

## Paediatric pre-operative fasting: How can we improve? A scoping review

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**Background:** Preoperative fasting is the standard of care for patients undergoing a procedure under general anaesthesia. Despite the increased leniency of fasting guideline recommendations, prolonged preoperative fasting periods continue to disproportionately affect paediatric patients. This review maps existing interventions optimising paediatric fasting practices, to explore strategies that can be best applied in clinical practice.

**Methods:** A search strategy applied to PubMed, CINAHL, Embase, Scopus, and the Cochrane Database involved four key concepts: (1) fasting, (2) preoperative, (3) paediatric, and (4) quality improvement intervention. The Preferred Reporting Items of Systematic Reviews and Meta-analyses (PRISMA) extension for Scoping Reviews was utilised in this review.

**Results:** Thirteen heterogeneous studies, involving approximately 31 000 children across five continents, were included. Each intervention studied fell into at least one of the following six themes: (1) change in facility protocol, (2) technology based intervention, (3) individualised fasting programs, (4) processes to improve communication between clinicians, (5) processes to improve communication to parents and families, and (6) staff education.

**Conclusions:** A variety of interventions have been studied to optimise paediatric preoperative fasting duration. These interventions show potential in reducing preoperative fasting duration, but only when used in combination and with good quality implementation strategies.

**PLENO-IDEA (optional):** Attempting to create objective data like the radar map above to visually represent the areas research has attempted, while assessing that research's impact. This can direct further research with easy visual prompts.

## Biography

James Brannigan is a post-graduate-year 3 doctor based in Brisbane, Australia. He is currently working as an Emergency Medicine resident, but has rotated through medical, surgical and anaesthetic departments as a junior. His most recent post was as a Paediatric Intensive Care Unit junior registrar at the Queensland Children's Hospital. He has a keen interest in Anaesthesiology and is applying for a formal training position this year.

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