



## EP7EO – Interprofessional Care

*EP7EOa: Provide one example, with supporting evidence, of an improved outcome associated with an interprofessional quality improvement activity, led or co-led by a nurse (exclusive of the CNO).*

- *Outcome data must be in the form of a graph and data table.*

### **Example EP7EOa: An Interprofessional Quality Improvement Project (PI) led by the Nurse Clinician to Reduce the Rate of Central Line Associated Blood Stream Infections (CLABSI) in the Neonatal Intensive Care Unit (NICU)**

#### **Problem**

KFSHRC-J implements PI projects which include multidisciplinary teams and nurses at all levels. Continuous quality improvement is fostered through a culture of interdisciplinary collaboration and communication. Results are shared throughout KFSHRC-J to benefit all employees and learn from others' experiences to create successful improvement outcomes.

KFSHRC General Organization commenced a journey to becoming a High Reliability Organization which included an organizational Zero Harm initiative as part of the patient safety strategy in 2019. CLABSI is one of the nurse sensitive key performance indicators measured on the organizational Zero Harm scorecard.

In December 2020, NICU had a CLABSI rate of 32.3 per 1000 device days, which alerted nurses in the NICU to address the issue.

#### **Goal Statement**

Reduce the rate of CLABSI per 1000 device days in the NICU at KFSHRC-J.

#### **Participants**

Table EP7EOa.1 below presents the interprofessional members of the NICU CLABSI PI project.

**Table EP7EOa.1: Participants in PI NICU CLABSI Project**

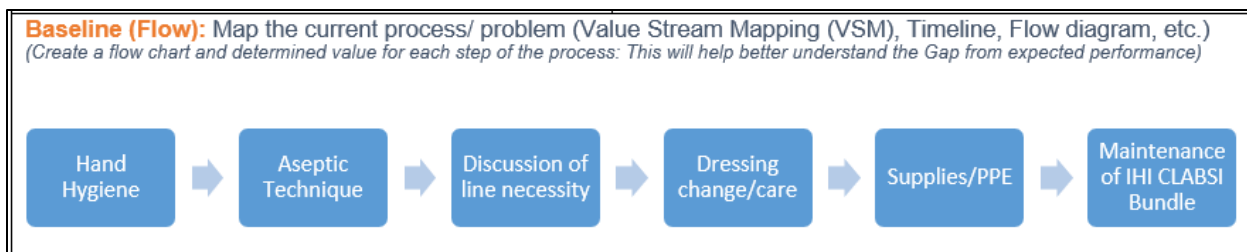
<b>Name &amp; Credentials</b>	<b>Job Title</b>	<b>Department</b>
Salma El Najjar, BSN RN	Nurse Clinician <b>PI Project Team Leader</b>	NICU
Liza Cronje, MCur RN	Head Nurse	NICU
Gillian Sedgewick, BSN RN, MSc	Program Director	Nursing Practice and Research
Annama John, BSN RN	Staff Nurse 1 (SN1) Clinical Nurse	NICU
Tyrrel Javier, BSN RN	SN1 Clinical Nurse Member NICU Unit Council	NICU
Fatma Ameen, BSN RN	SN1 Clinical Nurse	NICU
Gina Lape, BSN RN	SN1 Clinical Nurse	NICU
Gemma Arroyo, BSN RN	SN1 Clinical Nurse	NICU
Rahaf Khojah	Infection Control Practitioner	Infection Control and Hospital Epidemiology
Amal Zubani, M.D.	Consultant, Neonatologist	Pediatrics Department
Abdulmajid Al Mahbosh, M.D.	Assistant Consultant, Neonatologist	Pediatrics Department
Ali Atash, M.D.	Assistant Consultant, Neonatologist	Pediatrics Department

### **Description of the Intervention**

In January 2021, an interprofessional PI project was initiated by Salma El Najjar, BSN RN Nurse Clinician, and the interdisciplinary team, including nurses, physicians, and Infection Control and the Hospital Epidemiology Department staff, with members as listed in Table EP7EOa.1. The KFSHRC General Organization IACT methodology was followed, as described in KFSHRC General Organization Performance Improvement Plan (see OO2.3).

### **Identifying the Gaps**

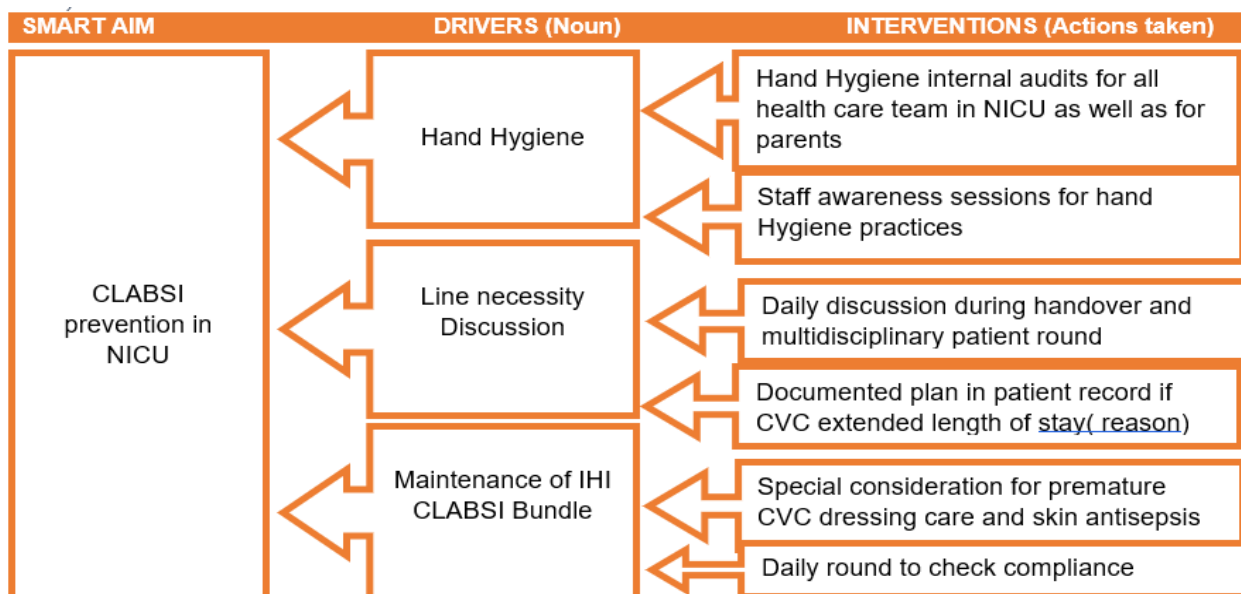
On January 19, 2021, the team met to review the NICU CLABSI data for 2020 and create a baseline mapping of the issues that may have contributed to patients developing CLABSI, as shown in Figure EP7EOa.1 below.



