

**Table 1. Pediatric CAUTI Prevention Bundle Elements**

| CAUTI Prevention Bundle Element—Insertion | Care Description   |
|---|--|
| <b>Standard Element</b>                   |  |
| Use aseptic technique for insertion       | <ul style="list-style-type: none"> <li>Perform hand hygiene immediately before and after insertion or any manipulation of the catheter</li> <li>Use sterile gloves, drape, sponges, appropriate antiseptic or sterile solution for peri-urethral cleaning, and a single packet of lubricant jelly for insertion</li> </ul> |
| Avoid unnecessary catheterization         | <ul style="list-style-type: none"> <li>Consider having written clinical indications</li> </ul>   |

| CAUTI Prevention Bundle Element—Maintenance | Care Description  |
|---|---|
| <b>Standard Elements</b>                    |   |
| Maintain a closed system                    | <ul style="list-style-type: none"> <li>If breaks in aseptic technique, disconnection, or leakage occur, replace the catheter and collecting system using aseptic technique and sterile equipment</li> </ul> |
| Maintain hygiene                            | <ul style="list-style-type: none"> <li>Perform perineal hygiene at minimum daily</li> </ul>   |
| Keep bag below level of bladder             | <ul style="list-style-type: none"> <li>Do not rest bag on floor</li> </ul>  |
| Maintain unobstructed flow of urine         | <ul style="list-style-type: none"> <li>Keep the catheter and collecting tube free from kinking</li> </ul>   |
| Remove catheter when no longer needed       | <ul style="list-style-type: none"> <li>Review necessity daily</li> <li>Document indication daily</li> </ul>   |
| <b>Recommended Element</b>                  |   |
| Secure catheter                             |   |

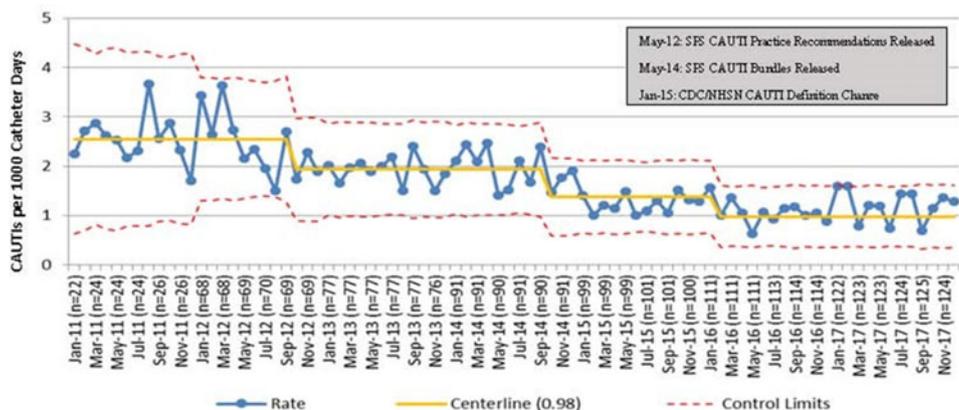


Fig. 1.

**Presentation Type:**

Poster Presentation

**Catheter-Associated Symptomatic Urinary Tract Infections in Nursing Homes—National Healthcare Safety Network, 2013–2018**

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**Background:** Catheter-associated symptomatic urinary tract infections (CA-SUTIs) are a common adverse healthcare event in nursing homes and have been the focus of multiple prevention strategies.<sup>1</sup> In

2012, the CDC launched the NHSN Long-Term Care Facility (LTCF) Component, which nursing homes, the CDC, and prevention collaborators can use to monitor nursing home CA-SUTI incidence and prevention progress.<sup>2</sup> The objective of this analysis was to compare CA-SUTI rates and reporting patterns of nursing homes between 2013–2015 and 2016–2018. **Methods:** We analyzed CA-SUTI data from nursing homes reporting to the NHSN during 2013–2018. Consistent reporters submitted  $\geq 6$  months of complete data in any calendar year during the period. To potentially confirm patterns in CA-SUTI rates, we defined “consecutive” reporters, as nursing homes that submitted data for  $\geq 6$  months each year during 2013–2018. CA-SUTI incidence rates were calculated as the number of CA-SUTI events divided by the number of catheter days multiplied by 1,000. Likelihood ratio tests using negative binomial regression were used to compare CA-SUTI rates from

