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A Multifaceted Approach using Implementation Science Methods to Increase CHG Bathing Compliance and Reduce Central Line Associated Blood Stream Infections on a Non-ICU unit

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A Multifaceted Approach using Implementation Science Methods to Increase CHG Bathing Compliance and Reduce Central Line Associated Blood Stream Infections on a Non-ICU unit

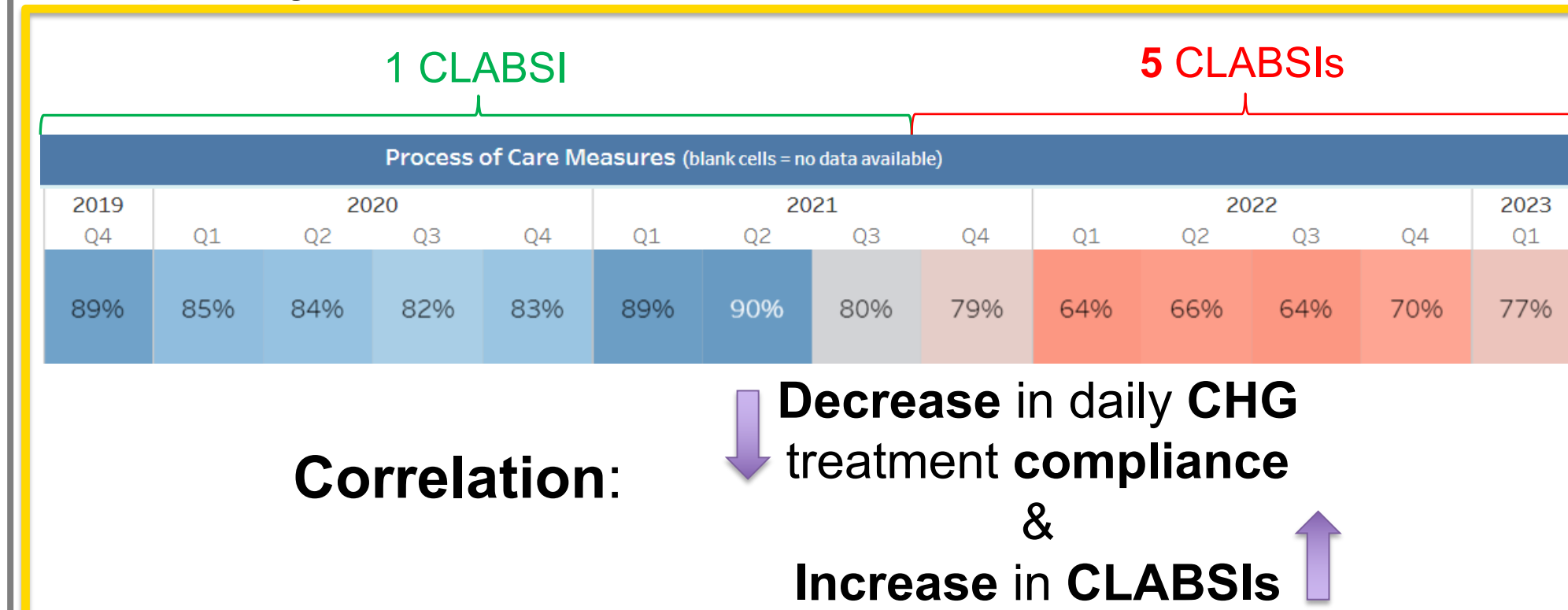


Emily Warwick MSN, RN- BC

Background

The Acute Care Surgery unit is a 28 bed Progressive and General LOC post-op unit at VCU Health. Unstable and Inexperienced Staffing: High turnover, No full time PCTs and 46% of overall RNs were agency. Central Line Associated Blood Stream Infections (CLABSI) rates above national benchmarks.

