Paediatric Quality-Based Procedures

Tonsillectomy with and without Adenoidectomy

Webinar #1 (Feb 19th, 2014) and Webinar #2 (Mar 27th, 2014) Questions & Answers

Q 1	**Is the webinar presentation being recorded?**
A	• Webinar recording is available on the PCMCH website free of charge, along with other relevant information (webinar slide deck, the Implementation Toolkit, Q&A document etc): www.pcmch.on.ca/initiatives/qbp-paediatric-tonsillectomy-and-without-adenoidectomy
Q 2	**If 60 % of patients clinically have obstructive sleep apnea (OSA) why are only 10 % admitted? What indicates severe sleep apnea on clinical grounds (e.g.: fatigue/daytime somnolence)?**
A	• Most sleep studies will categorize a patient as severe/moderate-severe/or mild. There is consensus that patients who have severe sleep apnea should be admitted. Recent literature suggests that patients with mild or even moderate sleep apnea do not have to be admitted. • The majority of paediatric patients who have surgery for obstructive breathing do not have a sleep study. Timely access to these studies is problematic. Instead, clinical judgment is used by the healthcare team based on the assessment of known risk factors (i.e. patient history, physical examination and any related co-morbidities). For example, a patient who has a clinical diagnosis of obstructive sleep apnea who may also be failing to thrive is more likely to be admitted. • The original plan may change intra-operatively. For example, patients who were booked as an outpatient may be admitted if they have respiratory complications immediately after surgery.
Q 3	**Please comment on the use of intra-operative Tylenol in high doses.**
A	• The Tonsillectomy QBP Clinical Expert Advisory Group (CEAG) recommended acetaminophen as the 1st line of pain management for paediatric Tonsillectomy and Adenoidectomy (T&A). Rectal dose administered intra-operatively may be sufficient. • This recommendation is consistent with the American Academy of Otolaryngology Clinical Practice Guideline for Tonsillectomy in Children which states that rectal administration is better tolerated than oral administration of acetaminophen[1]. • For more information and specific dosage instructions, please refer to Recommendation 2.2.2 provided in the Tonsillectomy QBP Toolkit or in the Tonsillectomy QBP Handbook. The QBP Handbook is available online at http://health.gov.on.ca/en/pro/programs/ecfa/funding/hs_funding_qbp.aspx

[1] Baugh, R., Archer, S., Mitchell, R., Rosenfeld, R., Amin, R., Burns, J., Patel, M. (2011). Clinical practice guideline: Tonsillectomy in children. *Otolaryngol Head Neck Surg, 144(1 Suppl):S1-30.*

Q 4	**Will detailed data specifications be provided?**
A	• Yes. Detailed data specifications will be provided as part of the final QBP Tonsillectomy Handbook, posted on the MOH website.
Q 5	**Does the type of surgical technique change the LOS or increase complications? Has this been taken into consideration in the QBP analysis?**
A	• There are various surgical techniques that can be used in T&A surgery ("hot", "cold" surgical dissection, etc). The Tonsillectomy QBP expert panel agreed that, based on the current evidence, the risk of post-operative hemorrhage complications appears to be the same across different methods. • However, if an institution observes higher than usual rates of post-operative hemorrhage within 24 hours of surgery, the issue of surgical methods should be further investigated on an individual basis.
Q 6	**If you plan to send a patient with Obstructive Sleep Apnea (OSA) home on the same day, how long would you keep them post-operatively?**
A	• Clinical Guidelines from the Registered Nurses' Association of Ontario (RNAO) include information pertaining to parameters that need to be met before a patient can be discharged from the post-anesthetic care unit. Paediatric patients with OSA should be kept for at least 2 hours. Most hospitals typically choose to keep these patients longer (2-4 hours). The QBP expert panel agreed that 3-4 hours is an appropriate period for this patient population. • Of note, proper post-operative assessment is of the essence (e.g.: Is the patient drinking? Is s/he alert?). Any problems related to de-saturation or other respiratory issues in the immediate post-operative period are an indication for complication later on. Patients who exhibit these issues should be considered for admission to hospital.
Q 7	**What is the duration that dexamethasone is administered? Intra-operatively only or post-operatively as well?**
A	• Dexamethasone should be administered intra-operatively.
Q 8	**What will be the general process for implementing change within hospitals? Will this be up to individual hospitals to lead? Will there be a central coordination? Will there be any feedback on outcomes?**
A	• Questions regarding QBP implementation are best addressed by contacting the MOHTLC directly. You can call-in or email your query to the HSF helpline: HSF@ontario.ca, 416-327-8379.
Q 9	**We service a region that has a significant rural population and admit patients who live far away from their medical care. Is there any discussion regarding this type of scenario in the Handbook?**
A	• Yes. An Action Plan for Parents/Caregivers should be developed in each facility in order to facilitate appropriate management of post-operative complications including bleeding, fever, nausea and pain. The risk of post-operative bleeding extends from the day of surgery to up to 14 days after surgery. Therefore, it is recommended that families remain within 1 hour of travel from an acute care facility for a period of 14 days. • For more information please refer to Recommendation 3.3.3 provided in the Tonsillectomy QBP Toolkit or in the Tonsillectomy QBP Handbook.

