



HQIC Community of Practice Call

Back to Basics, A CAUTI Reduction Journey

August 10, 2023

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Introduction



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Welcome!

Agenda

- Introduction
- Today's topic: **Back to Basics, A CAUTI Reduction Journey**
- Presenters:
 - **University of Texas Medical Branch**
 - Mary Ann DeMaet, Operations Manager
 - Teresa York, Regional Supervisor
- Open discussion
- Closing remarks

As You Listen, Ponder...

- What impactful actions can you take as a result of the information shared today?
- How are you able to increase engagement within your facilities to ensure a true change in patient safety?
- Based on what you heard today, what activities do you currently have underway that can leverage immediate action over the next 30, 60 or 90 days?

Meet Your Speakers



Mary Ann DeMaet, MSN, RN, CIC
Operations Manager
Infection Control & Healthcare Epidemiology
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Teresa York, BS, CIC
Regional Supervisor
Infection Control & Healthcare Epidemiology
University of Texas Medical Branch

Back to Basics, A CAUTI Reduction Journey

University of Texas Medical Branch

Infection Control & Healthcare Epidemiology

Presented by:

Mary Ann DeMaet, MSN, RN, CIC

Operations Manager

Teresa York, BS, CIC

Regional Supervisor

Objectives

- CAUTI Definition
- CAUTI Measurement
- Reviewing Data
- Best Practice Intervention: Bundles
- Challenges and Successes
- Summary

Definition

What is a CAUTI?

A **CAUTI** is a catheter-associated urinary tract infection

CAUTIs are identified by a positive urine culture in a patient with an eligible indwelling urinary catheter (Foley) and an eligible symptom

CAUTI: Potential Entry Points

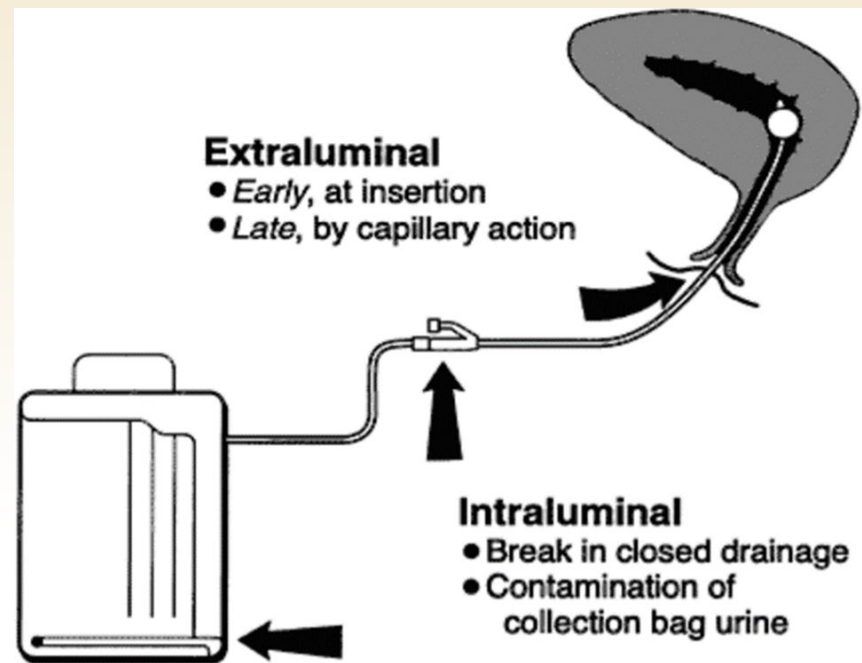


Image Source: Gould, C. (2010).

Measurement

- Rate of CAUTIs per 1,000 urinary catheter (foley) days

$$\frac{\text{Number of CAUTIs}}{\text{Number of Urinary Catheter days per unit}}$$

- Includes all adult and pediatrics units (exclude NICU) in all patient care locations for adult and pediatric medical, surgical or combined medical/surgical units.
- Standardized infection ratio (SIR) is a statistic used to track hospital acquired-infections (HAIs) over time, at a national, state, or facility level.

$$\frac{\text{Actual Number of CAUTIs}}{\text{Predicted Number of Urinary Catheter Infections}}$$

How is Data Gathered?



