HEALTHCARE-ASSOCIATED INFECTION (HAI) MODULE Part Two

Urinary Tract Infections (UTI): Event and Monthly Summary Submission

Date: October 2022

Presenter: Ti McCray, BSHA, MPH,
Leidos, Inc (Contractor)
Infection Preventionist
NCEZID, Division of Healthcare Quality Promotion (DHQP)/Surveillance Branch
Centers for Disease Control and Prevention

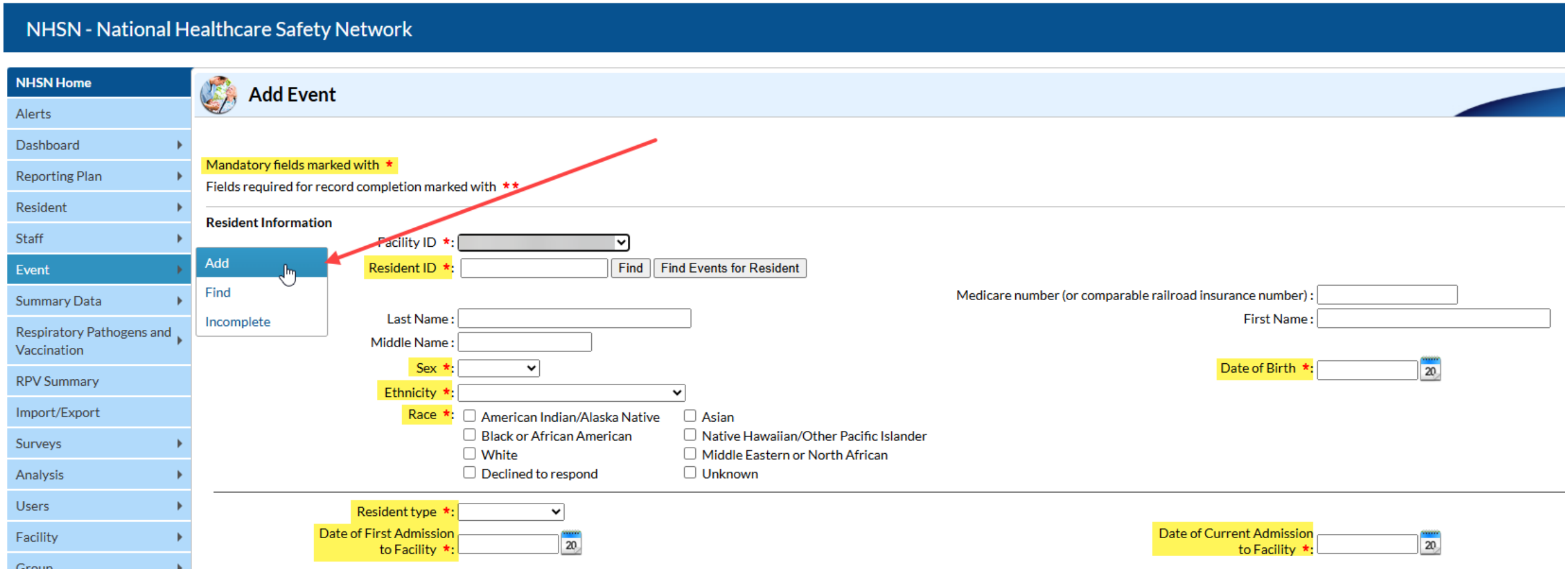
Learning Objectives

- Illustrate the steps to entering monthly summary and UTI events into the NHSN module.

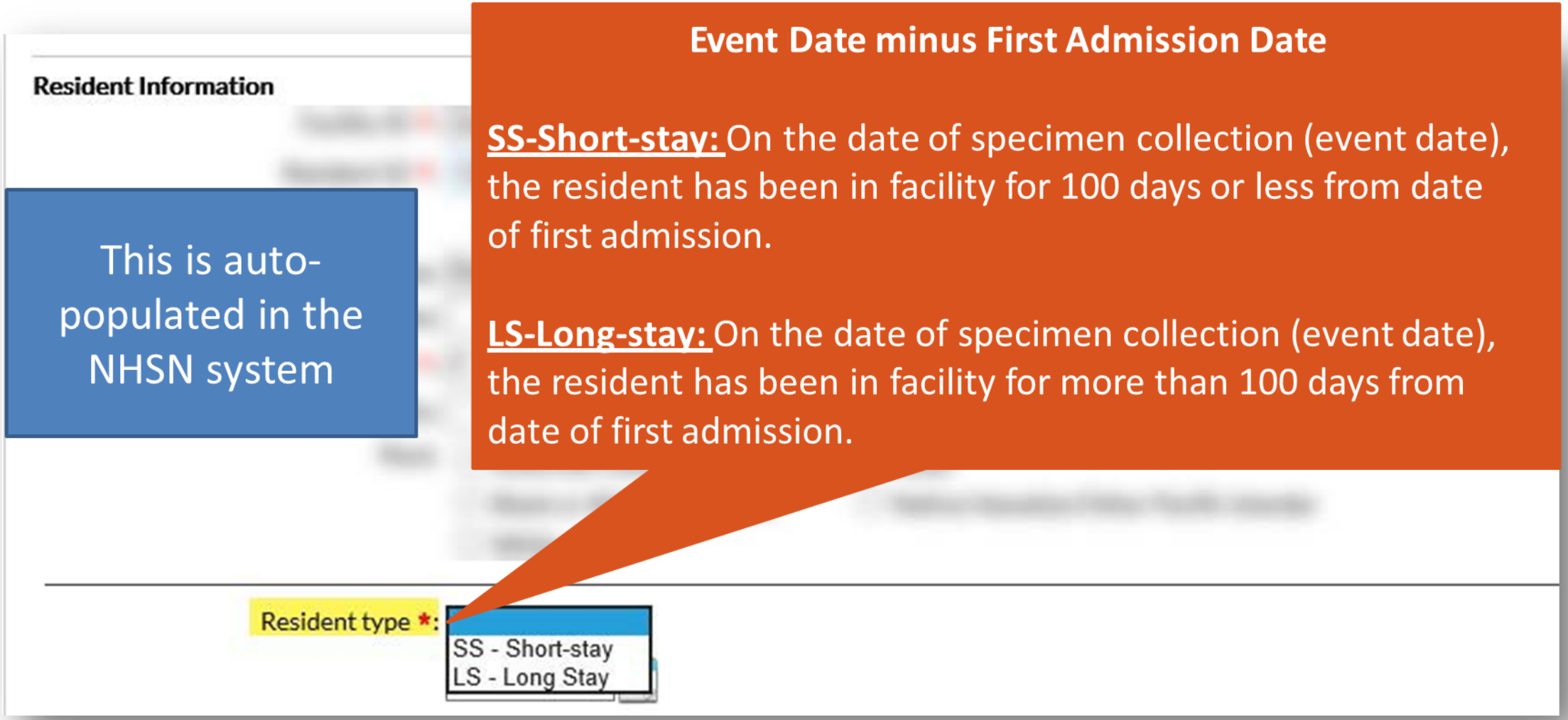
- Describe how to resolve Data Quality Alerts