Q 10	**Was there any evaluation of induction medications other than dexamethasone? After developing a consistent approach with respect to induction medications with the anesthetists, we found that post-operative nausea and vomiting were significantly reduced. In addition, we were able to decrease the number of children who needed to be admitted due to persistent vomiting and difficulty with rehydration.**
A	• The QBP expert panel considered the issue of induction agents and agreed that the current literature does not provide any evidence to support the choice of one type of induction agent over another. The decision should be left to the discretion of individual institutions and th their pharmacy and anesthesia experts.
Q 11	**Where should a patient with OSA be admitted (i.e. inpatient unit, step down unit or ICU)?**
A	• These patients should be monitored with continuous pulse oximetry and nursing observation. The location of care must be able to provide those services.
Q 12	**Are you familiar with the Stop Bang tool for assessing sleep apnea? Do you feel this is an appropriate tool for children?**
A	• The STOP BANG Questionnaire was developed for use in adults and has been validated in adult population only. It can be found online at http://sleepapnea.org/assets/files/pdf/STOP-BANG%20Questionnaire.pdf. Work is underway for a similar questionnaire which will be validated for use in the paediatric population.
Q 13	**Will targets be developed for the evaluation metrics that were identified for both Tonsillectomy and Hyperbilirubinemia QBPs?**
A	• PCMCH will not be developing the targets for Tonsillectomy and Hyperbilirubinemia QBPs. Once the indicator methodology is developed and approved by the Ministry of Health and Long-term Care, it will be up to individual organizations to compare their practice with that of their peers and to set improvement goals as appropriate. • Questions regarding QBP implementation are best addressed by contacting the MOHTLC directly. You can call-in or email your query to the HSF helpline: HSF@ontario.ca, 416-327-8379.
Q 14	**In our facility, there is variability in terms of overnight stay post-operatively based on clinical judgment of OSA. You covered some of the basics regarding who should be admitted. Do we have any data across the province regarding the rates of overnight stay (which hospitals are doing it and what are the reasons)? Can you comment on the application of clinical judgment in the absence of sleep studies? Can you provide additional guidance regarding this issue?**
A	• Decision regarding the severity of obstructive breathing has to be made based on the assessment of risk factors. Initial decision may change as the process unfolds from pre- to intra- and to post-operative period: a) Intra-operative complications may change the initial management strategy in terms of sending the patient home, and b) Immediate post-operative period also provides a window of opportunity to re-assess a patient. For example, patients with any desaturation in the recovery room should be admitted as they are more likely to experience respiratory complications. • For more information please refer to Recommendations 3.2.3 and 3.2.5 provided in the Tonsillectomy QBP Toolkit or in the Tonsillectomy QBP Handbook. •

Q 15	**Can you comment on the use of NSAIDs and the risk of bleeding? While NSAIDs may not increase the risk of bleeding, if a patient is experiencing hemorrhage, the NSAIDs may make it more difficult to stop it.**
A	• The QBP recommendations regarding the use of NSAIDs are based on high-quality evidence. General surgery literature supports the use of NSAIDs in surgery with no increased risk of bleeding. When it comes to paediatric T&A surgery current evidence also supports the use of NSAIDs as a safe alternative to acetaminophen and morphine. Of note, the 2005 review by the Cochrane Anaesthesia Group[2] and the 2013 updated systematic review & meta-analysis of 36 randomized controlled trials from the Journal of Clinical Otolaryngology[3], indicate that NSAIDs can be considered a safe method of analgesia among children undergoing tonsillectomy. You may consider further consultation with your local anesthesia experts regarding this issue.
Q 16	**Can you comment on the use of topical anesthetics? There are some concerns about the anesthetics leaking on the vocal cords which may decrease patients' ability to protect their airway.**
A	• Current evidence supports the use of topical agents because infiltration may increase the risk of bleeding. When it comes to protecting the airway the topical anesthetic can be sprayed on the vocal cords in order to minimize the risk of laryngospasm.
Q 17	**In the overview of the exclusion/inclusion criteria provided in the final QBP Handbook, there is a recommendation regarding the use of two HIG groups (086 and 080) and one CACS group (C101). Can you comment on the use of HIGs and CACS vs. the ICD-10 Codes?**
A	The following recommendation was received from the Health Analytics Branch (MOHLTC, Health System Information Management & Investment Division) regarding the QBP Tonsillectomy cohort definition, after the data analysis was completed by the Expert Panel: • *Two HIG groups (086 - Oral Cavity/Pharynx Intervention, 080 - Other Ear Intervention) and one CACS group (C101 - Tonsil/Adenoidectomy) accounted for 98% of cases in the expert panel cohort. However, these inclusions did not account for all of the diagnostic exclusions, and therefore may not be an appropriate replacement to the diagnostic exclusions. Other approaches to simplifying the large list of diagnostic exclusions were explored, but none of the approaches proved to be useful.* • *Nevertheless, the HIG and CACS inclusions were useful as a supplementary extraction criteria to increase cohort homogeneity in terms of resource utilization and clinical case-mix groups. Applying these inclusions will also ensure that the tonsillectomy cohort does not overlap with another QBP cohort, many of which are based on HIG and CACS groups.* • ***Therefore, our analyses supports the recommendation that the current tonsillectomy cohort be supplemented with inclusion of HIG 086 and 080, and CACS C101.*** Although the new supplementary extraction criteria, as outlined above, was not applied to the cohort used by the Expert Panel to perform data analysis presented in Section 2.3.3: Practice