A Gap Analysis revealed:



Gaps in Knowledge and Belief

- Team Members
 - Team members did not view CHG bathing as a priority task to complete
 - Team members unaware of evidence-based resource handout available to them and patients
 - Unit not meeting any CHG compliance measure goals including documented refusals, non-CHG treatments, no documentation
- Patients
 - High percent of patients refusing CHG and receiving Non-CHG treatments suggests patients are not being adequately educated
 - Three of five patients with CLABSIs had refused or had Non-CHG treatments documented

Evidence

- Daily CHG bathing can reduce hospital acquired bloodstream infections in non-ICU patients
- Multifaceted interventions approach effective strategy to improve CHG compliance (can address team member and patient barriers)
- Audit & Feedback and Education interventions (Implementation Science) found most often in literature with positive results

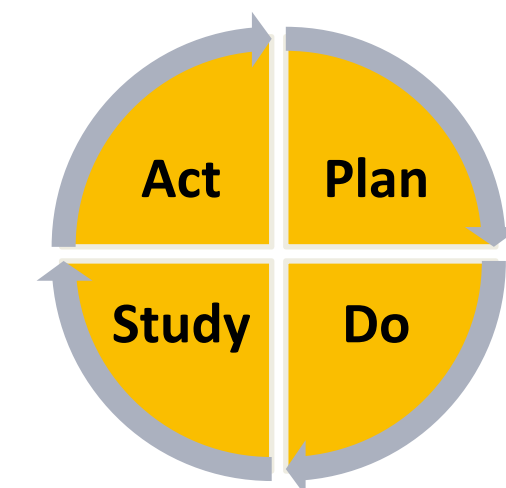
Aim

- Increase patient CHG treatment compliance to $\geq 80\%$ and reduce refusals and Non-CHG treatments to $\leq 5\%$ in PDSA cycles 1-3
- Reduce No documentation to $\leq 5\%$ to more accurately measure compliance
- Sustain these results past completion of PDSA cycles

Objective

- Reduce CLABSIs on Acute Care Surgery unit

Methods



Multifaceted implementation methods used to improve team member and patients' compliance with daily CHG bathing.

Implementation Science

- Cycle 1: February 13-28, 2023
- Cycle 2: March 1- 14, 2023
- Cycle 3 March 16-31, 2023
- Unit team members included in Study portions of each PDSA cycle

- Targeted team members
- Change behaviour and beliefs about the best practice

Staff Education Outreach

Daily Audit and Feedback

- Epic Secure Chat
- Safety Huddle board

Bimonthly Audit and Feedback

- Emails
- Reinforced in Staff Meetings

Nudging

- Targeted patients (also staff)
- Subtle changes to choice architecture or the framing of information that can significantly influence behavior without restricting choice

Changing Term from "baths" "wipe downs" --> "Treatment"

- Signs above wipe warmers

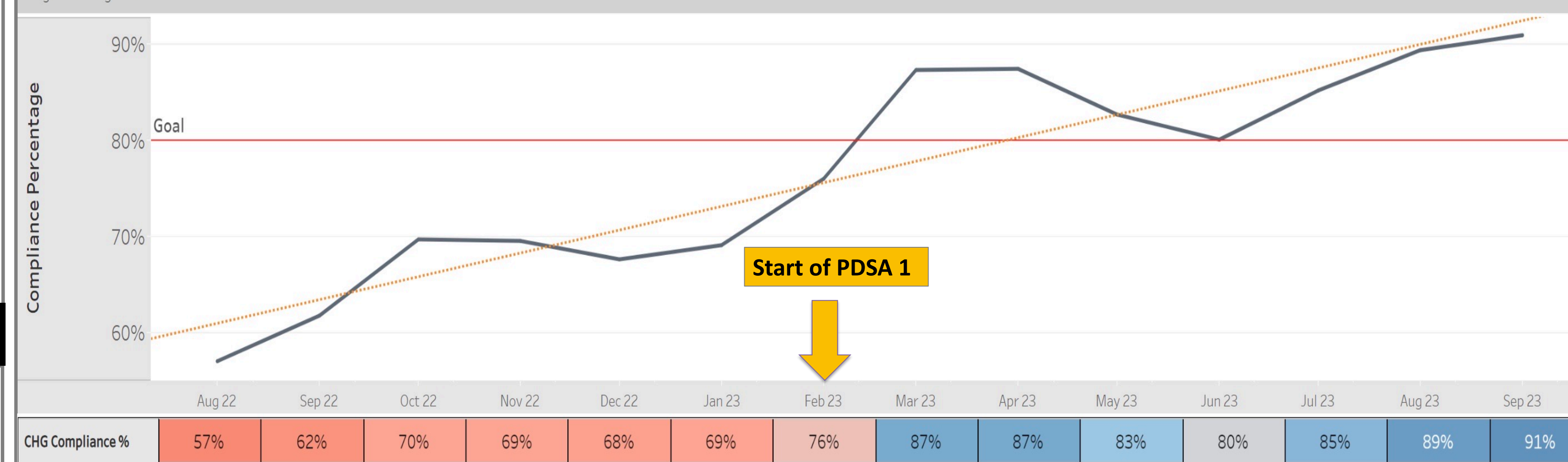
New Patient Education Wall Signs

Education team members instructed to provide patients and when instructed to provide