Figure 1. Nursing Homes Reporting CA-SUTI, 2013–2018

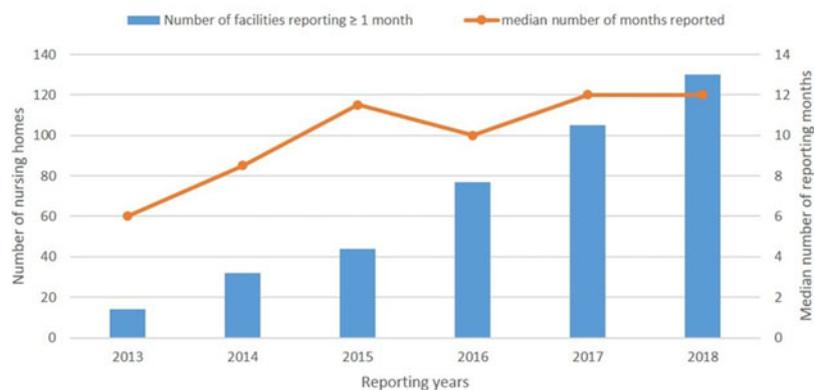


Fig. 1.

2016–2018 and 2013–2015 among both consistent and consecutive reporters. **Results:** During 2013–2018, the number of nursing homes submitting at least 1 month of CA-SUTI data to NHSN increased from 60 to 120 (Fig. 1). Among these nursing homes, 194 (88%) were consistent reporters. The pooled CA-SUTI rate of 1.77 per 1,000 catheter days in 2016–2018 was significantly lower than the pooled CA-SUTI rate of 2.45 per 1,000 catheter days in 2013–2015 among consistent reporters by ~24% (Table 1). Also, 50 consecutive reporters submitted CA-SUTI data during 2013–2018. Among these consecutive reporters, the pooled CA-SUTI rate of 2.11 per 1,000 catheter days in 2016–2018 was significantly lower than the rate of 2.53 per 1,000 catheter days in 2013–2015 by ~21% (Table 1). **Conclusions:** This analysis suggests that nursing homes using NHSN for CA-SUTI surveillance have made progress in prevention efforts. During 2013–2018, evidence showed that CA-SUTI incidence rates declined among consistent reporters between the 2 reporting periods. This decrease was verified among consecutive reporters. Additional study is needed to determine which factors account for varying reporting patterns and differential CA-SUTI incidence.

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**Disclosures:** None

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#### Presentation Type:

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#### Catheter-Associated Urinary Tract Infections (CAUTIs) Reduction: A Multidisciplinary Approach

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**Background:** CAUTIs remain one of the most common hospital-acquired infections (HAIs) accounting for prolonged hospital stay and increased healthcare costs. According to the NHSN, the standardized infection ratio (SIR) at our institution was 1.6 compared to national average of 0.84 in 2018. We highlight the interventions implemented in our institution to prevent CAUTIs. These interventions have shown a reduction in the rate of CAUTIs, the SIR, Foley catheter days, and institutional cost. **Methods:** In addition to standard CAUTI prevention practices, we hypothesized that we could decrease CAUTIs through the daily implementation of specific practices. We developed a comprehensive

interdisciplinary team which included the staff or charge registered nurse (RN), the unit manager, an infection preventionist, an advanced practice registered nurse (APRN), a pharmacist with an antimicrobial focus, and a physician from the infectious disease department who would conduct daily rounds on different units in the institution for education and assessment of catheter indications. A detailed review and analysis of the urine culture orders for patients with a Foley catheter was performed. A nurse-driven Foley catheter removal protocol before urine culture collection was initiated. We implemented a Foley catheter bundle that has guidelines for Foley insertion, best practice competency, and urinary catheter best practice algorithm and advocated alternative use of male or female external catheter. We educated physicians about ordering a reflexive urine analysis test followed by urine culture instead of testing either individually after removal of a Foley catheter. Lastly, we performed a root-cause analysis on all reported CAUTIs. These policies were implemented in a 435-bed tertiary-care center in November 2018, and we present data from 1-year before and after the interventions. **Results:** At our institution, we had 71 CAUTIs, with an SIR of 1.6, a standardized utilization ratio (SUR) of 0.92, 27,621 Foley days, and institutional cost of \$979,303 compared to 40 CAUTIs with an SIR of 1, an SUR of 0.88, 24,193 Foley days, and institutional cost \$537,927 after implementing our interventions. **Conclusions:** CAUTIs can be reduced by implementing specific measures that include infection control team rounds, nurse-driven protocol, and the use of Foley catheter bundles. Measures should be undertaken to prioritize these practices as part of a protocol. We advocate further studies to evaluate these measures. Education programs for healthcare professionals concerning CAUTIs and its complications can be implemented to carry out the prevention methods efficiently.

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#### CAUTI: A Journey of Micturition at MICU Since 2014

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**Background:** Catheter-associated urinary tract infections (CAUTIs) have gained popularity in recent years for increasing