[2] Cardwell, M., Siviter, G., & Smith, A. (2005). Nonsteroidal anti-inflammatory drugs and perioperative bleeding in paediatric tonsillectomy. *Cochrane Database of Systematic Reviews*.(2).

[3] Riggin, L., Ramakrishna, J., Sommer, D., & Koren, G. (2013, April). A 2013 updated systematic review & meta-analysis of 36 randomized controlled trials; no apparent effects of non steroidal anti-inflammatory agents on the risk of bleeding after tonsillectomy. Clin Otolaryngol, 38(2), 115-29.

	Variation, it does not change the final recommendations outlined in Section 4.2: Clinical Pathway Recommendations.
Q 18	**Please confirm whether the criteria for admission based on OSA diagnosis remains the same. What is your recommendation regarding management of milder OSA cases?**
A	• It is appropriate to for patients with the diagnosis of ***mild*** sleep apnea to be sent home. Patients with the diagnosis of ***moderate*** sleep apnea should be admitted for observation. • For more information please refer to Recommendation 1.1.3 provided in the Tonsillectomy QBP Toolkit or in the Tonsillectomy QBP Handbook.
Q 19	**Regarding the QBP metrics, what would be considered a positive vs. a negative trend?**
A	• The key objective of this QBP is to reduce inappropriate or unnecessary variations in clinical outcomes across providers, regions and population. Based on the data analysis provided as part of the QBP Handbook, there are variations in LOS as well as the rates of admission and ED re-visits for tonsillectomy-related complications across LHINs. Reducing post-operative admissions and ED revisits due to post-operative complications will be one of the key metrics for this QBP.
Q 20	**Is there a distance cut off that prompts you to admit the patient without obstructive sleep apnea (e.g. more than 1 hour travel-time from a hospital)?**
A	• It is recommended that families remain within 1 hour travel-time from an acute care facility for a period of 14 days. In order to facilitate appropriate management of post-operative complications, particularly bleeding, the recommended cut off for travel time is the same for both groups (tonsillectomy with and without OSA diagnosis). • For more information please refer to Recommendation 3.3.3 provided in the Tonsillectomy QBP Toolkit or in the Tonsillectomy QBP Handbook.
Q 21	**One of the recommendations states that consideration should be given to an extended period of post-operative observation for patients < 2 years of age. Why did you pick 2 years as a cut off period?**
A	• The recommendation provided in the QBP handbook is based on the best available evidence. It is not meant to replace clinical judgment. Clinical assessment is paramount in each individual case. The Expert Panel recognizes that, based on the current literature, the age cut off is not universal. In practice some hospitals choose to admit all patients under 3 years of age while others only admit patients under 2. • For more information please refer to Recommendation 3.2.3 provided in the Tonsillectomy QBP Toolkit or in the Tonsillectomy QBP Handbook.
Q 22	**Regarding the exclusion of previous peritonsillar abscess, does this criterion apply to any inpatient admission within the last 30 days? Does this include admissions to any provincial facility?**
A	• This exclusion applies to all cases of previous peritonsillar abscess, including admissions to any Ontario acute care hospitals within 30 days. The Expert Panel recognizes that some facilities may only be able to identify previous admissions within their own institution, which may result in very minor discrepancies between MOHLTC calculations and facility's own calculations.