

Service Evaluation Project for Complications following Central Neuraxial Blockade

Sher Ali Khurram, Lucky Angashang and Dipali Verma
Liverpool Women's NHS Trust, UK

The **best** people,
giving the **safest** care,
providing **outstanding** experiences

Background

Central neuraxial blocks (CNB) are widely used in obstetric anaesthesia and analgesia. Monitoring complications and follow-up compliance is essential for maintaining patient safety and benchmarking against international standards.

This service evaluation aimed to assess the incidence of complications and follow-up outcomes across all CNB procedures performed in 2024.

Methods

This was a retrospective service evaluation study. Data was reviewed from January to December 2024, covering all CNB procedures performed at our institution.

Data included the anaesthetic technique, complications, and follow-up outcomes.

Complications were calculated as percentages of the total number of procedures (n = 4761).

Results

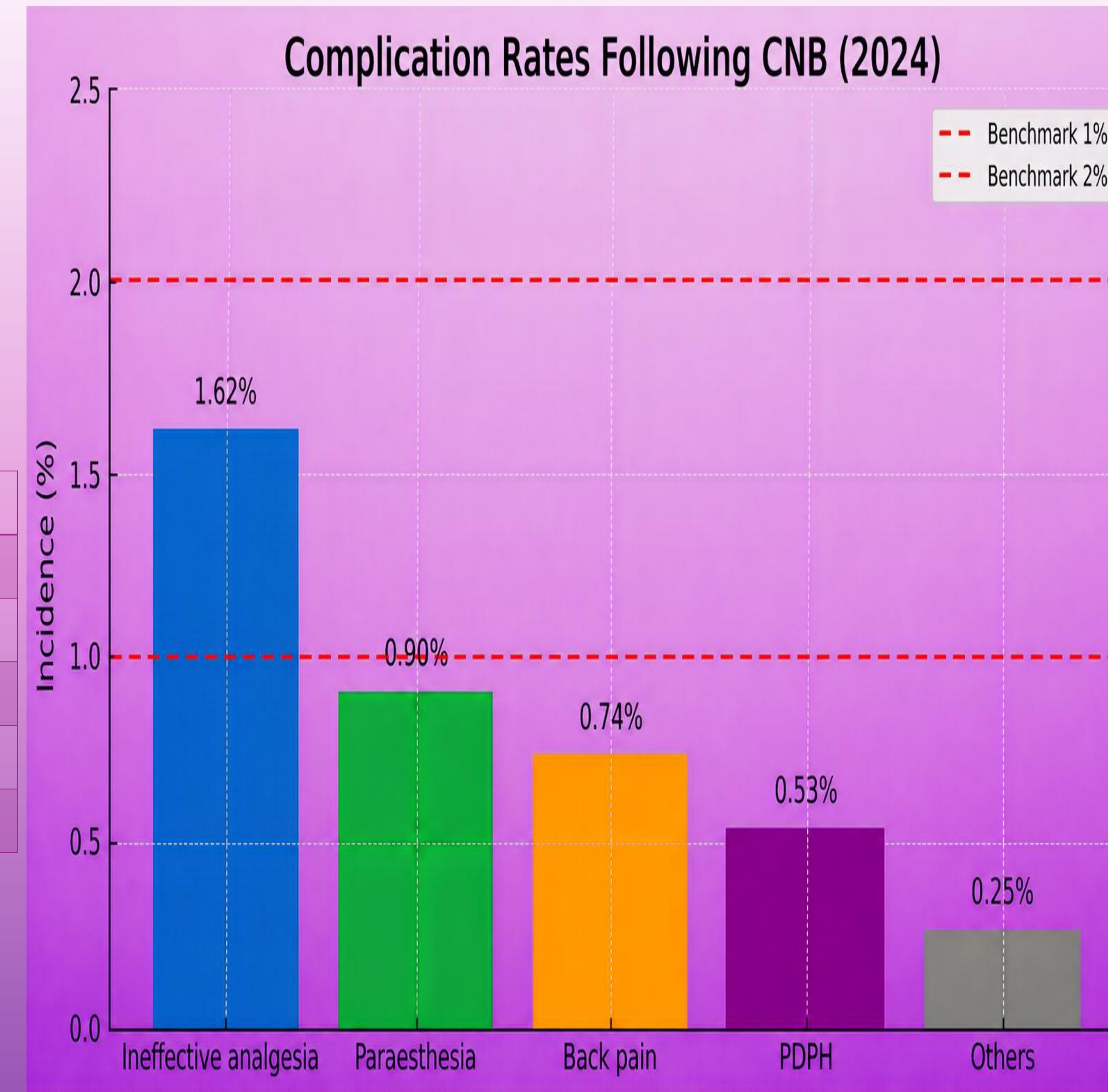
A total of 4761 procedures were performed in 2024:

- Spinal anaesthesia was the most common technique (2897, 60.8%)
- Epidural (1262, 26.5%)
- Combined spinal-epidural (297, 6.2%)
- General anaesthesia (239, 5.0%)
- Combined epidural & GA (66, 1.4%)

Technique	Number	Procedure(%)
Spinal	2897	60.8%
Epidural	1262	26.5%
Spinal & Epidural	297	6.2
Epidural & GA	66	1.4%
GA	239	5.0%

Conclusions

- 4761 CNB procedures performed in 2024
- Low complication rates across all categories
- PDPH incidence (0.53%) below international benchmarks
- Follow-up completion >80%, though monthly variation observed
- Continuous audit and benchmarking support ongoing improvements in service quality



References

- o References 1–2 provide benchmark PDPH rates (1–2%); References 3 supports reduced incidence with atraumatic needles.
- 1.Turnbull DK, Shepherd DB. Post-dural puncture headache: pathogenesis, prevention and treatment. Br J Anaesth. 2003;91(5):718–729.
 - 2.Obstetric Anaesthetists' Association & Association of Anaesthetists. Guidelines for Obstetric Anaesthesia. London: OAA/ AoA; 2020.
 - 3.Nath S, et al. Atraumatic versus conventional lumbar puncture needles: a systematic review and meta-analysis. Lancet. 2018;391(10126):1197.