INTRACAPSULAR TONSILLECTOMY - DAY SURGERY - CHW

PRACTICE GUIDELINE ©

DOCUMENT SUMMARY/KEY POINTS

- Intracapsular tonsillectomy is a technique by which tonsils are almost completely removed but part of the capsule is left in place, reducing risk of post-operative bleeding and pain.
- Patients must meet certain criteria to be considered for Day Surgery Tonsillectomy
- In addition to standard post-operative care, further considerations are required for these patients.
- On discharge, these patients will be cared for by the VirtualKIDS Team for 24 hours post-surgery
- Currently this practice guideline is only applicable for CHW, however, it can be adapted and rolled out to SCH in the future.

CHANGE SUMMARY

- N/A – New Document

READ ACKNOWLEDGEMENT

- Read Acknowledge Only – Perioperative staff, VirtualKIDS, ENT teams.

Approved by:	SCHN Policy, Procedure and Guideline Committee	
Date Effective:	1st July 2022	**Review Period**: 3 years
Team Leader:	Clinical Nurse Educator	**Area/Dept**: Day Surgery - CHW

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1 Background

Traditionally, patients requiring tonsillectomy surgery are admitted post operatively for a minimum one night stay, to monitor and manage post-operative bleeding and pain.

With the advancement of technology, many tonsillectomies can be performed through less invasive techniques thus reducing the recovery time post-surgery. In addition to the introduction of virtual nursing services, this allows patients to be discharged on the day of surgery, preventing an overnight stay in hospital whilst still maintaining hospital level care at home.

1.1 Overview of Intracapsular tonsillectomy

Tonsils consist of lymphoid tissue surrounded by a capsule. Intracapsular tonsillectomy (ICT) is a technique by which tonsils are almost completely removed but part of the capsule is left in place. The capsule acts as a biological dressing, protecting the pharyngeal muscle which is left exposed during traditional tonsillectomies, reducing the risk of bleeding.

ICT is as effective as traditional tonsillectomies in treating sleep disordered breathing and recurrent tonsillitis and studies show that patients who undergo ICT surgery have less pain, less post-operative haemorrhage and improved post-operative oral intake. [1]

2 Surgical and Anaesthetic Criteria

To be considered for Day Surgery ICT, patients must meet the following inclusion criteria.

2.1 Inclusion Criteria

- >3 years of age
- >/= 15kgs
- ASA 1 or 2
- Mild – moderate obstructive sleep apnoea (OSA)
- No contraindications for the use of NSAIDs and paracetamol
- Live within 1 hours drive from The Children's Hospital at Westmead

2.2 Exclusion Criteria

- Severe OSA
- At risk of, or have, a central component to their OSA
- Major medical comorbidity – particularly related to airway or cardiorespiratory problems
- Require post-operative ICU care
- < 3 years of age
- < 15kgs

Patients who are also having insertion/removal of grommets or adenoidectomy may also be included in this model of care and must meet the inclusion criteria.

3 Pre-Operative Assessment

During the initial consultation, the ENT surgeon will assess the tonsils and determine the patients' eligibility for day surgery ICT. Patients and their families are informed that they will be cared for under the day surgery model of care and they will be going home on the day of surgery. Consent for surgery will be obtained at this appointment.

Patients who are potentially suitable for day surgery ICT (e.g. close to age/weight) or will meet criteria prior to their surgery date will be flagged and the pre-admission team is to review referral and confirm suitability.

Patients and their family will also be given a QR code that links to the CHW Internet page where they will find information on their procedure and what to expect.

A week before the scheduled surgery, a pre-operative education session will be conducted via telehealth with the patient, their family, VirtualKIDS and Middleton staff.

If at any stage the patient no longer meets the inclusion criteria, the patient will be removed from the day surgery model of care.

Patients will receive a phone call the day before surgery with wellness check and fasting times.

4 Post-Operative Care

4.1 Middleton Day Surgery Unit PACU1

In addition to standard post-operative care (refer to Care of Patients in Middleton Day Surgery Unit Practice Guideline), further considerations are required for these patients. Patients are required to stay in PACU for at least 1 hour to monitor airway, pain and nausea.

4.1.1 Pain Management

These patients may have increased analgesia requirements and should remain stay in PACU 1 until pain is well controlled. Refer to Intravenous Opioid Administration in Todman and Middleton Post Anaesthetic Care Units - CHW practice guideline.

It is expected that these patients may experience a sore throat for at least 1 week, education from nursing staff is essential to prevent re-presentation to Emergency Department (ED) post discharge.

4.1.2 Nausea Management

Minimising post-operative nausea and vomiting (PONV) is essential to ensure the patient meets day stay discharge criteria.

Intraoperatively, intravenous fluid therapy and intravenous anti-emetics (e.g. Ondansetron) should be used to assist in the prevention of PONV[2], in addition, early administration of further anti-emetics post-operatively is essential to control PONV. The patient is to remain in PACU1 until PONV is well controlled.

