

# Getting it Just Right: A Quality Improvement Initiative in Preterm Thermoregulation

## Presented by

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## Background:

- In 2022, our unit was identified as a negative outlier for the National Neonatal Audit Programme (NNAP) measure 'Normal Temperature on Admission', with only 59.2% of preterm babies <34 weeks achieving temperatures within the target range - well below the national average of 73.2% for that year
- Recognising the importance of thermoregulation in reducing preterm morbidity and mortality, we launched a targeted quality improvement initiative to address this. We engaged key stakeholders from members of the medical and nursing team to identify key challenges and potential solutions.

Aim: To achieve  $\geq 80\%$  of babies (< 34 weeks gestation) to have a normothermic ( $36.5\text{--}37.5^{\circ}\text{C}$ ) admission temperature taken within one hour of birth.

## Measures:

- Monthly prospective audits of normothermia rates in babies < 34 weeks gestation.
- Ongoing evaluation through PDSA cycles from December 2023 to March 2025.

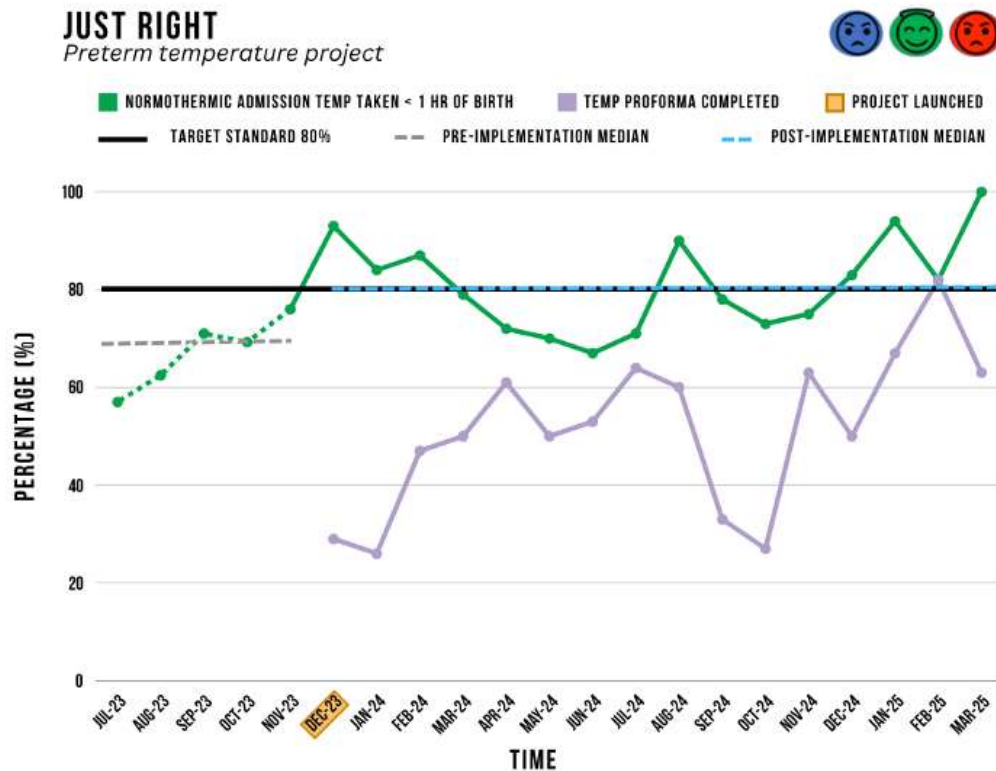
## Our improvement plan:

- In December 2023, we launched the **"Think Temperature: Just Right"** campaign. We focused on both data accuracy and clinical practice:
  - **Data integrity:** Modified the EPIC–BadgerNet interface to ensure reliable temperature data transfer.
  - **Standardisation:** Introduced a standardised approach to thermoregulation to prompt temperature checks and guide thermal care and a proforma to standardise documentation.
  - **Education:** Delivered multidisciplinary education and simulation training.
  - **Iterative learning:** Conducted prospective audits, and 'deep dive' into cases where compliance was not achieved to drive iterative changes. This identified issues with timely admissions in multiple births and hence repurposed a second transport incubator to support this.
  - **Engagement:** Shared learning via monthly updates and introduced a "Temperature Star of the Month" initiative to celebrate good practice.

## Outcomes

- Between December 2023 and March 2025, 225 babies <34 weeks were reviewed. Our median compliance with normothermia improved from 69.2% pre-intervention to 80.5% post-intervention.

- A temporary dip in September 2024 during junior doctor changeover was quickly addressed with targeted education.



**Figure 1.** Run chart illustrating percentage of normothermic preterm babies <34 weeks' gestation with admission

### Challenges and learnings

- While proforma completion remains variable, we have since transitioned to an electronic version to improve uptake and consistency.
- A multi-faceted approach – combining system changes, education and culture building – has led to sustained improvements in thermal care within our unit.

### Top tips for implementation

- Review data accuracy – ensure reliable, real time temperature data capture.
- Standardise approach – develop a clear protocol and/or proforma to guide thermal care and standardise documentation.
- Team engagement – regular communication, and celebrating good practice is important to build morale and maintain momentum.
- Adapt – use deep dives and PDSA cycles to ensure continual improvement.

### Acknowledgements

*Not applicable*