

#### UCSF Benioff Children's Hospital Oakland

## A Patient-Centered Approach to Improve Bathing Adherence in Central Line-associated Bloodstream Infection Prevention Efforts in a Pediatric Hematology/Oncology/HSCT Unit Amanda Lucas MS, FNP, RN, CIC, Michelle DeBono RN, Katherine Eng RN, PNP, Ashley Ramirez MS, RN, CPNP-AC,

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### Background

CLABSI is an organizational priority. BCH is aligned and submits outcome data to the Solution for Patient Safety (SPS) for up-to-date evidence best practices (EBP). BCH has a cross-bay goal of decreasing the CLABSI rate by 10% for the fiscal year of 2023.

BCH Oakland continues to benchmark below the national average but experienced an increase in both Mucosal Barrier Injury (MBI) and non-MBI combined CLABSI rates in the 2022 fiscal year. Since August 2022 we consistently fell below the 75% adherence rate for Chlorohexidine gluconate (CHG) compliance. Based on the data, opportunities to improve elements of the CLABSI bundle adherence were explored. The results of a needs assessment identified low satisfaction with CHG products in Hem/Onc/HSCT teen population. In addition, EBP recommendations in the Heme/Onc/HSCT community are shifting the focus off CHG and increasing the focus on the daily bathing. Of note, SPS changed CHG from *required* to recommended guidelines excluding the hem onc population.



**Gaps In Protection** Most hospitals decolonize patients with Chlorhexidine Gluconate (CHG) but do not address perineum decolonization Current Practice Does Not Address Gut Related Pathogens In The Perineum, Which Can Lead To Infections In Tracheotomy tube Central venous cathete PICC line Urinary catheter Surgical sites Soap and water or equivalent wipes do not decolonize the perineum and can strip away the skin's natural antimicrobial barrier and defensive functions. Most products that can decolonize the skin are either contraindicated for use in the perineum and in mucosa or lack safety and efficacy data. References: (1) Dudeck MA et al., Antimicrobial-resistant pathogens associated with adult healthcareassociated infections; Summary of data reported to the National Healthcare Safety Network, 2015-2017 Infection Control and Hospital Epidemiology (2020), 41, 1-18. Doi:10.1017/ice.2019.2

### **Project Goals**



Increase Compliance

• Provide an EBP alternative for daily bathing treatment for CLABSI prevention



Track Outcome Data • CLABSI rate • CLAMBI rate

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# WE AIM TO IMPROVE CLABSI BUNDLE COMPLIANCE BY **INCREASING DAILY BATHING "TREATMENT" TO ≥ 80% COMPLIANCE**

### **Project Plan and Interventions**



	2022-Apr	2022-May	2022-Jun	2022-Jul	2022-Aug	2022-Sep	2022-Oct	2022-Nov	2022-Dec	2023-Jan	2023-Feb	2023-Mar
# of CLABSI Events	1	1	2	2	4	1	1	1	1	0	0	
HEM-ONC Central Line Days	591	606	545	572	544	448	418	398	361	419	399	
SPS Centerline (2.002)	2.002	2.002	2.002	2.002	2.002	2.002	2.002	2.002	2.002	2.002	2.002	2.002
Monthly SPS Rate	2.041	2.113	2.515	2,419	2.359	1.953	2.513	1.784	2.216	2.033	2.008	1.934
Centerline (3.231)	3.231	3.231	3.231	3.231	3.231	3.231	3.231	3.231	3.231	3.231	3.231	3.231
Monthly Hospital Rate	1.692	1.65	3.67	3.497	7.353	2.232	2.392	2.513	2.77	0	0	

#### Annotations

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Monthly SPS Rate	2021-Nov	Transitioned CHG treatment to recommended bundle element for Hem-Onc population
Monthly SPS Rate	2021-Aug	Start of CLABSI Hem-Onc Pioneer Cohort

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- gold standing for bathing treatment for CLABSI prevention
- Monitor and evaluate the pilot outcome to share at BCH crossbay structures
- Based on the clinical significance BCH CLABSI Taskforce will determine to adapt, adopt, or abandon further system-level (BCH) expansion.
- Disseminate findings with SPS and Hem/Onc/HSCT forums.

## UCSF Health Improvement Symposium 2023