



# HEALTHCARE ASSOCIATED INFECTION (HAI) MODULE

## Urinary Tract Infections (UTI)

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## LEARNING OBJECTIVE 1

Describe the benefits of using NHSN for urinary tract infection (UTI) surveillance and event reporting.



## LEARNING OBJECTIVE 2

Describe the NHSN methodology, protocols, and definitions used for UTI surveillance and reporting.



## LEARNING OBJECTIVE 3

Accurately apply the NHSN UTI definitions and protocols through case studies.

# Why Monitor Urinary Tract Infections (UTIs) in Long-term Care Facilities (LTCFs)?

- UTIs are considered one of the most common infections in long-term care facilities, driving antibiotic use among residents.
- Focused monitoring of symptomatic UTIs, both catheter and non-catheter associated, helps identify trends in these infections and provides data to improve antibiotic use in the LTCF.
- Tracking these events will also inform infection prevention staff of the impact of targeted prevention efforts.

# **UTI Prevention Begins With Surveillance**

# Sur·veil·lance

**noun**

1. Close observation of a person or group, especially one under suspicion.
2. The act of observing or the condition of being observed.
3. The collection, collation, analysis, interpretation, and dissemination of data.
4. A type of observational study that involves continuous monitoring of disease occurrence within a population.

# Why Do We Perform Surveillance?

- To determine infections which are most common or cause the most harm to residents and staff
- To identify new infections or increasing infections (e.g., outbreaks) requiring further investigation
- Highlight opportunities for improvement
- Assess the impact of new prevention strategies on the rates of infections in the facility
- To comply with regulatory expectations (F441)

**“What gets measured gets done.”**

**Anonymous**

## **Standardized Surveillance Criteria and Analysis for the Following Reporting Modules**



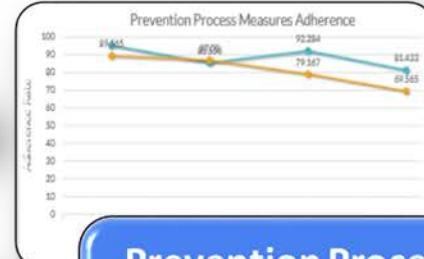
## Healthcare-associated Infections (HAI)

- Urinary tract infections (UTI)
    - Catheter and non-catheter associated
  - **Planned**
    - Respiratory Tract infection
    - Skin and Soft Tissue Infection



## Laboratory-identified (LabID) Event

- *C. difficile* Infection (CDI)
  - Multi-drug Resistant Organisms (MDRO)



## Prevention Process Measures

- Adherence to Gown and Glove Use
  - Adherence to Hand Hygiene

# Benefits of Using NHSN for UTI Surveillance and Event Reporting



- Application will calculate UTI rates for reported UTI events, including:
  - Non-catheter associated UTI rates
  - Catheter-associated UTI rates
- Line lists and analysis options allow facility to identify which residents get UTIs
  - Events related to urinary catheters
  - Organisms that cause UTIs in among residents in facility
- Submitted summary data allows facilities to monitor:
  - Antibiotic use for the treatment of UTIs
  - Urinary catheter utilization
- Consistent data submission allows facilities to assess the impact of efforts to prevent UTI over time

# Which LTCFs are Eligible to Report UTI Event Data to NHSN?



Certified skilled nursing facilities (SNF) and nursing homes (NH)



Intermediate/chronic care facilities for the developmentally disabled



Assisted living facilities & residential care facilities

*Note: limited to Prevention Process Measures Module*

# NHSN UTI Surveillance



Incorporates the use of laboratory data and clinical evaluation of the resident for signs and symptoms to monitor for catheter and non-catheter-associated urinary tract infection events.



CHICAGO JOURNALS



- UTI protocol adapted from the 2012 Revised McGeer Criteria
- Changes have been made to improve surveillance consistency and to decrease surveillance burden

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Surveillance Definitions of Infections in Long-Term Care Facilities: Revisiting the McGeer Criteria

Author(s): Nimalie D. Stone, MD; Muhammad S. Ashraf, MD; Jennifer Calder, PhD; Christopher J. Crnich, MD; Kent Crossley, MD; Paul J. Drinka, MD; Carolyn V. Gould, MD; Manisha Juthani-Mehta, MD; Ebbing Lautenbach, MD; Mark Loeb, MD; Taranisia MacCannell, PhD; Preeti N. Malani, MD; Lona Mody, MD; Joseph M. Mylotte, MD; Lindsay E. Nicolle, MD; Mary-Claire Roghmann, MD; Steven J. Schweon, MSN; Andrew E. Simor, MD; Philip W. Smith, MD; K ...

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## NHSN

Signs/symptoms considered non-specific and may be applied to more than one infection cause

CAM criteria not required when applying “*new onset confusion/functional decline*”

Urine culture requirements not dependent on specimen collection method

Urine culture must have no more than 2 species of microorganisms, with at least one bacterium of  $10^5$  cfu/ml

Yeast and non-bacterium not acceptable UTI pathogens

## McGeer

Must look for other sources of infection before using fever, rigors, hypotension

Confusion Assessment Method (CAM) required to assess mental status or functional change

Urine culture requirements are dependent on specimen collection method

Straight/in-out catheter with at least  $10^2$  cfu/ml of any number of organisms

Urinary catheter specimen culture with at least  $10^5$  cfu/ml of any organism(s)

Voided urine culture with at least  $10^5$  cfu/ml of no more than 2 species of microorganisms

No exclusions for yeast only urine cultures



# **Consistency is a Must!**

- Surveillance criteria are designed to look at a population at risk
- Identify residents meeting the criteria
- Consistently apply the criteria
- Ensures the comparability of the data

# UTI Surveillance Considerations

- Are the symptoms new or acutely worse?
  - No set-time period for reporting second UTI for same resident
- Does the resident have an indwelling urinary device in place?
- Evidence of infection
  - Does the resident have a positive urine culture?
  - Does a resident without an indwelling urinary device have localized signs/symptoms?
  - Does the clinical presentation of resident meet NHSN criteria?



# What if There is Clinical Disagreement?

- Surveillance vs. clinical definitions
- Different purposes
- May not agree
- Comments section useful to note important factors
- Submit cases and questions to [nhsn@cdc.gov](mailto:nhsn@cdc.gov) for review and feedback

# UTI Monthly Participation Requirements

- A **NHSN Monthly Reporting Plan** must be completed for each calendar month in which a facility plans to enter data into the NHSN
- Facilities must **submit** all UTI events that meet NHSN criteria (*referred to as numerator data*)
  - Includes both catheter-associated and non-catheter-associated UTI events
- **Summary Data-** For each participating month, the facility must submit UTI denominator data
- **Resolve “Alerts”, if applicable**

# Monthly Reporting Plan

- Informs CDC-NHSN which module(s) and events a facility is following during a given month.
- A facility must enter a Plan for every month in which surveillance and data submissions will occur.
  - A Plan must be in place before events can be entered into NHSN

# Monthly Reporting Plan (MRP) for UTI Module

- MRP must be completed before event reporting in the application is allowed
- HAI Module: UTI
- Facility-wide Inpatient (**FacWideIN**) is default indicating UTI surveillance must be conducted for all resident care locations

The screenshot shows the 'Add Monthly Reporting Plan' screen. A yellow arrow points to the 'Add' button in the top left of the main content area. Below it, the 'HAI Module' section is highlighted with a yellow box. It contains a table with two columns: 'Locations' and 'UTI'. The 'Locations' column has a dropdown menu showing 'Facility-wide Inpatient (FacWideIN)'. The 'UTI' column has a checked checkbox. Below this table is another table with columns 'Locations', 'Specific Organism Type', and 'Lab ID Event All Specimens'. At the bottom of the 'HAI Module' section are buttons for 'Add Row', 'Clear All Rows', and 'Copy from Previous Month'. Further down is the 'Prevention Process Measure Module' with a similar table structure. At the very bottom right are 'Save' and 'Back' buttons.

NHSN Home  
Alerts  
Reporting Plan **Add** Add  
Resident Find  
Event Marked with \*Summary Data  
Surveys  
Analysis  
Users  
Facility  
Group  
Logout

Add Monthly Reporting Plan

Facility ID \*: Angels LTCF Test Facility (ID 30455)  
Month \*: February  
Year \*: 2017  
 No Long Term Care Facility Community Modules Followed this Month

**HAI Module**

Locations	UTI
Facility-wide Inpatient (FacWideIN)	<input checked="" type="checkbox"/>

Locations Specific Organism Type Lab ID Event All Specimens

Add Row Clear All Rows Copy from Previous Month

**Prevention Process Measure Module**

Locations	Hand Hygiene	Gown and Gloves Use
Facility-wide Inpatient (FacWideIN)	<input type="checkbox"/>	<input type="checkbox"/>

Copy from Previous Month

Save Back

# Which Residents Are Included in NHSN UTI Event Surveillance and Reporting?

- UTI surveillance must occur for **all** resident care locations in the LTCF, this is called facility-wide inpatient or **FacWideIN**.
- Includes UTI in residents with or without an indwelling urinary device.

