: \_\_\_\_\_ Catheter removed on: \_\_\_\_\_, or replaced or N/A \_\_\_\_\_

**Instructions:**

1. Hold debrief as soon as possible after the CAUTI occurs.
2. Involve Unit leadership, QA, IP, bedside caregivers, CAUTI resources and the resident if appropriate.
3. **Forward completed review to Infection Prevention.**

Questions	Lessons learned
Was the catheter <b>inserted</b> for a CDC indicated reason? <input type="checkbox"/> Urinary retention/obstruction/CBI <input type="checkbox"/> Placement of urinary catheter by a urologist or ordered by a urologist <input type="checkbox"/> Comfort measures only <input type="checkbox"/> To assist in healing of open perineal wounds in a patient with urinary incontinence <input type="checkbox"/> Neurogenic bladder	<b><i>If the catheter was not inserted for a CDC indicated reason, explain the rationale for placing the catheter.</i></b>
Was the catheter inserted by a specifically trained provider?	<input type="checkbox"/> <b><i>Placed by a physician</i></b> <input type="checkbox"/> <b><i>Placed by a nurse (LPN, RN)</i></b> <b><i>Did the nurse complete a catheter insertion competency?</i></b> <input type="checkbox"/> YES <input type="checkbox"/> NO
During the week before infection was suspected, was the catheter maintained and cared for per facility policy, (e.g., CDC Guidelines)? <sup>1</sup>	<b><i>Was catheter care done every shift and documented?</i></b> <input type="checkbox"/> YES <input type="checkbox"/> NO <b><i>Was the catheter secured with a securement device?</i></b> <input type="checkbox"/> YES <input type="checkbox"/> NO <b><i>Was a closed system maintained throughout the stay of the catheter?</i></b> <input type="checkbox"/> YES <input type="checkbox"/> NO <b><i>Was a leg bag used?</i></b> <input type="checkbox"/> YES <input type="checkbox"/> NO <b><i>Was the catheter kept below the level of the bladder at all times?</i></b> <input type="checkbox"/> YES <input type="checkbox"/> NO
Was the need for the catheter reviewed daily in patient rounds for short term catheters or within previous 30 days for long-term catheters?	<input type="checkbox"/> YES <input type="checkbox"/> NO <b><i>Where was the need for the catheter documented in the:</i></b> <input type="checkbox"/> Nursing documentation <input type="checkbox"/> Shift Progress Note <input type="checkbox"/> Physician progress note
Was the resident incontinent of stool?	<input type="checkbox"/> YES <input type="checkbox"/> NO <b><i>If Yes, was a Fecal Containment Device used to contain feces?</i></b> <input type="checkbox"/> YES <input type="checkbox"/> NO

<sup>1</sup> Refer to Lippincott Nursing Procedures, 5<sup>th</sup> edition, 2009, pgs. 714-721.[Publish Date]

Why was the <b>urine culture</b> ordered? (Infection Prevention to complete)	<b>Were there symptoms associated with UTI that prompted the culture?</b> <input type="checkbox"/> YES <input type="checkbox"/> NO <b>If Yes, please list symptoms:</b>
How can we prevent this situation from happening again?	<b>Root Cause:</b>  <b>Key learning points:</b>
What is the current plan related to urinary elimination for this resident?	<b>Do we need any changes to the current plan?</b> <input type="checkbox"/> Remove catheter now <input type="checkbox"/> Replace catheter now <input type="checkbox"/> Condom catheter <input type="checkbox"/> Scheduled toileting with purposeful rounding <input type="checkbox"/> Frequent catheter care <input type="checkbox"/> Bladder scan/straight catheter per physician order <input type="checkbox"/> Communicate plan changes to RN/LPN/CNA

**Nurse Manager/Educator Review:**

Plan to communicate key learning points to staff and physicians, if applicable:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

Who is responsible for this plan? \_\_\_\_\_

When will this plan be completed? \_\_\_\_\_

**Outcomes:**



# Learn From Defects Tool

Use this to identify the types of systems that contributed to the defect (an event or situation that you do not want to have happen again) and to follow up to ensure safety improvements are achieved.