Monthly indwelling device (urinary catheter and central line) days are electronically captured using the Electronic Medical Record (EMR)



The Infection Control team reviews all microbiology for the Health System and determines if a reportable infection is identified

If an infection is identified, the patient information is entered into the CDC's NHSN reporting system

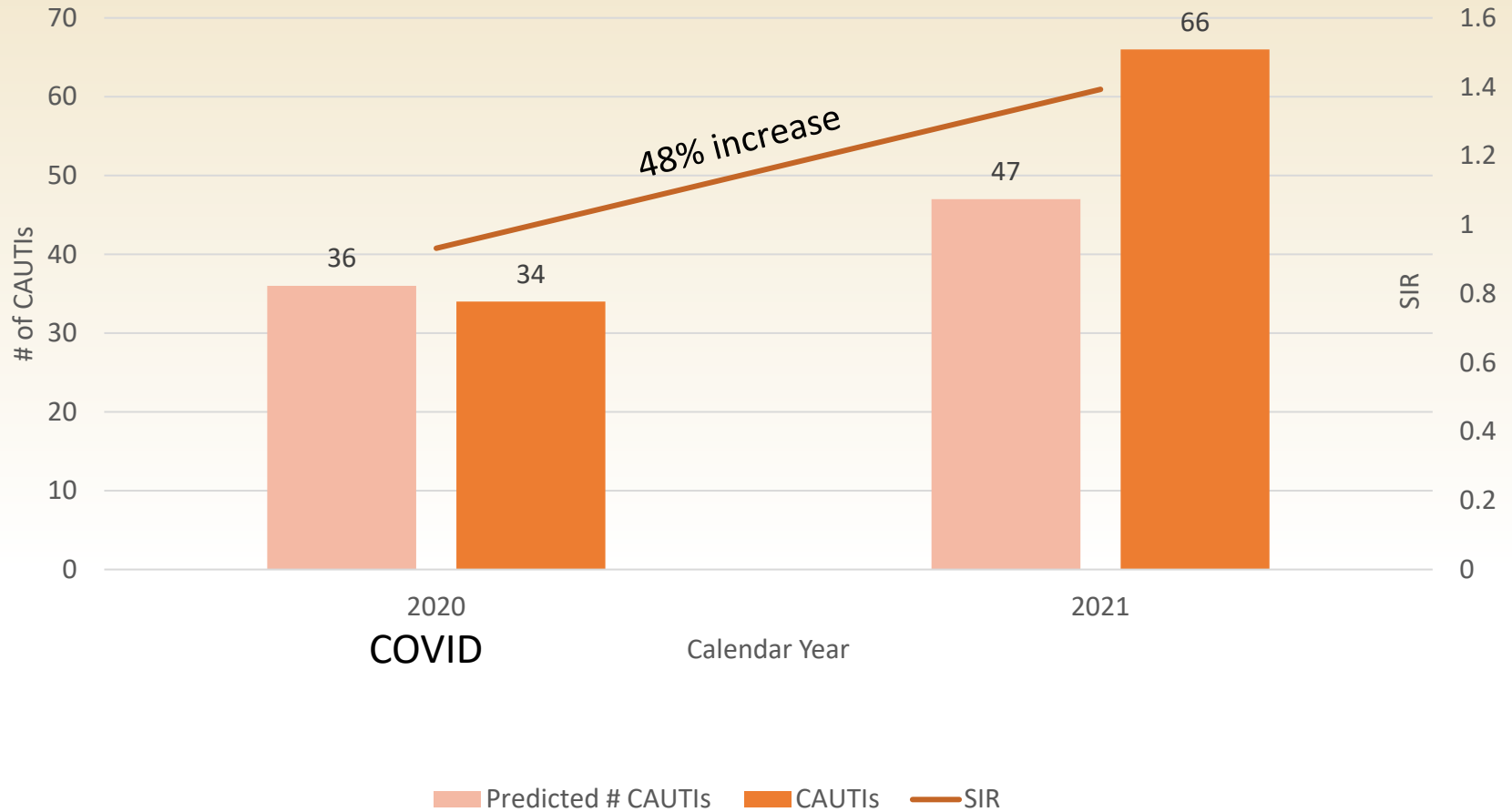


Institution rates are generated monthly and shared in the Infection Control Committee Meeting



