N2K: Navel to Knees with CHG Trauma Nurses Initiative to Prevent CAUTI's

Wellstar MCG
Level One Trauma Center
Tracy Phillips MS, APRN, AGCNS-BC

Wellstar

I have no relationships with ineligible companies to disclose.

Wellstar MCG Shock Trauma Unit

- Wellstar MCG is home to the combined Adult level 1 and Pediatric level 2 trauma center
- The main hospital is a 478-bed, not-for-profit adult tertiary referral center
- Annual trauma volume is over 2800 activations
- Registry volume typically runs between 1800 – 2000 patients meeting the entry criteria
  - 2023 ended the year with 2020 registry patients
  - 63% male, 37% female
  - 85% blunt, 15% Penetrating
  - 67% direct from scene, 33% transfers
  - 41% fall, 23% MVC, 8.5% firearm

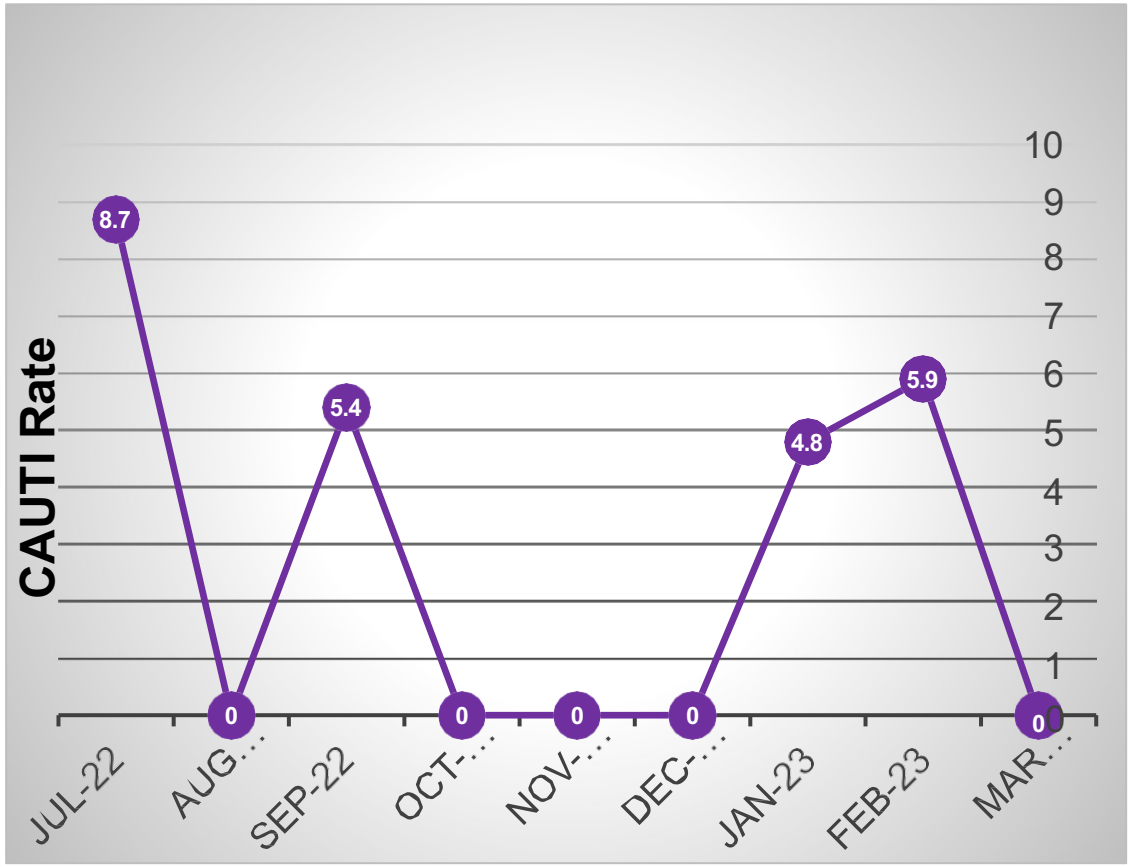
Objectives

- State one intervention that decreased the CAUTI rate for Wellstar MCG Shock Trauma
- Identify the process improvement model utilized for this project

Remember there is no failure, only feedback

Identifying Opportunity for Trauma Patients

- New CNS to SICU/STICU unit in April 2023
- Reviewed “never events”- hospital acquired infections
- Variability in CAUTI outcomes
- Reviewed current workflow
  - Daily assessment of catheter necessity
  - Daily CHG bath
  - Soap and water for incontinence
  - Soap and water for urinary catheter care
- Performed literature review
  - Urinary catheter care for critical care population
  - Urinary catheter care for the trauma population



Research Article

Navel to Knees With Chlorhexidine Gluconate

Preventing Catheter-Associated Urinary Tract Infections

Yvonne Schmudde, MS, RN, CCRN, CNE; Kristi Olson-Sitki, MSN, RN, NE-BC; Jennifer Bond, MS, RN-BC, CCRN-K; Jill Chamberlain, PhD, RN, CNE, CHSE

- After the implementation of the new standard the 9-month average catheter associated urinary infection rate decreased from:

3.06/1000 UCD

.46/1000 UCD

*UCD (urinary catheter days)

Comparative of 2% chlorhexidine gluconate-impregnated cloth to 4% chlorhexidine as topical antiseptic prior to surgery.

