**BACKGROUND**

- Postoperative nausea and vomiting (PONV) is higher after T&A than for most surgeries and can result in unplanned admissions.
- Uncontrolled pain can delay readiness for discharge.
- Optimization of anesthetic could improve post-operative pain, PONV, length of recovery time in the post anesthesia recovery unit (PACU), and patient/family satisfaction.

**OBJECTIVE**

Improve the intraoperative and acute postoperative care of patients undergoing T&A.

**GOALS**

- Decrease time to readiness for discharge in PACU.
- Decrease average pain scores in PACU.
- Decrease incidence of rescue medications in PACU for both pain and PONV.
- No increase in time to prepare or deliver medications.
- No errors in dosages.
- No increase in adverse events or undesirable medication side-effects.
- Increased value.
- Improved efficiency of intra-op care and post-op recovery time (to facilitate increase in surgical volume).
- 100% compliance by providers to new protocol.

**INTERVENTION**

- Change current T&A anesthetic clinical standard.
- Macro in electronic medical chart updated with new medications and dosages.
- Patient education updated.
- 100% w/ new clinical standard.
- Comparison of current clinical standard to previous two clinical standards.

**METHODS**

- Postoperative Pain, Nausea, Vomiting After Pediatric Day-Surgery Tonsillectomy/Adenoidectomy

**EVALUATION**

**MEASURES**

- Pain scores in PACU, incidence of rescue medication given for pain and nausea time (minutes) from PACU arrival to departure.
- Comparison of current clinical standard to previous two clinical standards.
- Data obtained from anesthesia records and EMR nursing entries during PACU stay.
- While anesthesia clinical standard used for all patients, data from only one solo-working surgeon (no PA, resident, or fellow assisting) to minimize surgical variability.

**RESULTS**

- Results depicted in table and graph below.
- 100% compliance with new clinical standard.

<table>
<thead>
<tr>
<th>Goal</th>
<th>Before Clinical Standard</th>
<th>After Clinical Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain</td>
<td>10%</td>
<td>5%</td>
</tr>
<tr>
<td>Nausea</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>Vomiting</td>
<td>5%</td>
<td>0%</td>
</tr>
</tbody>
</table>

**CONCLUSIONS**

- Difference of incidence of rescue medications for pain and nausea not statistically significant between the 3 groups.
- Difference of time to readiness for discharge from PACU not statistically significant between the 3 groups.
- Average max pain score slightly lower for patients who received morphine and IV acetaminophen.
- Percentage of patients with max pain score from 0-1, significantly higher for those who received morphine + IV acetaminophen.

**NEXT STEPS**

- Cost-benefit analysis of IV acetaminophen.
- Continued literature review of other anesthesiologic analgesics used for T&A cases.