

# Preterm optimisation: A multifaceted approach to improve awareness and audit compliance

“Targeted education and teamwork drive consistent improvements in preterm care, empowering families and standardising best practices.”

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## Aims

Improve compliance with the British Association of Perinatal Medicine (BAPM) preterm optimisation pathway for babies born before 34 weeks' gestation through staff education and visual reminders.

Achieve 80% compliance with all nine elements of the preterm optimisation pathway within six months.

## Background

The program took place at Queen Elizabeth Hospital, and ran between August 2024 and January 2025. Any baby born at the site below 34 weeks gestation was included. The overarching goal was to improve awareness of the preterm pathway, using educational resources such as departmental teaching and poster prompts.

This project forms part of a wider multidisciplinary team (MDT) initiative to optimise preterm optimisation grounded within the Plan-Do-Study-Act (PDSA) quality improvement framework.

## Method

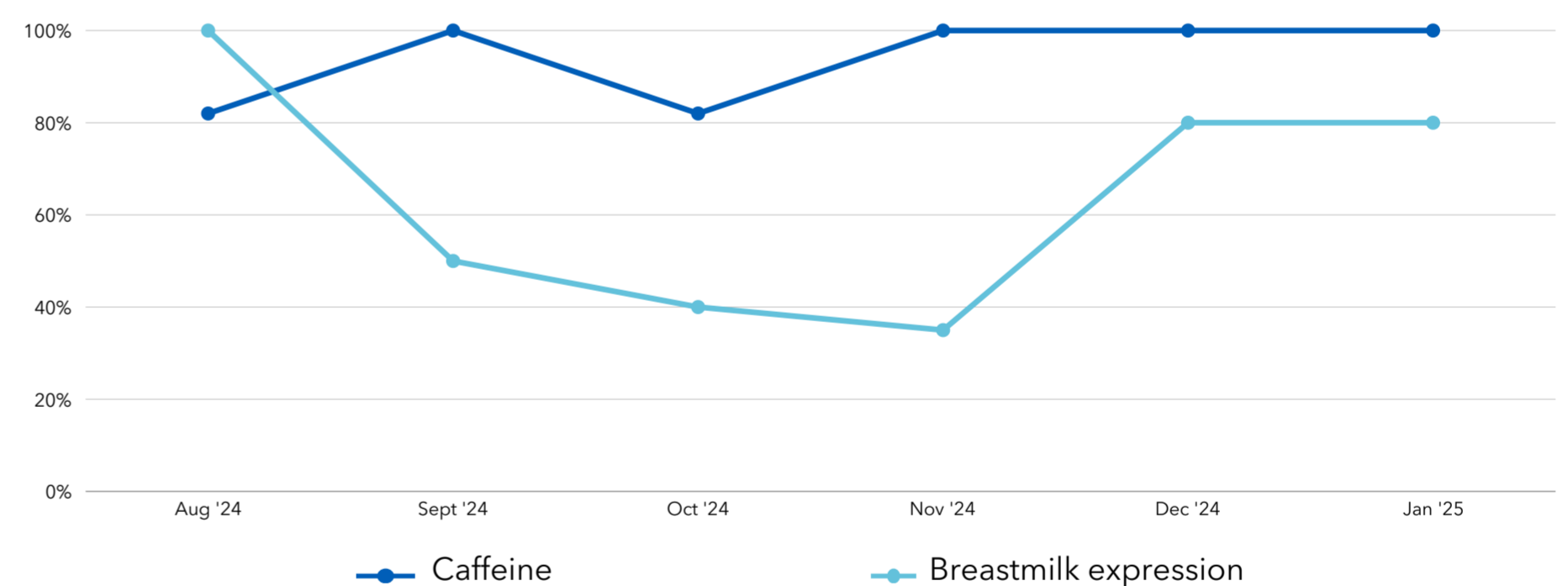
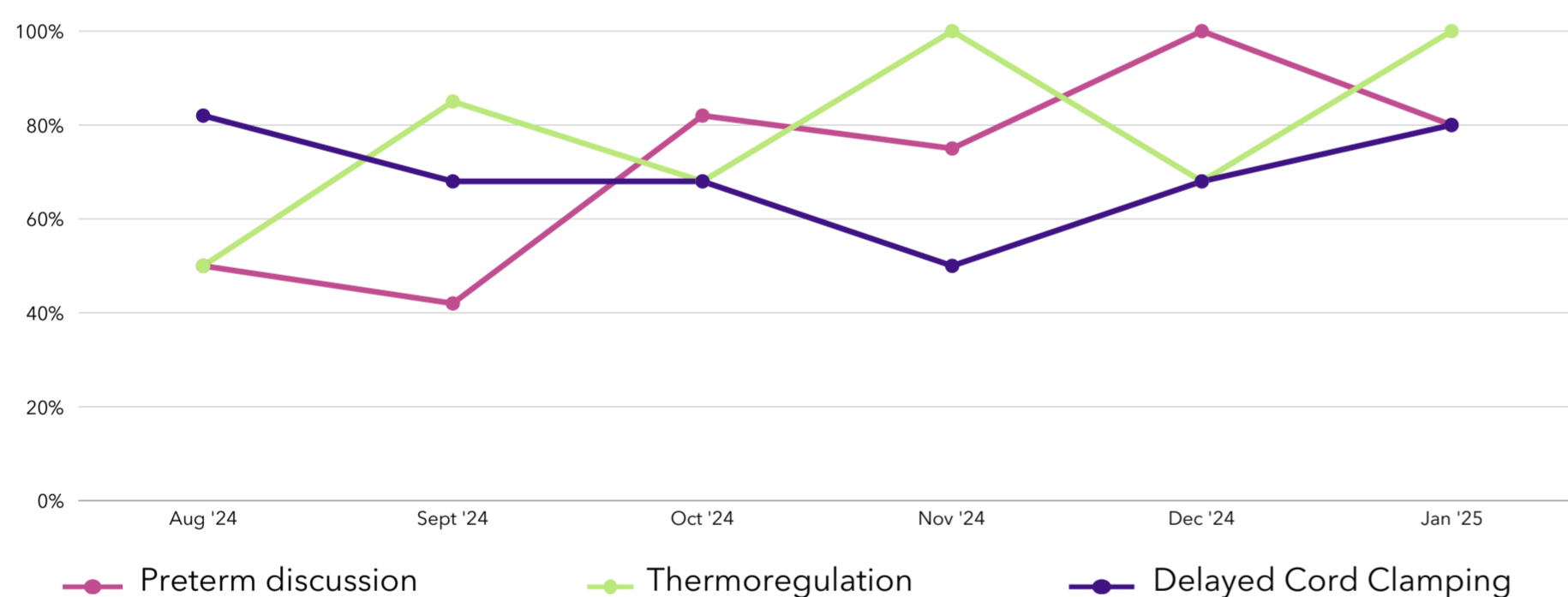
Data was collected on compliance with seven key elements of preterm optimisation:

