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Eliminating CAUTIs on a Orthopedic/Surgical Unit
Sentara Princess Anne Hospital

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Background

Catheter associated urinary tract infections (CAUTIs) are the second most common hospital acquired infections (CDC, 2014). CAUTIs can lead to:

• Increase in health care cost
• Increase in mortality
• Increase in length of stays (Mori, 2014)

➤ Nurses play an essential role in the maintenance of indwelling catheter care as there are 1.7 million cases of hospital acquired infections a year and CAUTIs account for 36% of them (as cited in Vacca & Angelos, 2013).
➤ Since 2008, there have been no hospital reimbursements from The Centers for Medicare and Medicaid Services (CMS) for hospital acquired CAUTIs (as cited in Carter, Reitmeier, & Goodloe, 2014).
➤ CAUTIs add 90,000 hospital days and $424-$451 million in health care costs a year (Gray, 2010).

> An interprofessional team is necessary to collaborate and eliminate CAUTIs. Healthcare organizations must strive for excellent quality outcomes and have a commitment to patient safety.

The Sentara Healthcare Organization has put into place system-wide initiatives aimed at reducing and eliminating CAUTIs, including:

➤ Following the surgical care improvement project (SCIP) guidelines of removing foley catheters by post-operative day (POD) one or two
➤ Decreasing unnecessary catheter utilization
➤ Implementing CAUTI prevention bundles

Despite these initiatives, the 5A Surgical-Orthopedic Unit experienced four CAUTIs in 2013.

5A CAUTI Rates
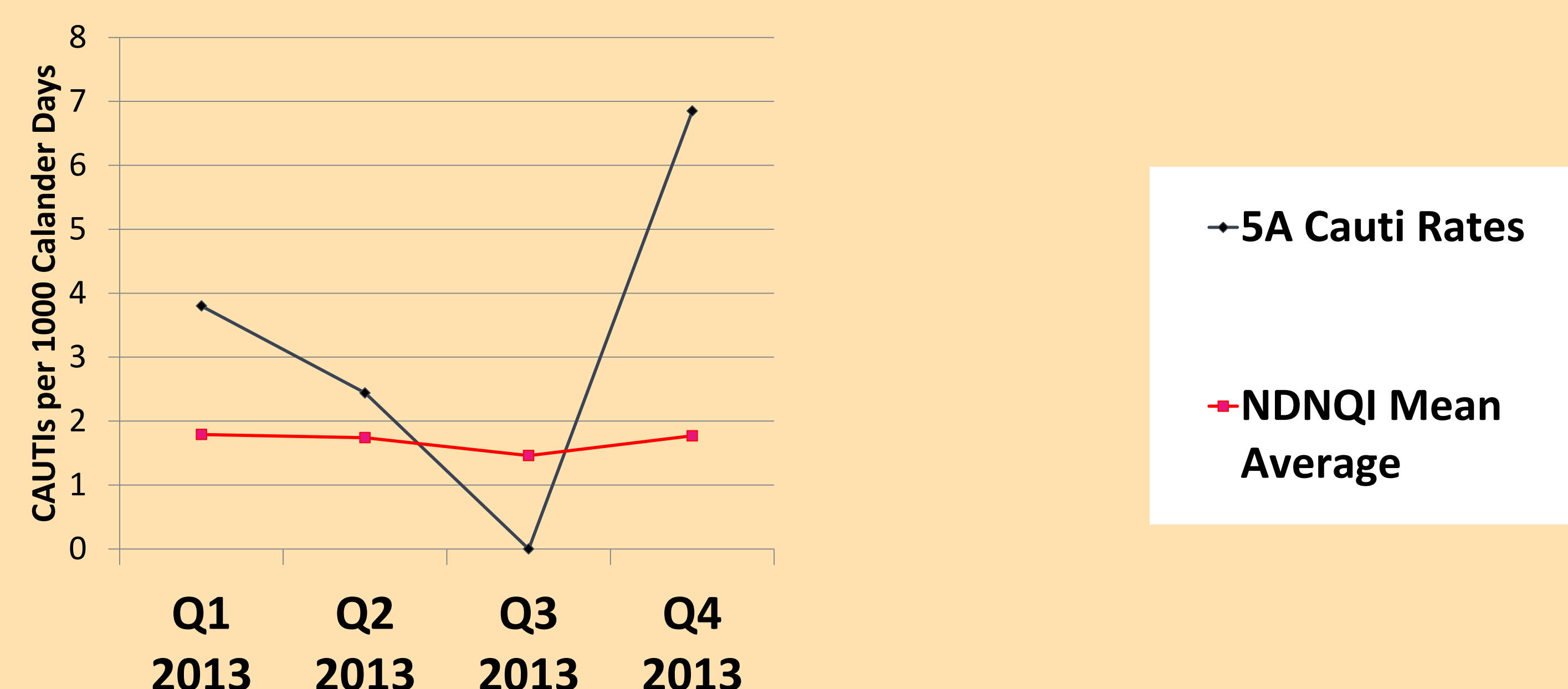
Before the CAUTI initiative was implemented, the incidence of CAUTIs per 1000 days on the 5A unit was 3.8 in quarter one of 2013, 2.44 in quarter two, zero for quarter three, and 6.85 in quarter four.

