Impact of anesthesia choice on apgar scores in category 1 cesarean deliveries: A decision to delivery interval and outcome analysis

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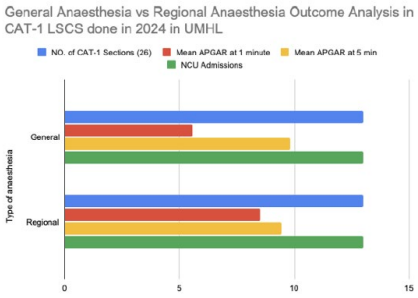
This retrospective audit conducted at UL Maternity Hospital in 2024 examined 26 consecutive Category 1 cesarean sections (LSCS), focusing on the relationship between anesthesia techniques—regional versus general—and neonatal outcomes, particularly APGAR scores and NICU admissions. It also evaluated compliance with the 30-minute Decision to Delivery Interval (DDI), maternal outcomes, and the quality of documentation during these time-sensitive obstetric emergencies. Regional and general anesthesia were used equally (50% each), with 80% of general anesthesia (GA) cases involving opiate administration. The average DDI was 25 minutes, with 80% of cases meeting the recommended 30-minute target. Delays beyond this interval were attributed primarily to anesthesia preparation (60%) and theatre availability (40%).

Neonatal APGAR scores averaged 7 at 1 minute and 9 at 5 minutes, though 36% of neonates required NICU admission—most commonly for respiratory support. Maternal outcomes showed an average estimated blood loss of 600 mL, with postpartum hemorrhage occurring in 10% of cases. Documentation quality was suboptimal; BMI was documented in only 20% of cases, and complete decision-making details were present in just 20%.

There was no statistically significant difference in maternal or neonatal outcomes between anesthesia types, even with frequent opiate use in GA. The high NICU admission rate suggests that factors other than anesthesia choice and DDI compliance, such as fetal condition prior to delivery, may play a more significant role in neonatal outcomes. Documentation deficiencies represent a potential risk in medico-legal scenarios, particularly where adverse outcomes are observed. This audit underscores the need for standardized documentation protocols and targeted workflow improvements to minimize DDI delays. It also calls for further investigation into pre-delivery fetal status to better understand the drivers of neonatal morbidity in emergency cesarean sections.



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3. BMJ Open Quality (2023). Current Irish medicolegal landscape: implications for clinical Practice.
4. Trinity College Dublin Study (2023). Clinicians' fear of litigationinfluencing Caesarean Section

Biography

Uzair Ali is a dedicated anaesthetist from Pakistan, currently working as a standalone trainee in obstetric anaesthesia at University Hospital Limerick (UL Hospital), Ireland. He graduated from Quaid-e-Azam Medical College, Pakistan, and has over seven years of clinical experience in anaesthesia.

Throughout his career, Dr. Ali has worked in various hospitals in Pakistan, gaining expertise in general and regional anaesth esia before transitioning to Ireland. His current rotation in obstetric anaesthesia focuses on managing high -risk cases and ensuring safe anaesthetic care for pregnant patients.

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