# Reportable UTI Events

- Submit UTI events only for residents meeting the NHSN UTI event criteria.
- Only residents with NHSN UTI signs or symptoms presenting **> 2 calendar days after current admission** (*where date of admission is equal to day 1*).

Example: NHSN Classification of reportable LTCF UTI Events					
Admission date	June 4 <sup>th</sup>	June 5 <sup>th</sup>	June 6 <sup>th</sup>	June 7 <sup>th</sup>	June 8 <sup>th</sup>
	day 1	day 2	day 3	day 4	day 5
<b>Not a LTCF reportable UTI event</b>					<b>LTCF reportable UTI event</b>

# Which Residents Are Excluded from NHSN UTI Event Reporting?

- Residents receiving **inpatient** care in another healthcare facility.
- Residents not fully meeting NHSN UTI criteria, including the urine culture requirement.
- Residents with NHSN UTI signs or symptoms presenting on day one or two of current admission date.
  - If a resident is transferred from an acute care facility and develops signs/symptoms of a UTI within the first 2 calendar days of admission to the LTCF, it would be considered present at the time of transfer to the LTCF and not reported to NHSN as a LTCF UTI event.



## Urinary Tract Infection (UTI) for LTCF

\*required for saving

Page 1 of 4	
*Facility ID:	Event #:
*Resident ID:	*Social Security #:
Medicare number (or comparable railroad insurance number):	
Resident Name, Last:	First _____ Middle: _____
*Gender: M _____ F _____ Other _____	*Date of Birth: ____ / ____ / ____
Ethnicity (specify): _____ Race (specify): _____	
*Resident type: <input type="checkbox"/> Short-stay <input type="checkbox"/> Long-stay	
*Date of First Admission to Facility: ____ / ____ / ____	
*Event Type: UTI	
*Resident Care Location: _____	
*Primary Resident Service Type: (check one)	
<input type="checkbox"/> Long-term general nursing <input type="checkbox"/> Long-term dementia <input type="checkbox"/> Long-term psychiatric <input type="checkbox"/> Skilled nursing/Short-term rehab (subacute) <input type="checkbox"/> Ventilator <input type="checkbox"/> Bariatric <input type="checkbox"/> Hospice/Palliative	
*Has resident been transferred from an acute care facility to your facility in the past 3 months? <input type="checkbox"/> Yes <input type="checkbox"/> No	
If Yes, date of last transfer from acute care to your facility: ____ / ____ / ____	
If Yes, did the resident have an indwelling urinary catheter at the time of transfer to your facility? <input type="checkbox"/> Yes <input type="checkbox"/> No	
*Indwelling Urinary Catheter status at time of event onset (check one):	
<input type="checkbox"/> In place <input type="checkbox"/> Removed within last 2 calendar days <input type="checkbox"/> Not in place If indwelling urinary catheter status in place or removed within last 2 calendar days: Site where indwelling urinary catheter inserted (check one): <input type="checkbox"/> Your facility <input type="checkbox"/> Acute care hospital <input type="checkbox"/> Other <input type="checkbox"/> Unknown Date of indwelling urinary catheter insertion: ____ / ____ / ____ If indwelling urinary catheter not in place, was another urinary device type present at the time of event onset? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, other device type: <input type="checkbox"/> Suprapubic <input type="checkbox"/> Condom (males only) <input type="checkbox"/> Intermittent straight catheter	
<b>Event Details</b>	
*Specify Criteria Used: (check all that apply) <b>Signs &amp; Symptoms</b> <input type="checkbox"/> Fever: Single temperature ≥ 37.8°C (>100°F), or > 37.2°C (>99°F) on repeated occasions, or an increase of >1.1°C (>2°F) over baseline <input type="checkbox"/> Rigors <input type="checkbox"/> New onset hypotension <input type="checkbox"/> New onset confusion/functional decline <input type="checkbox"/> Acute pain, swelling, or tenderness of the testes, epididymis, or prostate <input type="checkbox"/> Acute dysuria <input type="checkbox"/> Purulent drainage at catheter insertion site <b>New and/or marked increase in (check all that apply):</b> <input type="checkbox"/> Urgency <input type="checkbox"/> Costovertebral angle pain or tenderness <input type="checkbox"/> Frequency <input type="checkbox"/> Suprapubic tenderness <input type="checkbox"/> Incontinence <input type="checkbox"/> Visible (gross) hematuria	
<b>Laboratory &amp; Diagnostic Testing</b> <input type="checkbox"/> Specimen collected from clean catch voided urine and positive culture with ≥ 10 <sup>5</sup> CFU/ml of no more than 2 species of microorganisms <input type="checkbox"/> Specimen collected from inout straight catheter and positive culture with ≥ 10 <sup>5</sup> CFU/ml of any microorganisms <input type="checkbox"/> Specimen collected from indwelling catheter and positive culture with ≥ 10 <sup>5</sup> CFU/ml of any microorganisms <input type="checkbox"/> Leukocytosis (> 14,000 cells/mm <sup>3</sup> ), or Left shift (> 6% or 1,500 bands/mm <sup>3</sup> ) <input type="checkbox"/> Positive blood culture with 1 matching organism in urine culture	
*Specific Event (Check one):	
<input type="checkbox"/> Symptomatic UTI (SUTI) <input type="checkbox"/> Symptomatic CA-UTI (CA-SUTI) <input type="checkbox"/> Asymptomatic Bacteremic UTI (ABUTI)	
Secondary bloodstream infection: Yes <input type="checkbox"/> No <input type="checkbox"/>	
Died within 7 days of date of event: Yes <input type="checkbox"/> No <input type="checkbox"/>	
*Transfer to acute care facility within 7 days: Yes <input type="checkbox"/> No <input type="checkbox"/>	
*Pathogens identified: Yes <input type="checkbox"/> No <input type="checkbox"/> If Yes, specify on page 2	
Assurance of Confidentiality: The voluntarily provided information obtained in this surveillance system that would permit identification of any individual or institution is collected with a guarantee that it will	

<https://www.cdc.gov/nhsn/ltc/uti/index.html>

# LTCF Website:

<https://www.cdc.gov/nhsn/ltc/index.html>

- Access to event modules
  - Training
  - Protocols
  - Forms and instructions
  - Supporting materials (e.g., locations, key terms, etc.)
  - Analysis resources
  - Frequently Asked Questions

NHSN

NHSN Login

About NHSN

Enroll Here

Materials for Enrolled Facilities

- Ambulatory Surgery Centers
- Acute Care Hospitals/Facilities
- Long-term Acute Care Hospitals/Facilities
- Long-term Care Facilities

Surveillance for C. difficile Infection (CDI) and Multidrug Resistant Organisms (MDRO)

Surveillance for Urinary Tract Infections (UTI)

## Long-term Care Facilities

2019 LTCF Annual Training  
Tuesday, July 9th – Thursday, July 11th, 2019 at CDC campus in Atlanta, Georgia

The NHSN, Long-term Care Facility (LTCF) Component provides long-term care facilities with a customized system to track infections and prevention process measures in a systematic way. Tracking this information allows facilities to identify problems, ~~improve care, and determine progress toward national~~

### Surveillance for Urinary Tract Infections (UTI)

New Here

Step 1 NHSN

#### Resources for NHSN Users Already Enrolled

- Training
- Protocol
- Data Collection Forms and Instructions
- Supporting Material
- FAQs

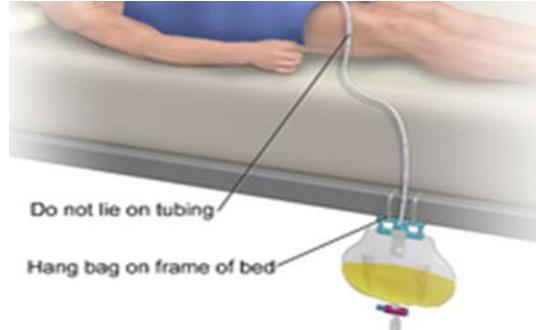
Questions? We'd love to hear from you via e-mail: [nhsn@cdc.gov](mailto:nhsn@cdc.gov) "LTCF" in Subject Line

# **URINARY TRACT INFECTION (UTI) KEY TERMS AND DEFINITIONS**

## Date of Event

The date when the first clinical evidence (signs/symptoms) of the UTI appeared or the date the urine culture specimen used to meet the infection criteria was collected, whichever comes first.

# Indwelling Urinary Catheter



A drainage tube that is inserted into the urinary bladder through the urethra, is left in place, and is connected to a drainage bag/collection system (including leg bags); also called a Foley catheter.