4.2 PACU 2

These patients are to be transferred from PACU 1 to PACU 2:

- After one hour,
- When maintaining own airway,
- When awake, alert and comfortable and;
- Have minimal pain and nausea.

Once transferred, patients will remain in PACU 2 for 3 – 5 hours, depending on pain and nausea levels. They will have 30 minutely vital sign assessments until discharge. IVC to remain in situ until discharge.

4.3 Transfer from MDSU to VirtualKIDS

Day Stay ICT patients require a medical review prior to transfer to VirtualKIDS, in addition to meeting the following discharge criteria:

- Tolerating oral intake or the patient has received adequate intravenous hydration as per Intravenous Fluid Management Practice Guideline
- Minimal nausea and no vomiting for at least one hour.
- Mobilising in an age appropriate manner
- Nil or minimal wound ooze. Patients should not be discharged if there is active bleeding and surgical review should be organised.

Prior to departure from MDSU, patients and family require:

- Oral oxycodone obtained from Pharmacy (if appropriate for patient)
- Education on home pain management protocols including medication, dosage and frequency
- Nursing discharge instructions with information on nausea management and poor oral intake protocols,
- VirtualKIDS contact number

Use 'Repeat Back' method to ensure, patient and family understand discharge instructions prior to departure.

On transfer from MDSU, nursing staff must provide verbal handover to VirtualKIDS nursing staff, and transfer patient to 'HITH (NON COVID VirtualKIDS)' bed board.

4.4 VirtualKIDS

Once home, parents are able to contact VirtualKIDS in the first 24 hours post-surgery. VirtualKIDS will contact the patient/family at 4 hours post discharge and again at 24 hours to follow up on patient progress and address any concerns the patient or family may have.

VirtualKIDS Clinical Nurse Consultants (CNC) are to be given escalation plan flow charts to follow when communicating with patients and their families (see appendix).

The VirtualKIDS CNC will hand over to the ENT team via email the following morning, outlining any clinical concerns that may have arisen overnight.

Should a patient be required to present to the ED overnight. VirtualKIDS CNC will notify the ED Admitting Officer and the ENT registrar on call of expected arrival

4.5 Patients Requiring Overnight Admission

Overnight admission may be required for patients when:

- Significant intraoperative or post-operative airway or respiratory events occur (i.e. breath-holding, laryngospasm, obstruction, aspiration or requiring major intervention in response to prolonged, significant desaturation).
- Post-operative pain control is inadequate or oral intake is inadequate
- Post-operative nausea and/or vomiting is not controlled following:
    - intraoperative antiemetic prophylaxis
    - a further dose of Ondansetron and
    - a dose of Cyclizine or Droperidol.
- Post-operative bleeding requiring return to operating theatre

If the patient does not meet the discharge criteria and requires an overnight admission, MDSU nursing staff must notify VirtualKIDS via phone to prevent the patient being called whilst still in hospital.

5 Evaluation

An evaluation is required as this is a new model of care for MDSU and VirtualKIDS.

The family are asked to complete an evaluation survey on admission to MDSU and 3 weeks after surgery during ENT follow up. The evaluation forms are found in the appendix of this document.

6 References

1. Kim J, Kwon S, Lee E, Yoon Y. Can Intracapsular Tonsillectomy Be an Alternative to Classical Tonsillectomy? A Meta-analysis. Otolaryngology–Head and Neck Surgery. 2017;157(2):178-189.
2. Elgueta M, Echevarría G, De la Fuente N, Cabrera F, Valderrama A, Cabezón R et al. Effect of intravenous fluid therapy on postoperative vomiting in children undergoing tonsillectomy. British Journal of Anaesthesia. 2013;110(4):607-614.

Appendix 1 – VirtualKIDS Escalation Plan

Escalation plan

Patients/parents may ring VirtualKIDS in the first 24hours with the following concerns:

Issue	Reason	Action
Pain	Most common concern post-surgery	• Paracetamol • Oral: 15mg/kg (up to 1g/dose) every 4 - 6 hours PRN. Maximum 60mg/kg/DAY, not to exceed 4g/DAY • Rectal: 15-20mg/kg/dose (up to 1g/dose) every 6 hours PRN. Maximum 60mg/kg/DAY, not to exceed 4g/DAY • Ibuprofen • Oral: 5-10 mg/kg/dose (up to 400mg/dose) every 6 - 8 hours PRN. Maximum 40mg/kg/DAY, not to exceed 2.4g/DAY • Oxycodone • Oral: 0.1 – 0.2mg/kg/dose (up to 10mg) every 4-6 hours as needed (max 4 doses per day) • Suggest alternating between paracetamol and ibuprofen every 3 hours, giving oxycodone only when required. • Medications may need to be syringed into back of mouth. • Holding the child's lips apart while syringing medicine will prevent them from spitting the liquid out. • Paracetamol PR can be given as an alternative for Paracetamol PO. It is quickly absorbed and very effective when children refuse to take medication orally. • If all medications given and still in pain, will need to re-present to ED
Bleeding	A small amount of bleeding from the nose or in the saliva is acceptable.	• If bleeding from the nose, control with digital pressure over the nasal alar, head up and cold compress to forehead or ice to suck.

