Use of an Anesthesia Information Management System to Evaluate Compliance with PONV Prophylaxis Guidelines in Pediatric Strabismus Surgical Patients.

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ABSTRACT

Background: PONV is a common occurrence in pediatric strabismus patients. Evidence-based guidelines recommend two antiemetics for prophylaxis.

Objective: To determine the percentage of pediatric strabismus surgery patients that received prophylaxis as per recent guidelines.

Methods: In this retrospective chart review using PICIS Anesthesia Manager records, we evaluated the anesthetic records of 135 patients for antiemetic administration.

Results: 76% of patients received antiemetics as per the guidelines.

Conclusion: These patients may not be receiving optimal prophylaxis. There was significant underuse of dexamethasone.

METHODS

• REB approval with waived consent was obtained.
• This is a retrospective chart review utilizing electronic and paper records.
• The PICIS Anesthesia information management system was used to identify children 3 years of age and older undergoing strabismus surgery for greater than 30 minutes in 2010.
• Demographics, antiemetic administration, narcotics used, vomiting, duration of PACU stay were recorded.
• Any discrepancies between the electronic and printed anesthetic records were noted.

RESULTS

• 135 patients were identified (Table 1)

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<th>Age (Years)</th>
<th>Gender</th>
<th>ASA Status</th>
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<tbody>
<tr>
<td>6.3±3.4</td>
<td>M</td>
<td>I</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>II</td>
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<td>III</td>
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Table 1: Demographics

• No discrepancies were found between paper charts and electronic records.
• Ondansetron and dexamethasone were the only antiemetics used.
• 76% of patients received prophylaxis according to latest guidelines.
• 95% of all patients received ondansetron and 78% received dexamethasone.
• PONV occurred at least 120 minutes after completion of surgery.
• Doses of antiemetics were appropriate (Max dexamethasone and ondansetron were 2mg/kg and 1.2 mg/kg respectively).

CONCLUSIONS

• 24% of patients were undertreated for PONV.
• Dexamethasone was significantly underused. Further research into the reasons for this are required.
• PONV can occur up to 48 hours after surgery so the true incidence was likely higher than our finding of 6/135 patients.
• There was 100% accuracy of electronic records in regards to drug dosing at our institution. This will help to facilitate future quality control assessments.
• The results were presented during academic rounds and each staff anesthesiologist was given a report comparing their use of antiemetics to their colleagues in this group of patients.
• Our plan is to repeat the study in 6 to 12 months to determine if there is any change in practice.

REFERENCES


In relation to this presentation, I declare that there are no conflicts of interest.