

WHAT IS THE ROLE OF ENHANCED RECOVERY AFTER SURGERY PROGRAMMES IN PAEDIATRIC SURGERY?

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Aims: Enhanced Recovery after Surgery (ERAS) pathways are standard practice in many adult surgical specialties resulting in improved clinical outcomes with less morbidity, reduced cost and higher patient satisfaction. It is unclear whether ERAS principles are applicable to Paediatric Surgery and whether similar benefits could be realised. We performed a scoping review to identify the extent to which ERAS has been used in Paediatric Surgery, the nature of interventions and outcomes. A scoping review allows a broader interrogation than a systematic review since it is not confined by narrow confines of a predetermined research question.

Methods: Pubmed, Cochrane library, Google Scholar and Embase were searched using the terms enhanced recovery, post-operative protocol/pathway and paediatric surgery. Studies were excluded if they did not include abdominal/thoracic/urological procedures in children or if the only interventional element was post-operative pain management.

Results: Nine studies were identified (published 2003-2014; total 1021 patients) from centres in UK, USA, Europe and Asia. Three were case control studies, one retrospective review and five prospective implementations of a "fast-track protocol". There were no RCTs. Interventional elements identified were post-operative feeding and mobilisation protocols, morphine-sparing analgesia, and reduced use of nasogastric tubes and urinary catheters.

Outcomes reported included post-operative length of stay (LOS), time to oral feeding and stooling, readmissions and parent satisfaction. Case-matched studies compared fast-track programmes with traditional treatment; prospective studies investigated successful introduction of fast-track elements and compared LOS to national data.

Fast-track programmes significantly reduced LOS in 6/7 studies, time to oral feeding in 3/3 studies and time to stooling in 2/3 studies. Parent satisfaction was high.

Conclusions: The use of ERAS pathways in Paediatric Surgery appears very limited but existing literature suggests that such pathways may have benefits in children. Prospective studies should evaluate other interventions used in adult ERAS on outcomes in the paediatric setting.