As a result of analyzing potential and actual causes for the CAUTI increase, the following was discovered:

• Inconsistency in skills verification of experienced staff
• Inconsistency in new staff training during unit orientation
• Few opportunities for staff to perform and improve their techniques
• Confusion in the products to use for perineum care
• Variances in insertion and maintenance techniques

Problem Statement

Despite implementing Sentara's system-wide prevention bundle aimed at reducing and eliminating CAUTIs, the 5A Surgical-Orthopedic Unit had the second highest incidence of CAUTIs at Sentara Princess Anne Hospital in 2013 (NDNQI data).

Goal

The 5A nursing unit will eliminate the number of CAUTIs in patients, and will implement a defined and consistent process for foley catheter insertion and maintenance by nursing staff.

Methods

A thorough literature review was conducted to determine what the evidence- based practices are for foley catheter insertion and maintenance. As a result, the following actions were taken and continue to be implemented:

➤ Initial mandatory foley catheter education was provided to 100% of current nursing staff by the medical/surgical educators, with nursing staff performing return demonstration and verbalizing the steps for inserting a foley catheter using sterile technique
➤ The nursing staff signed a contract that these interventions would always be followed as an expectation on the nursing unit
➤ Mandatory two person assist is required on all foley catheter insertions by either RN/RN or RN/NCP
➤ Warmed disposable wipes are no longer used as the primary means of cleaning the patient's perineum
➤ Cleaning of the perineum occurs before foley catheter insertion, once a shift and PRN using wash cloths with Secura cleanser spray only
➤ Wash basins are disposed of and replaced daily
➤ During foley catheter insertion, all cleansing products in the foley catheter kit are used
➤ Catheter bag and excess tubing is placed in a clean wash basin while patient is in bed or chair to prevent contact with the floor

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Methods (Continued)

➤ The orange sticker from foley catheter kit or other blank sticker is placed on catheter bag with insertion date, time, and size of catheter listed
➤ Nursing staff are encouraged to provide peer coaching when incorrect patient foley care practices are observed
➤ Foley catheter education and insertion check-offs continue to occur with new and current nursing staff with less than 2½ years of experience
➤ Catheter tubing is properly anchored to the patient's thigh with approved anchor product

