

# Wiping CAUTIs Away With CHG

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## BACKGROUND

Catheter-associated urinary tract infections (CAUTIs) continues to be a concern within the healthcare arena. It is estimated that a CAUTI occurrence can range between \$4,694-\$29,743 with additional estimated cost of \$13,793 (AHRQ, 2017). While decreasing a CAUTI remains an ongoing challenge, developing preventative strategies will prove advantageous not only for the patient but for the organization.

## PROJECT AIM

The aim of this pilot project initiative is to decrease CAUTIs by 50% with integrating FDA approved and well researched chlorhexidine gluconate (CHG) products into standard of care for ECU Health Medical Center Inpatient Rehab patients.

## PROJECT DESIGN/STRATEGY

Inpatient Rehab (IPR) consists of 75-beds that is host to specialty services and accommodates a diverse patient population. For many patients, complications stemming from their diagnosis causes a loss and/or decrease in their urinary function, resulting in an indwelling urinary catheter (IUC). While intermittent catheterization is preferred, an indwelling catheter is often unavoidable. In June 2022, IPR experienced an increase with 5 reported CAUTIs. While reviewing the CAUTI surveillance using National Healthcare Safety Network (NHSN) guidelines, development for a chlorhexidine gluconate (CHG) pilot project emerged using 2% CHG wipes versus 4% CHG solution.

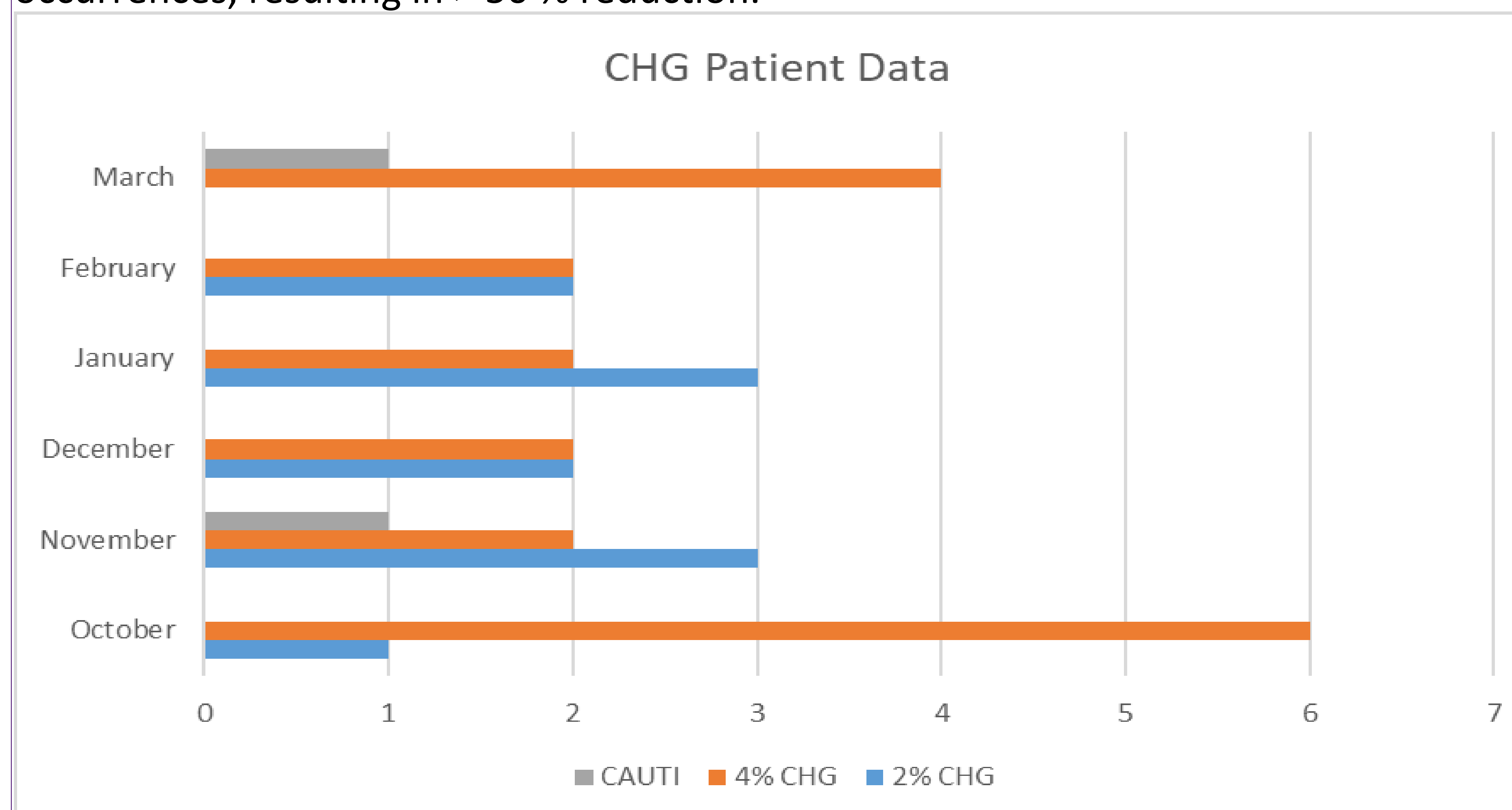
## CHANGES MADE (PDSA CYCLES)

