



POKE-ing Wisely

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Aim

SMART Aim: To decrease the median number of skin breaks for infants <1500g in the first 2 weeks of life from 21 to 14 (30% reduction) by June 2024

Background

Pain in the neonatal period has long-term impact on the developing brain. Evidence supports that prolonged exposure to painful/stressful events are detrimental to the immature nervous system, and influence the early programming of the neuro-immune system. Failure to treat pain leads to long-term physiological, behavioural, and cognitive sequelae including altered pain processing, attention deficit disorder, impaired visual-perceptual ability or visual-motor integration

- This quality improvement project is focused on reducing the number of skin breaks our neonates experience during the first 2 weeks of life
- The most effective method to eliminate neonatal pain is to reduce the number of invasive procedures performed without compromising the care of infants

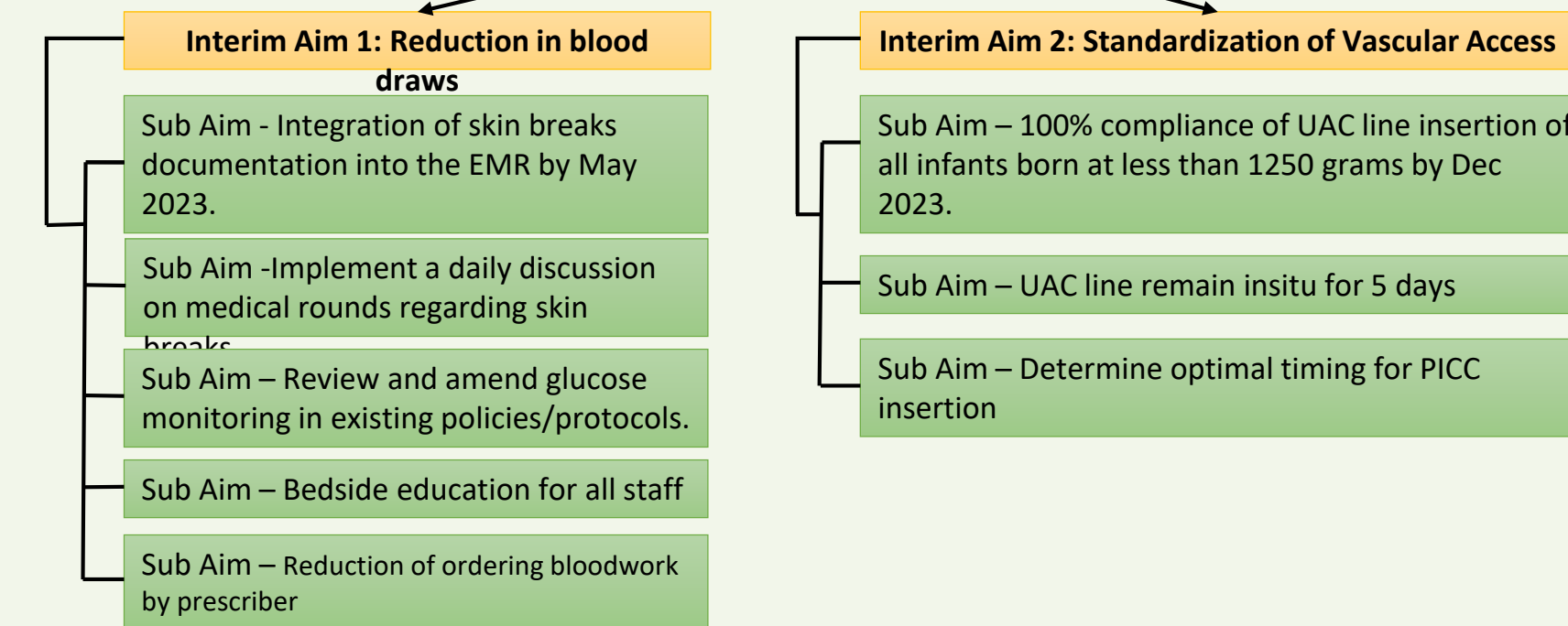
PDSA Cycle / Change plan

- PDSA #1:** Standardization of EMR Charting of Skin Breaks
- Implemented standardized charting of the number of skin breaks for all vascular access attempts and bloodwork into our EMR charting system
 - Analyzed data and determined a more accurate baseline
 - Allows for more accurate auditing
- PDSA #2:** Standardized Rounding Tool
- Standardizing daily rounds to include total number of pokes the baby experienced in the last 24 hours.
 - Prompts increased conversation and heightening awareness of the number of skin breaks for each baby.
- PDSA #3:** Visual Signage of Upcoming Bloodwork Outside of Each Patient Room
- a visual reminder of upcoming bloodwork outside of each patient room will eliminate the redundancy of bloodwork
 - Prompts increased conversation and heightening awareness of the number of skin breaks for each baby
- PDSA #4:** Standardization of Umbilical Line Insertion for Infants <1000g
- This PDSA cycle is currently ongoing
 - All inborn neonates <1000g will receive a UAC at birth and whether reduction in number of skin breaks are documented