SUBMITTING A UTI EVENT TO NHSN

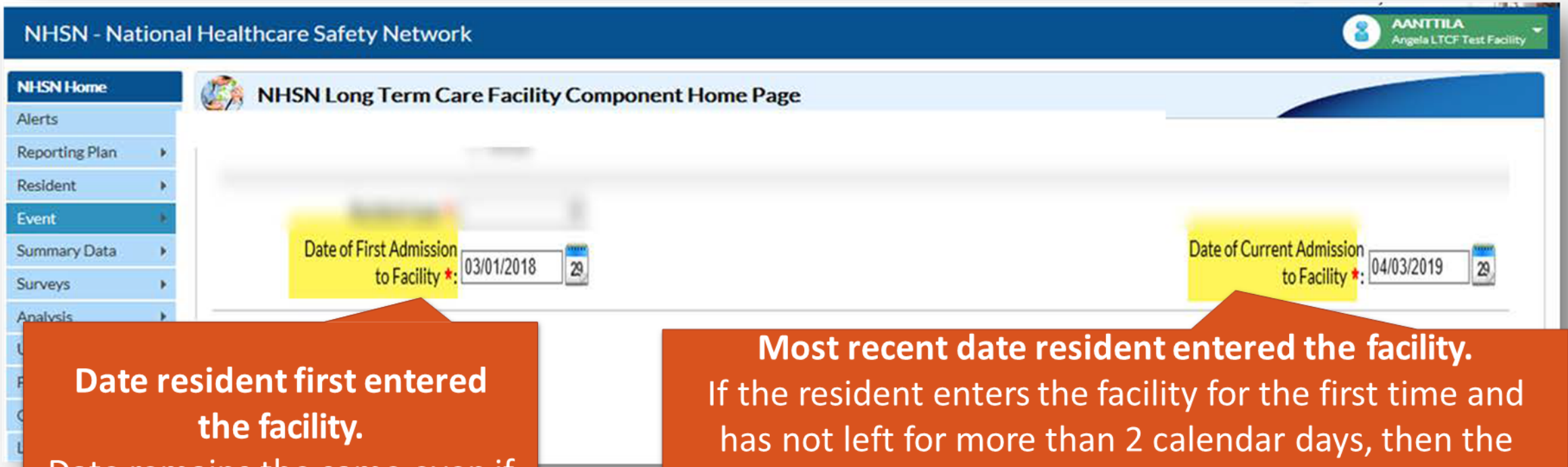
ADD UTI Event



ADD UTI Event:
Resident Type



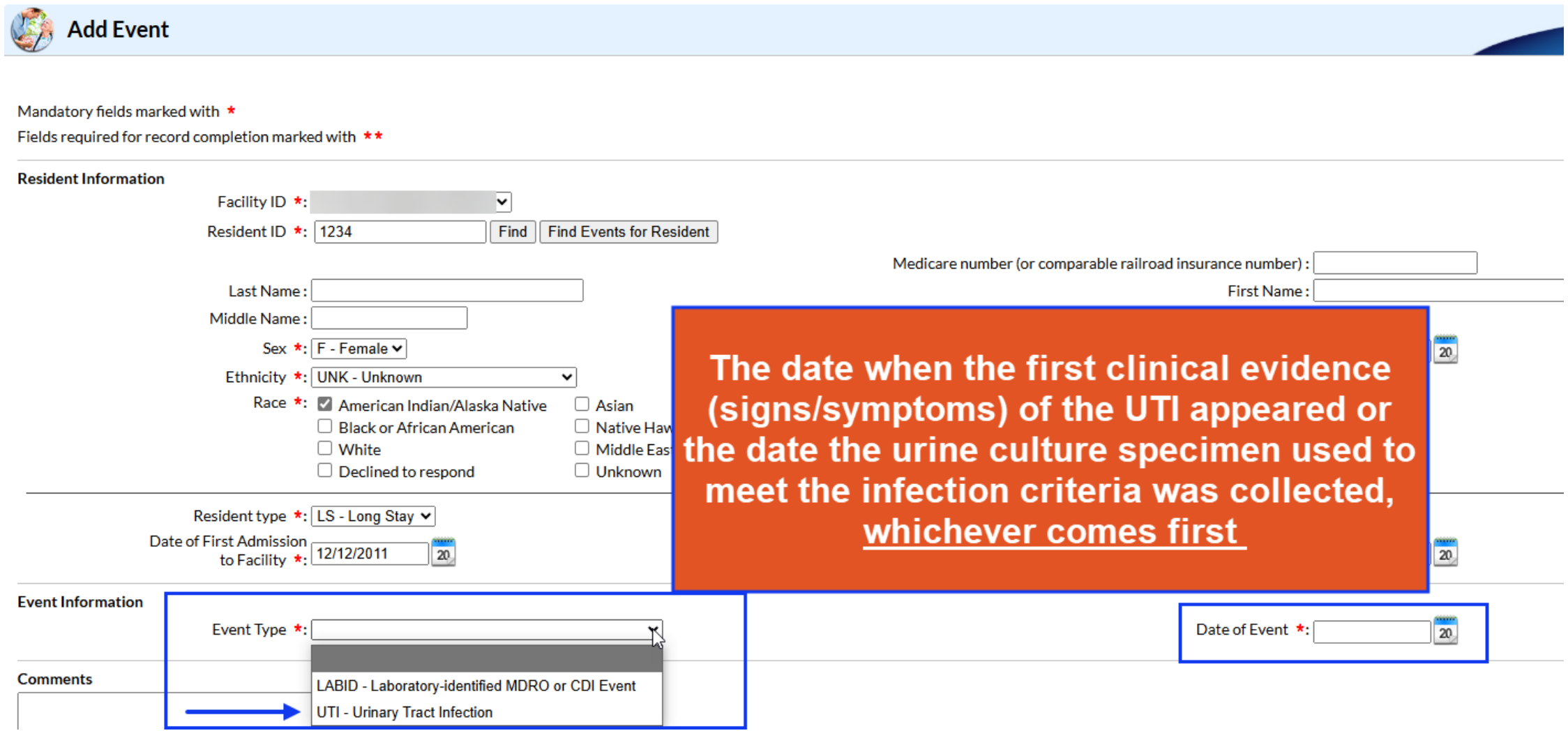
ADD UTI Event:
Date of First and Current Admission to Facility



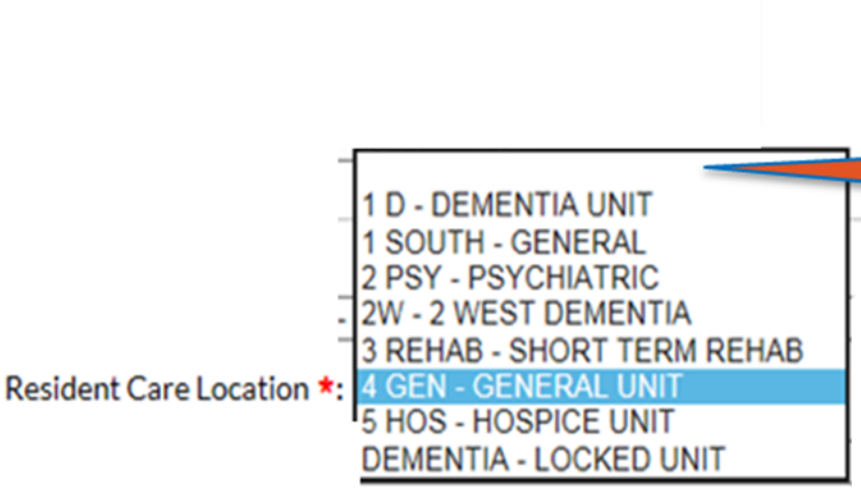
Date resident first entered the facility.
Date remains the same even if the resident leaves the facility for short periods of time (**<30 consecutive days**).