**The design for this initiative entails the evaluation of the usage of the 2% CHG wipes and the 4% CHG bottle.**

- Patients with IUC on the Rehab Medicine Unit will receive a CHG bath and IUC care using the 4% CHG bottle along with soap and water.
- Patients with IUCs on the remaining Rehab Units (Brain Injury, Neuro, Peds, and Rehab Comprehensive Care) will receive a CHG bath and IUC care using the 2% CHG wipes.
- Education for staff members (RNs, CPs, and OTs) were initiated throughout the units.
- An IRB was obtained and signage was created to identify patients requiring CHG baths.
- Multiple in-services were performed to promote the new process.
- Continuation of ongoing education regarding CHG usage was performed through daily (morning and evening) staff huddles, during new employee orientation, and just-in-time training for non-core staff members.

## RESULTS/OUTCOMES

During a 6-month duration, 29 patients participated. There were only 2 CAUTI occurrences, resulting in > 50 % reduction.



## LESSONS LEARNED

Dissemination of incorporation and effectiveness of CHG yielded in 2 CAUTI occurrences. These CAUTI occurrences were from the 4% CHG target group. A root-cause-analysis (RCA) identified limiting factors, including:

- chronic renal calculi
- body habitus
- knowledge-deficit from non-core staff members

**A cost-benefit analysis was performed to determine:**

**The best cost savings:**

- Continuation of CHG baths and IUC care using 2% wipes
- Replacement of the 2% CHG baths with soap and water, but continued usage of the 2% CHG wipes for IUC care

**Overall cost-savings for HAI reduction:**

- Estimated > \$60,000 in CAUTI related expenses saved

**Feedback:**

- Rehab leadership
- Team members (RNs, CPs, Therapists)
- Patients
  - Decreased length of stay
  - Increased patient satisfaction

## NEXT STEPS

The usage of 2% CHG wipes has warranted an evidence-based practice approach, proven to be beneficial for our patients that require an IUC. As a continued effort to decrease CAUTI occurrences, the Rehab Units currently continues to use only 2% CHG wipes for IUC care. An additional element of change, in order to increase cost-savings, has resulted with the decision to use soap and water for bathing, tailored with the usage of 2% CHG. While this new process continues, it will allow continued data to be collected and analyzed to see if this will promote further positive advantages, which is paramount not only for the well-being of our patients, but for our organization.

## ACKNOWLEDGEMENTS

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