<b>1. What happened? (brief description)</b>			
<b>2. Why did it happen? (what factors contributed)</b>			
<b>+ factors</b> What prevented it from being worse?		<b>- factors</b> What happened to cause the defect?	
<b>3. What were we doing to manage it?</b>			
<b>4. What can we do to reduce the risk of it happening again?</b>			
<b>Action Plan</b>	<b>Responsible Person</b>	<b>Target Date</b>	
<b>5. How will we know risk is reduced?</b>			
Were the above action plans effectively carried out? Did the interventions reduce the likelihood of recurrence of the defect? Has it happened again?			
<b>With whom will we share our learning? (communication plan)</b>			
<b>Who</b>	<b>When</b>	<b>How</b>	<b>Follow-up</b>



# Long-term Care: Daily Urinary Catheter Maintenance Checklist<sup>1</sup>

Resident Name (print) \_\_\_\_\_ Med Rec # \_\_\_\_\_ Unit \_\_\_\_\_ Date/Time \_\_\_\_\_

Date of insertion (if known): \_\_\_\_\_

Inserted by whom: \_\_\_\_\_ Floor/Unit: \_\_\_\_\_

I. ROUTINELY ASSESS INDWELLING URINARY CATHETER APPROPRIATENESS/NEED	✓	COMMENTS
1. Is the need for the catheter assessed on a routine basis (e.g., weekly, monthly, etc.?) Date Last assessed: ___/___/_____		Note Frequency: _____
II. BEFORE CATHETER MAINTENANCE	✓	COMMENTS
1. Identify the resident per facility policy. Explain the procedure to the resident.		
2. Assemble and verify supplies (e.g. wash cloth, soap, basin, clean gloves and consider wearing a gown to protect clothing from contamination or multi-drug resistant organisms (MDROs)).		
3. Perform hand hygiene using an alcohol-based sanitizer or soap and water immediately before donning gloves to handle catheter and provide care.		
III. MAINTENANCE OF INDWELLING CATHETER	✓	COMMENTS
1. Ensure the order for the catheter and balloon size matches the inserted catheter.		
2. A sterile continuously closed drainage system is intact.		
3. A catheter securement device is in place to prevent catheter movement and urethral traction. Ensure the catheter is inserted into the device.		
4. The catheter and urine collecting tubing is free of obstruction and kinks to maintain an unobstructed urine flow.		
5. Staff practices Standard Precautions, performs hand hygiene and wears clean gloves when handling the catheter, tubing and drainage bag; the wearing a gown can also be used to reduce MDRO clothing contamination.		
6. Assess the resident for any pain or discomfort.		
7. Inspect the meatus for redness, irritation, and drainage.		
8. Assess the catheter where it enters the meatus for encrusted material and drainage.		
9. Clean the meatus with soap and water during daily bathing (do not clean with antiseptics). Remove any encrusted materials on the tubing. Ensure the tubing does not go in and out of the urethra during cleaning.		
10. Ensure that the collecting bag is secured below the level of the bladder at all times and not resting on the floor. Place a cover over the drainage bag to maintain resident dignity.		
11. Assess, if applicable, if the leg bag urine collection device is cleaned/disinfected and stored per policy.		
12. Use a dedicated urine collection device with a resident identifier and date. Avoid splashing, and prevent contact of the drainage spigot with the non-sterile collecting container when emptying the drainage bag.		

## Long-term Care: Daily Urinary Catheter Maintenance Checklist<sup>1</sup>

13. Change the catheter and drainage bag only if indicated by clinical criteria (e.g., infection, obstruction, when the closed system is compromised or potentially contaminated).		
14. Use a catheter insertion checklist if changing the catheter. Consider having an assistant during the procedure to help position resident and decrease risk of catheter contamination.		
15. Residents who are independent with catheter care are educated and competent with aseptic technique.		
<b>IV. SPECIMEN COLLECTION (IF APPLICABLE)</b>	✓	COMMENTS
1. Per laboratory policy, collect a dedicated volume of fresh urine for urinalysis and/or culture by disinfecting the needleless sample port and aspirating using a sterile, safety device syringe or cannula adapter.		
2. If CAUTI is suspected, replace the catheter if it's been in place more than 2 weeks to obtain the urine culture from the newly inserted catheter.		
3. Urine culture samples must be processed by the lab within 2 hours, stored in a specimen refrigerator or collected in a urine specimen container with preservative.		
4. Collect large volumes of urine for special analyses aseptically from the drainage bag.		

