

MaineHealth

MaineHealth Knowledge Connection

Operational Excellence

Fall 9-5-2019

Reduction of Catheter Associated Urinary Tract Infections (CAUTI) in a Critical Care Setting

Deborah Jackson
Maine Medical Center


Lindsey Lucas
Maine Medical Center

Shawn Taylor
Maine Medical Center

Jonathan Archibald
Maine Medical Center

Stephen Tyzik
Maine Medical Center

Follow this and additional works at: <https://knowledgeconnection.mainehealth.org/opex>
See next page for additional authors

 Part of the [Critical Care Commons](#), [Critical Care Nursing Commons](#), [Health Information Technology Commons](#), [Infectious Disease Commons](#), [Interprofessional Education Commons](#), and the [Nursing Administration Commons](#)

Recommended Citation

Jackson, Deborah; Lucas, Lindsey; Taylor, Shawn; Archibald, Jonathan; Tyzik, Stephen; Intensive Care Clinical Teams; Patient Safety Team; Nayak, Suneela; Hanselman, Ruth; and Sparks, Amy, "Reduction of Catheter Associated Urinary Tract Infections (CAUTI) in a Critical Care Setting" (2019). *Operational Excellence*. 37.

<https://knowledgeconnection.mainehealth.org/opex/37>

This A3 is brought to you for free and open access by MaineHealth Knowledge Connection. It has been accepted for inclusion in Operational Excellence by an authorized administrator of MaineHealth Knowledge Connection. For more information, please contact mckeld1@mmc.org.

Authors

Deborah Jackson, Lindsey Lucas, Shawn Taylor, Jonathan Archibald, Stephen Tyzik, Intensive Care Clinical Teams, Patient Safety Team, Suneela Nayak, Ruth Hanselman, and Amy Sparks

Project: Reduction of Catheter Associated Urinary Tract Infections (CAUTI)

Last Updated: 7/16/19

Executive Sponsor: Sheila Parker

Facilitator: Stephen Tyzik



Team Members: Jonathan Archibald, Lindsey Lucas, Deborah Jackson, Shawn Taylor, Alana Trottier, Jessica Pernal, Jianna Donisvitch, Nadine Kern, Sarah Bockian, Tayla Robbins, Kristen Stogsdill, Janice Pflugradt, Justin Michaud, Dr. Dave Seder, Dr. Brian Jumper and Janet Maguire

Problem/Impact Statement:

Urinary Tract Infections (UTIs) are the most common type of healthcare-associated infection reported to the National Healthcare Safety Network (NHSN). Among UTIs acquired in the hospital, approximately 75% are associated with an indwelling urinary catheter (IUC), which is a tube inserted into the bladder through the urethra to drain urine. Between 15-25% of hospitalized patients receive IUCs during their hospital stay. At Maine Medical Center, many of the patients who transfer in to our Specialty Care Units (SCU) do so with a IUC already inserted. This highlights the need for enhanced diligence in the daily review of necessity and maintenance, as a CAUTI comes with increased morbidity and mortality risk, increased LOS in ICU setting, increased antibiotic use and an increased cost of care to patients.

Scope:

In Scope: All patients in SCU 2, 3 and 4
Out of Scope: All other patients

Goal/Objective:

To reduce the number of CAUTI's in the Specialty Care Units

Baseline Metrics/Current State:

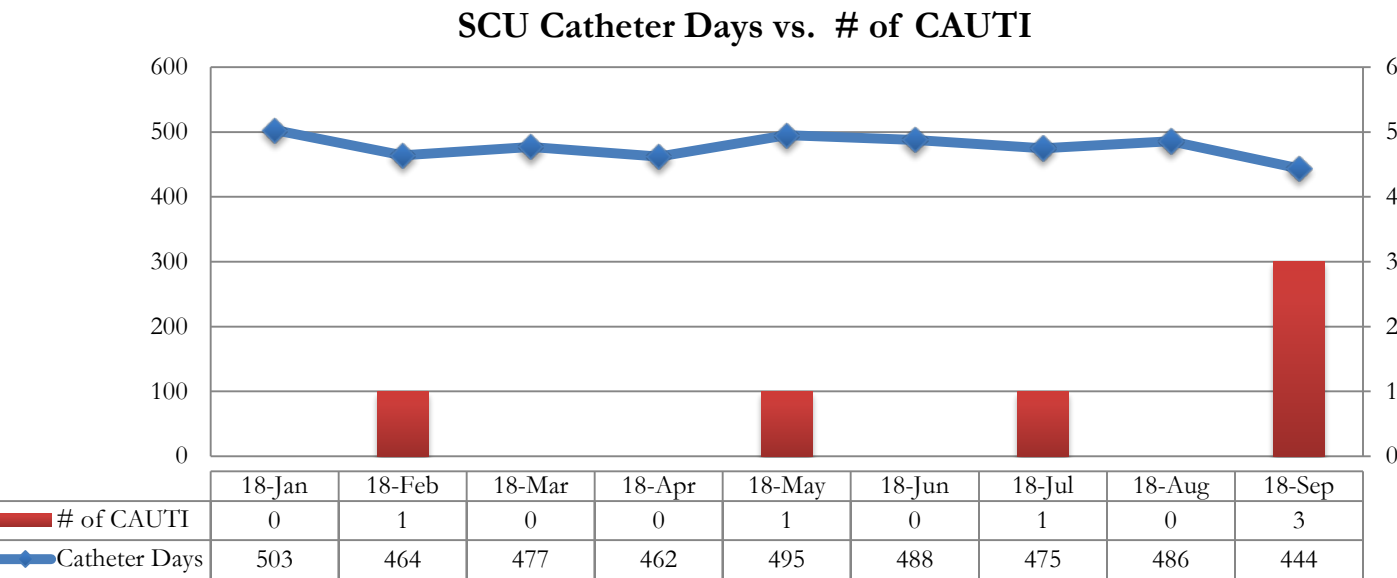


Figure 1: Baseline 2018 data showing total number of catheter days and CAUTI by month

