A Quality Improvement Project for Improving Pain Outcomes in a Pediatric Post Anesthesia Care Unit (PACU)

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Background
Improving pain management is a priority key performance indicator on the SickKids Quality Improvement Plan. SickKids pain assessment policy mandates the use of validated pain assessment tools after all procedures, and interventions for moderate to severe pain. The purpose of this audit was to benchmark the frequency of pain score documentation with a validated tool, incidence of moderate to severe pain and pharmacological interventions for moderate to severe pain given in PACU.

Objective
• Assess frequency of pain score documentation using validated pain assessment tools.
• Incidence and intervention for moderate to severe pain in PACU?

Methods
After approval from Quality and Risk Management (Research Ethics Board exempt), a retrospective paper-based audit was undertaken. 100 consecutive patients were identified from the operating room daily census over 4 days in July 2013; one patient did not undergo surgery as planned and was therefore excluded. Data was collected and anonymized from the charts of the remaining 99 patients excluding direct PICU/NICU admissions, non-surgical procedures (MRI, CT, endoscopy) and interventional radiological procedures.

Results
1. Process outcomes:
   - Pain assessment documentation: 68/99 (69%) patients had a pain assessment documented. Total 283 documented pain assessments.

   - Use of validated pain assessment tools: 23/68 (34%) had pain assessment tool documented, including use of non-validated tools 13/68 (19%) had validated pain assessment tool documented.

   - Intervention for moderate to severe pain: 23/27 (85%) received an analgesic for moderate to severe pain. Physical and psychological interventions not documented. 8/27 (30%) had validations, including opioids, without documented pain assessment.

2. Clinical outcome results:
   - Prevalence of moderate to severe pain: Prevalence: 27/68 (40%) patients had at least one moderate to severe pain intensity score. There may be many reasons for this – if your patient has moderate to severe pain please provide an intervention if possible.


Conclusions
Documentation of pain and use of validated assessment tools was variable. Moderate to severe postsurgical pain was common (40%), however pain interventions were often given. Some patients received pain medication without pain score documentation, leading us to believe that clinical assessment for pain was done but not documented.

In response, feedback reports, reminders and educational interventions were implemented and are ongoing. Targeted KT strategies improved pain assessment practices. PACU is incorporated into daily continuous improvement plan and moving forward we will focus on factors that contribute to moderate to severe pain as the next quality improvement issue.