# An Indwelling Urinary Catheter is NOT:

- In-and-out catheter (straight catheter)
- Suprapubic catheter
- Condom catheter
- Nephrostomy tube

NO

# Urinary Tract Infection Definitions

There are *two specific types* of UTI:

- Symptomatic UTI (**SUTI**)
- Asymptomatic Bacteremic UTI (**ABUTI**)

For BOTH Types- surveillance must occur for both catheter and non-catheter associated UTI events

# Symptomatic UTI (SUTI)

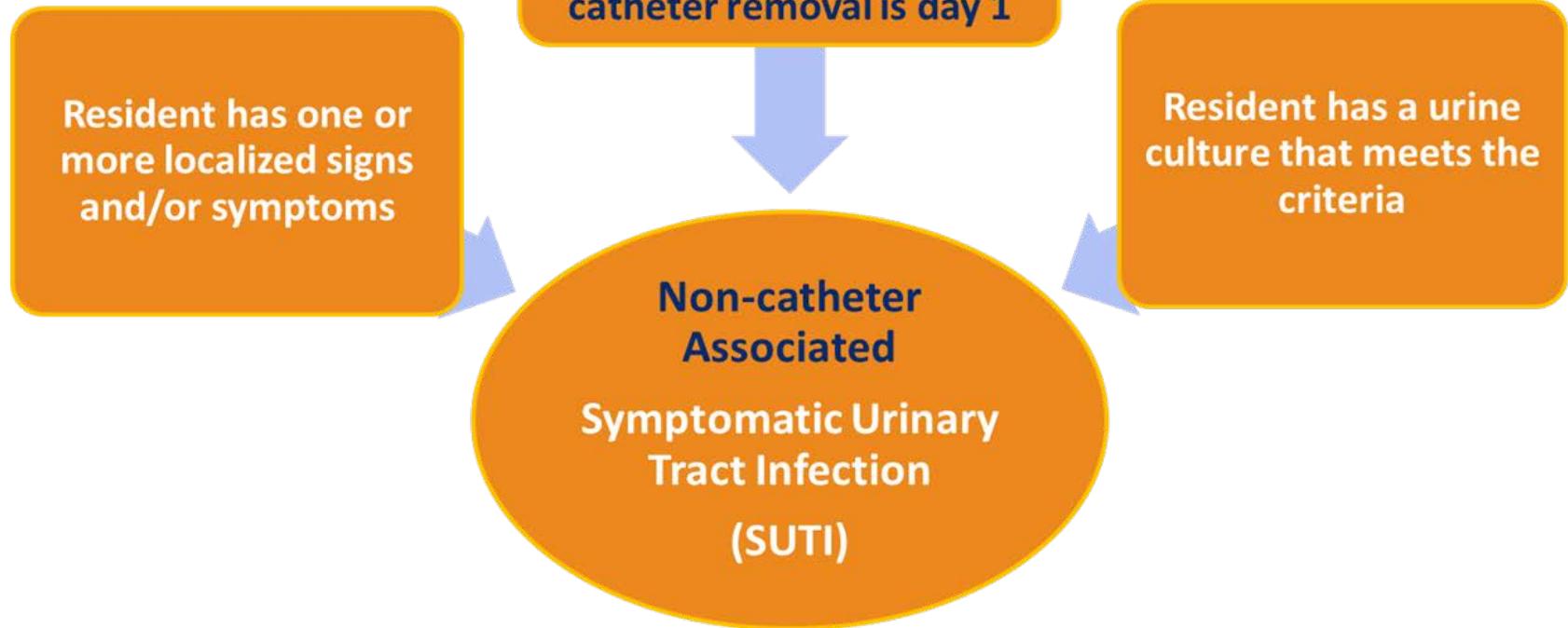
**Resident demonstrates signs and symptoms that localize the infection to the urinary tract. These events can occur in residents with or without indwelling urinary devices.**

## **Asymptomatic Bacteremic UTI (ABUTI):**

**Events that occur when the resident has NO signs or symptoms localizing to the urinary tract, but has matching urine and blood cultures positive for at least one organism regardless of whether a catheter is in place or not.**

# **SYMPTOMATIC URINARY TRACT INFECTION, NON-CATHETER ASSOCIATED**

# Symptomatic (SUTI) Non-catheter-associated



# Symptomatic UTI (SUTI) without Indwelling Catheter

## Three Criteria Options (Positive Urine Culture Required)

### Criteria 1

OR

#### Either of the following:

- Acute dysuria
- Acute pain, swelling, or tenderness of the testes, epididymis or prostate

### Criteria 2

OR

#### Either of the following:

- 1. Fever
- 2. Leukocytosis

AND

#### ONE or more of the following (*new or marked increase*):

- Costovertebral angle pain/tenderness
- Suprapubic pain/tenderness
- Visible/gross hematuria
- Incontinence
- Urinary urgency
- Urinary frequency

### Criteria 3

#### In absence of Fever or Leukocytosis:

#### TWO or more of the following (*new or marked increase*):

- Costovertebral angle pain/tenderness
- Suprapubic pain/tenderness
- Visible/gross hematuria
- Incontinence
- Urinary urgency
- Urinary frequency

# Urine Culture Requirements Apply to both SUTI and CA-SUTI



**Positive urine culture with no more than 2 species of microorganisms, at least one of which is a bacterium of at least 100,000 CFU/ml ( $\geq 10^5$ )**

# FEVER

Single temperature  $>37.8^{\circ}\text{C}$  ( $>100^{\circ}\text{F}$ ), **OR**  $>37.2^{\circ}\text{C}$  ( $>99^{\circ}\text{F}$ ) on repeated occasions, **OR** an increase of  $>1.1^{\circ}\text{C}$  ( $>2^{\circ}\text{F}$ ) over baseline

- No specific route of measurement required.
- Use the temperature documented in the resident's medical record (*no conversion based on route of collection*).
- Non-specific sign that can be used to meet criteria even in the presence of another possible infection source.
- Baseline = average of the resident's previous documented temperatures, using the same method for fever assessment.

# LEUKOCYTOSIS

- An elevation in the number of white blood cells (WBC) in the blood.  
[ $>14,000 \text{ cells/mm}^3$  or Left shift ( $>6\%$  or  $1,500 \text{ bands/mm}^3$ )]
- Identified through a complete blood count (CBC) and differential blood test.
- May see “Neutrophilia” or “Left Shift” documented in medical record

# Example of SUTI Without an Indwelling Catheter

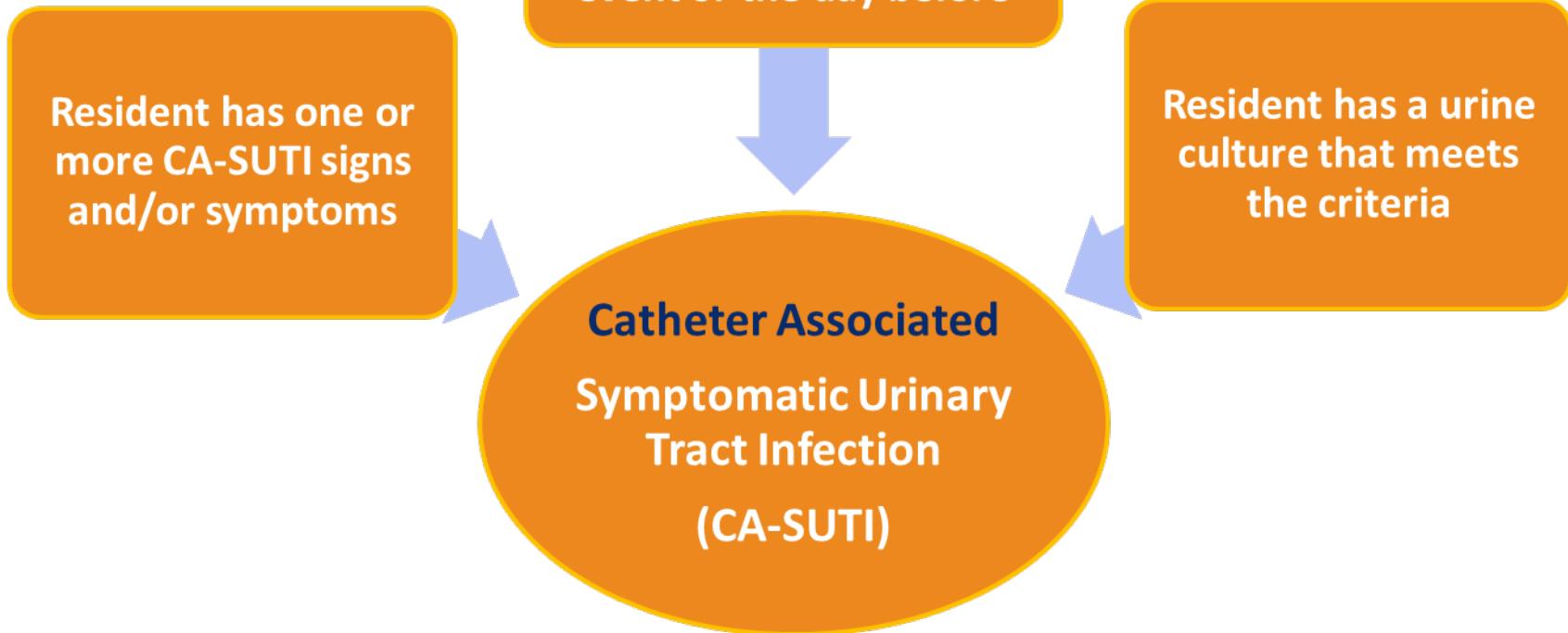
Mrs. Stevens, is a resident of the nursing home. On March 1, she developed new increase in incontinence and new suprapubic pain. The following day, on March 2, a voided urine specimen was sent to the lab and subsequently tested positive for greater than 100,000 ( $\geq 10^5$ ) CFU/ml of *E. coli*. Mrs. Stevens **does** meet criteria for a non-catheter associated SUTI.

