

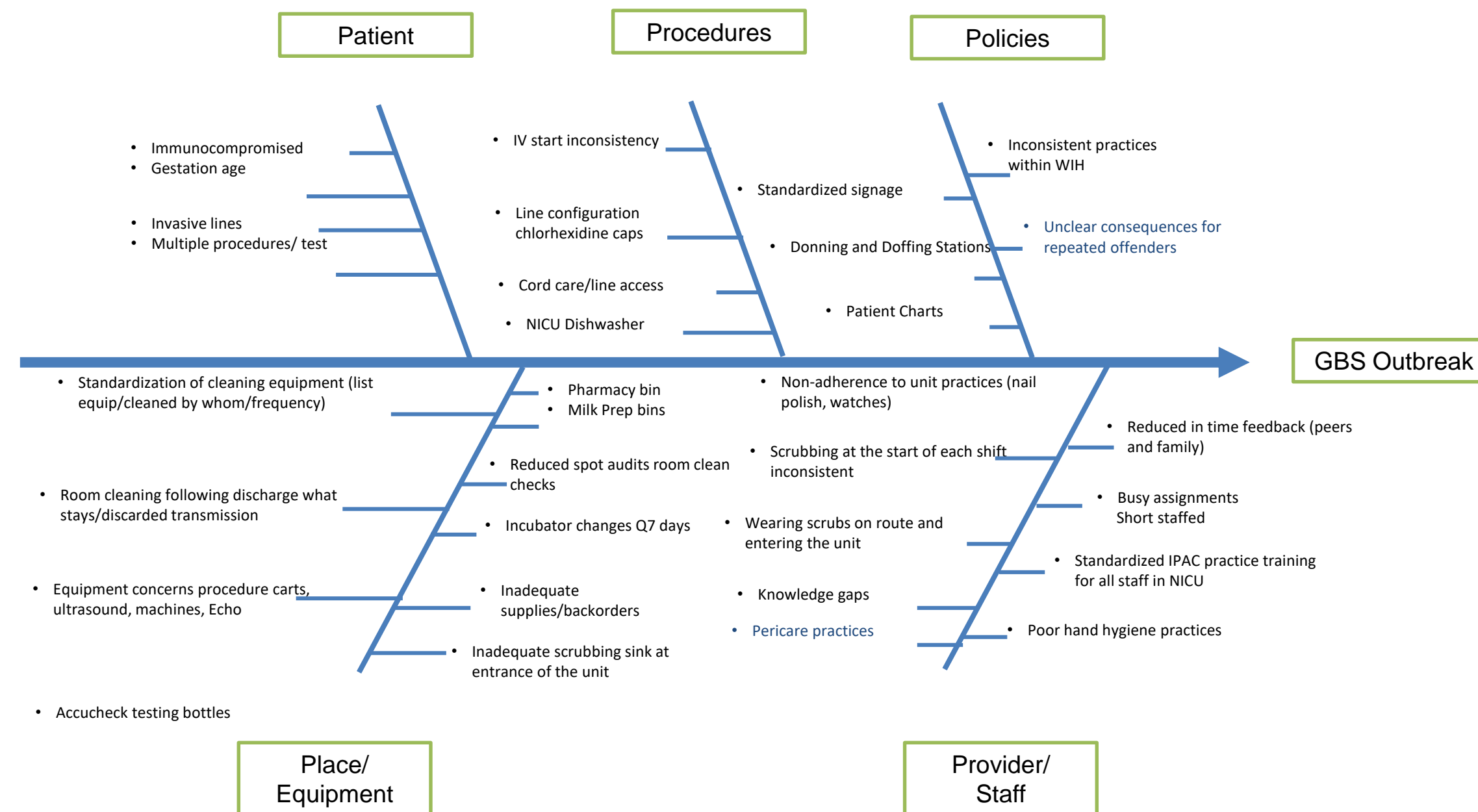
Background

- Group B Streptococcus (GBS) is a common pathogen that causes early-onset sepsis, typically through vertical transmission.
- However, GBS can be implicated in late-onset sepsis, though healthcare-associated GBS infection is rare.
- From August 2023 to November 2023, MSH NICU identified a localized outbreak of 5 late-onset GBS of 2 different clusters.

