

EP15.105 Improving Care for Preterm Birth in a District General Hospital: An Audit of Risk Factors, Management and Outcomes

Ms Agam Sofat ,MRCOG,Senior Clinical Fellow; Ms Mona Modi, MRCOG, Consultant - Obstetrics & Gynaecology, Lister Hospital, Stevenage

Background

Preterm birth (delivery before 37 weeks) is a leading cause of neonatal morbidity and mortality. ONS (2022) data show preterm live births account for around 7.9% of births in England and Wales.

Aim & Objectives

Aim: To determine the incidence, maternal risk factors and neonatal outcomes of preterm birth at Lister Hospital over a 13-month period, and to benchmark practice against national standards.

- Determine the preterm birth rate, gestational age profile, delayed cord clamping practices
- Compare maternal risk factors (age, BMI, smoking, ethnicity), mode of delivery with term birth cohort
- Review neonatal outcomes (Apgar score, NNU admission, mortality) of preterm births
- Identify data-completeness gaps to guide the next re-audit

Methods

Design: Retrospective audit. **Population:** 1 May 2025–31 May 2026. Preterm <37wk: 336 mothers/375 babies. Term ≥37wk: 4,476 mothers/4,495 babies.
Subgroups: <34wk n=73; 34–36wk n=263

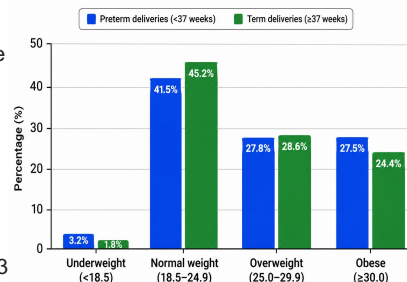
Age Distribution

Maternal Age	Preterm (<37)	Term (≥37)
< 20	6 (1.8%)	76 (1.7%)
20 – 24	29 (8.6%)	325 (7.3%)
25 – 29	78 (23.2%)	994 (22.2%)
30 – 34	101 (30.1%)	1,831 (40.9%)
35 – 39	89 (26.5%)	1,059 (23.7%)
40+	22 (6.5%)	191 (4.3%)

Maternal Ethnicity

Ethnic Group	Preterm (<37)	Term (≥37)
White	68.4%	71.2%
Asian	16.2%	14.8%
Black	8.5%	7.6%
Mixed / Other	4.2%	3.9%
Not Stated	2.7%	2.5%

BMI Category by Delivery Outcome



Results: Headline Findings

Out of 334 (99.4%) women referred to the preterm birth clinic with risk factors, 283 (85.7%) delivered at term

16.4% were moderate/high risk for preterm birth at booking

6.93% overall preterm birth rate (national average 7.9%)

1.51% of all births were <34 weeks

5.42% were late preterm, 34–36 weeks

38(11.3%) multiple pregnancies among preterm births

92.4% had delayed cord clamping in <37/40

BMI and ethnicity were similar, while women delivering preterm were more likely to be aged ≥35 years.

Smoking Status at Delivery

Smoking Status	Term (≥37)	Preterm (<37)
Smokers	222 (5.31%)	24 (9.20%)
Non-Smokers	3,892 (93.07%)	231 (88.51%)
Unknown / Not Stated	68 (1.63%)	6 (2.30%)

Mode of Delivery

Mode of Delivery	Term (≥37)	Preterm (<37)
Spontaneous Vaginal	2,126 (50.84%)	100 (38.31%)
C- Section	1,515 (36.23%)	134 (51.34%)
Instrumental	541 (12.94%)	27 (10.34%)

Neonatal Outcomes for <37/40(n=375)

Outcome	n	%
Live birth	364	97.1%
Antepartum stillbirth	7	1.87%
Early neonatal death	4	1.07%
5-min Apgar < 7	20	5.7%
Not with mother (NNU etc.)	147	39.2%

Discussion

- Preterm birth rate: 6.93%, below the national average (7.9%).
- Stillbirths/early neonatal deaths occurred only at <34 weeks, reflecting higher acuity.
- 92% had delayed cord clamping, indicating good guideline adherence.
- Documentation gaps limited risk-factor assessment.

Recommendations

- Improve risk-factor documentation.
- Standardise recording of steroids, magnesium sulphate and tocolysis.
- Add a dedicated K2 tab for tocolysis/neuroprotection.
- Re-audit in 12 months.

Conclusion

Preterm birth rates were below national levels, with good adherence to delayed cord clamping. **Improved documentation and intervention recording are key priorities.**

Addendum

The audit was extended to 13 months (May 2025–May 2026), identifying 152 preterm births in Jul–Dec 2025 versus 48 reported in the original abstract. This likely reflects differences in inclusion criteria and data capture. The electronic extract does not include steroids, magnesium sulphate, progesterone or cerclage. Inconsistent documentation highlights the need for a dedicated K2 data-entry tab.

Standards Referenced

NICE NG25 (2022); NHS Saving Babies' Lives Care Bundle v3; MBRRACE-UK; ONS Birth Characteristics.