Obstetric Anaesthetists' Association

ANNUAL SCIENTIFIC MEETING 2026

Length of stay after caesarean section: benchmarking and identifying drivers of prolonged admission in a UK district general hospital maternity unit

Service evaluation / audit

Early discharge after caesarean section can be safe — and pre-operative anaemia predicts prolonged stay

Gursharan Singh Sandhu, Smita Gohil

South Warwickshire University NHS Foundation Trust, Warwick Hospital, United Kingdom

Elective CS LOS	Benchmark advantage	Maternal readmission	Practice change
1.49 days	0.67 days	0.55%	Cell salvage
National benchmark: 2.16 days	below national mean	13 / 2377 deliveries	approved for Trust implementation

1. WHY THIS MATTERS

- LOS after caesarean section reflects recovery and service efficiency.
- NHS data report a mean LOS of 2.16 days for elective CS.
- Aim: benchmark our unit and identify modifiable drivers of prolonged stay.

2. METHODS

- Retrospective audit of anonymised electronic maternity records.
- Caesarean sections from October 2024 to May 2025.
- 977 CS performed; 614 women (66%) had complete LOS data.
- LOS = time of birth to discharge to community.
- Analyses: elective vs emergency CS, pre-op Hb, parity, MOH, transfusion and ICU admission.

3. LIMITATION / NEXT STEP

- LOS data were complete for 614 / 977 women.
- Social and postnatal pathway factors were not captured.
- Re-audit is planned at 12 months.

4. TAKE-HOME MESSAGE

Warwick achieved shorter-than-benchmark elective CS LOS with a very low readmission rate, while identifying anaemia and haemorrhage as actionable targets for improvement.

5. KEY DRIVERS OF PROLONGED STAY

Hb <100 g/L	Hb 100–119 g/L	Hb ≥120 g/L
2.29 days	1.89 days	1.66 days

Parity effect

Nulliparous: 2.07 days

Multiparous: 1.59 days

Anaemia signal

Hb <100 g/L was associated with +0.63 days LOS, equivalent to 62 additional bed-days.

6. COMPLEX CASES

MOH	Transfusion	ICU admission
43	18	8
women (7.0%)	women (2.9%)	women

6 ICU admissions followed MOH

7. INTERPRETATION

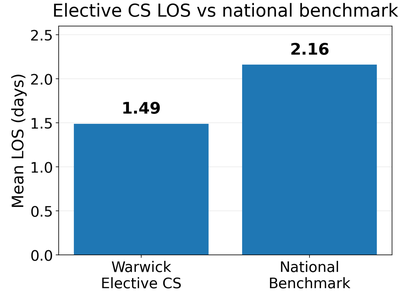
- Early discharge appears safe when supported by effective pathways.
- Prolonged LOS was associated with emergency CS, nulliparity, pre-operative anaemia, and MOH / ICU admission.
- Pre-operative anaemia is an identifiable and modifiable risk factor.

8. RECOMMENDATIONS / IMPACT

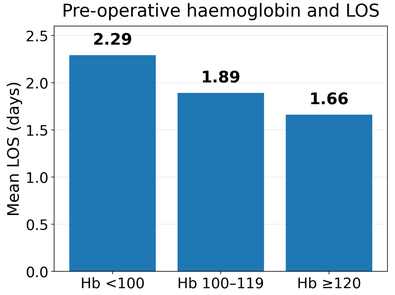
Optimise anaemia pathways, standardise enhanced recovery, and note that the business case for intra-operative cell salvage was approved for Trust implementation.

9. FOUR KEY FIGURES

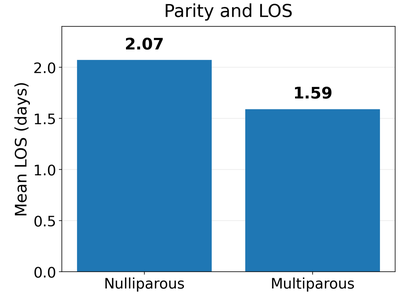
1. Elective CS LOS outperformed the national benchmark



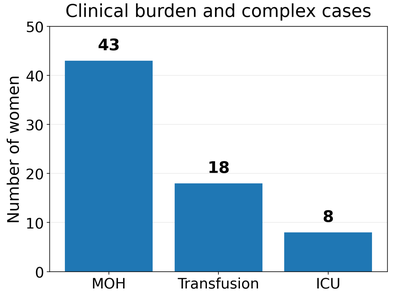
2. Lower pre-operative Hb was associated with longer stay



3. Nulliparity was associated with longer LOS



4. Complex cases clustered around haemorrhage and ICU admission



We outperformed the national benchmark, demonstrated that early discharge was safe, identified anaemia as a modifiable driver of prolonged stay, and achieved Trust-level implementation of cell salvage.

Approval / disclosure: Locally registered audit (ref 4037); consultant peer review; Caldicott advice sought and approval not required due to anonymised data; funding: none.

References: NHS England (NHS Digital) Hospital Admitted Patient Care Activity 2024–25; Butwick AJ et al. Transfusion 2019;59(2):539–548; Palatnik A et al. Am J Obstet Gynecol 2017;217(2):210.e1–210.e11; Wen T et al. Obstet Gynecol 2020;135(5):1067–1077.