## Criteria 3

- ✓ New Incontinence
- ✓ New onset of Suprapubic pain
- ✓ Voided urine culture with at least  $10^5$  CFU/ml of *no more than 2 species of microorganisms*

# **CATHETER-ASSOCIATED SYMPTOMATIC URINARY TRACT INFECTION CRITERIA**

## Catheter- Associated Symptomatic UTI (CA-SUTI)



## CA-SUTI Signs and Symptoms (*one or more*)

### Fever

Single temperature  $>37.8^{\circ}\text{C}$  ( $>100^{\circ}\text{F}$ ), **OR**  $>37.2^{\circ}\text{C}$  ( $>99^{\circ}\text{F}$ ) on repeated occasions, **OR** an increase of  $>1.1^{\circ}\text{C}$  ( $>2^{\circ}\text{F}$ ) over baseline

### Rigors

New onset **hypotension**

**New onset confusion** or **acute functional decline** (*with no alternative diagnosis*)

AND

**Leukocytosis:**  $>14,000 \text{ cells/mm}^3$  or Left shift ( $>6\%$  or  $1,500 \text{ bands/mm}^3$ )

New or marked increase in **suprapubic pain** or **costovertebral angle pain or tenderness**

**Acute pain, swelling or tenderness of the testes, epididymis or prostate**

**Purulent (pus) discharge from around the catheter**

# Urine Culture Requirements Apply to both SUTI and CA-SUTI

**Positive urine culture with no more than 2 species of microorganisms, at least one of which is a bacterium of at least 100,000 CFU/ml ( $\geq 10^5$ )**

# Urine Culture Requirements, *continued*



At least one organism in the urine culture must be a bacterium. Yeast and other microorganisms, which are not bacteria, are not acceptable UTI pathogens.

# HYPOTENSION

- Use vital sign parameters per facility policy and practices for clinical practice.
- Non-specific sign that can be used to meet criteria even in the presence of another possible infection source.
- Exclude if documented non-infectious cause, such as new medication known to cause hypotension or cardiac event.

# NEW ONSET OF CONFUSION

Has the resident had new onset of confusion or functional decline (*new or worsening*)?

**Note:** The application of Confusion Assessment Method (CAM) criteria are not required

## EXAMPLE of CA-SUTI

Mrs. Ross is a resident in your facility. An indwelling urinary catheter was inserted on March 1. On March 5, the nurse practitioner documented that Mrs. Ross complained of suprapubic pain. The following day, on March 6, a specimen collected from the Foley catheter was sent to the lab and subsequently tested positive for greater than 100,000 CFU/ml of *E. coli* and 100,000 CFU/ml of *Candida auris*. Mrs. Ross does meet NHSN criteria for a CA-SUTI on March 5 since the indwelling urinary device was present on the day of the event and she had at least one qualifying documented symptom (*suprapubic pain*).

- ✓ Indwelling urinary catheter in place > 2 calendar days
- ✓ New onset suprapubic pain
- ✓ Positive urine culture with at least one qualifying bacterium and no more than 2 species of organisms

# **ASYMPTOMATIC BACTEREMIC URINARY TRACT INFECTION (ABUTI) EVENT**

# Asymptomatic Bacteremic Urinary Tract Infection (ABUTI) Event

Resident has **no qualifying fever or localizing urinary signs or symptoms** (specifically, no urgency, frequency, acute dysuria, suprapubic tenderness, or costovertebral angle pain or tenderness). *If no catheter is in place, fever as only sign would not exclude ABUTI if other positive culture criteria are met.*

↓  
AND

↓

A positive urine culture with no more than 2 species of microorganisms, at least one of which is a bacterium of  $\geq 10^5$  CFU/ml

NOTE: Yeast and other microorganisms which are not bacteria, are not acceptable UTI pathogens

↓  
AND

↓

Positive blood culture with at least 1 matching organism in urine culture

↓  
ABUTI

# Bacteremia vs. Bacteriuria

- Asymptomatic bacteremic UTI (ABUTI)
  - **Included** in NHSN surveillance definitions
  - Considered as meaningful infections since a positive blood culture is present.
- Asymptomatic bacteriuria (ASB)
  - **Not** included in NHSN surveillance definitions.
  - Not considered as meaningful infections, but common in LTCFs, especially among chronically catheterized residents.
  - Often mistreated with antimicrobials resulting in potential adverse drug reactions and development of antimicrobial resistance.

# **SUBMITTING A UTI EVENT TO THE NHSN**

# ADD UTI Event

NHSN - National Healthcare Safety Network

AANTILA  
Angela LTCF Test Facility

**NHSN Home**

- Alerts
- Reporting Plan
- Resident
- Event**
- Summary Data
- Surveys
- Analysis
- Users
- Facility
- Group
- Logout

**NHSN Long Term Care Facility Component Home Page**

**COMPLETE THESE ITEMS**

Add  Find Incomplete

**Add Event**

Mandatory fields marked with **\***  
Fields required for record completion marked with **\*\***

**Resident Information**

Facility ID **\***: Angela LTCF Test Facility (ID 39455)

Resident ID **\***: 1234

Social Security #: 111-11-1111

Medicare number (or comparable railroad insurance number):

Last Name: Betty

Middle Name:

First Name: Boop

Gender **\***: F - Female

Ethnicity:

Date of Birth **\***: 01/10/1939

Race:

American Indian/Alaska Native  Asian  
 Black or African American  Native Hawaiian/Other Pacific Islander  
 White

Resident type **\***:

Date of First Admission to Facility **\***: 12/28/2016

Date of Current Admission to Facility **\***:

# ADD UTI Event

## Resident Type

### Event Date minus First Admission Date

#### Resident Information

**SS-Short-stay:** On the date of specimen collection (event date), the resident has been in facility for 100 days or less from date of first admission.

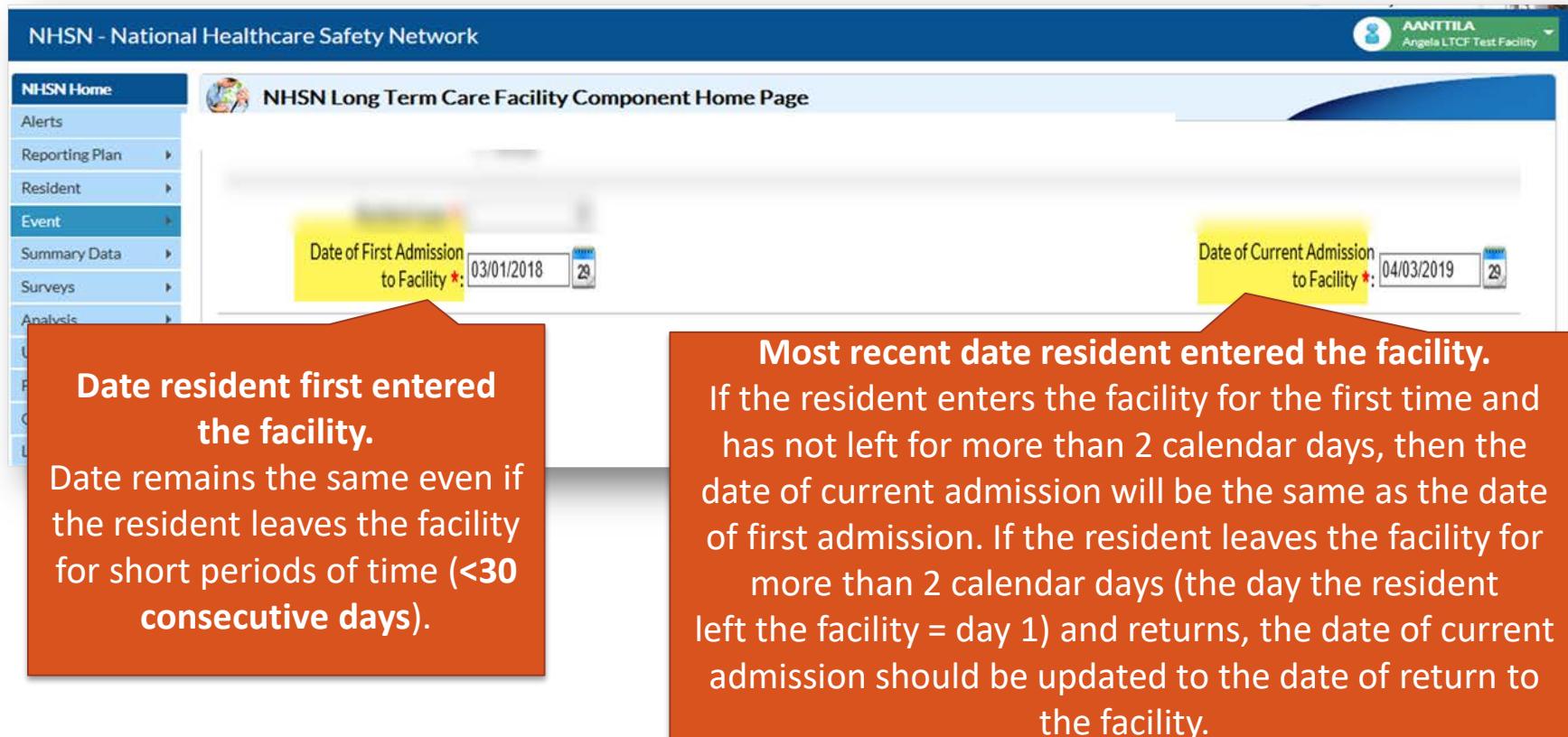
**LS-Long-stay:** On the date of specimen collection (event date), the resident has been in facility for more than 100 days from date of first admission.

