Impacted fetal head at caesarean birth: Learning from a thematic review of safety investigations

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OBJECTIVE

Our aim was to analyse completed MNSI safety investigations to identify common themes where there was evidence of an impacted fetal head during caesarean birth.

METHOD

Findings and safety recommendations from 78 completed investigations (April 2019 to January 2025) were explored to identify the work system factors that influenced the management of cases where a baby's head became stuck (impacted fetal head - IFH) during a caesarean birth. The Systems Engineering Initiative for Patient Safety (SEIPS) framework[1] was used to guide the inductive analysis.



RESULTS

In 32 reports (41%) there were opportunities to strengthen the recognition and escalation of cumulative risk factors associated with an increased likelihood of caesarean birth and potential complications.

As difficulty with birth or an IFH was not anticipated, the support and oversight of a senior obstetric doctor during a complex birth was not available.

Staff explained that an IFH is diagnosed at the point of birth, and IFH as a risk factor is not routinely discussed during labour.

When the difficulty in birthing the baby's head was identified, the obstetric doctor focused on manoeuvres to help the birth. The emergency was not declared to the wider team.

Handover of the woman's care was not undertaken using a structured tool, and key information was not included.

There was variation in the techniques used to manage an IFH at caesarean births, highlighting the importance of a shared, structured approach in the operating theatre.

There was no local guidance or training to support staff in the management of complications during caesarean births.

CONCLUSION

The review identified recurring themes that contributed to outcomes for babies. These findings can inform ongoing national work to embed training for safe and effective management of an IFH at caesarean birth. It highlights the importance of non-technical skills, including leadership during an emergency, team coordination, decision-making, and allocation of tasks needed for the birth.

Anticipation of an impacted fetal head

Limited labour assessment, inconsistent documentation, and differences in staff experience make anticipation harder.

Pressures and competing priorities, staffing shortages, and communication gaps can delay escalation and readiness for potential impacted fetal head at caesarean birth.

Management of an impacted fetal head at caesarean birth

Staff usually recognised and managed the birth with accepted techniques.

Training, experience, and preferred methods to manage an IFH varied. At the time of the review, standardised training and approaches were not widely adopted.

Management was also affected by task focus, team readiness, and communication issues.

Reference

1. Carayon, P., Wooldridge, A., Hoonakker, P., Hundt, A. S. and Kelly, M. M. (2020) SEIPS 3.0: human-centred design of the patient journey for patient safety. Applied Ergonomics, 84, 103033.