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DO OZALIN AND ORAL DEXMEDETOMIDINE PROVIDE SAFE AND EFFECTIVE PRE-MEDICATION FOR CHILDREN ON A REASONABLE ADJUSTMENT PATHWAY? A RETROSPECTIVE AUDIT.

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Introduction and aims

Children with learning disabilities presenting for day surgery at North Devon District Hospital (NDDH) are streamed through a Reasonable Adjustment Pathway (RAP). The RAP includes access to strategies to improve the experience of day surgery for this complex and varied group of patients. This may include a pre-medication. The 2010 NICE guidance on sedation (1) states that the experience of coming to hospital for day surgery may cause “extreme anxiety in children[...] with learning disabilities. The aim of preoperative sedation is to achieve a state of conscious sedation that facilitates the safe conduct of General Anaesthesia”. Local guidelines now include the use of Ozalin (oral Midazolam solution) and oral Dexmedetomidine (2). This audit explored how many children required pre-medication, which pre-medications were used and whether the pre-medication was safe and effective.

Methods

The notes of all RAP paediatric patients presenting for day surgery during a 6 month period were reviewed. 38 sets of notes were included. Data about their day surgery episode was recorded anonymously.

Results

Of the 38 children 21 (55%) were given a pre-medication. The pre-medications given were oral Dexmedetomidine, Ozalin, or both in combination. All pre-medication dosing followed local guidance. The pre-medication was administered successfully in all 21 children. All the children who received pre-medication were anaesthetised successfully and only 1 (5%) was upset during induction. There were no complications reported with either agent, either individually or in combination. Notably, there were no cardiovascular or respiratory side effects and no unplanned admissions. There was no difference between average time in recovery with no pre-medication, Dexmedetomidine or Ozalin (36, 39, and 38 minutes respectively). However, Dexmedetomidine combined with Ozalin was associated with prolonged drowsiness (9 out of 10 cases) and resulted in a longer recovery stay of 64 minutes. Time spent on the day surgery ward before going home with no pre-medication or Ozalin was shorter at 112 and 111 minutes respectively. Dexmedetomidine and Dexmedetomidine combined with Ozalin were followed by a longer average stay of 150 and 157 minutes respectively.

Discussion and conclusion

Both Ozalin and oral Dexmedetomidine, in isolation or combination, provide safe and effective pre-operative sedation for this complex patient group to facilitate same day surgery and discharge. They are both palatable to children and easy to administer. However, Dexmedetomidine has a slower offset and if used in combination then an additional 20 to 30 minutes may be anticipated in recovery. If Dexmedetomidine is used either in isolation or combination, then this is associated with a longer stay on day surgery ward of 40 to 45 minutes. This may have implications for patient flow and children requiring Dexmedetomidine as a pre-medication should be planned for the start of a list.

References

- (1) NICE clinical guideline 112. Sedation for diagnostic and therapeutic procedures in children and young people (2010).
- (2) Sanders D, Conway R. NDDH Pre-operative Sedation Guideline for Children and Adults with Learning Disabilities (Reviewed 2021).