Resident type \*:

SS - Short-stay  
LS - Long Stay

# ADD UTI Event

## *Date of First and Current Admission to Facility*



NHSN - National Healthcare Safety Network

AANTILA  
Angela LTCF Test Facility

**NHSN Home**

Alerts

Reporting Plan

Resident

Event

Summary Data

Surveys

Analysis

**NHSN Long Term Care Facility Component Home Page**

Date of First Admission to Facility \*: 03/01/2018

Date of Current Admission to Facility \*: 04/03/2019

**Date resident first entered the facility.**

Date remains the same even if the resident leaves the facility for short periods of time (<30 consecutive days).

**Most recent date resident entered the facility.**

If the resident enters the facility for the first time and has not left for more than 2 calendar days, then the date of current admission will be the same as the date of first admission. If the resident leaves the facility for more than 2 calendar days (the day the resident left the facility = day 1) and returns, the date of current admission should be updated to the date of return to the facility.

# ADD UTI Event

## *Event Type and Date of Event*

**Add Event**

Mandatory fields marked with \*

Fields required for record completion marked with \*\*

**Resident Information**

Facility ID \*: Angela LTCF Test Facility (ID 39455)

Resident ID \*: 2468

Last Name: Summer

Middle Name:

Gender \*: F - Female

Ethnicity: NOHISP - Not Hispanic or Not Latino

Race:  American Indian/Alaska Native  
 Black or African American  
 White

Resident type \*: LS - Long Stay

Date of First Admission to Facility \*: 12/10/2014

**Event Information**

Event Type \*: LABID - Laboratory-identified MDRO or CDI Event  
UTI - Urinary Tract Infection

**The date when the first clinical evidence (signs/symptoms) of the UTI appeared or the date the urine culture specimen used to meet the infection criteria was collected, whichever comes first**

Date of Event \*:  15

# ADD UTI Event

## *Resident Care Location*

Resident Care Location \*:

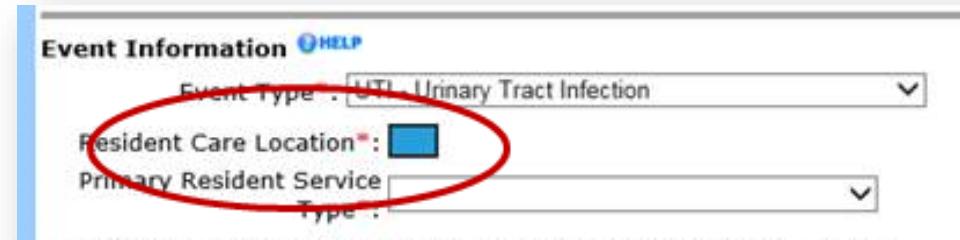
- 1 D - DEMENTIA UNIT
- 1 SOUTH - GENERAL
- 2 PSY - PSYCHIATRIC
- 2W - 2 WEST DEMENTIA
- 3 REHAB - SHORT TERM REHAB
- 4 GEN - GENERAL UNIT**
- 5 HOS - HOSPICE UNIT
- DEMENTIA - LOCKED UNIT

Select location of resident on the date of event. **Note:** These are locations set-up by the facility

## Knowledge Check 1:

I'm entering a UTI event for a resident in my facility, but when I try to select her resident care location, the drop-down box is blank. What is wrong?

- A. The resident doesn't really have a UTI
- B. The resident is not really a resident in your facility
- C. The resident care locations have not been set-up (mapped) for your facility and you must do this before submitting events to NHSN



# ADD UTI Event

## *Primary Resident Service Type*

Event Information

Primary Resident Service Type \*:

- BARIA - Bariatric
- HOSP - Hospice/Palliative
- DEMENT - Long-term dementia
- GENNUR - Long-term general nursing**
- PSYCH - Long-term psychiatric
- SKNUR - Skilled nursing/short term rehab
- VENT - Ventilator

Select the NHSN Primary Resident Service Type on the date of event

# ADD UTI Event

## *Transfer from Acute Care Facility*

Event Information

Event Type \*: UTI - Urinary Tract Infection

Resident Care Location \*: 4 GEN - GENERAL UNIT

Primary Resident Service Type \*: GENNUR - Long-term general nursing

Has resident been transferred from an acute care facility in the past 4 weeks \*?

Y - Yes  
 N - No

Was the resident directly admitted to your facility from an acute care facility in past 4 weeks? If 'YES' is selected, additional data must be entered

If Yes, date of last transfer from acute care to your facility \*:  15

If Yes, did the resident have an indwelling urinary catheter at the time of transfer to your facility? \*:

# ADD UTI Event

*Indwelling Urinary Catheter status at time of event onset...*

Event Information

Indwelling Urinary Catheter status at time of event onset \*:

INPLACE - In place  
NEITHER - Not in place  
REMOVE - Removed within last 2 calendar days

If indwelling urinary catheter status In place or Removed within last 2 calendar days:

Site where indwelling urinary catheter Inserted \*:

Date of indwelling urinary catheter Insertion:  10



# ADD UTI Event

## *Indwelling Urinary Catheter status at time of event onset...*

Event Information

Indwelling Urinary Catheter status at time of event onset \*:

INPLACE - In place  
NEITHER - Not in place  
REMOVE - Removed within last 2 calendar days

If indwelling urinary catheter not in place, was another urinary device type present at the time of event onset? \*

Y - Yes  
N - No

If Yes, other device type:

SUPRA - Suprapubic  
INTER - Intermittent straight catheter

```
graph TD; A[Indwelling Urinary Catheter status at time of event onset *] --> B[If indwelling urinary catheter not in place, was another urinary device type present at the time of event onset? *]; B --> C[If Yes, other device type:]
```

# ADD UTI Event

## Specify NHSN UTI Criteria Met (Check all that apply)

Specify Criteria Used \* (check all that apply):

### Signs & Symptoms

- Fever: Single temperature  $> 37.8^{\circ}\text{C}$  ( $>100^{\circ}\text{F}$ ) or  $>37.2^{\circ}\text{C}$  ( $>99^{\circ}\text{F}$ ) on repeated occasions, or an increase of  $> 1.1^{\circ}\text{C}$  ( $>2^{\circ}\text{F}$ ) over baseline
- Rigors
- New onset confusion/functional decline
- New onset hypotension
- Acute pain, swelling or tenderness of the testes, epididymis, or prostate
- Acute dysuria
- Purulent drainage at catheter insertion site

New and/or marked increase in (check all that apply):

- Urgency
- Frequency
- Incontinence
- Costovertebral angle pain or tender
- Suprapubic tenderness
- Visible (gross) hematuria

### Laboratory & Diagnostic Testing

- Specimen collected from clean catch voided urine and a positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of  $\geq 10^5 \text{ CFU/ml}$
- Specimen collected from in/out straight catheter and a positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of  $\geq 10^5 \text{ CFU/ml}$
- Specimen collected from indwelling catheter and a positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of  $\geq 10^5 \text{ CFU/ml}$
- Leukocytosis ( $> 14,000 \text{ cells/mm}^3$ ), or Left shift ( $> 6\%$  or  $1,500 \text{ bands/mm}^3$ )
- Positive blood culture with 1 matching organism in urine culture

Once NHSN UTI Criteria met,  
the “Specific Event” will auto-  
populate

Specific Event \*\*: : CA-SUTI - Catheter-associated symptomatic UTI

# ADD UTI Event

## *Additional Questions*

**Yes, only if resident has at least one matching organism reported in urine and blood**

Secondary Bloodstream Infection \*:

Transfer to acute care facility within 7 days \*:

**Yes if the resident transferred to acute care facility for any reason in the 7 days after the Date of Event**

Died within 7 days of Date of Event:

**Optional. Yes if resident died from ANY cause within 7 days after the Date of Event**

# ADD UTI Event

## Select Pathogens Identified in Urine Culture

Pathogens identified \*: Y - Yes If Yes, specify below ->

Pathogens				
Pathogen 1: Escherichia coli - EC				
* AMK ○ S R ○ I N	* AMP ○ S R ○ I N	* CEFFOX ○ S R ○ I N	CTET ○ S R ○ I N	* CIPRO ○ S R ○ I N
* COL ○ S R ○ N	PB ○ S R ○ N	* DORI ○ S R ○ I N	MERO ○ S R ○ I N	* DOXY ○ S R ○ I N
* AMPSUL ○ S R ○ I N	AMXCLV ○ S R ○ I N	* CEFOT ○ S R ○ I N	CEPTRX ○ S R ○ I N	* AZT ○ S R ○ I N
* CEFTAZ ○ S R ○ I N	* CEFUR ○ S R ○ I N	* ERTA ○ S R ○ I N	* GENT ○ S R ○ I N	* IMI ○ S R ○ I N
* TMZ ○ S R ○ I N	* TOBRA ○ S R ○ I N			
<input type="button" value="Add Drug"/>				
Pathogen 2: <input type="button" value="Search"/>				