Reviewers Name: \_\_\_\_\_

Date Reviewed: \_\_\_\_\_

## Catheter-associated Urinary Tract Infection (CAUTI)

Criteria for defining CAUTI in long-term care residents:

**One or more of the following, with no alternate source:**

- Fever\*
- Rigors (shaking chills)
- New onset hypotension
- New onset confusion/functional decline AND increased leukocytosis\*
- New costovertebral angle pain or tenderness
- New or increased suprapubic pain or tenderness
- Acute pain, tenderness, or swelling of the testes, epididymis, or prostate
- Pus around the catheter insertion site

**AND**

**Any of the following:**

*If catheter removed within past 2 calendar days:*

- Clean catch (voided) urine culture with 100,000 or more colonies ( $\geq 10^5$  CFU/ml) of no more than 2 species of microorganisms
- In/Out catheter urine culture with 100 or more colonies ( $\geq 10^2$  CFU/ml) of any number of microorganisms

*If indwelling urinary catheter in place:*

- Positive urine culture with 100,000 colonies or more ( $\geq 10^5$  CFU/ml) of any number of microorganisms

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**\*Constitutional Criteria for Long-term Care Residents****Fever**

Must have one of the following:

- Single oral temperature >100°F (37.8°C)
- Repeated oral temperature >99°F (37.2°C) **OR** rectal temperature >99.5°F (37.5°C)
- Repeated rectal temperatures >99.5 °F
- Single temperature >2°F (1.1°C) over baseline for oral or rectal

**Leukocytosis**

Must have one of the following:

- >14,000 white blood cells (leukocytes)/mm<sup>3</sup>
- Increase in immature white blood cells (Left Shift) with >6% bands or > 1,500 bands/mm<sup>3</sup>

**Acute Change in Mental Status (within last 7 days)**

All components must be present :

- Confusion (with no alternate diagnosis and leukocytosis)
- Fluctuating Behavior (comes and goes, or changes in severity)
- Inattention (difficulty focusing and cannot maintain attention)
- Disorganized thinking (thinking is incoherent or hard to follow)

**OR**

Altered level of consciousness (change is different from baseline, may be sleepy, lethargic, difficult to arouse)

**Acute Functional Decline**

- New 3 point increase in total activities of daily living (ADL) score from baseline (range: 0-28)  
Each ADL scored from 0 (independent) to 4 (totally dependent), including: bed mobility, transfer, locomotion within facility, dressing, toilet use, personal hygiene and eating

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# AHRQ Safety Program for Long-Term Care: CAUTI

## Collect outcome data!

What are the results of your efforts to prevent CAUTI?  
Collect outcome data monthly to find out.

### Resident Days

- Every day a resident (with or without a catheter) is in your facility = one resident day.
- Collect at the same time, each day of the month.

### Number of Urine Cultures

This includes urine cultures ordered for every resident (i.e. with or without catheters) each month.



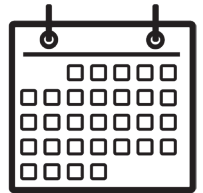
### Number of CAUTIs

- CAUTI is counted on the **first day** that the cluster of signs and symptoms, lab reports and the presence of a catheter for more than 2 consecutive days are found together
- CAUTI is an event which may continue for days or even weeks, but it is counted **only once, not each consecutive day**
- Note that a resident may have multiple CAUTI events in one month

### Catheter Days

Every day a resident has an indwelling urinary catheter = one catheter day.

- Catheter needs to stay in place (i.e. not an in and out catheterization)
- Catheter is through the urethra (i.e. not suprapubic or urostomies)
- Collect at the same time, each day of the month



Example:

A facility has 7 residents with indwelling urinary catheters for the month of June. During the midnight census the following data are collected:

Resident	Days with Catheter
1	30
2	30
3	30
4	10
5	12
6	7
7	4

$$(30 \times 3) + 10 + 12 + 7 + 4 = 123 \text{ catheter days}$$

Remember: Data helps you determine your progress!

Questions? Contact [ltcsafety@aha.org](mailto:ltcsafety@aha.org).