Root cause analysis are conducted on all reported HAIs

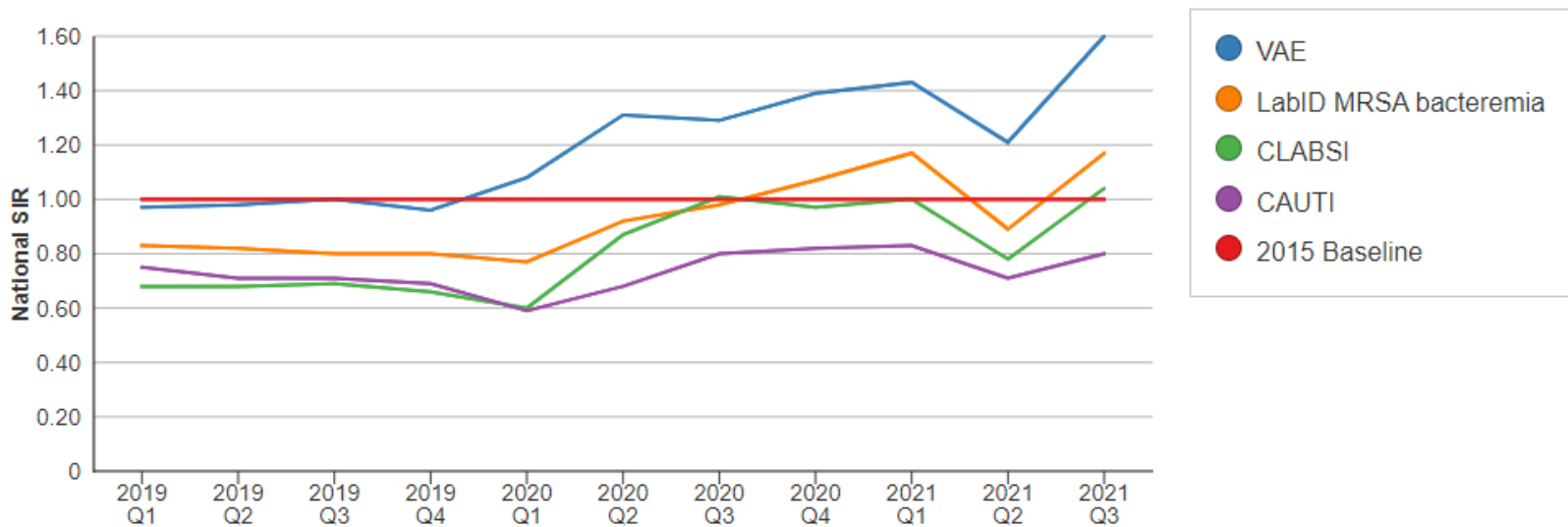
CAUTI Events CY 2020-2021



Meanwhile..

- Leadership was taking note of the increase in patient safety events not only in our institution but across the nation
- CDC was also reporting an increase in HAIs

Figure 1. Quarterly National SIRs for Select HAI Types, 2019-Q1 - 2021-Q3



Trends

Priorities shifted to focus on the safety of the healthcare providers when caring for patients

Several of our identified HAIs occurred during a patient's admission for treatment of COVID

Healthcare providers were leaving the bedside for various reasons

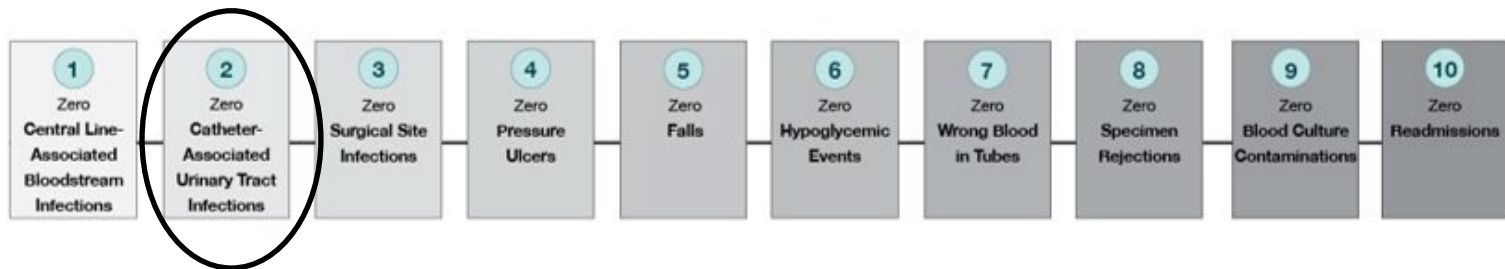
Influx of new graduates from nursing schools, some lacking bedside experience due to the COVID restrictions in place at many hospitals

With experience leaving the bedside, we found ourselves having to focus on basic practices

Increase in other reportable events were identified

The Journey to Zero

Perfect 10 Award *The Journey to Zero*



How to Use

This chart is meant to be used as a reference card. Each unit should review the categories listed above once per month to track their progress. In each category, a unit can score either zero or one, with one being the best and indicating the unit had zero incidents in a particular category for the month. The goal is to score a one in all 10 categories, also known as scoring a perfect 10. The unit that scores the highest out of 30 total points every quarter will be awarded the Perfect 10 Award: The Journey to Zero.