Abiotrophia - ABISP  
Abiotrophia adjacens - GRADJ  
Abiotrophia adjacens - GRADJ  
Abiotrophia defectiva - STRDF  
Abiotrophia elegans - GRANELEG  
Acholeplasma - ACHOSP  
Acholeplasma laidlawii - ACHOLAID  
Acholeplasma oculi - ACHOOCUL  
Achromobacter - ACHSP  
Achromobacter denitrificans - ACHDENI  
Achromobacter piechaudi - ACHPIEC  
Achromobacter ruhlandii - ACHRULH  
Achromobacter xylosoxidans - ALCXYL  
Achromobacter xylosoxidans denitrificans - ACHDENI  
Achromobacter xylosoxidans xylosoxidans - ACHXYL  
Achromobacter, group Vd biotype 1 - ACHVD1  
Achromobacter, group Vd biotype 2 - ACHVD2  
Acid-fast bacillus - ARB  
Acidaminococcus - ACISP  
Acidaminococcus fermentans - ACIFE  
Acidovorax - ACIDSP  
Acidovorax delafeldii - ACDEL  
Acidovorax facilis - ACIDFACI  
Acidovorax temperans - ACIDTEMP  
Acinetobacter - ACS  
Acinetobacter anitratus - ACICBA  
Acinetobacter baumannii - ACBA  
Acinetobacter calcoaceticus - ACICBA  
Acinetobacter calcoaceticus anitratus - ACICBA

S = Susceptible

I = Intermediate

R = Resistant

NS = Non-susceptible

S-DD = Susceptible-dose dependent

N = Not tested

Enter up to 2 pathogens for UTI without secondary BSI. If secondary BSI is YES, user may enter up to 3 pathogens

## ADD UTI Event:

*Optional: Custom Fields and Comments*

Custom Fields Help

PRIOR HX: YES

Comments

TRANSFER FROM STAYAWAY ACUTE CARE FACILITY.

Optional, but must be set-up before reporting event

Free text

Save Back

# MONTHLY SUMMARY DATA

# Monthly Summary Data

- **CDC 57.142: Denominators for LTCF**
  - One optional worksheet for the month to collect UTI denominator data (*may also be used to collect LabID event data*)
  - Allows daily counts that must be summed at the end of the month
  - Only the monthly totals will be entered into the NHSN application

Form Approved  
OMB No. 0920-0666  
Exp. Date: 11/30/2019  
[www.cdc.gov/nhsn](http://www.cdc.gov/nhsn)

NHSN  
National Healthcare Safety Network

**Denominators for LTCF**

Page 1 of 1

Facility ID	*Location Code	*Month:	*Year:			
Date	*Number of residents	*Number of residents with a urinary catheter	*New antibiotic starts for UTI indication	*Number of urine cultures ordered	*Number of admissions	Number of admissions on C. diff treatment
1						
2						
3						
4						
5						
6						
7						

A blue arrow points down from the bottom of the table to the summary row.

*Total	Resident-days	Urinary-catheter days	Total antibiotic starts for UTI indication	Total urine cultures ordered	Resident-admissions	Resident-admissions on C. diff treatment

Forms and Table of Instructions (TOIs) available under *Data Collection Forms* at:

<https://www.cdc.gov/nhsn/ltc/cdiff-mrsa/index.html>

# Submitting Monthly Summary Data into NHSN

- At the end of the month, enter monthly totals
- Locate ‘Summary Data’ on left-hand navigation Bar, and then ‘Add’
- Enter the Facility ID, month, and year for which denominator data will be reported

The image shows the NHSN software interface. On the left, a vertical navigation bar lists various menu items: NHSN Home, Alerts, Dashboard, Reporting Plan, Resident, Event, Summary Data (with an orange arrow pointing to the 'Add' option), Import/Export, Surveys, Analysis, Users, Facility, Group, and Logout. The 'Summary Data' item has a dropdown menu with 'Add', 'Find', and 'Incomplete' options. To the right, a large window titled 'Add Monthly Summary Data' displays a form with fields for Facility ID (set to 'Angela LTCF Test Facility (ID 39455)'), Month (dropdown), and Year (dropdown). Below this is a table titled 'Denominators for Long Term Care Locations' with columns for Location Code, Total Resident Days, Urinary Catheter Days, Report No UTI, New Antibiotic Starts for UTI Indication, Number of Urine Cultures Ordered, and Custom Fields. The first row shows data for 'Facility-wide Inpatient (FacWIDEIn)'.

# Total Resident Days

For each day of the month, record the total number of residents in the facility and at the end of the month, add the daily counts and enter the total as **Total Resident Days**.

- Data may come from electronic medical record, if available
- Users may also calculate based on facility occupancy.
  - 100 bed facility at 100% occupancy for June: 100 residents x 30 days = 3,000 total resident days
  - 100 bed facility at 90% occupancy for June: 90 residents x 30 days = 2,700 total resident days

Denominators for Long Term Care Locations							
	Location Code	Total Resident Days	Urinary Catheter Days	Report No UTI	New Antibiotic Starts for UTI Indication	Number of Urine Cultures Ordered	
	Facility-wide Inpatient (FacWIDEIn)	*	*	<input type="checkbox"/>	*	*	Custom Fields

# Urinary Catheter Days

- Allows facility to calculate UTI rates based on urinary catheter status.
- Facilities are able to calculate urinary catheter utilization ratio for each month.
- For each day of the month, count and record the number of residents in the facility who have an indwelling urinary catheter. The aggregate count for the calendar month should be entered as the total Urinary-Catheter Days.
  - Do not include straight in-and-out catheters, suprapubic catheters, or condom catheters in your count.

Denominators for Long Term Care Locations							
	Location Code	Total Resident Days	Urinary Catheter Days	Report No UTI	New Antibiotic Starts for UTI Indication	Number of Urine Cultures Ordered	
<input type="button" value="Delete"/>	Facility-wide Inpatient (FacWIDEIn)	*	*	<input type="checkbox"/>	*	*	Custom Fields

# Report No UTI

- If UTI surveillance was included on the NHSN Monthly Reporting Plan (MRP), but the facility did not identify and report at least one UTI event during the month, as identified by a red **\*\*asterisk**, a check mark must be placed in the box “Report No UTI”
- The box will be grayed out and without red asterisk if at least one UTI event was submitted for that organism during the calendar month.
- If a UTI event is entered after summary data submitted, the application will auto-update.

Denominators for Long Term Care Locations						
	Location Code	Total Resident Days	Urinary Catheter Days	Report No UTI	New Antibiotic Starts for UTI Indication	Number of Urine Cultures Ordered
	Facility-wide Inpatient (FacWIDEIn)	<input type="text"/> *	<input type="text"/> *	<input type="checkbox"/>	<input type="text"/> *	<input type="text"/> *
Custom Fields						

# New Antibiotic Starts for UTI Indication

- Monthly sum of all new prescriptions/orders for antibiotics given to residents suspected or diagnosed with having a UTI.
- Count antibiotic starts even if the infection being treated did not meet NHSN criteria for a symptomatic UTI event.
- Capture all new antibiotic orders, regardless of number of doses or days of therapy.
- Do not include antibiotic courses started by another healthcare facility prior to the resident's admission or readmission back to your facility, even if the resident continues to take the antibiotic while in the facility.

Denominators for Long Term Care Locations						
	Location Code	Total Resident Days	Urinary Catheter Days	Report No UTI	New Antibiotic Starts for UTI Indication	Number of Urine Cultures Ordered
	Facility-wide Inpatient (FacWIDEIn)	<input type="text"/> *	<input type="text"/> *	<input type="checkbox"/>	<input type="text"/> *	<input type="text"/> *

# Number of Urine Cultures Ordered

- New urine cultures ordered for a resident regardless of whether the resident has a UTI meeting the NHSN event criteria.
- Do not include urine cultures ordered by another healthcare facility prior to the resident's admission or readmission back to your facility.
- Data may be collected daily or summarized at the end of each month.

Denominators for Long Term Care Locations						
	Location Code	Total Resident Days	Urinary Catheter Days	Report No UTI	New Antibiotic Starts for UTI Indication	Number of Urine Cultures Ordered
	Facility-wide Inpatient (FacWIDEIn)	<input type="text"/> *	<input type="text"/> *	<input type="checkbox"/>	<input type="text"/> *	<input type="text"/> *

# Review

- ✓ UTI surveillance includes residents with or without indwelling urinary devices.
- ✓ To be considered as catheter associated, the catheter must be in place for a minimum of 2 calendar days (day of insertion = day 1), and in-place at the time of the event or removed within the 2 calendar days prior to event onset (day of removal = Day 1).
- ✓ Submit UTI events only for residents meeting NHSN UTI criteria.