**Figure EP7EOa.1: Baseline Mapping of NICU CLABSI Contributing Factors**

Interprofessional Team Developed an Action Plan Using a Driver Diagram

The interprofessional team developed a driver diagram as part of the IACT PI project and identified desired actions, as seen in Figure EP7EOa.2.



**Figure EP7EOa.2: Driver Diagram NICU CLABSI Prevention**

Implementation of Action Plan (January to October 2021)

The interprofessional team used the Driver Diagram to guide actions to reduce the rate of CLABSI. Interventions started in January 2021 and were all completed by October 2021.

*Line Necessity Discussions*

Line necessity discussions commenced in January 2021. These discussions were conducted in the daily NICU safety huddle and multidisciplinary patient rounds. If a line remained in the patient beyond recommended duration, it was to be documented by the nurses with the reason.

*Compliance with Institute for Healthcare Improvement (IHI) CLABSI Bundle*

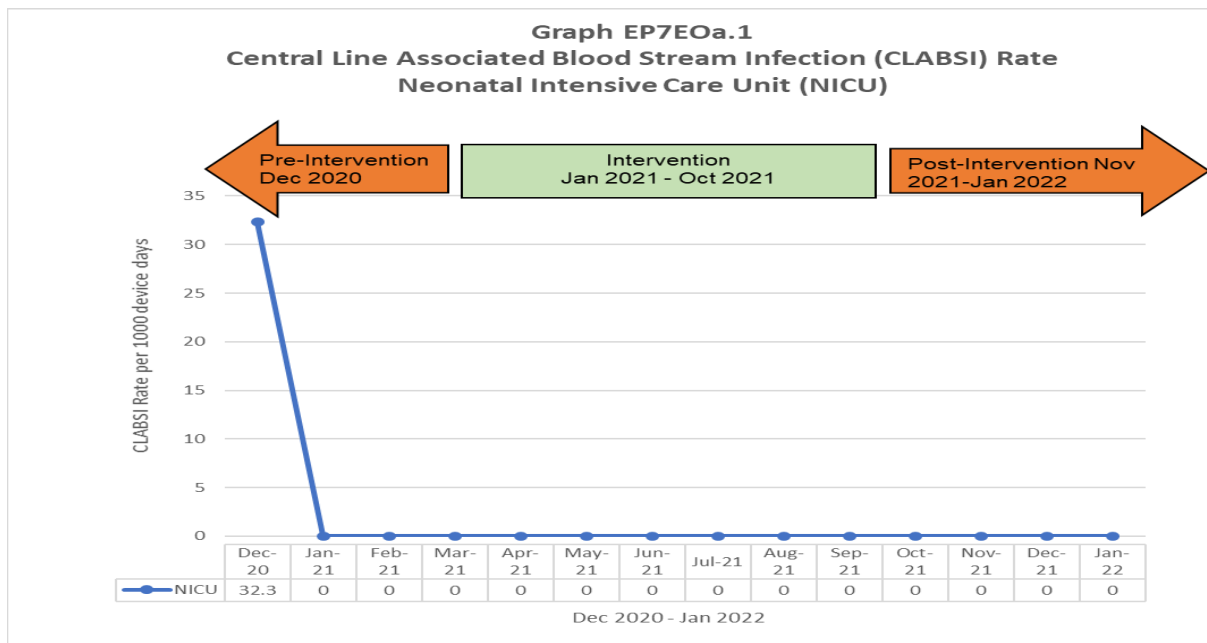
Bundle compliance audits were conducted from February 2021 to October 2021 (nine months). Audits were conducted on the compliance with the IHI CLABSI bundle of care. The parameters measured in the audits included line management, dressing management, and documentation. Hand hygiene compliance by all health care team members and parents of babies was audited. The Infection Control Practitioner Rahaf Khoja distributed a monthly report outlining the IHI CLABSI bundle compliance. In total, 176 audits were conducted for compliance with the IHI CLABSI bundle of care.

### *Education of the Health Care Team*

The team developed and presented education to the NICU staff, including medical, nursing, respiratory therapy, and infection control. A video was produced demonstrating different examples of incorrect practices that may contribute to the development of CLABSI in NICU, and the correct practice was demonstrated. The video was included in all education sessions. Four dedicated monthly education sessions were held in the NICU unit from April to July 2021.

### **Outcome**

Salma led the interprofessional PI Project to reduce the rate of CLABSI in the NICU to zero. In addition, the achievement of zero CLABSI rates contributed to the organizational objective of achieving Zero Harm to the patients. These outcomes are displayed in Graph EP7EOa.1 below.



**Graph EP7EOa.1: CLABSI Rate NICU**