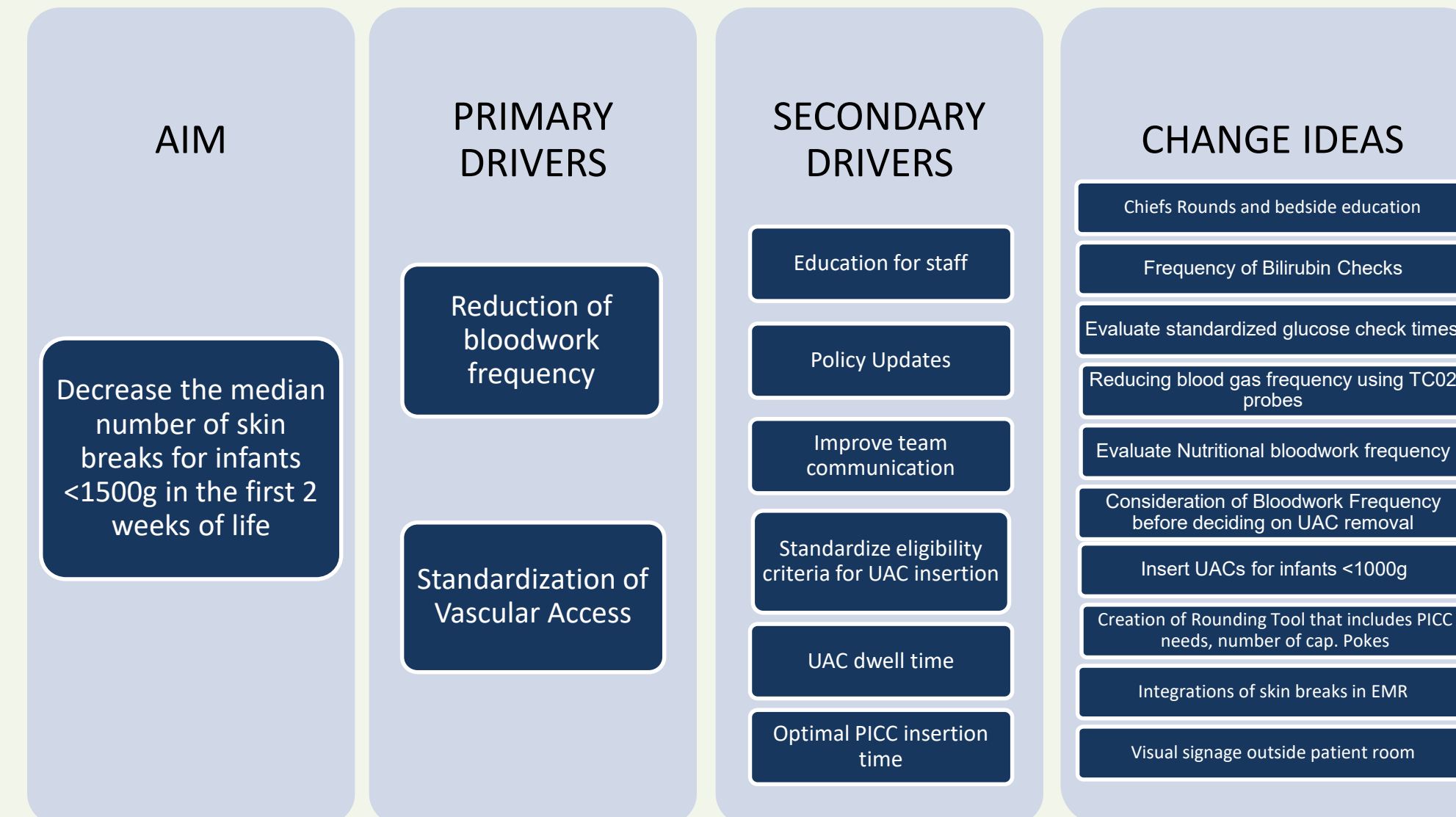
Hierarchy of Aims

Transformational Goal: Establish a Shared Mental Model for Neurodevelopmentally Conscious Care

SMART aim: Decrease the median number of skin breaks for infants <1500g in the first 2 weeks of life from 21 to 14 (30% reduction) by June 2024.



