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Evaluating Neonatal Hypoglycaemia Management in High-Risk Term Infants

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Neonatal hypoglycaemia is the most common metabolic disorder in newborns and, if not promptly managed, can result in long-term neurodevelopmental complications. Infants of mothers with gestational diabetes, those exposed to prenatal beta-blockers, or affected by intrauterine growth restriction (IUGR) are especially at risk. Recognising the importance of early intervention, this audit aimed to assess screening and management practices for neonatal hypoglycaemia, evaluating compliance with Trust and NICE guidelines to identify areas for improvement. We conducted a retrospective audit covering January to December 2024, reviewing 20 term infants admitted with hypoglycaemia. Data were extracted using Badger Net and Unity systems. Preterm infants and those admitted for other reasons were excluded. We analysed clinical signs, risk factors, treatment protocols, and outcomes. Prominent risk factors included IUGR (45%) and maternal gestational diabetes (40%). Additional contributors were antenatal exposure to labetalol (10%), hypothermia (70%), and suspected sepsis (25%). Hyperinsulinism was confirmed in 35% of cases. Clinically, feeding reluctance was noted in 70% and jitteriness in 40% of infants. Initial management involved early feeding, skin-to-skin contact, and universal use of glucogel. Despite these measures, 30% required further warming, highlighting gaps in thermoregulation practices.This audit underscores the importance of early detection and management of neonatal hypoglycaemia to safeguard infant health. Effective glucose control, maintaining temperature stability, and strict adherence to guidelines are essential, especially in high-risk term infants. The frequency of hyperinsulinism suggests a need for greater awareness and further research.Moving forward, key questions emerge: Could enhanced thermoregulation reduce the need for additional warming? Are there unidentified contributors to hyperinsulinism? Expanding future audits and promoting collaborative research could drive improvements in care and outcomes for this vulnerable population.

Biography

I am a junior doctor currently working in Neonatology at the Midland Metropolitan University Hospital. With a keen interest in improving clinical outcomes for newborns, I chose to undertake an audit on the management of neonatal hypoglycaemia. This topic stood out to me due to the frequency with which it arises in the neonatal unit and the significant long-term consequences if not promptly recognised and managed. I wanted to assess how well current practices align with established guidelines and to identify areas where improvements could enhance the care we provide to this vulnerable population. This audit reflects my commitment to evidence-based practice and my aspiration to contribute meaningfully to quality improvement in neonatal care.

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