How Can Infection Control Support Prevention of HAIs and the Journey to Zero?

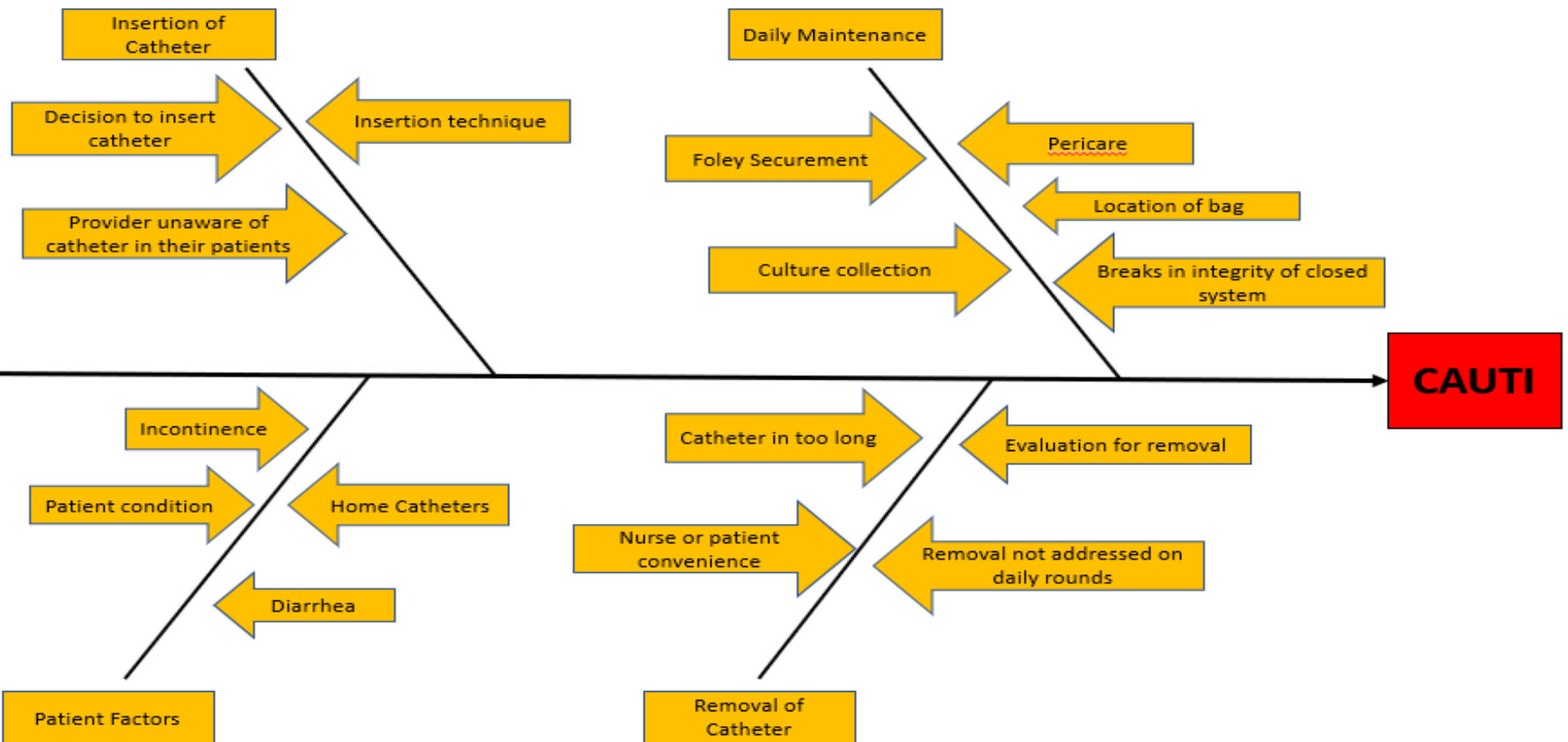
This e-mail is sent on behalf of Janak Patel, MD, Director of Infection Control & Healthcare Epidemiology

The Department of Infection Control & Healthcare Epidemiology requests your attendance at a meeting for root cause analysis (RCA) for events as stated below. We request the attendance of physicians, nurses and other extended providers who were involved in the care of these patients. A meeting request will be sent out soon, if you cannot attend, please send someone in your absence.