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

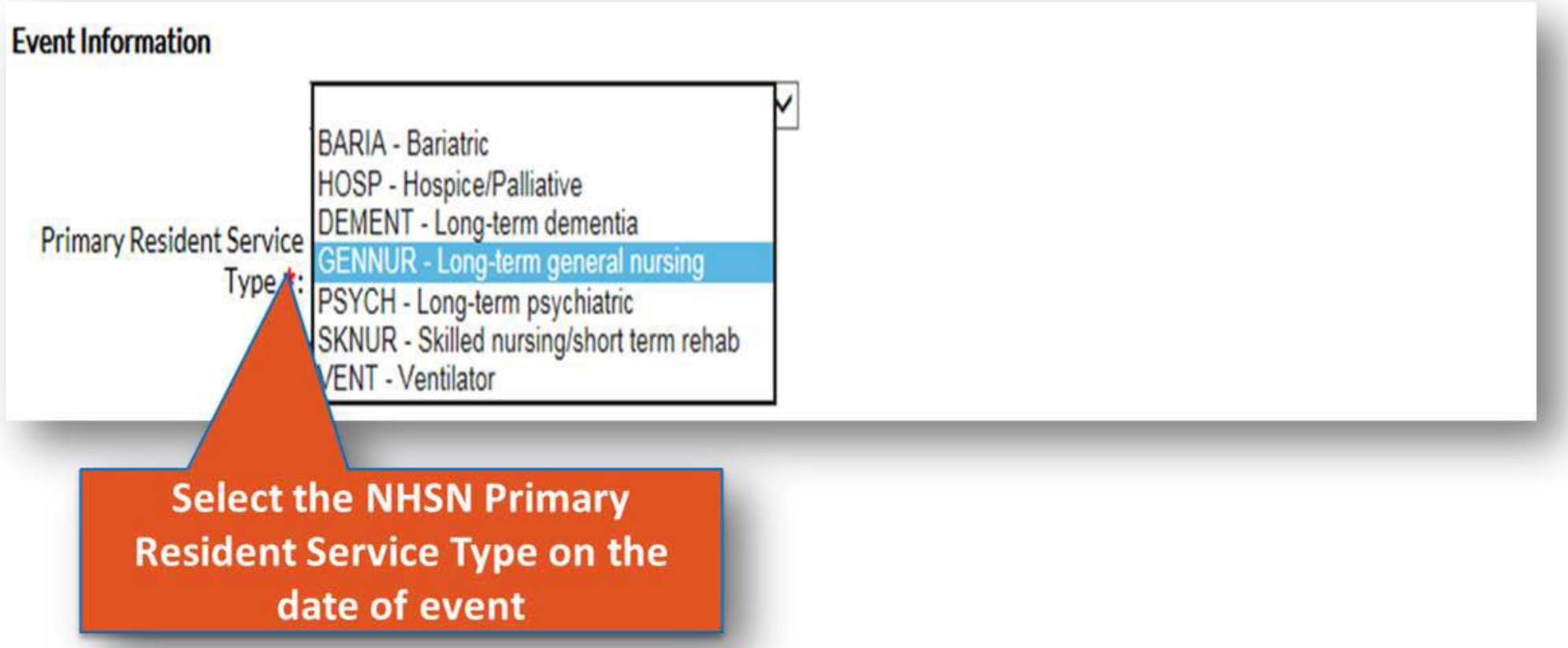


ADD UTI Event:
Resident Care Location

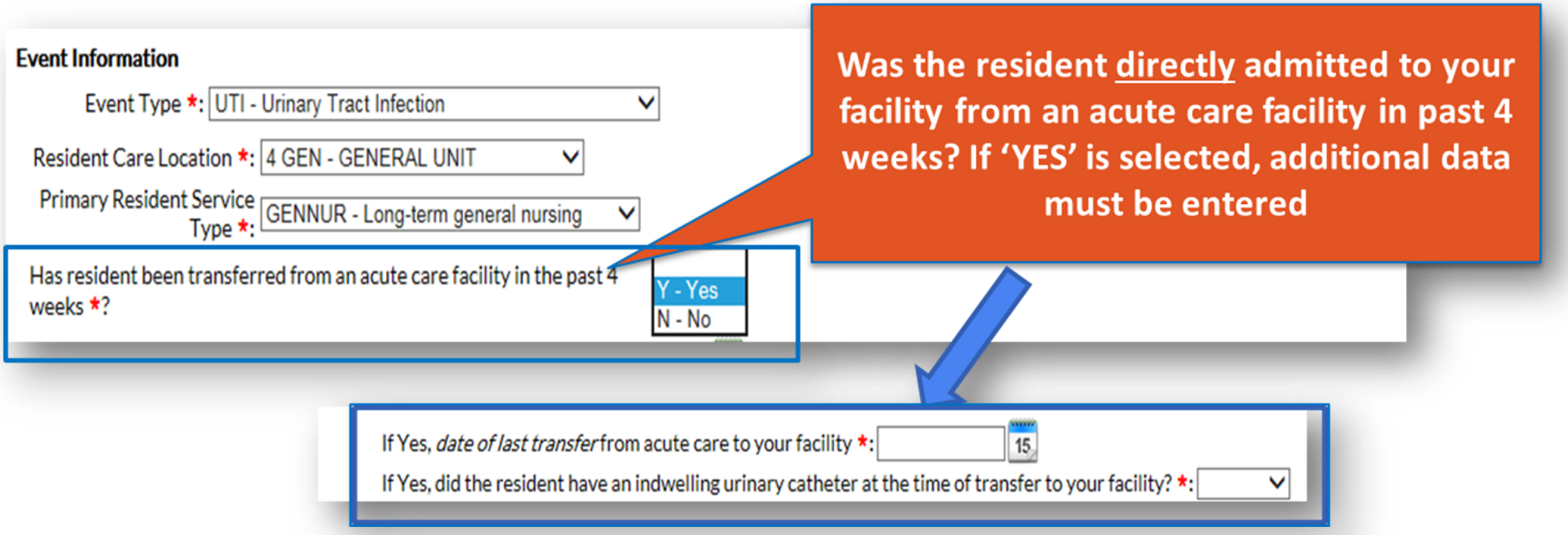


Select location of resident on the date of event. *Note*: These are locations set-up by the facility

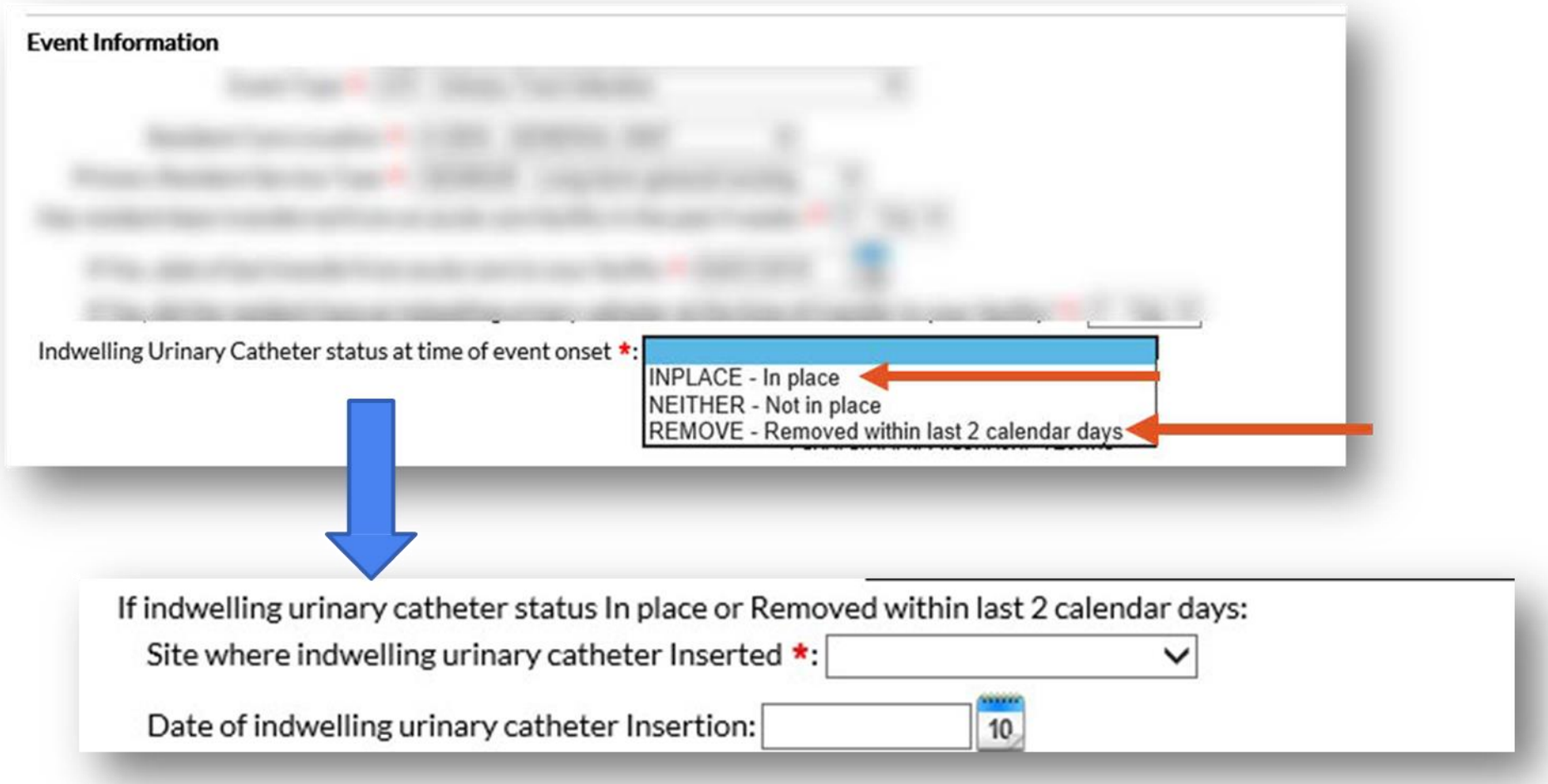
ADD UTI Event:
Primary Resident Service Type



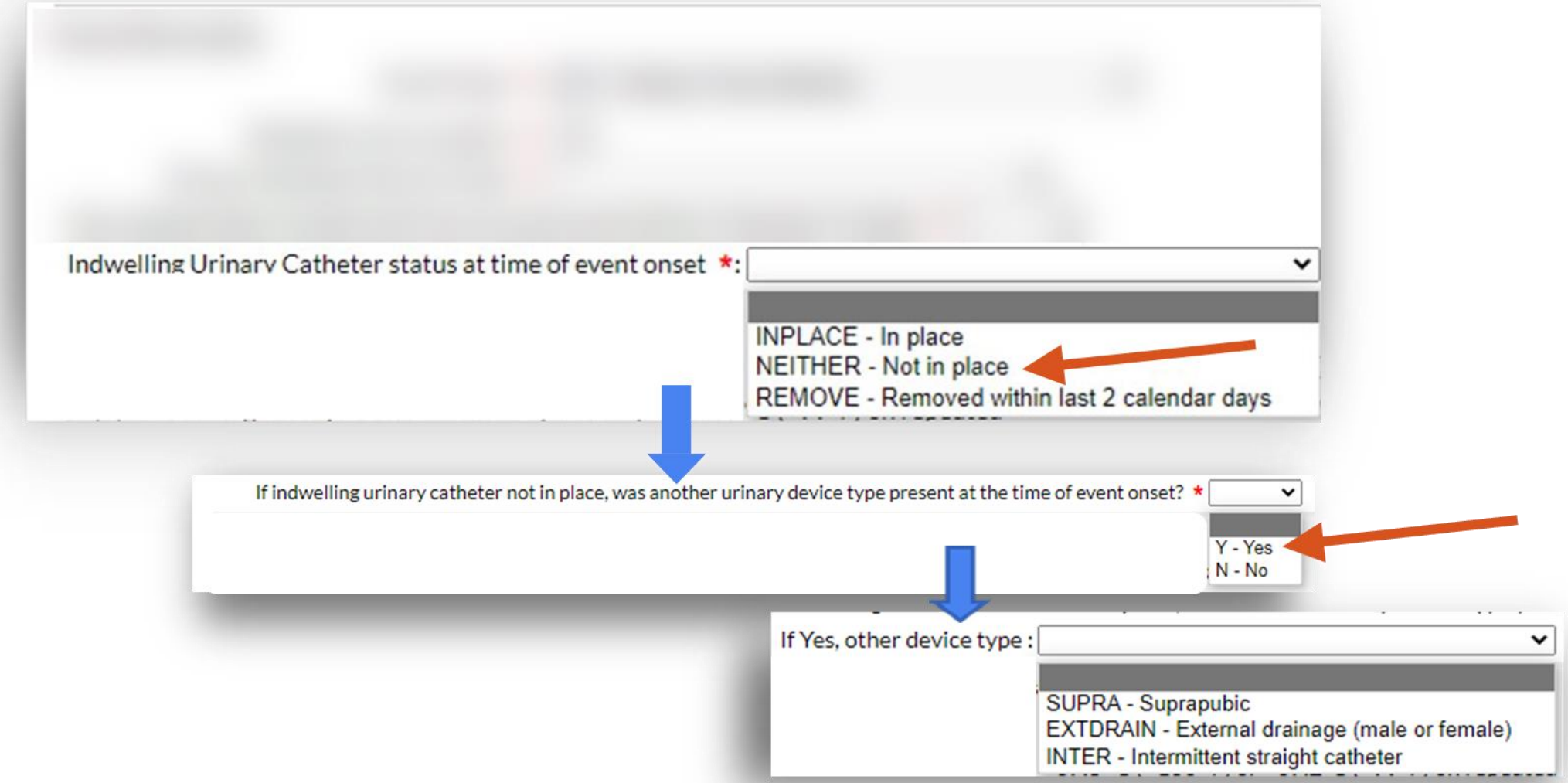
ADD UTI Event:
Transfer from Acute Care Facility



