

POSTOPERATIVE AGITATION IN PAEDIATRIC EXODONTIA LISTS



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Introduction

- Emergence delirium (ED) is a well described complication in paediatric general anaesthesia (GA) with an incidence of at least 20% [1]. Although self-limiting, the experience is unpleasant, causing distress to all involved.
- Exodontia lists take place in a remote site with the three bedded post anaesthetic care unit (PACU) being immediately adjacent to theatre. Distressed children from the previous case can impact on the experience of the next induction.
- Clonidine reduces the incidence of ED and has been part of some consultants routine practice for some time with positive feedback from PACU staff. Infrequent practitioners in these lists have concerns over its impact on patient flow through PACU due to potential slower emergence.
- We assessed clonidine's impact on emergence using the validated Watcha score and its impact in PACU throughput.

Methods

- This project was registered and approved by the local clinical governance committee and subsequently Caldicott approval was obtained.
- Prospective data was collected from children attending for GA exodontia. Information on patient demographics and drugs used during the peri-operative period was collated.
- Watcha was scored every 5 minutes until discharge and timings relating to patient flow through the PACU.

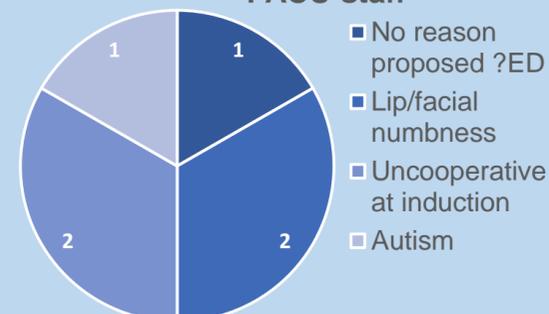
Results

- Watcha score data was completed for 46 children. Fifty-two per cent were male with a median age of seven years.
- Six received a sedative pre-operatively. **Three had pre-operative clonidine.**
- Fifty-six per cent had a gas induction. All were maintained on sevoflurane with air or with nitrous oxide via a flexible LMA.
- Paracetamol was given routinely in all but one, IV fentanyl titrated in all and 77% of children received local anaesthetic.
- **IV clonidine was administered in 43 children at a median (IQR[range]) dose of 1 (0.93-1.19[0.48-1.8]) µg.kg-1.**
- Six patients (13%) had at least one recorded Watcha score >2 (crying and inconsolable or severely agitated). However only one of these was thought to be due to ED.
- Timing data showing flow through theatre and PACU was available for 36 patients. **The median time to discharge was 36 (30-42[20-95]) min from arrival in PACU and no patient flow was interrupted due to PACU bed blockage.**

Watcha scale

Calm or asleep	1
Crying & consolable	2
Crying & inconsolable	3
Severely agitated	4

Impression of cause of agitation when Watcha >2 (6 patients) from PACU staff



Watcha scores



Discussion and Conclusion

- We found that using clonidine is associated with low rates of agitation in comparison to those reported in the literature [1, 2].
- It can be useful as part of a multi-modal analgesic recipe and in reducing ED incidence without case turnover being affected.
- Our regular PACU staff find recovery profiles to be superior when clonidine is used. A SOP for practitioners who work less frequently in this area was developed.

References

1. Jooma Z, Perrie H, Scribante J, Kleyenstuber T. Emergence delirium in children undergoing dental surgery under general anaesthesia. *Pediatr Anesth.* 2020; 00: 1– 7. <https://doi.org/10.1111/pan.13937>
2. Ydemann M, Nielsen B, Henneberg S. et al. Intraoperative clonidine for prevention of postoperative agitation in children anaesthetised with sevoflurane (PREVENT AGITATION): a randomised, placebo-controlled, double-blind trial. *The Lancet*