Significance of event: CAUTIs are preventable infections and are nationally reportable events with resulting institutional financial penalties when we exceed the national benchmark. We are therefore required to conduct RCAs on all reportable infections in order to identify gaps in care and develop mechanisms to improve our clinical care practices. RCAs are educational in nature, and as such, should foster an open dialogue among the multidisciplinary team of participants who have been involved in the care of these patients.

- ✓ Email notifications sent to all leadership
- ✓ RCA conducted on all events with multidisciplinary team
- ✓ Findings from review are shared with nursing leaders and staff

How Do CAUTIs Occur?



Findings from RCAs

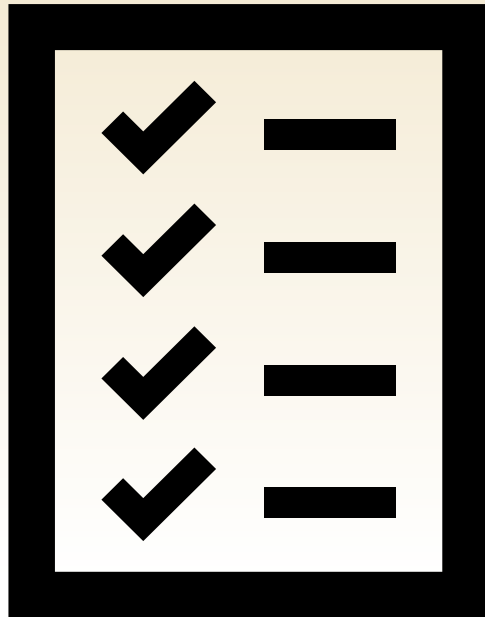


How can we standardize the care of these devices?





Bundles-Basics



Why are bundles important?

Helps identify gaps in practice

Standardization

Monitor progress over time

Data = proof

Creating a Bundle



REVIEW
PUBLISHED
EVIDENCE-
BASED
PRACTICES



DETERMINE
WHERE THE
SIMILARITIES
OF GUIDELINES
AND
DETERMINE
OUR CURRENT
STATUS



REVIEW THE
QUALITY OF
EVIDENCE FOR
THE
GUIDELINES
(LEVEL I)



CREATE A
SUMMARY OF
GAPS IN CARE
TO SHARE AS
FEEDBACK



OPENLY
DISCUSS
DISCOURAGED
PRACTICES

Best Practices

- ✓ Existing policies
- ✓ Use evidenced-based best practices for insertion techniques and maintenance practices
- ✓ Hand hygiene performed before any manipulation of the catheter or drainage system
- ✓ Prior to urinary catheter insertion
 - Assess the need for the urinary catheter
 - Review alternative devices available (i.e., Pure Wick, Qivi, condom catheter, Quick Change wrap)
 - Aseptic technique for insertion
- ✓ Maintenance of urinary catheter
 - Assess daily necessity of the urinary catheter – **nurse-driven catheter removal decision, including bladder trial**
 - Peri-care with CHG daily
 - Maintaining a closed system
 - Keep bag below the level of the bladder and off the floor
 - Proper device securement used (i.e., stat-lock)
 - Maintain an unobstructive flow into urine bag (no looping)

CAUTI Prevention Bundle

Maintenance

- Properly secure catheter to leg to prevent movement and urethral irritation
- Irritation is **associated with CAUTI**

- **ICU, Transplant, Oncology:** Bathe patients daily with CHG cloths
- Clean perineum Q shift with Ready Bath cloths, allow to dry, followed by cleaning with CHG cloths

Review of Necessity

- Review necessity each shift. Remove as soon as no longer necessary
- Each day it remains, patient has a 3% - 7% risk of CAUTI
- Nurse driven protocol for removal/bladder trial