ADD UTI Event:
Urinary Catheter status at time of event onset…



ADD UTI Event:
Urinary Catheter status at time of event onset…



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° C (>100° F) or >37.2°C (>99°F) on repeated occasions, or an increase of > 1.1°C (>2°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

- ☐ Positive urine culture with no more than 2 species of organisms, at least one of which is a bacterium of >=10^5 CFU/ml
- ☐ Leukocytosis (> 10,000 cells/mm^3), or Left shift (> 6% or 1,500 bands/mm^3)
- ☑ Positive blood culture with 1 matching organism in urine culture

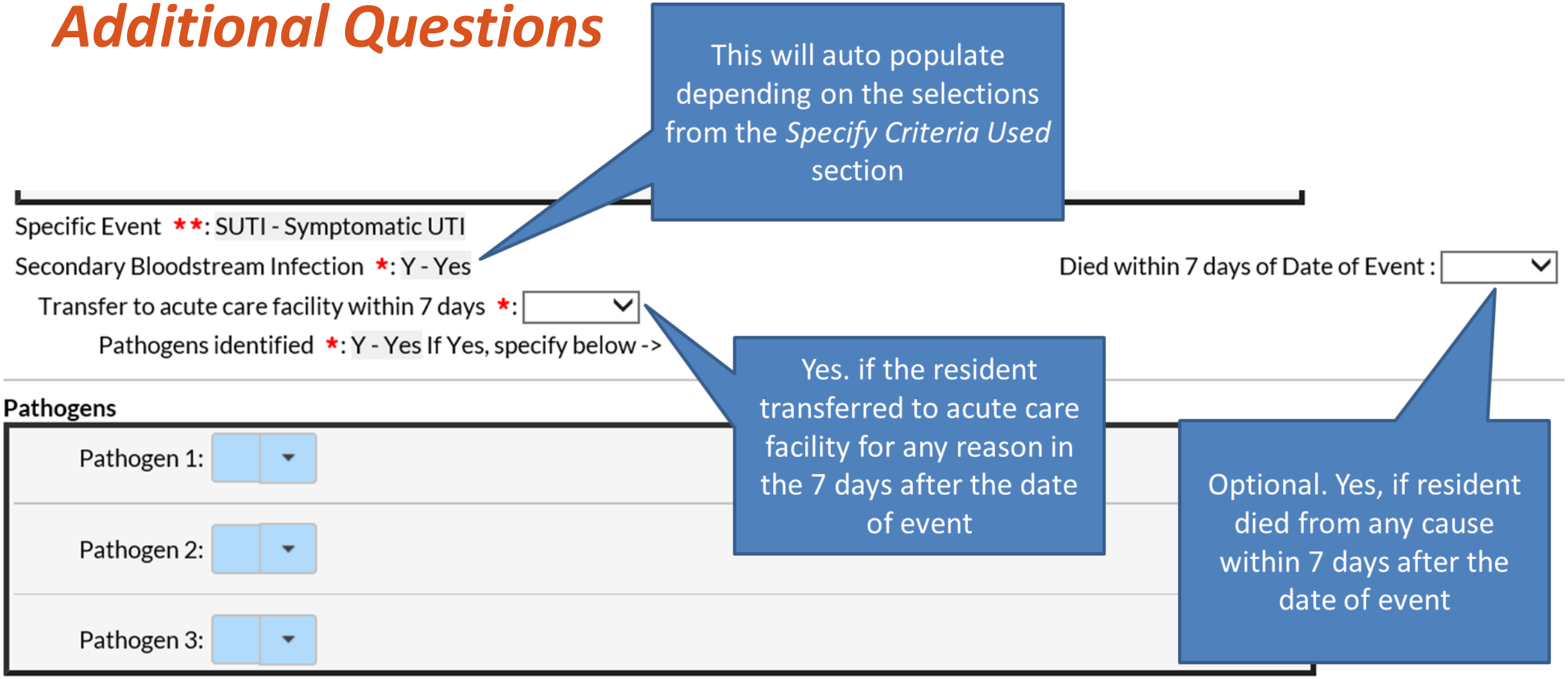
New and/or marked increase in (check all that apply):

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

Specific Event **:

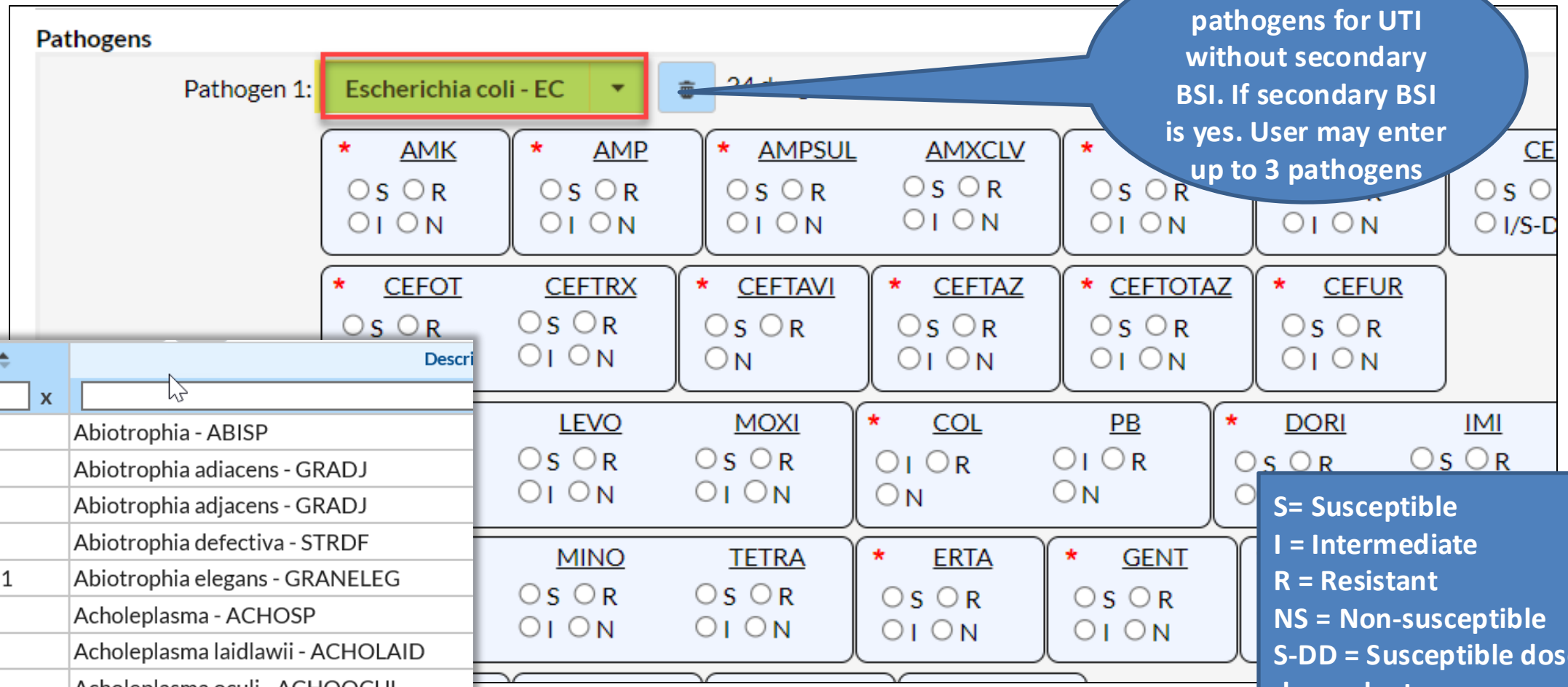
Once NHSN UTI Criteria met, the "Specific Event" will auto-populate

ADD UTI Event:
Additional Questions



ADD UTI Event:

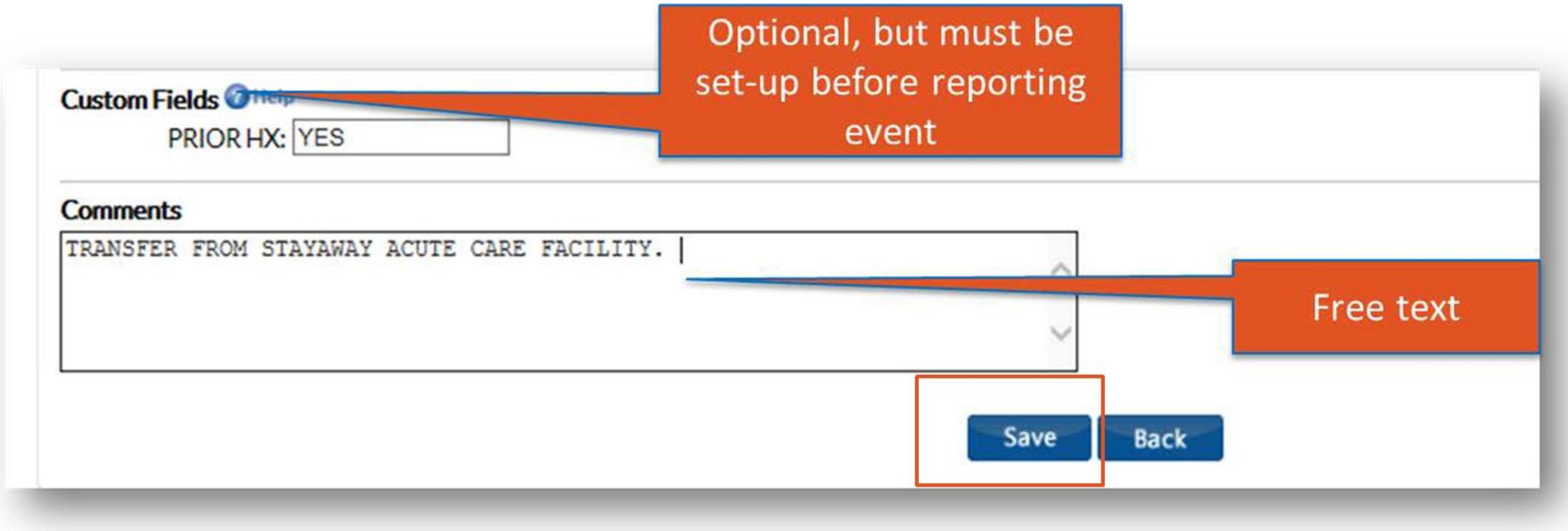
Select Pathogens Identified in Urine Culture