Process Outline

- We employed several strategies to obtain both qualitative and quantitative data to explore the causes of this outbreak, including reviews of index cases and safety reports, and surveying front-line staff.
- A multidisciplinary stakeholders meeting was created to engage in root cause analysis, including:
 - MD, RN, RT, Pharmacy, Dietician, Service Assistant, Milk Prep, IPAC RN and MD, Social Work, Human Factors, Allied Health Senior Leadership, NICU RN and MD Senior Leadership

Root Cause Analysis

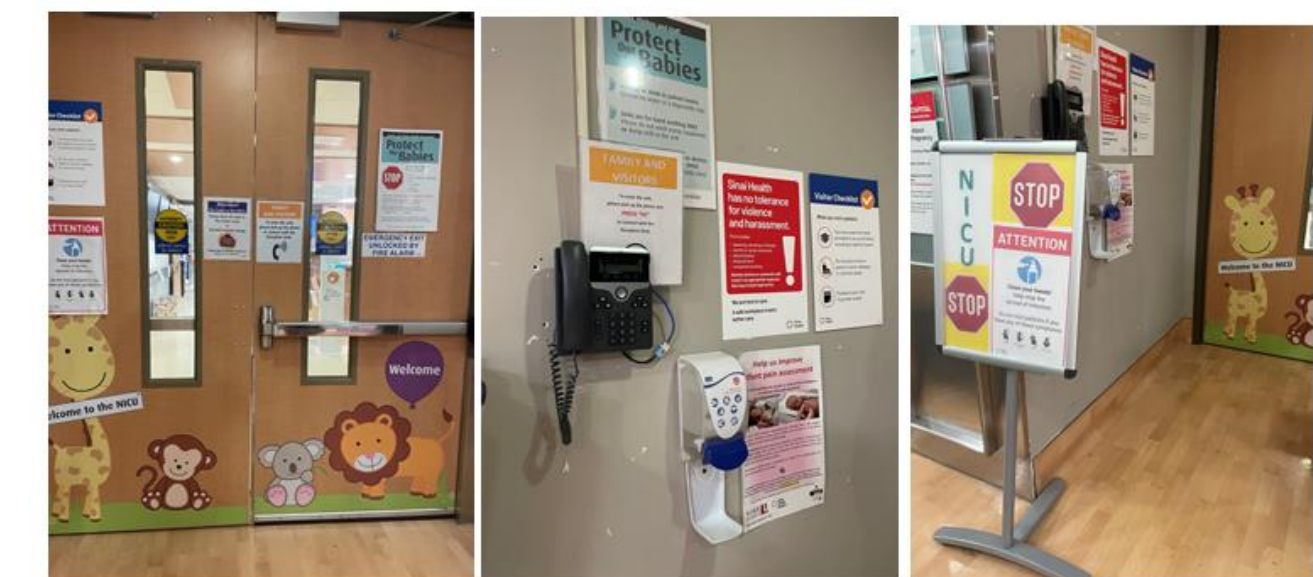


Mitigation Strategies

- Update of protocols for daily and high-touch cleans
- Standardization of additional precautions signs and PPE donning/doffing practices
- Improved hand hygiene compliance through infrastructure changes
- Review of terminal cleans and supplies to be discarded upon discharge
- Discontinuation of breast flange donation program

Current Practices and Barriers

- Bare below the elbow
- Gloves to be worn before accessing the line
- Scrub the Hub for 30s, dry for 5-10s
- Umbilical Cord Care plan
- Q96hour line change practices (prepped under laminar flow)
- Central Line Care plan on patient door and IV pole
- Moments of Hand hygiene/IPAC practices
- Clean vs. dirty end of bed
- Wiping down baby space prior to starting shift
- Wiping down equipment used between patients
- Short staffed and high patient acuity in the unit
- Product back orders
- High number of rotating staff
- Staff not complying with NICU practices
- Culture of the unit
- Leadership RNs not leading by example
- MDs/NPs not leading by example
- Lack of consequences for the staff not adhering to unit practices



Infection Prevention and Control in the NICU Environment

Background
Infection is a major contributor to morbidity and mortality in the NICU. Reducing healthcare associated infections and transmissions requires a team approach. The purpose of this document is to provide clear information to all individuals that enter the NICU.

Understanding the environment

- Hospital environment:** The corridors and main hallways; clean utility rooms; and family lounge.
- Room environment:** Computer area, the family space in each room, the fridge, and the medication bins.
- Baby space:** Touching the baby or anything connected to the baby.

Attention all employees, physicians, learners, volunteers and external partners, when in the NICU, you are required to follow these instructions:

- Before entering the NICU remove watches, jewelry, rings, nail polish and artificial nails must be bare below the elbows at all times.
- When entering the NICU scrub/wash to the elbows at the main hand wash station by the communication station for 15 seconds.
- Before entering a patient's room, perform point of care risk assessment and review the room signage to determine if the patient is on Additional Precautions and don appropriate PPE.
- Performs hand hygiene:
 - Before entering the room environment
 - Before contact with Baby Space
 - Before aseptic technique
 - After body fluid contact
 - When exiting the room environment
- All shared equipment must be cleaned by the user between each patient care visit, e.g., stetho, ultrasound, Accucheck, etc.)

Hand Hygiene Station

- TV Pumps
- Phototherapy Lights
- Islette
- Monitor
- Ventilator

Mount Sinai Health



Ongoing Surveillance

- Doubling the number of monthly peer-to-peer audits required
- Practice Breach Alert process developed to correct breaches

Outbreak declared over Feb 2024