Securement Devices

External Catheterization

Daily Hygiene & Pericare

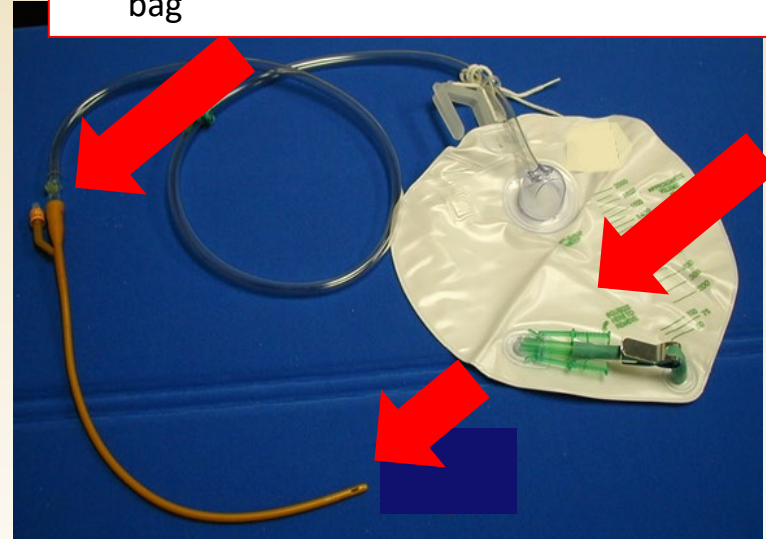
Urinary Catheter Assessment Each Shift

- Closed drainage system
- Unobstructed flow/backflow of urine. **No dependent loops.**
- Empty collection bag when $\frac{3}{4}$ full. If collection bag is too full, urine in the bag can backflow to the bladder causing a UTI
- Keep collection bag below level of bladder and off the floor

Theory to Practice

- Urine is seen stagnant in the tube and not flowing freely to the collection bag. This is due to a **dependent loop**.
- Bag appears to be halfway full.
 - Best practice indicates emptying when less than $\frac{3}{4}$ full, so this is compliant but will need to be monitored closely and emptied soon.
- Note the green alligator clips, these will help you secure and position the tubing appropriately

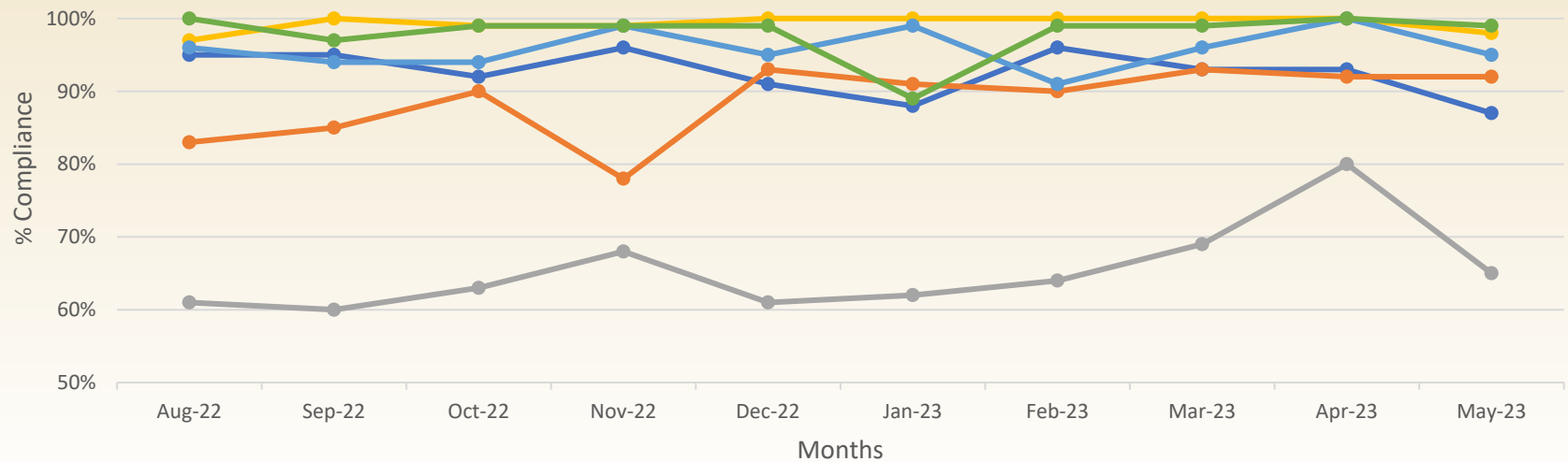
- Breaks in the catheter tubing or collection bag
- Contamination of the catheter tubing or collection bag