Root Cause Analysis:

RCA of 2018 CAUTI in SCU

- 92% were initially placed outside of SCU
- 66% of infections were associated with initial IUC placement
- Average insertion to infection was 5.5 days
- 10 patients were located in SCU 3, 1 in SCU 2 and 1 in SCU 4

Countermeasures

Action	Owner	Completion Date	Status
1) 100% of the time SCU managers do daily rounds to complete reviews	SCU Leadership	September 2018	Completed
2) 100% of caregivers receive CAUTI Education on current SCU performance	Alana Trottier and SCU Leadership	November 2018	Completed
3) Develop of KPI project documents to support change management	SCU Leadership and Stephen Tyzik	December 2018	Completed
4) Assembly of Interprofessional SCU Quality Team	SCU Leadership and Stephen Tyzik	January 2018	Completed
5) SCU Quality team performs mock RCA	SCU Quality Team, Janet Maguire and Stephen Tyzik	January 16, 2018	Completed
6) SCU Quality team develops future state map for IUC indications (Retention, strict I&O and peri-wound)	SCU Quality Team and Stephen Tyzik	February 11, 2018	Completed
7) Inter-professional review and completion of decision support tool which aims to help guide the IUC placement and removal conversation with the entire care team	SCU Quality Team and Stephen Tyzik	May 2018	Completed
8) KPI Implementation: 100% of caregivers are educated on the use of the decision support tool	SCU Quality Team and Stephen Tyzik	TBD	In Progress
9) Develop a process map for best practice IUC maintenance	SCU Quality Team and Stephen Tyzik	TBD	Not Started
10) KPI Implementation: 100% of caregivers are educated on process map for IUC maintenance	SCU Quality Team and Stephen Tyzik	TBD	Not Started
11) KPI Implementation: 100% of the time the proper IUC maintenance will be completed and documented for all patients with an IUC	SCU Quality Team and Stephen Tyzik	TBD	Not Started

Outcomes

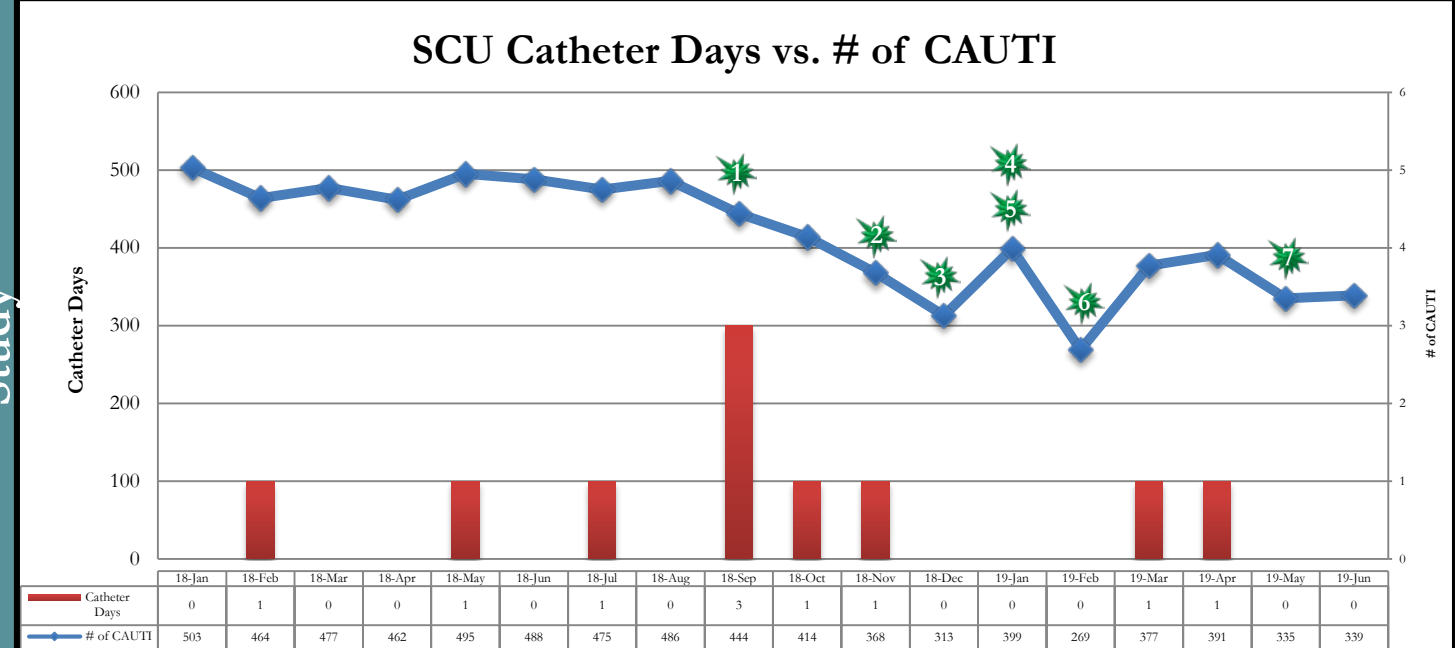


Figure 2: Graphical representation of countermeasure implementation, catheter days and CAUTI by month

Next Steps

- The next wave of improvement will focus on the development and implementation of best practice IUC maintenance

Plan

Do

Study

Act