This study was a matched-pair, bilaterally randomized, open-label, parallel clinical trial

Direct comparison was made at 10-minute, 30-minute, and 6- hour time points for the two sites

2% CHG clothes for the inguinal sites resulted in a significantly greater $\log_{10}$ microbial reduction at all the intervals (10 minutes, $P < .000001$; 30 minutes, $P < .0001$; and 6 hours, $P < .01$)

2% CHG clothes were further challenged with a moist test site (inguinal), to achieve the required 3 $\log_{10}$ microbial reduction within 10 minutes, the 2 % CHG cloth demonstrated a near flat line of greater than a

3 $\log_{10}$ reduction over the 6-hour period

Wellstar

Is it okay to use the CHG cloths for routine bathing ? Is CHG safe to use on the perineum?

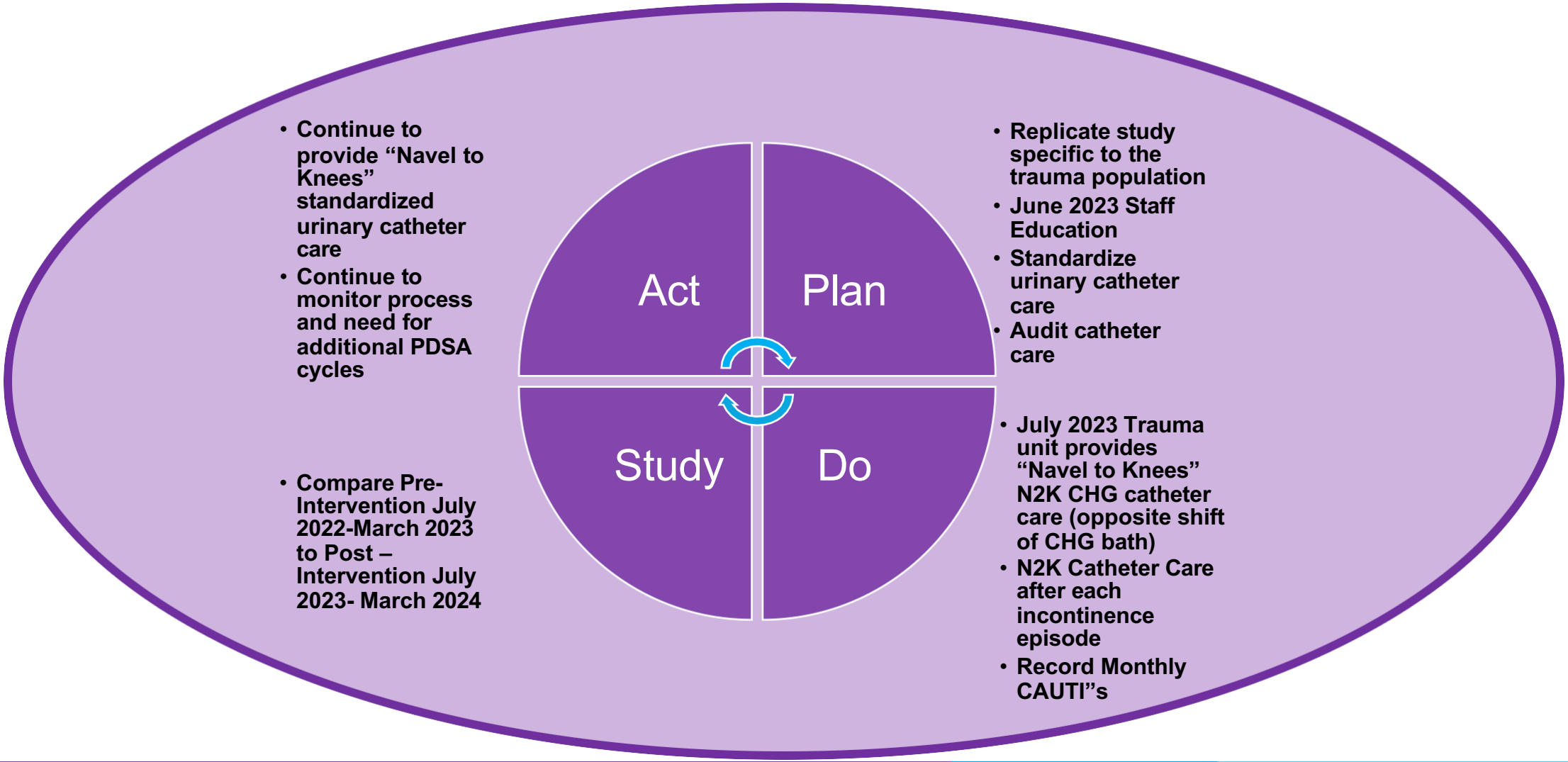
The cloths are *labeled based upon the original studies*

Many large clinical trials have now shown that routine CHG bathing reduces serious infections, even in critically ill patients.

