Efficiency gains under pressure: adapting planned caesarean birth services to rising demand in a tertiary maternity unit

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Background

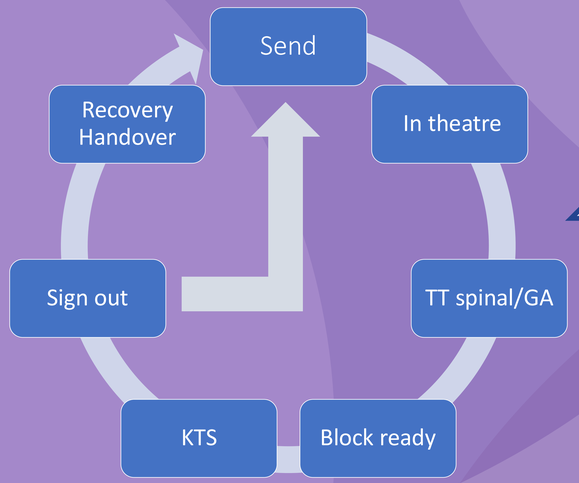
Elective caesarean birth **demand has increased** nationally following policy and cultural shifts. Services are required to expand capacity whilst maintaining **safety**, **training**, and **patient experience**. We began evaluating this service within our unit in 2020 [1] and yearly over the subsequent five years, to better understand how **services adapt over time**, and to enable **sustainable future planning**.

Goal

This clinical service evaluation examines how the service has responded to increasing pressure demands over 5 years and explores measures to **improve efficiency gains.**

Methods

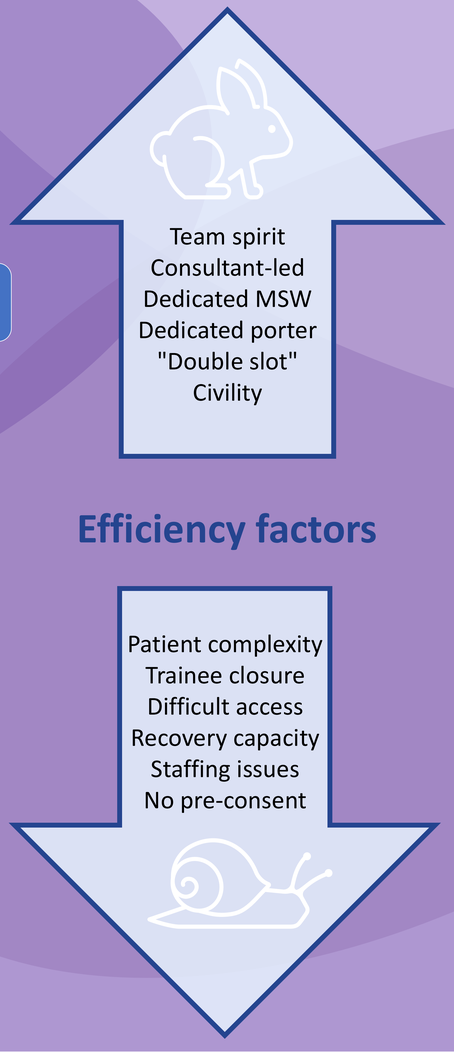
A **longitudinal service evaluation** was undertaken between 2020 and 2025. **Quantitative peri-operative timings** and list start and completion times were collected, supported by contemporaneous **qualitative reporting of factors** affecting list progression from obstetric anaesthetists.



	2025 Efficiency data
Anaesthetic time	22 min (7-72)
Surgical time	50 min (16-105)
Transfer time	8 min (0-55)

	2020	2021	2022/3	2024	2025
LSCS/List	3.1	3.3	3.8	4	4.1
08:15 WHO Median	08:30	08:25	08:30	08:25	08:35
Overruns	18%	25%	34%	47%	54%

Efficiency factors



Results

There was consistently a **yearly increase** in the average cases per list with greater lists completing **up to five sections** per day. Despite **increased productivity**:

- **WHO start times** were **consistently delayed** across all years (6% punctuality in 2025)
- A greater proportion of **lists overran** (18% in 2020; 54% in 2025)
- **Operative timings remained stable** over time (anaesthetic, surgical and transfer)

Conclusion

Elective caesarean services have **adapted to growing pressure in demand** through increased throughput per list. However, **rising overruns** indicate that this adaptive strategy is approaching its limit. Future capacity planning should prioritise **start-of-day reliability**, **staffing alignment** and **recovery capacity**, rather than further compression of operative timings.

References

McLaren R, Shiels S. Maternal request caesarean delivery: understanding the impact on elective section list efficiency. What can we learn? Int J Obstet Anesth. 2023;54(Suppl):103742. doi:10.1016/j.ijoa.2023.103742