Driver Diagram

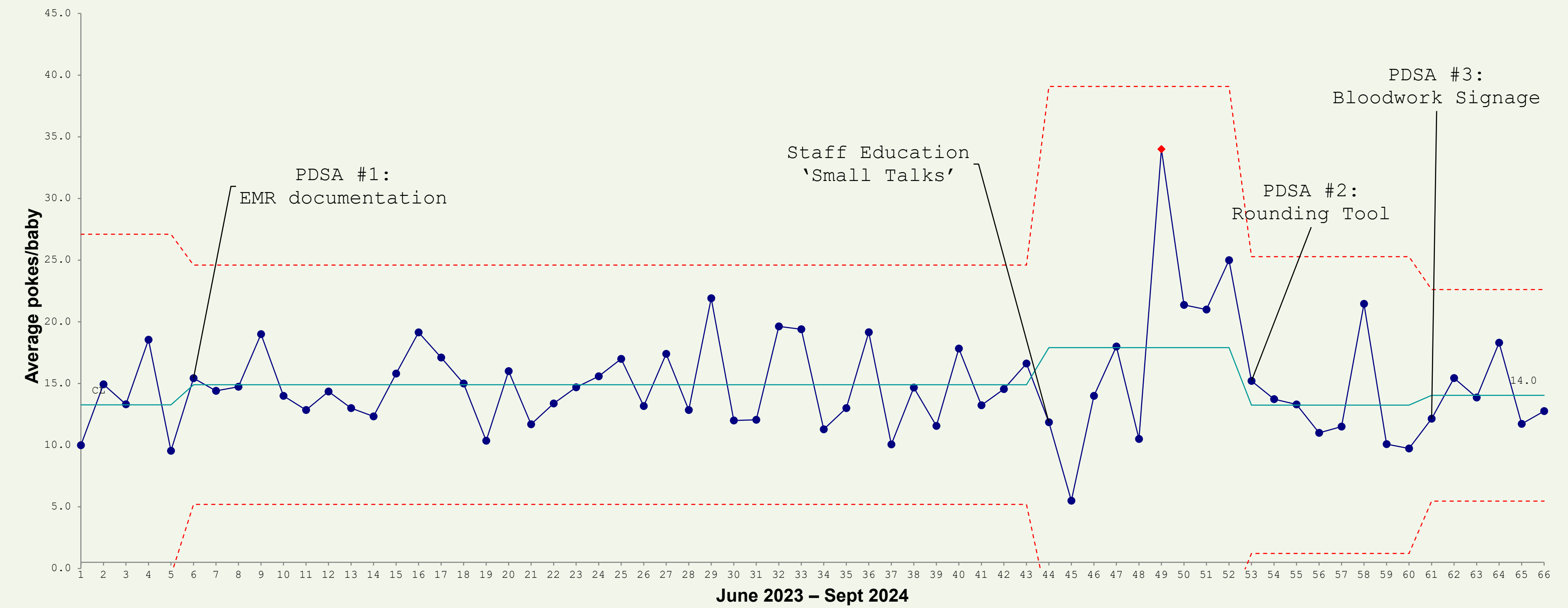


We'd like your help!

How do you balance reducing pokes and monitoring hypoglycemia?

Data / Results

Pokes/baby, first 14 Days of Life - x Chart



Lessons Learned

- When the EMR documentation was introduced, we realized that our baseline number of pokes per baby was under represented. This cycle gave us a better understanding of our true baseline.
- Staff education lead to an increase in our POKES which has lead us to wonder if this was due to increasing awareness of the importance of documenting accurately.
- The Standardized Rounding Tool increased discussion on rounds, however, the lack of consistent use of the tool made this cycle less effective than we had hoped.
- The Bloodwork Signage outside each patient room has helped our team coordinate and improve communication about pokes, however, the unit acuity seems to have impacted the number of pokes during that time period.
- Parents have said they feel reassured that reducing painful pokes is a priority for our team.

Surprises

- The dieticians have organically become the POKE discussion champions during daily rounds.
- Awareness, and culture change has occurred, just through team discussions about skin breaks.

Challenges

- Ineffective roll-out of the Standardized Tool for daily Rounds caused some confusion amongst the team and lack of consistent use
- An increase in RN and RT hiring within the last year has created a mix of skill level, adding complexity to decreasing pokes.

References: (Duerden et al., 2020; Hall & Anand, 2014; McPherson et al., 2020; Perry et al., 2018)

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