Code	Descri
ABISP	Abiotrophia - ABISP
GRADJ*2	Abiotrophia adiacens - GRADJ
GRADJ*3	Abiotrophia adjacens - GRADJ
STRDF	Abiotrophia defectiva - STRDF
GRANELEG*1	Abiotrophia elegans - GRANELEG
ACHOSP	Acholeplasma - ACHOSP
ACHOLAID	Acholeplasma laidlawii - ACHOLAID
ACHOOCUL	Acholeplasma oculi - ACHOOCUL
ACHSP	Achromobacter - ACHSP
ACHDENI	Achromobacter denitrificans - ACHDENI

S= Susceptible
I = Intermediate
R = Resistant
NS = Non-susceptible
S-DD = Susceptible dose dependent
N= Not tested

ADD UTI Event:
Optional: Custom Fields and Comments



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

NHSN
NATIONAL HEALTHCARE SAFETY NETWORK

Form Approved
OMB No. 0920-0666
Exp. Date: 12/31/22
www.cdc.gov/nhsn

Denominators for LTCF

Page 1 of 1 **required for saving *conditionally required based on monitoring selection in Monthly Reporting Plan

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	*Resident Admissions	*Number of admissions on *C. diff* treatment	*Number of Residents Started on Antibiotic Treatment for C. diff
1							
2							
3							
4							

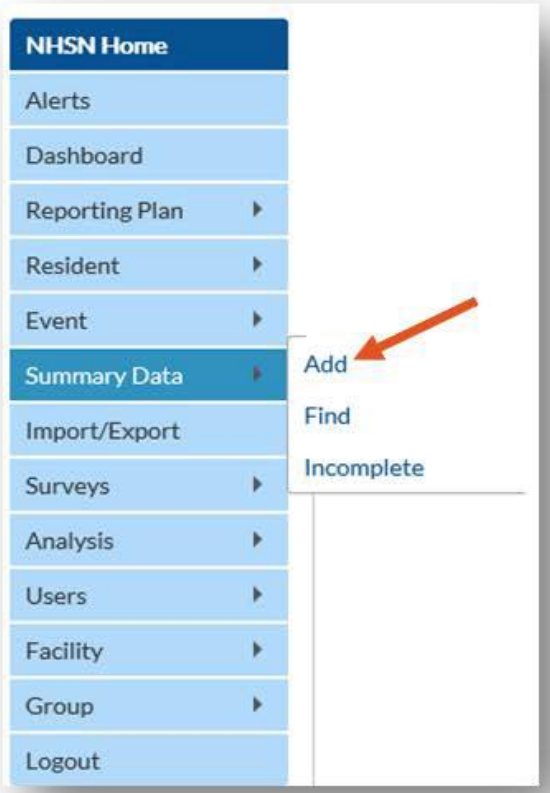
*Monthly Total							
	Total resident days	Urinary-Catheter Days	New antibiotic starts for UTI indication	Number of urine cultures ordered	Resident admissions	Resident admissions on *C. diff* treatment	Number of residents started on antibiotic treatment for *C. diff*
Label:	____	____	____	____	____	____	____
Data:	____	____	____	____	____	____	____

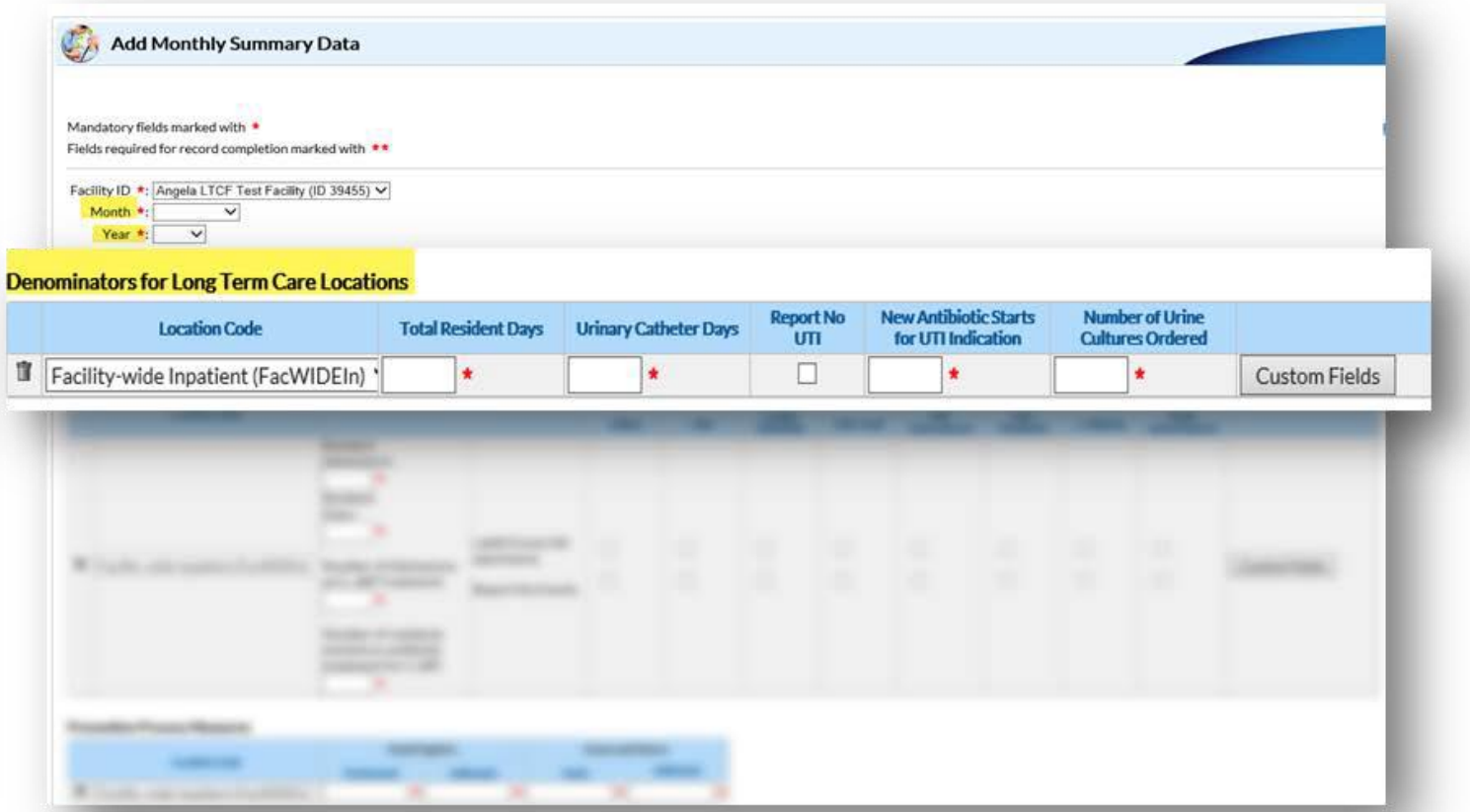
Assurance of Confidentiality: The voluntarily provided information obtained in this surveillance system that would permit identification of any individual or institution is collected with a guarantee

Forms and Table of Instructions (TOIs) available under *Data Collection Forms* at: [Urinary Tract Infections (UTI) | LTCF | NHSN | CDC]

