

An audit of outcomes of paediatric patients attending for treatment under relative analgesia at Birmingham Dental Hospital, England

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Introduction

Pain and anxiety management is an essential part of children's dentistry. This can be achieved using relative analgesia and when correctly administered is a safe, valuable and effective method of treatment for anxious and behaviorally challenging paediatric patients. The alternatives to this are intravenous sedation or general anaesthetic. To help the future planning and provision of services it is important to know how many patients who have been deemed suitable for treatment under inhalation sedation go on to have their treatment successfully completed or those who end up needing unplanned intravenous sedation or general anaesthesia.

Aims

To ascertain the outcomes of paediatric patients receiving dental treatment under inhalation sedation over a five month period.

Methods

The gold standard was a successful completion rate of 90% for all planned cases of treatment under inhalation sedation. This was a retrospective study that reviewed the case notes of 96 suitable patients receiving treatment at Birmingham Dental Hospital between 1st August 2016 and 31st December 2016.

Results

89 patients (93%) all had their treatment successfully completed under inhalation sedation. The main reason for failure was loss of patient cooperation mid-treatment in 6% of cases (6 patients). The most commonly completed treatments under inhalation sedation were extractions including surgical procedures (59%) and restorations (32%). Of the successful cases, 30% were children who underwent extraction of between 1 and 4 permanent teeth.

Discussion

The gold standard was met, demonstrating that patients are being appropriately assessed for treatment under inhalation sedation. It further shows that we have a high success rate for the delivery of treatment using relative analgesia alone for the most anxious and behaviorally challenging cohort of paediatric patients who are referred to our secondary care services for the management of their dental needs. Inhalation sedation remains a valuable tool for treating these patients.

(300 words)

References

Muthukrishnan A, McGregor J and Thompson S. (2013) Safety and predictability of conscious sedation in dentistry - a multi-centre regional audit: South and West Wales experience. *Br Dent J* 12;215(7):E13–E13.