- Preterm counselling.
- Antenatal corticosteroids.
- Antenatal magnesium sulphate (MgSO<sub>4</sub>).
- Intrapartum antibiotics.
- Delayed cord clamping.
- Thermoregulation.
- Early breastmilk feeding.

Local compliance for each element was tracked using an Excel database, with ongoing efforts to ensure use of the electronic iCare template to document elements for improved efficiency and sustainability.

The project team involved key stakeholders in all aspects of preterm care including the obstetric, midwifery, nursing and medical teams. Regular multidisciplinary meetings every 2-3 months facilitated progress tracking and team collaboration.

## Results of the key elements of the preterm optimisation pathway



## Results

Following the implementation of targeted teaching sessions in October 2024 and trust wide introduction of the preterm optimisation passport, significant improvements were observed across five focussed domains of preterm optimisation.

**Preterm Counselling:** Compliance improved from 50% in August to 80% by January. The passport helped standardise counselling, ensuring families were better informed and engaged.

**Delayed Cord Clamping (DCC):** Compliance fluctuated, dropping from 83.3% in August to 50% in November before improving to 80% by January.

**Thermoregulation:** Improved from 50% in August to 100% by January, highlighting the impact of consistent staff education and visual reminders.

**Caffeine:** Compliance was consistently high, reaching and maintaining 100% from September onward.

**Breastmilk Expression:** Compliance varied, falling to 33.3% in December but improving to 80% by January, supported by increased parental education and passport distribution.

## Conclusions

The most significant improvement was the increased consistency in preterm discussions, thermoregulation, caffeine administration, and breastmilk expression.

Relatively low numbers of preterm births each month limits interpretation of monthly data. A focus on longer term trends is likely to be more reflective of sustained change in practice.

Establish a better understanding of why use of the electronic iCare template remains low to target interventions and promote wider uptake.

Continue oversight by having regular multidisciplinary working group meetings to analyse performance and gaps.