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## AUDIT OF SEDATIVE PRE-MEDICATION USE AT ALDER HEY CHILDREN'S HOSPITAL

*S. E. Gillies, J. Tan, Alder Hey Children's Hospital, Liverpool, UK*

### **Background/Context**

Peri-operative paediatric anxiety has a high reported prevalence (up to 40-60%)<sup>1</sup>. Traumatic experiences in children can lead to adverse short and long term effects. Sedative pre-medication has a role in reducing peri-operative anxiety which can prevent patient co-operation, is challenging to staff members and is distressing to both patients and their carers. It may be needed when anaesthetic induction will result in a frightening/stressful experience and where non pharmacological methods to reduce this may fail (or have failed)<sup>2</sup>.

This project aimed to review pre-medication practice at Alder Hey Children's Hospital (AHH). Information was collected initially for a one month period (August 2021) and findings were presented to the anaesthetic department at AHH. A departmental guideline on sedative pre-medication at AHH was approved in January 2022. Subsequent practice in August 2022 was reviewed.

### **Problem**

Data collection was via a retrospective review of patient notes for those having operations in August 2021. Information was obtained via Meditech prescriptions and scanned anaesthetic charts. There were 1226 operations and 151 cases of sedative pre-medication administration.

Information was gathered on subjects including: case elective/emergency, patient characteristics, surgical speciality, number/type/doses of agents given, behaviour at induction and recommendations made. It was then possible to identify where clinical practice and patient experience could be improved upon. Documentation of consent, events and outcomes was variable.

### **Strategy for Change**

At a departmental meeting, findings presented and recommendations made including need for improved documentation (reasons for pre-medication, consent, patient behaviour and recommendations). Introduction of electronic anaesthetic charts (including a dedicated pre-medication section) facilitating improved documentation and easier data collection. Highlighting relevant RCoA QI standards about assessing preoperative anxiety, anaesthetic plan, documentation and reassessment of patients requiring pre-medication prior to induction of anaesthesia<sup>3</sup>. Utilising subsequent departmental publication of "Peri-operative Sedative Pre-medication Guideline"<sup>4</sup>. Re-auditing for August 2022.

## **Measure of Improvement**

Re-review of sedative pre-medication practice a year later in August 2022 (1399 cases, 123 given sedative pre-medication). Done using (now electronic) anaesthetic charts and inpatient medication prescriptions. This information was reviewed against departmental guideline, RCoA QI standards and previous recommendations. Findings from August 2021 and 2022 compared.

## **Lessons Learnt**

In most of the cases sedative pre-medication lead to greater co-operation and was given appropriately. Documentation is vital and allows us to better identify patients at higher risk of pre-operative anxiety and optimise their care. Poor documentation denies clinicians information that can improve patient outcomes.

Electronic systems for anaesthetic charts and prescriptions facilitate investigating and reviewing clinical practice.

Improvement after audit may not be consistent across all areas and may benefit from further follow up.

There is scope for further review on differences in trainee and consultant practice and comparison of quality of induction with non premeditated children.

## **References**

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2. Heikal S, Stuart G. Anxiolytic premedication for children. *BJA Education*. 2020;20(7): 220-225.
3. Royal College of Anaesthetists. Raising the Standards: RCoA Quality Improvement Compendium. <https://rcoa.ac.uk/safety-standards-quality/quality-improvement/raising-standards-rcoa-quality-improvement-compendium> (accessed 10th February 2023).
4. Alder Hey Children's Hospital NHS Foundation Trust (2022). Anaesthesia Pre-Operative Guidelines, Peri-operative Sedative Pre-medication Guideline.