Audit Findings

Frequent Findings	Feedback
<ul style="list-style-type: none">• Urinary catheter necessity not assessed daily	<ul style="list-style-type: none">➤ Daily assessment of catheter necessity and discontinuation is not done daily, this assessment may be incorporated within multidisciplinary rounds.
<ul style="list-style-type: none">• Underutilization of nurse-driven protocol to discontinue urinary catheter when not needed	<ul style="list-style-type: none">➤ Nursing staff may be uncomfortable with discontinuing catheter without physician approval. Empower nursing to utilize this critical tool to ensure safe care.
<ul style="list-style-type: none">• Breaks in catheter tubing	<ul style="list-style-type: none">➤ Reviewed alternative catheters
<ul style="list-style-type: none">• Looping of catheter tubing causing obstruction and backflow of urine	<ul style="list-style-type: none">➤ Patient movement and care activities make prevention of looping difficult. Educate all staff performing care (Not just nursing) to actively assess and adjust catheter for looping when rounding on patient or performing care tasks.
<ul style="list-style-type: none">• Underuse of green alligator clip	<ul style="list-style-type: none">➤ Gap was that the green clips were frequently misplaced, found an adequate substitute
<ul style="list-style-type: none">• Urine bag greater than $\frac{3}{4}$ full	<ul style="list-style-type: none">➤ Encouraging frequent emptying of urine bags, scheduled emptying
<ul style="list-style-type: none">• Lack of use of stat-locks	<ul style="list-style-type: none">➤ Educated on proper use and alternative products available for use

Bundle Data Trends



● Maintain a closed drainage system

● Properly secured catheter with StatLock. Close attention to prone patients

● Maintain unobstructed urine flow. Keep catheter and collecting tube free from kinking and dependent loops

★ ● Keep collecting bag below level of bladder at all times

★ ● Foley bag NOT resting on the floor

★ ● Empty collecting bag regularly/Bag <3/4 full

Recruiting Assistance

Bundle data expectations from IC are considered point prevalence

- Infection Preventionist round at least weekly on their units to audit sites
- Feedback is provided onsite and via email

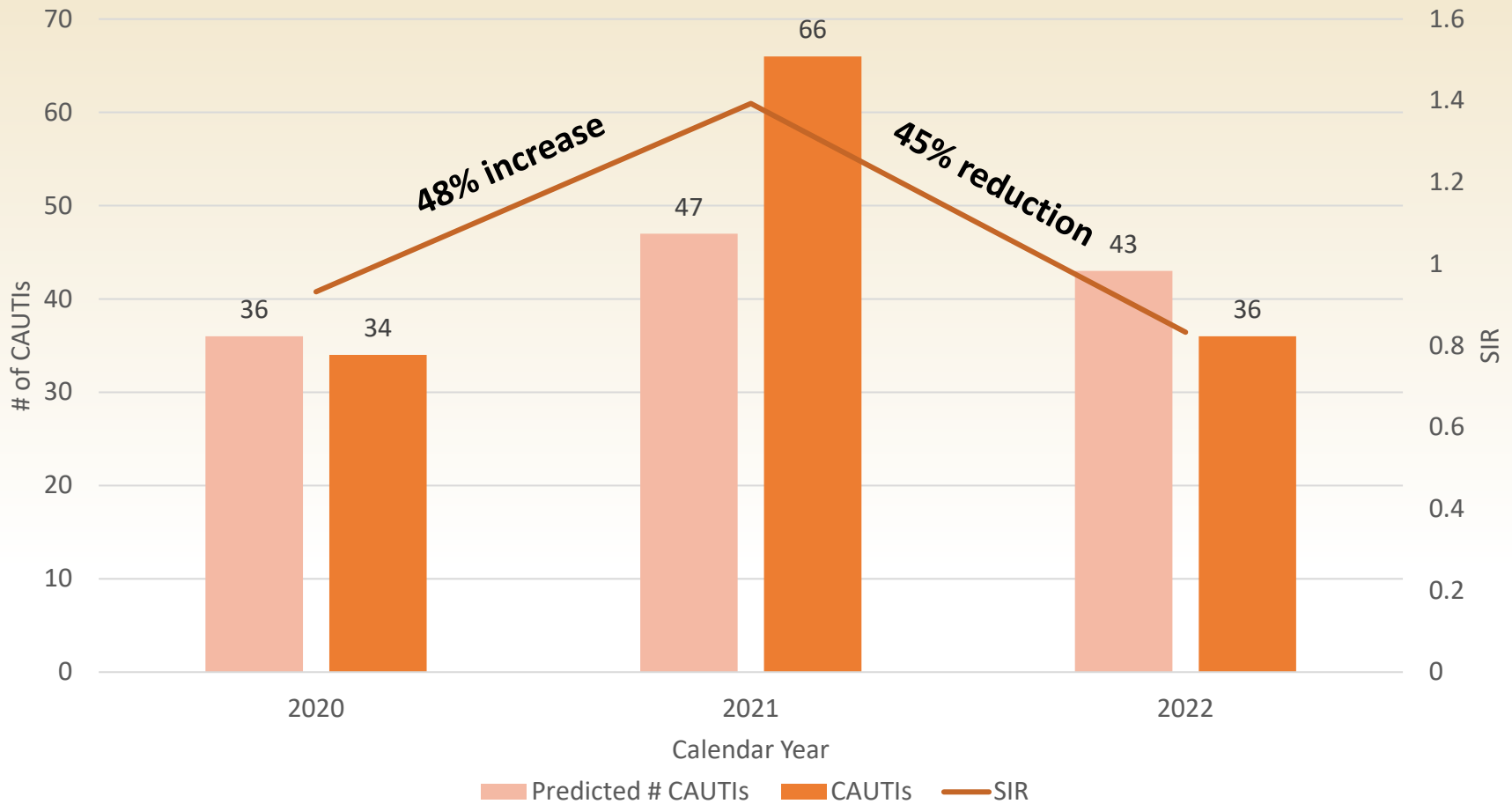
Engaging the nursing leaders and providers