Outcomes

CHG Bathing Percentage

Target is over goal line



Documented Refusal

Target is under goal line



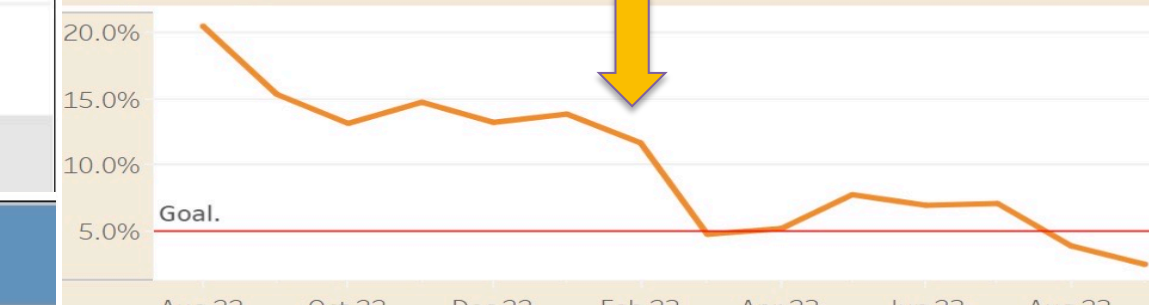
Documented Non-CHG Treatment

Target is under goal line



No documentation

Target is under goal line



ZERO CLABSIs have occurred on the Acute Care Surgery unit since the beginning of the first PDSA cycle in February 2023 through October 2023.

Conclusions

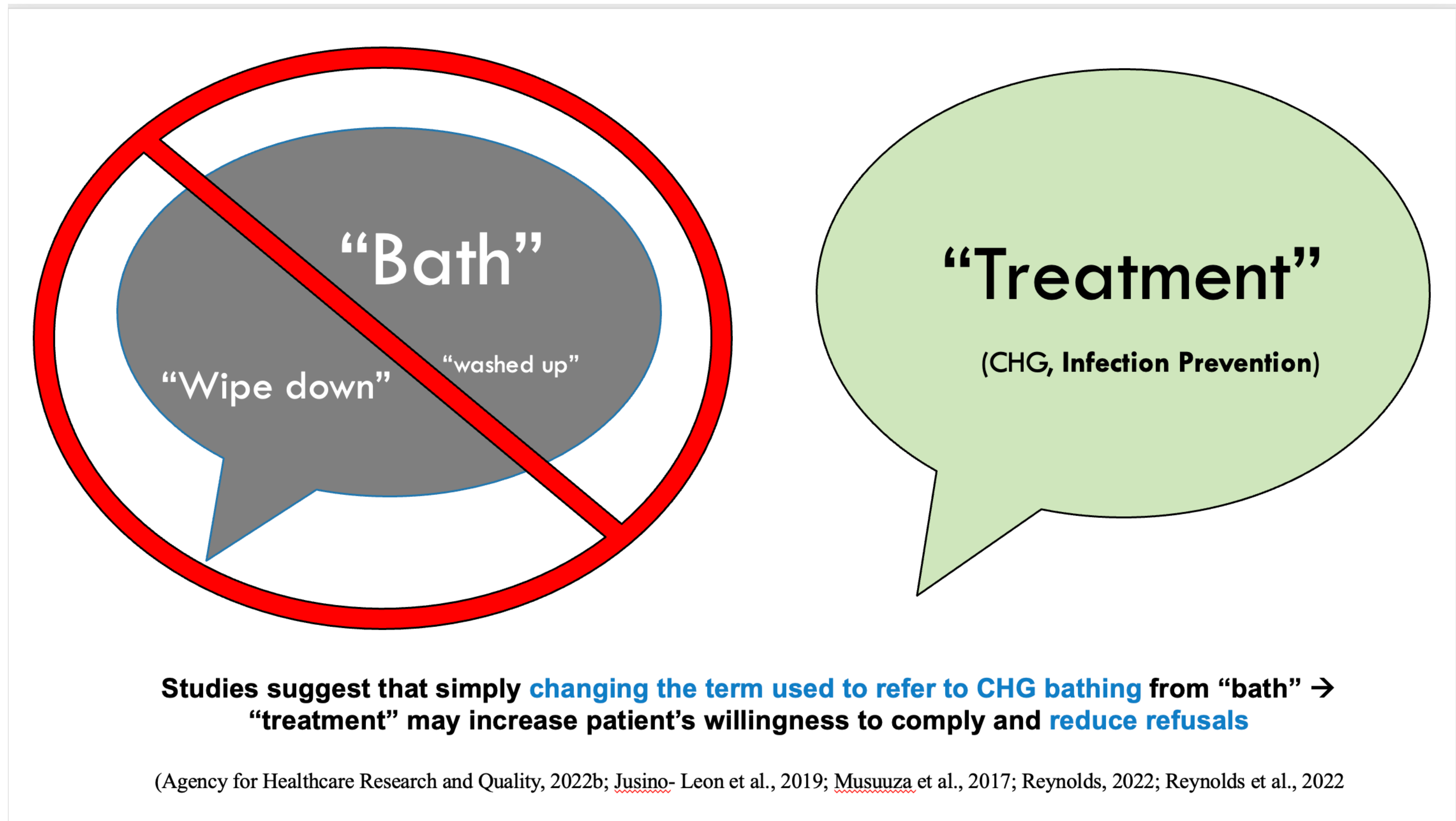
- Using multifaceted methods supported by Implementation Science helps improve implementation and compliance of daily CHG bathing and prevent CLABSIs
 - Audit & Feedback: Multiple forms- daily and bimonthly, reveal results over time
 - Education: Team members AND Patients