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

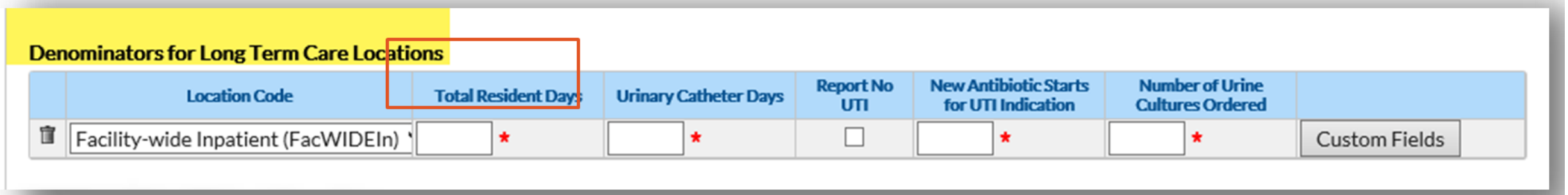




Total Resident Days

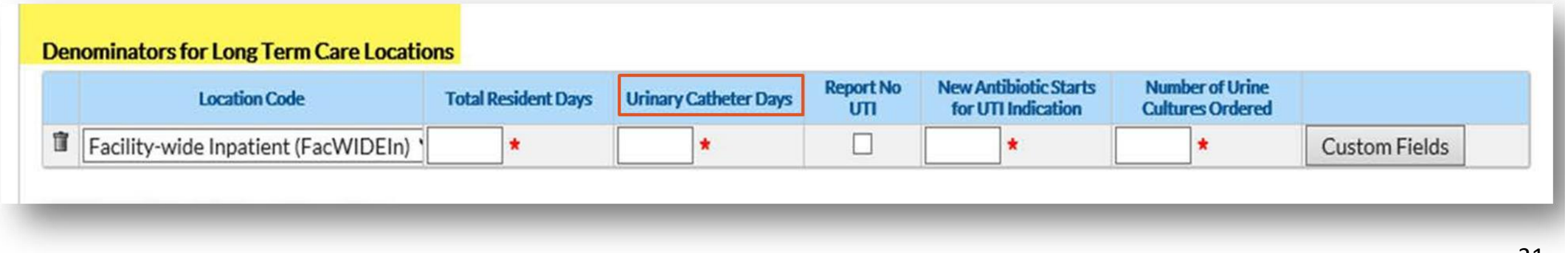
For each day of the month, record the total number of residents in the facility and at the end of the month, add the daily counts and enter the total as **Total Resident Days**.

- 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



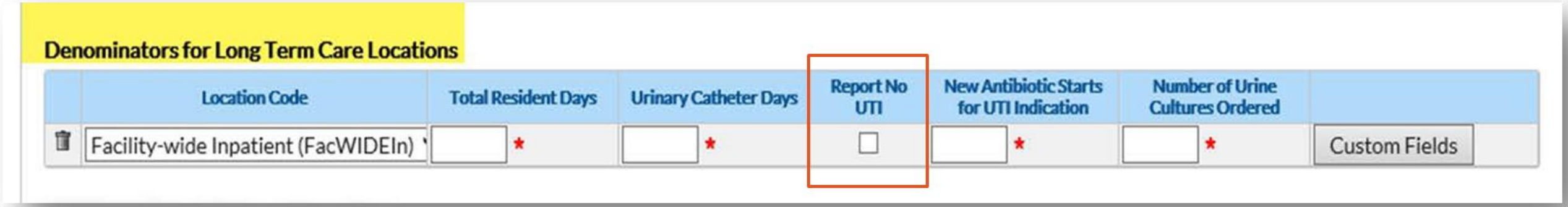
Urinary Catheter Days

- Allows facility to calculate UTI rates based on urinary catheter status.
- Facilities can 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, external catheters or Nephrostomy tubes in your count.



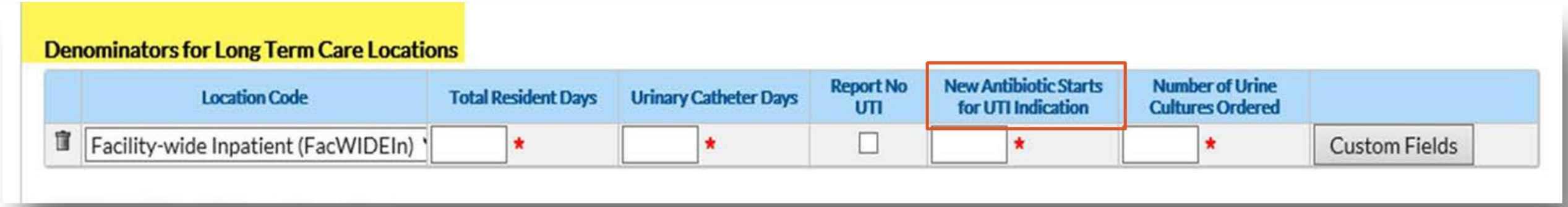
Report No UTI

- 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.



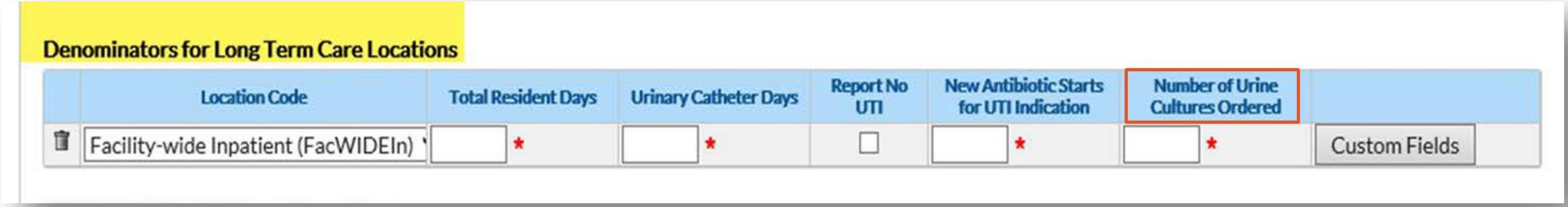
New Antibiotic Starts for UTI Indication

- Monthly sum of all new prescriptions/orders for antibiotics given to residents suspected or diagnosed with having a UTI. (includes both catheter-associated and not catheter associated).
- 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.



Number of Urine Cultures Ordered

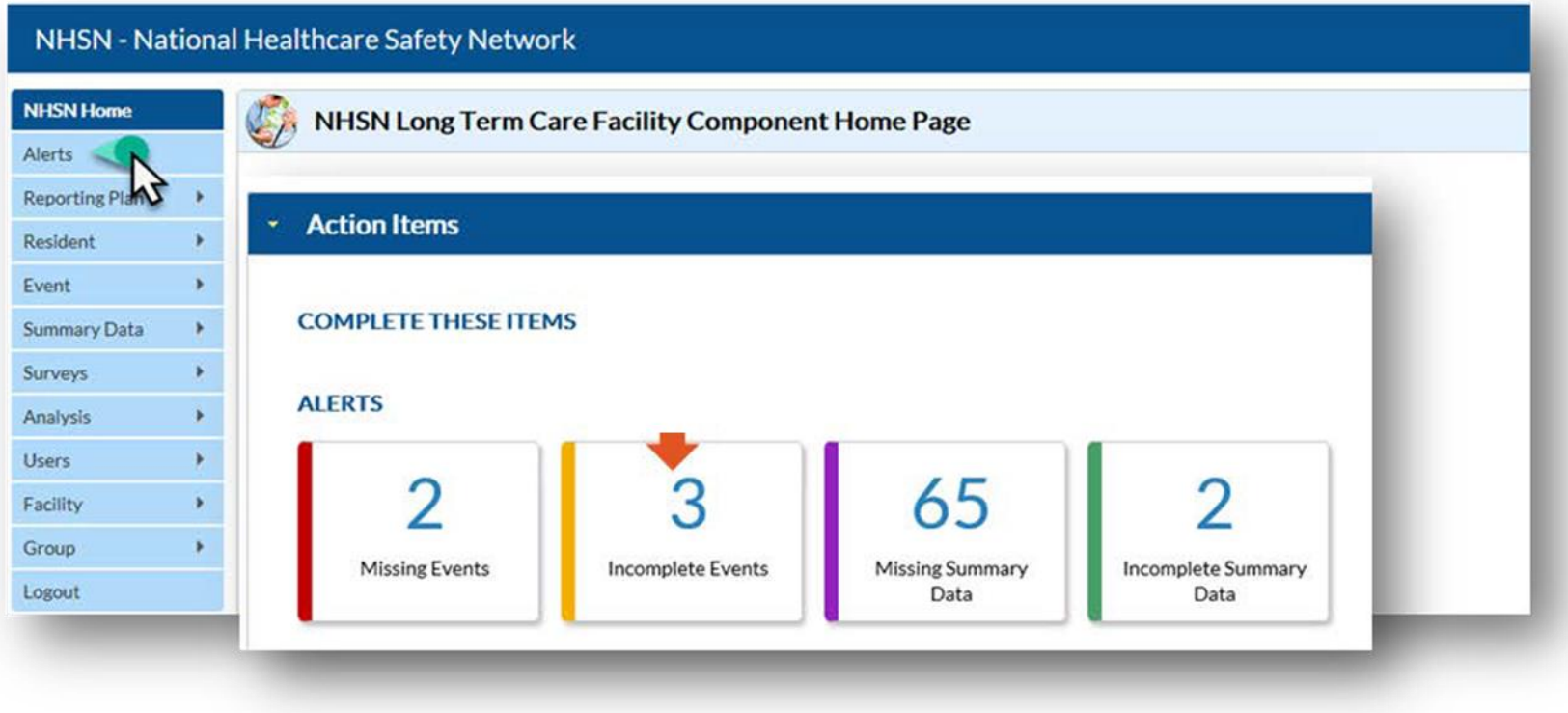
- New urine cultures ordered for a resident regardless of whether the resident has a UTI meeting the NHSN event criteria.
- Do not include urine cultures ordered by another healthcare facility prior to the resident's admission or readmission back to your facility.
- Data may be collected daily or summarized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