- RCAs
- Small group discussions
- Unit champions
- Nursing educators conducting bundle audits

Discuss additional interventions

- External catheters for male and female
- Additional securement devices that aren't adhesive
- Additional bedsheet clips
- Urinary bag clips for patients in chairs

CAUTI Events CY 2020-2022



Challenges and Successes

Challenges

- Staff engagement
- Workflow-paper audits
- Education
- Time consuming
- Provider buy-in
- Sustainability

Successes

- CAUTI Champions with team building
- Creating a Microsoft Form to track bundle compliance
- Clinical educators helping with education and bundle audits
- CAUTI Reduction Taskforce with providers, nurses and IPs
- **Reduction in CAUTI events from 2021 to 2022**

Additional Efforts

- Urinalysis prior to culture
- Nurse-driven protocol
- Proper specimen collection
- EMR modifications-pericare, task reminders for nurses
- Order sets to remove automated orders for indwelling devices
- New nurse orientation education
- Urinary catheter chair/IV pole clips
- External urinary catheters

Winners



Dr. Gulshan Sharma presents the Q2 Journey to Zero Medical-Surgical Award to staff at Jennie Sealy 11B

Q2 winners

- **WIC Winner:** Clear Lake Campus Pediatric Unit
- **ICU Winner:** Angleton Danbury ICU
- **Medical-Surgical Winner:** Jennie Sealy 11B
- **Campus Winner:** Angleton Danbury Campus

Goal is to score
a one in all 10
categories.

What Do Winners Receive?

- ❖ Recognition at a leadership level
- ❖ Treats for the staff
- ❖ An award to display within the unit

Most importantly...

Bragging Rights

Summary

- Reviewed the NHSN CAUTI definition and relation to the patient.
- Reviewed NHSN's CAUTI measurement.
- Discussed the importance of monitoring data trends within your own organization.
- Discussed the importance of creating a bundle.
- Reviewed bundle findings and data trending.
- Reviewed challenges and successes.

References

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Discussion

- What impactful actions can you take as a result of the information shared today?
- How are you able to increase engagement within your facilities to ensure a true change in patient safety?
- Based on what you heard today, what activities do you currently have underway that can leverage immediate action over the next 30, 60 or 90 days?



Final Thoughts

Join Us for the Next Community of Practice Call!



Join us for the next
Community of Practice Call on September 14, 2023
from 1:00 – 2:00 p.m. ET

We invite you to register at the following link:

https://zoom.us/webinar/register/WN_ASI_I3p_TEyX_VY_YYFFeA

You will receive a confirmation email with login details.

Thank You!



Your opinion is valuable to us. Please take 4 minutes to complete the [post assessment](#).

We will use the information you provide to improve future events.