Resources

QR Code

- Slide: [Sign hung above wipe warmers](#)
- Slide: [New wall sign in patient rooms](#)
- Slide: [Audit and Feedback email example](#)
- Slide: [Audit and Feedback secretary Epic secure chat template](#)
- Slide : [References](#) (2 Pages)

Team Member Nudge and Implementation Science Educational Resource Sign Intervention:



The diagram consists of two speech bubbles. The left bubble is grey and contains the text "Bath" in large white letters, with "Wipe down" and "washed up" in smaller white letters below it. This bubble is crossed out with a large red circle and a diagonal slash. The right bubble is light green and contains the text "Treatment" in large black letters, with "(CHG, Infection Prevention)" in smaller black letters below it.

Studies suggest that simply **changing the term used to refer to CHG bathing from “bath” → “treatment” may increase patient’s willingness to comply and **reduce refusals****

(Agency for Healthcare Research and Quality, 2022b; [Jusino- Leon et al., 2019](#); [Musuuza et al., 2017](#); Reynolds, 2022; Reynolds et al., 2022)

Patient Nudge and Team Member Implementation Science Educational Resource Sign Intervention:

**Reduce your risk
for Infection:
Complete CHG
Treatment *Every Day***

- **CHG** is proven to **remove bacteria better than regular soap and water**
- **CHG** provides **24 hour | protection against infection**

Content in this sign supported by the literature (Caya et al., 2019 Agency for Healthcare Research and Quality, 2022a; Caya et al., 2019; Jusino-Leon, 2019; Reynolds et al., 2022 Vanhoozer et al., 2019).