# Review

- ✓ “Mixed flora” is not considered an organism and cannot be submitted to NHSN as a pathogen.
- ✓ Yeast cannot be reported as an organism for a UTI. Urine culture with yeast can be included only if there is at least one qualifying bacterium.

# Review

- ✓ **Date of Event** is the date when the first clinical evidence (signs/symptoms) of the UTI appeared or the date the specimen used to make diagnosis was collected, whichever comes first
- ✓ Infections should be attributed as an HAI for the LTCF if
  - ✓ (a) there is no evidence of an incubating infection at the time of admission to the facility (*on the basis of clinical documentation of appropriate signs and symptoms and not solely on screening microbiologic data*); and
  - ✓ (b) onset of clinical manifestation occurs >2 calendar days after admission

# Review

- ✓ The LTCF UTI protocol does **not** have a set time period during which only one UTI may be reported for the same resident.
  - ✓ To determine if a second UTI should be reported for the same resident, clinical information must be used to determine that the original infection had resolved before reporting a second UTI.
  - ✓ Information that may be useful include a new onset of signs and symptoms, as well as completion of antimicrobial therapy. Using this logic, if UTI signs/symptoms resolved prior to the onset of any new signs/symptoms and a new urine culture, a second UTI must be considered for NHSN surveillance.

# DATA QUALITY- RESOLVE ALERTS

# Alerts

- Automatic checks in the NHSN that remind users of incomplete or missing in-plan data.
- Monthly data that are not considered complete and will be excluded from analysis unless resolved.
- Before using the analysis function, make sure to clear all (relevant) alerts.
- Found on the Home Page, or by clicking on the ‘Alerts’ tab on the sidebar.

The screenshot shows the NHSN Long Term Care Facility Component Home Page. On the left, there is a sidebar menu with the following items:

- NHSN Home
- Alerts** (highlighted with a green circle and a cursor)
- Reporting Plans
- Resident
- Event
- Summary Data
- Surveys
- Analysis
- Users
- Facility
- Group
- Logout

The main content area has a blue header bar with the text "Action Items". Below it, there is a section titled "COMPLETE THESE ITEMS" followed by "ALERTS". There are four cards with the following data:

Category	Count
Missing Events	2
Incomplete Events	3
Missing Summary Data	65
Incomplete Summary Data	2

# Common Alerts for UTI Event Reporting: *Incomplete Events*

- An incomplete UTI event submitted and saved
  - Remember—only events for residents who meet NHSN UTI criteria should be reported
- To resolve alert:
  - Click on the hyperlinked Event #

The screenshot shows the NHSN Long Term Care Facility Component Home Page. A red arrow points from the 'Alerts' link in the left sidebar to the 'ALERTS' section in the main content area. Another red arrow points to the 'Incomplete Events' card, which displays the number '1'. A large blue arrow points down to a detailed view of the incomplete event.

The following are incomplete "In Plan" events.

Resident ID	Last Name	First Name	Gender	Date of Birth	Event #	Event Type
123456	Boat	MissThe	F	09/29/1935	<a href="#">30546</a>	UTI

# Common Alerts for UTI Event Reporting: *Incomplete Events, cont.*

- Review/edit data with red asterisk(s)
- Missing positive urine culture
- Missing SUTI criteria
- Specific event is not auto-populated

**Event Information**

Event Type **\***: UTI - Urinary Tract Infection

Date of Event **\***: 04/09/2019

Resident Care Location **\***: 1 SOUTH - GENERAL

Primary Resident Service Type **\***: GENNUR - Long-term general nursing

Has resident been transferred from an acute care facility in the past 4 weeks **\***? N - No

Indwelling Urinary Catheter status at time of event onset **\***: NEITHER - Not in place

If indwelling urinary catheter not in place, was another urinary device type present at the time of event onset? **\*** N - No

Specify Criteria Used **\*** (check all that apply):

**Signs & Symptoms**

Fever: Single temperature  $> 37.8^{\circ}\text{C}$  ( $> 100^{\circ}\text{F}$ ) or  $> 37.2^{\circ}\text{C}$  ( $> 99^{\circ}\text{F}$ ) on repeated occasions, or an increase of  $> 1.1^{\circ}\text{C}$  ( $> 2^{\circ}\text{F}$ ) over baseline

Rigors

New onset confusion/functional decline

New onset hypotension

Acute pain, swelling or tenderness of the testes, epididymis, or prostate

Acute dysuria

Purulent drainage at catheter insertion site

**Laboratory & Diagnostic Testing**

Specimen collected from clean catch voided urine and a positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of  $\geq 10^5 \text{ CFU/ml}$

Specimen collected from in/out straight catheter and a positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of  $\geq 10^5 \text{ CFU/ml}$

Specimen collected from indwelling catheter and a positive culture with no more than 2 species of microorganisms, at least one of which is a bacterium of  $\geq 10^5 \text{ CFU/ml}$

Leukocytosis ( $> 14,000 \text{ cells/mm}^3$ ), or Left shift ( $> 6\%$  or  $1,500 \text{ bands/mm}^3$ )

Positive blood culture with 1 matching organism in urine culture

**New and/or marked increase in (check all that apply):**

Urgency

Frequency

Incontinence

Costovertebral angle pain or tenderness

Suprapubic tenderness

Visible (gross) hematuria

Specific Event **\*\***: SUTI - Symptomatic UTI

# Common Alerts for UTI Event Reporting: *Missing Events*

- UTI event module selected in the monthly reporting plan, but no UTI events submitted for the month and the *Report No UTI* event box not selected in the Monthly Summary

## To resolve alert:

- ✓ Submit UTI event(s) for calendar month
- ✓ If no UTI events to report for the month, Click Box to indicate **Report No Events**

Missing Events	Incomplete Events	Missing Summary Data	Incomplete Summary Data	
In-plan denominators reported for these locations with no associated events.				
<a href="#">Print Form</a>				
Page 1 of 1 10 View 1 - 1 of 1				
Month/Year	Alert Type	Event Type/Pathogen	Summary Data Form Type	Report No Events
12/2018	Summary but no events	UTI	LTC DENOM	<input checked="" type="checkbox"/>
Page 1 of 1 10 View 1 - 1 of 1				
<a href="#">Save</a> <a href="#">Reset</a>				

# Common Alerts for UTI Event Reporting: *Missing Summary Data*

- Summary Data has not been completed for the calendar month

To resolve:

- Click **Add Summary** hyperlink
- Enter Summary Data under “**Denominators for Long Term Care Locations**”
- Remember to **SAVE** before exiting

The screenshot illustrates the workflow for resolving a 'Missing Summary Data' alert. It consists of two main windows: 'Incomplete/Missing List' and 'Monthly Summary Data'.

**Incomplete/Missing List:** This window shows a navigation bar with tabs: Missing Events, Incomplete Events, Missing Summary Data (which is highlighted with a red box), and Incomplete Summary Data. Below the tabs, a message reads "In-plan locations with no associated summary data." A table lists events by Month/Year: 01/2015 (Events but no LTC Denominators) and 09/2015 (Events but no LTC Denominators). To the right of the table, there are two green hyperlinks: "UTI Add Summary" (with a green arrow pointing to it) and "UTI Add Summary".

**Monthly Summary Data:** This window displays the 'Monthly Summary Data' page. It includes instructions: "Mandatory fields marked with \*" and "Fields required for record completion marked with \*\*". It features a search section with "Facility ID \*:" (Angela LTCF Test Facility (ID 39455)), "Month \*:" (January), and "Year \*:" (2015). Below this is a table titled "Denominators for Long Term Care Locations". The table has columns: Location Code, Total Resident Days, Urinary Catheter Days, Report No UTI, New Antibiotic Starts for UTI Indication, Number of Urine Cultures Ordered, and a "Comments" column. The first row contains data: Facility-wide Inpatient (FacWIDEIn), with asterisks (\*) in the Total Resident Days, Urinary Catheter Days, and New Antibiotic Starts for UTI Indication columns. The "Comments" column shows "Catheterized". At the bottom right of this window are "Save" and "Back" buttons.

# Common Alerts for UTI Event Reporting: *Incomplete Summary Data*

- Summary Data page is missing required data for the calendar month

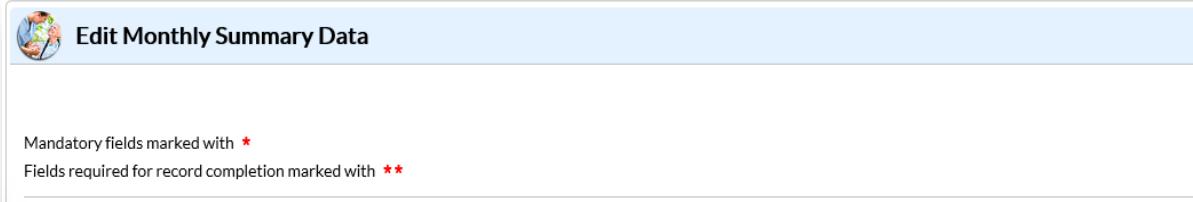
## To resolve alert:

- Click on Summary ID hyperlink
- Complete missing data fields, as indicated by **red asterisk(s)**
- Remember to SAVE before exiting**



The following are incomplete "In Plan" summary data records.