Results

5A CAUTI Rates
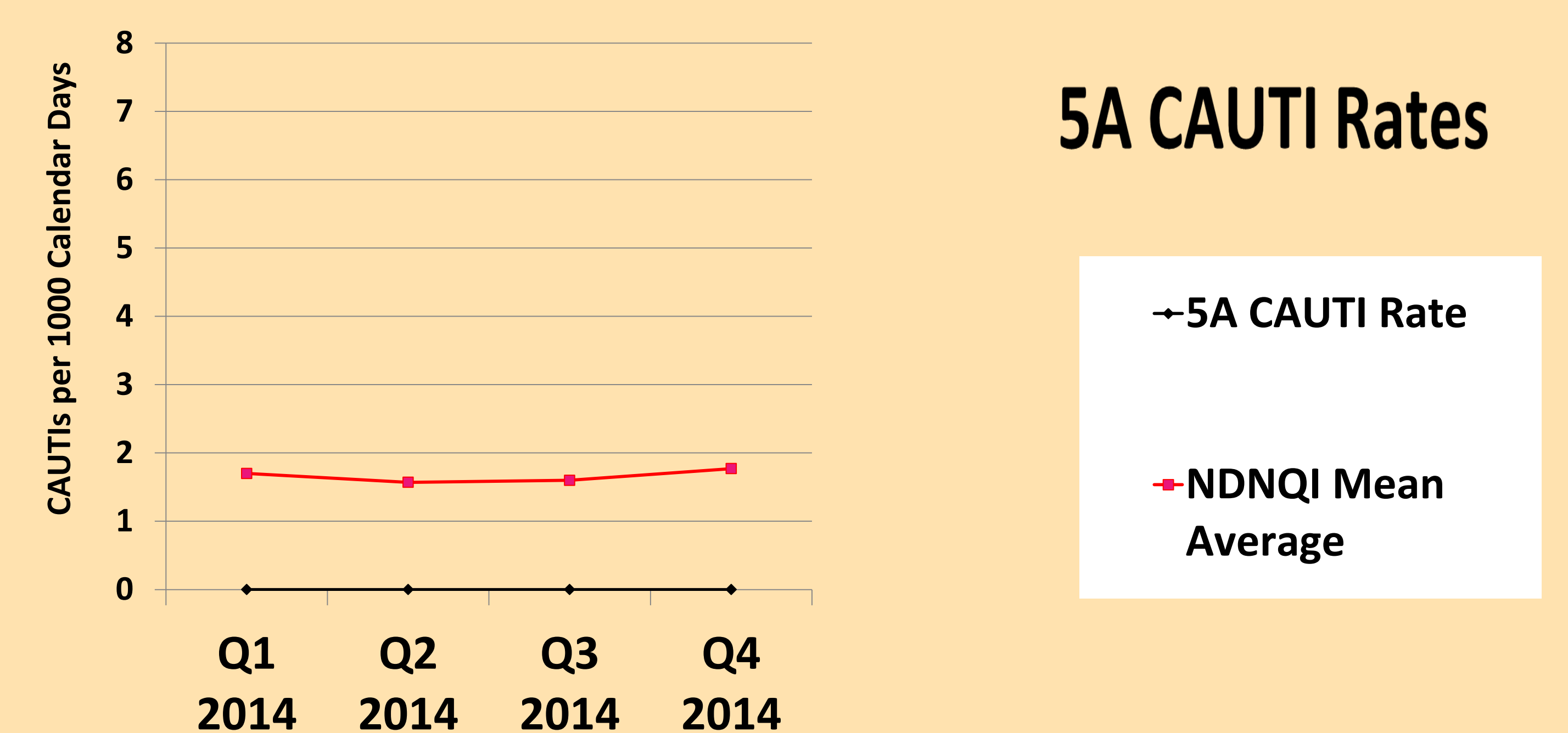
> During 2014 and at the present time, the 5A unit has zero CAUTIs.

Conclusion

Patient safety on 5A was restored and ensured through CAUTI prevention utilizing evidence- based interventions, teamwork, and effective communication.

Due to the success on the 5A nursing unit, other nursing units such as the Intensive Care Unit have implemented the same CAUTI prevention training with all their nursing staff, with the expectation of a reduction in CAUTI rates. Outcomes continue to be monitored and trended by Infection Control Practitioner quarterly for the successful elimination of CAUTIs.

References

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