Over 1 million CHG baths have been given in clinical trials with the direct instructions to clean male and female perineum.

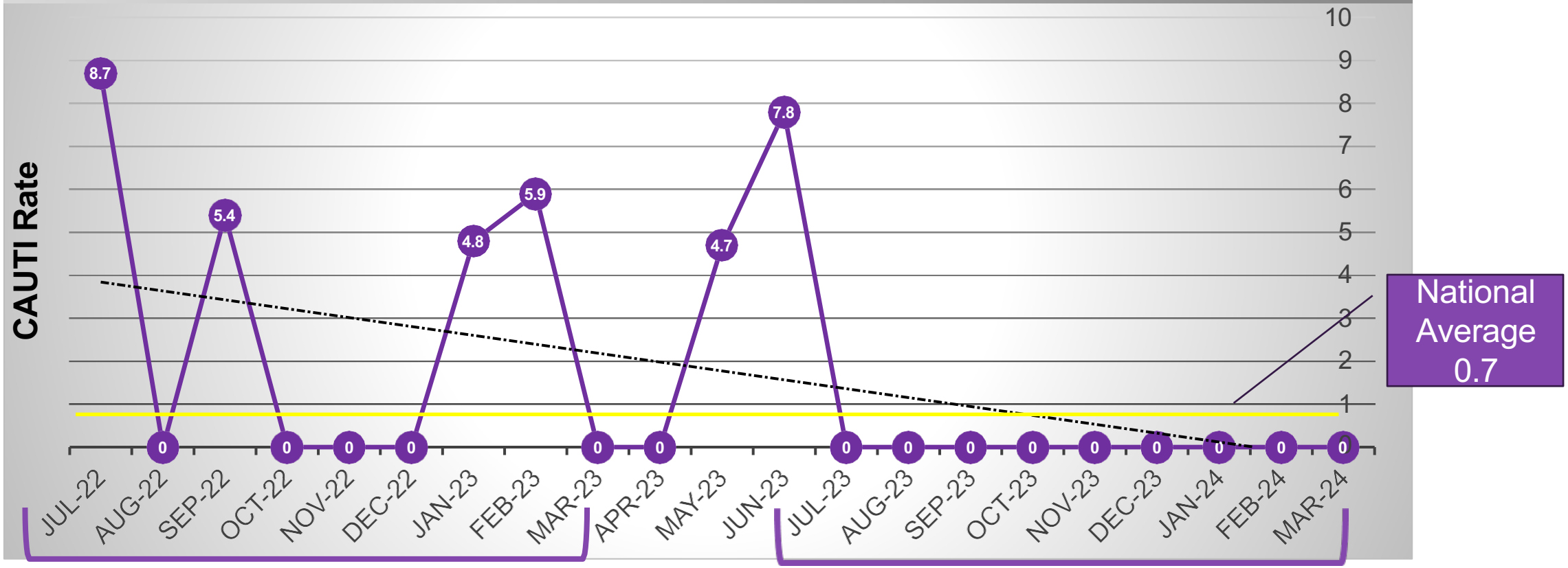
Nearly all U.S. hospitals now use CHG as their soap for routine bathing of ICU patients. This type of routine bath has been used in millions of patients and is well-tolerated and safe.

Project Plan and Interventions



Project Evaluation

- Pre-intervention 9-month average CAUTI rate 2.8/1000 urinary catheter days
- Post-intervention rate of zero, 100% IMPROVEMENT



Advanced Practice Providers

Questions?

References

- Agency for Healthcare Research and Quality Talking Points for Chlorhexidine Bathing. (2022, March 31) https://www.ahrq.gov/sites/default/files/wysiwyg/hai/abate/faqs/talking-points-chg-bathing.pdf
- Charles E. Edmiston Jr, PhD, CIC, Gary R. Seabrook, MD, Christopher P. Johnson, MD, et al. (2007) Comparative of a new and innovative 2% chlorhexidine gluconate-impregnated cloth with 4% chlorhexidine gluconate as topical antiseptic for preparation of the skin prior to surgery. American Journal of Infection Control 35(2), 89-97
- Marcia Maxwell RN, MS, CNS, CCNS, CCRN, Kristy Murphy RN, BSN, MSc & Maude McGettigan RN, BA, CIC. (2018) Changing ICU culture to reduce catheter-associate urinary tract infections. Canadian Journal of Infection Control 33 (1), 39-43
- Yvonne Schmudde, MS, RN CCRN, Kristi Olson-Sitiki, MSN, RN, Jennifer Bond MS, RN-BC et al. Navel to Knees with chlorhexidine gluconate, preventing catheter-associated urinary tract infections. (2019) Dimensions of Critical Care Nursing 38 (5), 236-240.