

“This is US” – UVA Strategies for Normothermia in neonates

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Introduction - Admission hypothermia in preterm infants contributing to significant morbidity and mortality. During my overseas training in UK, I have done a quality improvement (QI) project - “Mind the GAP”, Which demonstrated the structured interventions significantly improve the normothermia. This project at TH Badulla Neonatal Intensive Care Unit aimed to adapt and implement similar interventions to improve the thermal control.

This QI project - “This is US,” was designed to improve thermal care practices through UVA Strategies - Uniformity, Vigilance, and Adaptability at TH Badulla.

Objectives - To increase the proportion of less than 32 Weeks (W) neonates admitted with normothermia (36.5°C–37.5°C) from a baseline of 52.4% in 2022 and 56.5% in early 2023 to ≥90% by the end of 2024.

Methods - A prospective QI project was conducted using Plan - Do - Study - Act (PDSA) cycles. Infants born from 1st of September 2023 to 31st of December 2024 at <32 weeks and admitted to NICU from labour rooms and theatre were included. Those from postnatal wards and transferred from other centres were excluded. First four months dedicated to designing and implementing PDSA cycles.

The UVA Strategies involved: A QI team - conducted awareness trainings, displayed posters, and stickers to highlight normothermia importance, environmental optimization (delivery room temperature >26°C, pre-warmed equipment – hats and polythene bags), use of heated humidified gases during resuscitation and transport.

Results - A Total of 234 neonates born at less than 32W were admitted. Of these 38 babies were excluded and 196 were included. Data were analysed monthly basis. The median gestational age was 29W (Lowest:24W). The median birth weight was 1.12kg (Lowest: 480grams). Median admission temperature was 37.2°C. Post-intervention normothermia improved to 95.2% in 2024 and reached 100% in the final 6 months.

Discussion - The UVA-based “This is US” QI strategy significantly improved normothermia rates in preterm neonates.

Keywords - Normothermia, Hypothermia, Heated humidified gas, QI Project, Preterm babies