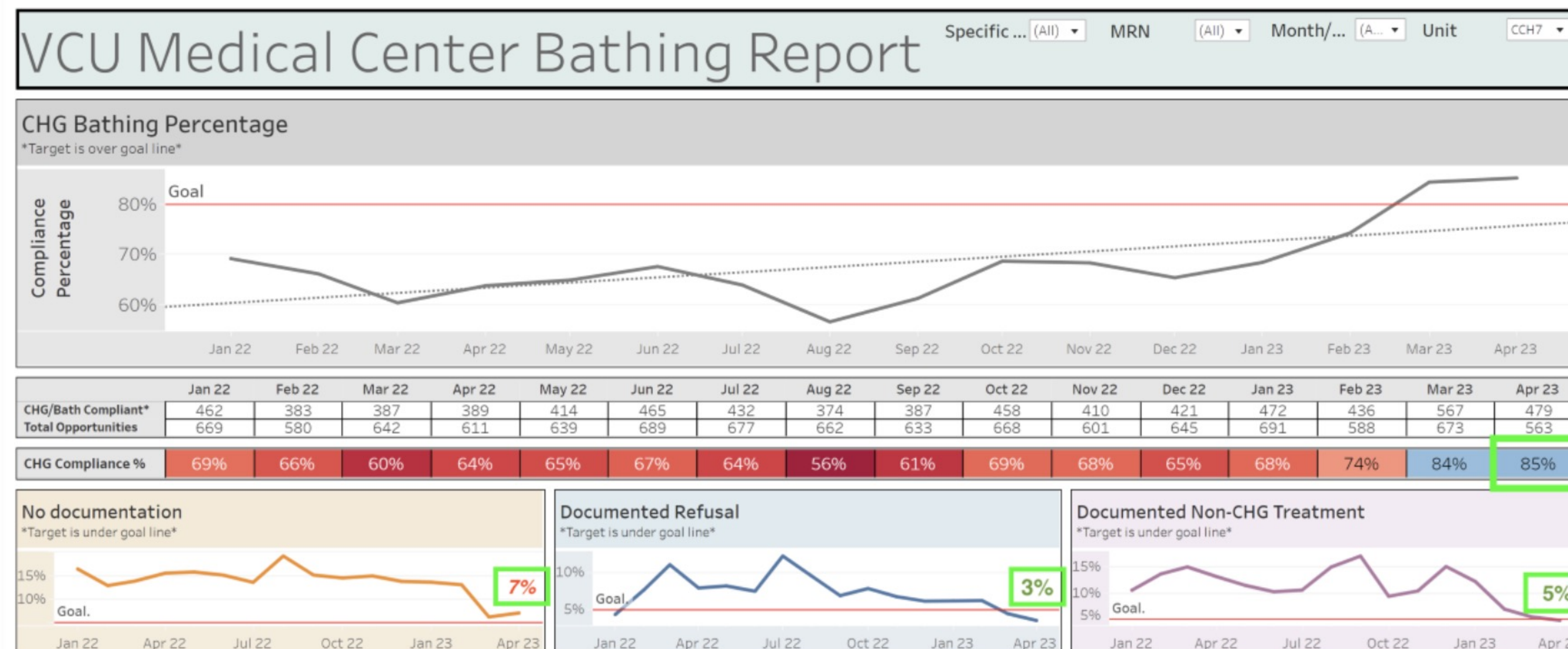
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Audit and Feedback Email Example



Team Member Implementation Science Audit and Feedback Bimonthly Intervention:

C7,
You all continue to achieve our **CHG** compliance goals!
For the entire month of **April** we achieved **85% CHG compliance!!!** 🎉🎉
We also **exceeded our Refusal goal at 3%** and **met our Non-CHG treatment goal at 5%!!!!**
We also had **ZERO CLABSIs!!!**



Our low refusals and non-**chg** treatments reveal that you all are educating your patients about the importance of **CHG** and may indicate improvements in escalating refusals. 🙌 Thank you all for the outstanding work.

Please ensure all of our patients have documentation in their hygiene column and we will get that no documentation to our goal to ensure we have accurate data that reflects the hard work you are doing.

p.s. Aren't those steep data lines beautiful?! 😍 We've come a long way!!

Thank you,

Team Member Implementation Science Daily Audit and Feedback Intervention:

Secretaries fill out the following template and send to the Epic “shift group chat” which includes RNs and PCTs working during that shift at 1400 and 2100:

Great work everyone (or other positive statement), we have had _____ CHG treatments completed so far today! Rooms remaining to receive CHG treatments include: _____ (insert # treatments left and the room numbers). (Insert positive statement here)

Suggestions provided to Secretaries for positive statements:

- “You all are doing great!”
- “Keep up the great work” “
- It’s been a busy day, we got this!”
- Etc.

Including Secretaries was used as a way to create multidisciplinary team member collaboration, which literatures suggests can help improve CHG compliance (Agency for Healthcare Research and Quality, 2022a; Caya et al., 2019; Knobloch et al., 2021).

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