Summary ID	Summary Data Type	Year	Month
22097	HAI	2017	May
22098	MDRO	2017	May



Mandatory fields marked with \*

Fields required for record completion marked with \*\*

Facility ID \*: Angela LTCF Test Facility (ID 39455)  
Month \*: December  
Year \*: 2018

Denominators for Long Term Care Locations

Location Code	Total Resident Days	Urinary Catheter Days	Report No UTI	New Antibiotic Starts for UTI Indication	Number of Urine Cultures Ordered	Custom Fields
Facility-wide Inpatient (FacWIDEIn)	1234 *	12 *	<input checked="" type="checkbox"/> **	10 *	3 *	Custom Fields

# KNOWLEDGE CHECK

## Scenario 1: Understanding use of Changes in Mental Status for CA-SUTI.

### Acute change in mental status AND >14,000 leukocytes

- A. A resident who is usually able to follow instructions has been unable to focus or pay attention to instructions for the last couple of days and has a WBC count of **more than 20,000** leukocytes.
- B. A resident suddenly has fluctuating course, difficulty paying attention, and is not making sense during conversation, and has a **WBC of greater than 14,000** leukocytes.
- C. A resident who recently begins to urinate in the bed.
- D. A resident who is usually able to follow instructions has been unable to focus or pay attention to instructions for the last couple of days and has a WBC count of **more than 2,000** leukocytes.

## Scenario 2: Criteria for CA-SUTI.

Which of the following criteria would confirm a CA-SUTI?

- A. The resident's oral temperature is **100.2 °F** and the indwelling catheter specimen is positive for *E. coli* >100,000 CFU ( $10^5$ ).
- B. The resident has purulent discharge around the **suprapubic catheter** and the suprapubic catheter specimen is positive for *E. coli* >100,000 CFU ( $10^5$ ).
- C. The resident has a fluctuating change in mental status, and a voided specimen positive for *E. coli* **100 CFU ( $10^2$ )** four days after the indwelling catheter was removed.
- D. The resident has multiple oral temps of **98.2 °F**, chills, sweating and the indwelling catheter specimen is positive for *E. coli* >100,000 CFU ( $10^5$ ).

## Scenario 3: Mr. U

1. Mr. U, a resident of a LTC facility has a urinary catheter in place for 3 days for acute urinary retention. On day 3, he spikes a fever of 101°F and has a cough with shortness of breath.
2. The physician orders a urine culture and it comes back positive with >100,000 CFU/ml of *Pseudomonas aeruginosa* and *Candida albicans*.
3. Upon further work up Mr. U is determined not to have any other symptoms that meet the NHSN CA-SUTI criteria,
  - But, a chest X-ray does show infiltrates in the right upper lobe of the lung.

## **Scenario 3, continued: Does Mr. U Have a CA-SUTI?**

- A. YES, he meets NHSN criteria for a CA-SUTI
  - B. NO, he does not meet NHSN criteria for CA-SUTI because the fever has another alternative source (respiratory infection)
- 
- ✓ Indwelling urinary catheter in place >2 calendar days
  - ✓ Urine culture positive for at least one bacteria of at least 100,000 CFU/ml
  - ✓ Fever of 101 degrees Fahrenheit does meet the fever criterion and since fever is considered a non-specific sign of infection, it can be used to meet NHSN CA-SUTI criteria even if the resident may have another infection cause for the fever.

## Scenario 4: Mr. G

- A voided urine culture is positive for mixed flora, *E. coli*, and *Candida glabrata*  $10^5$  CFU/ml.
- During the medical record review, you read that four days earlier Mr. G complained of burning during urination. You did not see documentation of an indwelling urinary device, but he does receive intermittent catheterization for urinary retention.

## **Scenario 4, continued: Mr. G**

### **Does Mr. G meet NHSN UTI criteria?**

- A. YES, he meets NHSN criteria for a SUTI
-  B. NO, he does not meet NHSN criteria for UTI
- C. Yes, he meets NHSN criteria for CA-SUTI
- D. Yes, he meets NHSN criteria for ABUTI

## Scenario 5: Mr. S

- Mr. S is an 90 year old resident in the facility. He has a history of multiple medical issues. On 3/3/18, blood, urine, and wound cultures were collected.
  - You review the following lab reports, reported on 3/5/18:
    - Blood culture positive for >100,000 cfu/ml of *Streptococcus pyogenes*.
    - Urine culture positive for >100,000 cfu/ml of *Streptococcus pyogenes*.
    - Wound culture positive for *Pseudomonas aeruginosa* ( $>10^5$ ).
  - Mr. S does have an indwelling catheter that has been in place for the past 10 days, but you do not find documentation indicating signs or symptoms of a urinary tract infection in the previous 7 days.

## Scenario 5: *continued*: Mr. S

### Does Mr. S have an SUTI?

- A. Yes. Because he had a positive urine culture + positive blood culture with the same organism
- B. Yes. Because he had a urine culture positive for  $>100,000$  cfu/ml of *Streptococcus pyogenes*.
- C. No. Because he does not have any localizing signs or symptoms of a UTI
- D. Not sure

## Scenario 6, *continued*: Mr. S

### Does Mr. S have another NHSN defined UTI?

- A. Yes. He has an ABUTI because he had a positive urine culture and a positive blood culture with the same organism and no documented signs or symptoms
- B. No. Because the staff probably forgot to document the signs and symptoms for a UTI

## **Scenario 7: Ms. R**

- **Day 1:** Ms. R had an indwelling urinary catheter inserted in for a bladder outlet obstruction
- **Day 2:** The indwelling urinary catheter remains in place
- **Day 3:** The resident's indwelling urinary catheter remains in place. The resident had a single oral temp of 100.2°F. A urine culture was collected from the catheter

## Scenario 7, *Continued*: Ms. R

- Day 4: The indwelling urinary catheter remains in place. No symptoms documented
- Day 5: The urine culture was positive for *Candida glabrata*  $10^5$  CFU/ml

Does Ms. R have a CA-SUTI?

A. Yes

 P. No

# Urine Culture Requirements, *continued*



At least one organism in the urine culture must be a bacterium. Yeast and other microorganisms, which are not bacteria, are not acceptable UTI pathogens.

## **Scenario 8: If your facility is interested in reporting UTI events to NHSN, which module would you select on the Monthly Reporting Plan?**

- A. LabID Event Module
- B. Prevention Process Measures Module
-  C. Healthcare Associated Infection Module
- D. Dialysis Module

## **Scenario 9: For NHSN UTI event reporting, a facility may choose to report catheter-associated UTIs only.**

- A. True
-  B. False

## **Scenario 10: When entering the monthly total for New Antibiotic Starts, which residents are included?**

- A.** All residents who had new prescriptions or orders for antibiotics for suspected or diagnosed UTI.
- B.** Only residents who received antibiotic orders and met NHSN criteria for a UTI event.
- C.** Only residents who had a positive urine culture.

## **Scenario 11: When entering the monthly total for Number of Urine Cultures ordered, which residents are included?**

- A. Only urine cultures for residents who met NHSN UTI criteria.
-  B. All new urine cultures ordered for a resident regardless of whether the resident has a UTI meeting the NHSN event criteria.
- C. Only urine cultures ordered for residents with documentation of a UTI.

## **Scenario 12 : Define Date of Event for an UTI**

- A. Date the urine culture was collected.
- B.** Date when the first clinical evidence (signs or symptoms) of infection appeared or the date the specimen used to meet the infection criteria was collected, whichever comes first.
- C. Date urine culture is ordered
- D. The date the event is submitted to NHSN

**Scenario 13: If DHQP nursing home is interested in submitting UTI data to the NHSN only for the Dementia Unit, which locations must be selected when setting up the NHSN monthly reporting plan?**

- A. The Dementia Unit if it has been mapped (set-up) in the NHSN as a resident care location.
-  B Facility-wide inpatient (FacWideIN) must be selected on the NHSN monthly reporting plan and UTI surveillance must be performed for all resident care locations.
- C. Facility-wide inpatient (FacWideIN) must be selected on the NHSN monthly reporting plan, but the facility can limit UTI surveillance to include only the Dementia Unit.

# Setting for UTI Surveillance

**Urinary Tract Infection (UTI) surveillance and reporting for LTCFs require facility-wide inpatient (FacWideIN), which means all residents in all locations in the facility must be monitored for catheter and non-catheter associated UTIs**

## Scenario 14: Indwelling Urinary Cather Count at 12 Noon on May 2

How many indwelling catheter days?

- A. 6
- B. 5
- C. 4
- D. 3**
- E. 2
- F. 1

Resident	Urinary Status
101 Black 	Indwelling catheter
102 White	Condom catheter
103 Gray	Voiding
104 Orange 	Foley
105 Green	Suprapubic to direct drainage
106 Berry 	Indwelling Foley
107 Brown	Straight cath Q3 hours
108 Sunny	Foley placed at 2 pm on May 2
109 Summer	Voiding. Straight cath for UA