DATA QUALITY- RESOLVE ALERTS

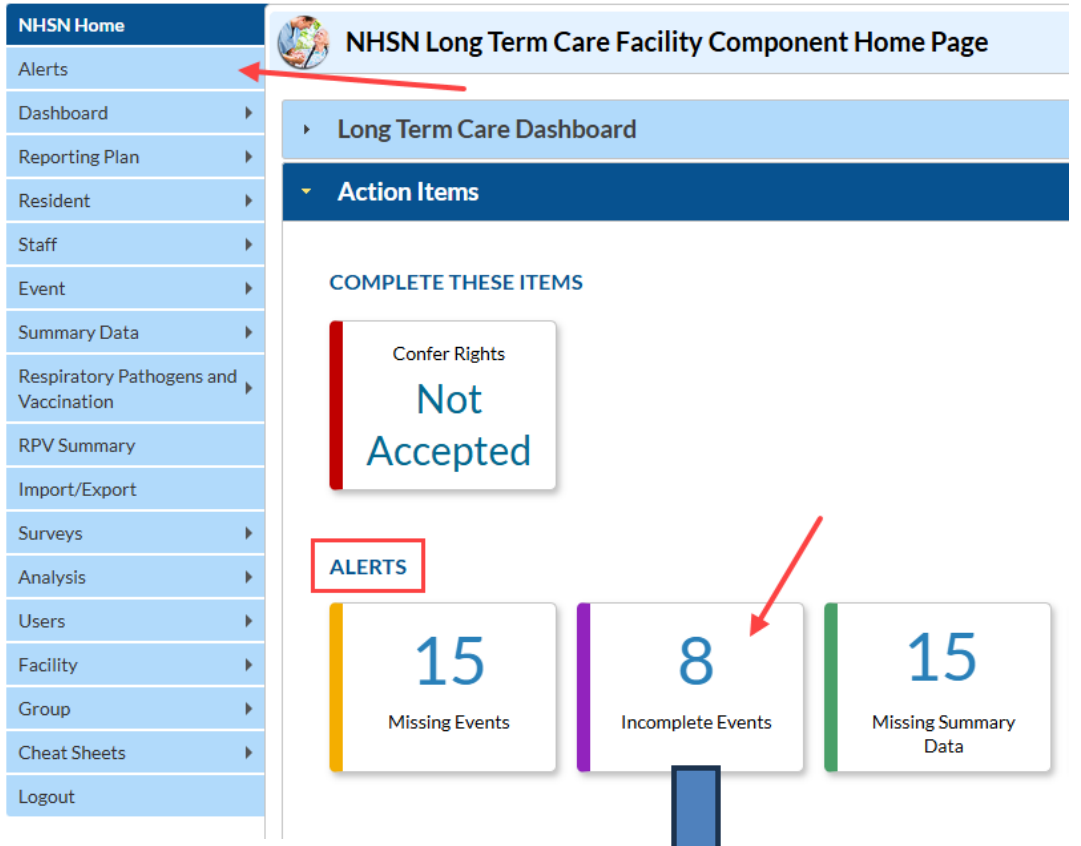
Alerts

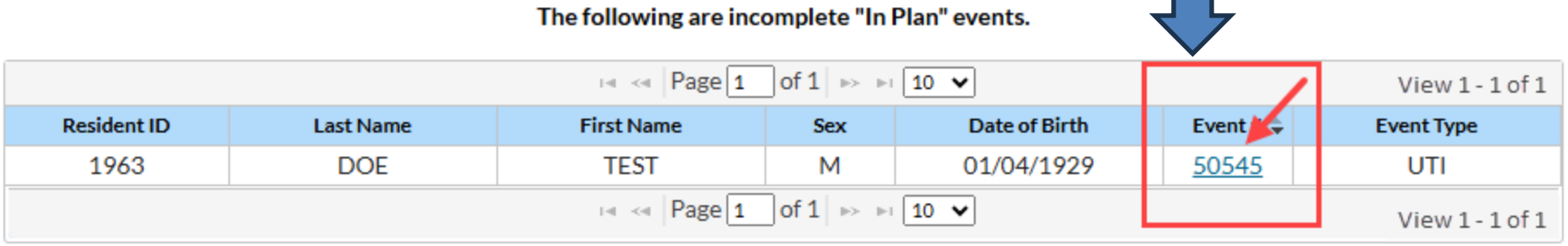
- Automatic checks in the NHSN that remind users of incomplete or missing in-plan data.
- Monthly data that are not considered complete and will be excluded from analysis unless resolved.
- Before using the analysis function, make sure to clear all (relevant) alerts.
- Found on the Home Page, or by clicking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



Common Alerts for UTI Event Reporting: *Incomplete Events*

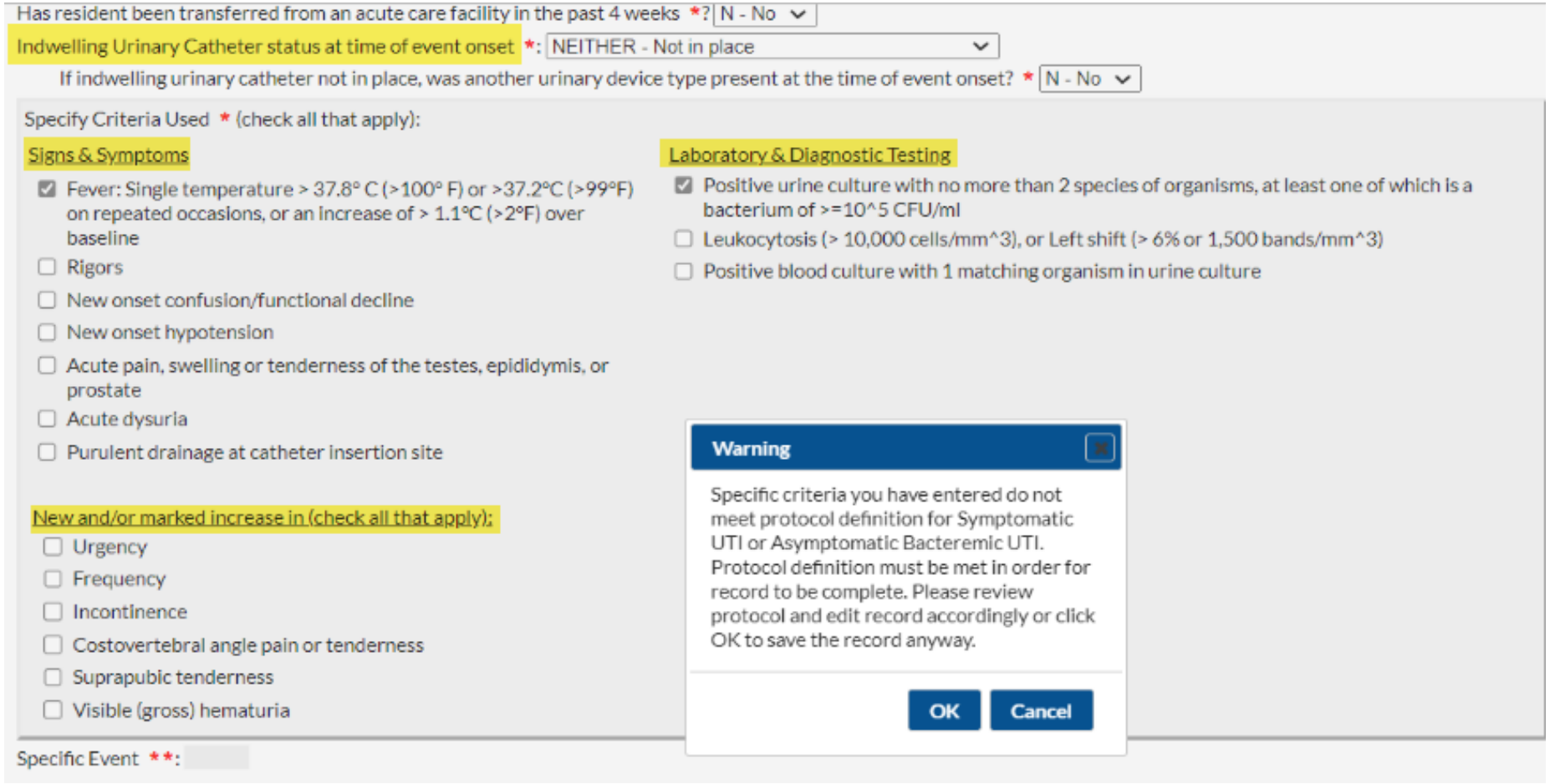
- An incomplete UTI event submitted and saved
  - Remember—only events for residents who meet NHSN UTI criteria should be reported
- To resolve alert:
  - **Click on the hyperlinked Event #**





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

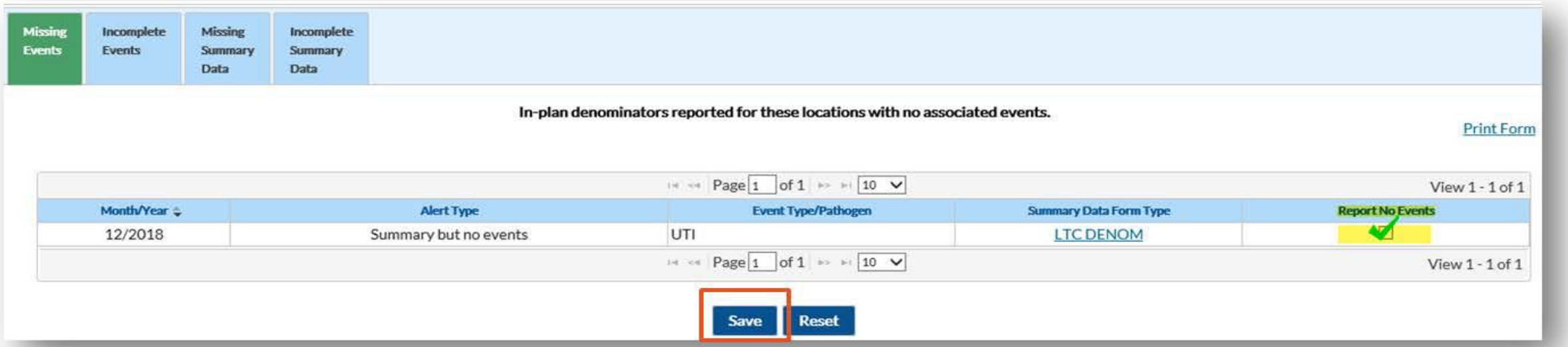


Common Alerts for UTI Event Reporting: *Missing Events*

- 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

  OR

  - ✓ If no UTI events to report for the month, Click Box to indicate **Report No Events**