Issue	Reason	Action
		• More than a teaspoonful of fresh blood – present to ED
Fevers	A low-grade temperature is common	• A temperature > 38.5 degrees may require antibiotics or further assessment in the Emergency Department
Vomiting	It is normal to experience some vomiting mainly due to anesthesia	• Trial small sips water or electrolyte replacement solutions (for example hydrolyte) • If intractable vomiting will need to re-present to ED
Nausea	It is normal to experience some nausea mainly due to the anesthesia	• Trial small sips water or electrolyte replacement solutions
Poor oral intake	Normal for poor oral intake following surgery.	• Generally soft and cold foods (icy poles, ice cream, jelly, yoghurt, baby food) are more soothing on the throat but children can eat whatever they would like. • Even if they do not eat much, they must maintain fluid intake. • Small frequent sips of any kind of drink • If refusing to drink try icy poles, jelly, ice chips to suck • If still refusing may require fluid syringed into back of mouth. • Holding the child's lips apart while syringing will prevent them from spitting the liquid out.
Drooling	Drooling may be present due to pain (odynophagia)	• Give more pain relief (if available) if child is reporting pain as per pain management protocol above pg.8.
Halitosis	Not concerning and will resolve on its own.	• Can use saline spray to both nostrils if tolerated.
Voice change	In early stages is usually secondary to pain and due to children splinting their palate.	• Give more pain relief (if available) as per pain management protocol above – pg.8

Post Grommets

Issue	Reason	Action
Pain	Most common concern post-surgery	• Follow pain management protocol as outlined above – pg.8
Otorrhoea (ear discharge)	The ear canals are often filled with antibiotic eardrops at the time of surgery, and these may leak out over the following day	• A small amount of blood- stained discharge is normal • Copious purulent discharge requires medical review the next day and probably antibiotic treatment • Ears should be kept dry at least the first 2 weeks (thereafter depends on specialist advice) • Half a cotton wool ball covered in Vaseline will suffice for bathing, earplugs if available
Hyperacusis	Some children may complain that noises are too loud post grommets	• Usually in the setting of prolonged hearing loss that has suddenly improved. They will adapt over the following days to week

Post adenoidectomy

Issue	Reason	Action
Pain	Most common concern post-surgery	• Follow pain management protocol as outlined above – pg.8
	Neck pain	• If a child has severe neck pain post adenoidectomy, they will be unable to turn their head • This requires review by the treating team the following day • VirtualKIDS to advise ENT registrar in the AM and a follow up email to ENT secretary and ENT CNC.

Epistaxis (nosebleed)	A small amount of epistaxis is common. The operation is usually done with a telescope in the nose and a small scratch to the septum may cause minor nose bleeding.	• This will usually settle with:
		  ○ Digital pressure – pinching nostrils together
		  ○ Ice to suck – causes vasoconstriction
		  ○ Oxymetazoline 0.05% nasal spray
		• Substantial epistaxis that does not settle with first aid measures – advise to present to ED

Halitosis	Not concerning, common following adenoidectomy – will resolve.	• Can use saline spray as per manufacturer's instructions to both nostrils if tolerated.
Fever	A low-grade temperature is common	• A temperature > 38.5 degrees may require antibiotics or further assessment the following day. • VirtualKIDS to advise ENT registrar in the AM and a follow up email to ENT secretary and ENT CNC.

Appendix 2 Evaluation Forms

Tonsillectomy Pre Survey

Date: _____

1.

	Not prepared				Very prepared
I feel prepared for my/my child's upcoming surgery	1	2	3	4	5

2.

	Not useful				Very useful
How useful was the information provided in preparation for surgery					
• QR code	1	2	3	4	5
• Discussion with surgeon	1	2	3	4	5
• Pre education session	1	2	3	4	5
• Other _____	1	2	3	4	5

Please provide any comments: _____

3.

	Not confident				Very confident
I feel confident with my/my child's recovery plan (i.e. I know what to expect and who to contact if I have any questions or concerns)	1	2	3	4	5

4. Any additional comments/feedback

_____
_____

Tonsillectomy Post Survey

Date: _____

1.

	Not well				Very well
I felt well informed about my/my child's surgery and recovery	1	2	3	4	5

Please comment on your rating: _____

2.

	Not well				Very well
I felt well cared for post-surgery in Middleton Ward before being discharge	1	2	3	4	5

Please comment on your rating: _____

3.

	Not helpful				Very helpful
Being home on the same day as my/my child's surgery was helpful	1	2	3	4	5

Please comment on your rating: _____

4.

	Not helpful				Very helpful
I found the follow up from VirtualKIDS overnight helpful	1	2	3	4	5

Please comment: _____

5.

	Not satisfied				Very satisfied
Overall I'm satisfied with my/my child's care	1	2	3	4	5

6.

Thinking about your whole day stay tonsillectomy experience, is there anything that we could do better for the next patient?

_____

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