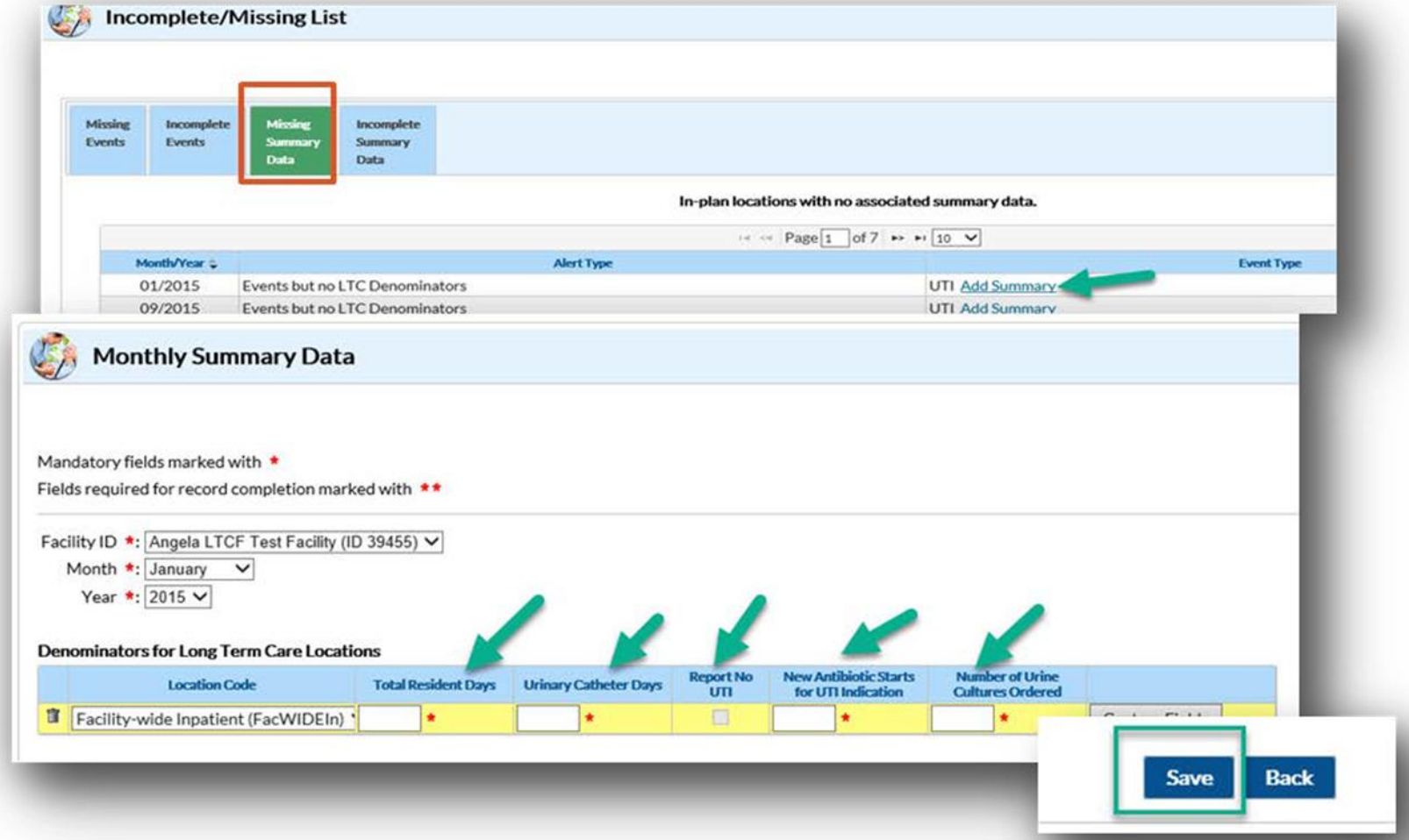


Common Alerts for UTI Event Reporting: *Missing Summary Data*

- 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

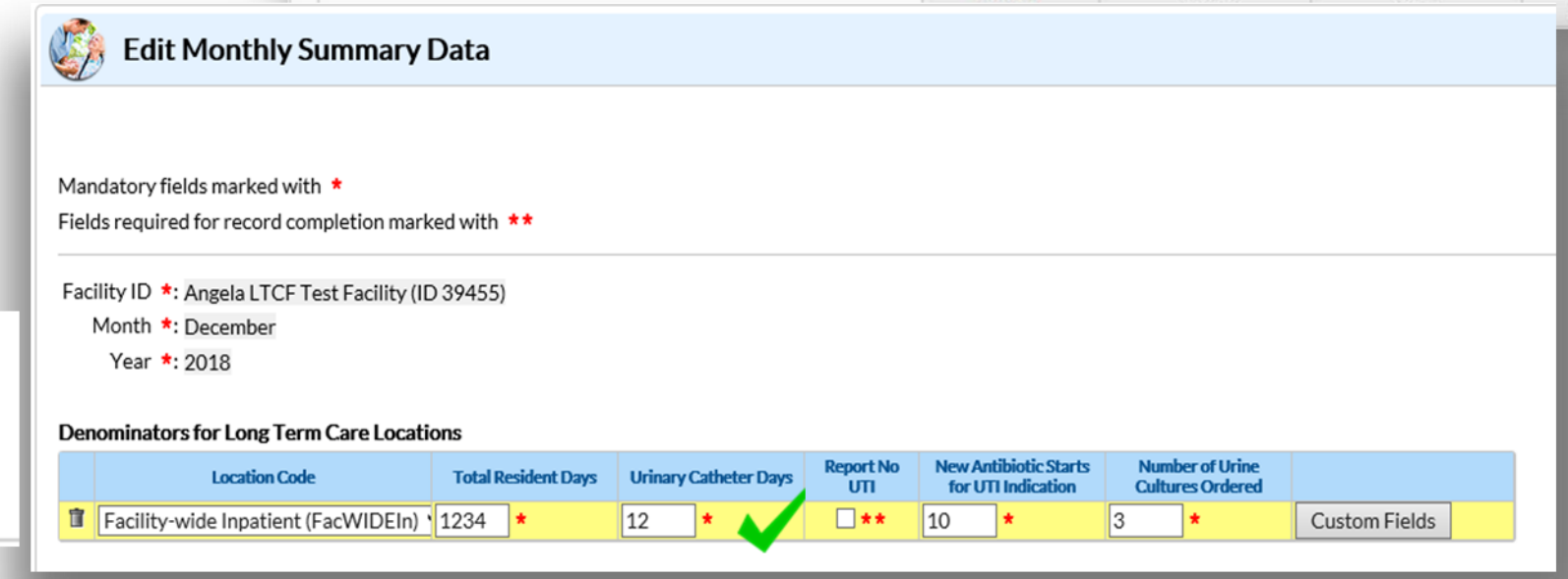


Common Alerts for UTI Event Reporting: *Incomplete Summary Data*

- 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**



Review

Review

- ✓ Select Healthcare Associated Infection Module when submitting an MRP to indicate your facility will be reporting UTI data for the given month

- ✓ Facility-wide inpatient (FacWideIN) must be selected on the NHSN monthly reporting plan and UTI surveillance must be performed for all resident care locations.

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

- ✓ **Resident Type:** A resident type must be selected as either a Short Stay (100 or less calendar days) or Long Stay (> 100 calendar days) from the date of first admission .
- ✓ **Resident Care Locations**: Locations the facility added during NHSN enrollment (should reflect all resident care locations within facility).
- ✓ **Date of First Admission:** Date of initial admission (remains the same even if resident leaves facility for short periods of time (<30 consecutive days).
- ✓ **Date of Current Admission:** Most recent date the resident entered the facility or date resident is re-admitted (if occurred greater than 2 days). *Otherwise, the date would reflect the same as “Date of first admission”.

Review

- ✓ UTI denominator data should be entered into the NHSN application each month.
  - ❑ There are four denominators which must be submitted
    - Total Resident Days
    - Urinary Catheter Days
    - New Antibiotic Starts for UTI Indication
    - Number of Urine Cultures Ordered
  - ❑ A total for each column should be calculated by summing the numbers recorded for each individual day of the month.

Review

- ✓ The NHSN system will send an alert to the user notifying there missing event info, an incomplete event, missing summary data or incomplete summary data.
- ✓ Be sure to clear those alerts to ensure the most accurate facility data is being captured to run your analysis.

THANK YOU

Questions?

nhsn@cdc.gov

Add "UTI Reporting" to the subject line in order to have your inquiry routed to the appropriate subject matter expert

For more information please contact Centers for Disease Control and Prevention

1600 Clifton Road NE, Atlanta, GA 30333
Telephone: 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348
E-mail: NHSN@cdc.gov
Web: http://www.cdc.gov/nhsn

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.