

**2016**

**Commissioning guide:**

# Tonsillectomy

Sponsoring Organisation: ENT UK  
Date of first publication: October 2013  
Date of revised evidence search: January 2016  
Date of revised publication: September 2016  
Date of next Review: September 2019

## Contents

Introduction	3
1. High Value Care Pathway for Tonsillectomy	3
1.1 Pathway for recurrent tonsillitis/ sore throat or its complications (e.g. quinsy) in children <16 and in adults	3
Primary care assessment	3
Referral	4
Secondary care	4
Surgical setting	4
1.2 Pathway for children (<16 years) with sleep disordered breathing	4
Primary care assessment	4
Referral	5
Secondary care	5
Surgical setting	6
2. Procedures explorer for tonsillectomy	6
3. Quality dashboard for tonsillectomy	6
4. Levers for implementation	6
4.1 Audit and peer review measures	6
4.2 Quality Specification/CQUIN	7
5. Directory	8
5.1 Patient Information for tonsillectomy	8
5.2 Clinician information for tonsillectomy	8
6. Benefits and risks of implementing this guide	9
7. Further information	9
7.1 Research recommendations	9

## 1. Introduction

This commissioning guide comprises two pathways of care which culminate in tonsillectomy:

- Recurrent tonsillitis or its complications (e.g. quinsy) in children <16 and in adults
- Sleep disordered breathing in children <16

Recurrent acute sore throat is a very common condition presenting in primary care and tonsillectomy is one of the most common operations. It presents a significant burden of disease; in the period quarter 1 to quarter 4 2014/15 10,155 tonsillectomies were carried out for recurrent tonsillitis in children (less than 17 years) and 2,228 in adults in England. In the same period 15,104 procedures were carried out for sleep disordered breathing in children in England.<sup>1</sup>

There is an inequality of care demonstrated by widespread variation in the number of operations across the country; this makes an understanding of the pathway of care for this group of patients a commissioning priority.

For tonsillectomy there is good evidence addressing effectiveness in children; but limited evidence in adults.

## 2. High Value Care Pathway for Tonsillectomy

This section provides *two pathways*:

### 1.1 Pathway for recurrent tonsillitis/ sore throat or its complications (e.g. quinsy) in children <16 and in adults

#### *Primary care assessment*

- Non-prescription of antibiotics does not mean that sore throats have been inadequately treated
- Carefully assess (history and examination) a patient with sore throat symptoms and document diagnosis of significant sore throat or tonsillitis
- Carefully assess and document impact on quality of life
- There is a role for the use of patient decision aids and shared decision making at this point in pathway
- There is no evidence that antibiotics have a role in preventing recurrent tonsillitis

---

<sup>1</sup> National Surgical Commissioning Centre. <http://rcs.methods.co.uk/pet.html> [ Accessed on 17/3/16]

### TONSILLECTOMY

---

#### *Referral*

- Consider referral if [SIGN criteria](#) are met (i.e. 7 or more significant sore throats (with impact to patient and family) in the preceding 12 months or 5 or more episodes in each of the preceding two years, or 3 or more in each of the preceding three years).
- There are a small proportion of patients with specific clinical conditions or syndromes, who require tonsillectomy as part of their on-going management strategy, and who will not necessarily meet the SIGN guidance (e.g. those presenting with psoriasis, nephritis, PFAPA syndrome)
- Before referral to secondary care, discuss with patient/parents or carers the benefits and risks of tonsillectomy vs. active monitoring. Sign post patients to relevant information and reassurance given if no further treatment or referral for tonsillectomy is deemed necessary at this stage. This discussion should be documented.
- The impact of recurrent tonsillitis on a patient's quality of life and ability to work or attend education should be taken into consideration. A fixed number of episodes, as described above, may not be appropriate for adults with severe or uncontrolled symptoms, or if complications (e.g. quinsy) have developed.

#### *Secondary care*

- Confirmation of primary care assessment, fulfilment of SIGN criteria for tonsillectomy and impact on quality of life and ability to work/attend school
- Consultation with patient about management options using shared decision making strategies and tools where appropriate
- Management options: tonsillectomy, or referral back to primary care for active monitoring

#### *Surgical setting*

- *Children:* Usually within a surgical facility with facilities for children as a day case
- *Adults:* Usually as a day case

## 1.2 Pathway for children (<16 years) with sleep disordered breathing

#### *Primary care assessment*

- Sleep disordered breathing ranges from simple snoring to obstructive sleep apnoea. Carefully assess (history and examination) children presenting with

### TONSILLECTOMY

---

symptoms of snoring to distinguish between simple snoring and disruptive breathing patterns whilst asleep

- Make note of nasal obstruction and size of tonsils
- Carefully assess and document impact on development, behaviour and quality of life e.g. height and weight, hyperactivity, daytime somnolence
- Consider asking parents to bring a video of their child sleeping
- Consider the role of obesity as a cause of sleep disordered breathing and referral to a weight management service
- Children with simple snoring without symptoms or signs of apnoea are unlikely to benefit from adeno-tonsillectomy
- In older children >6 years with mild/moderate symptoms of obstructive sleep disordered breathing consider a trial of nasal saline irrigation and or intranasal steroids for 6-8 weeks

#### *Referral*

- If there are ongoing concerns about obstructive sleep disordered breathing refer to secondary care
- Children with suspected severe apnoea need urgent specialist assessment

#### *Secondary care*

- Reassessment of the patient's clinical history and examination and if available recording of child's sleep. Consider impact on quality of life, behaviour and development
- Consultation with parent/carers about management options using shared decision making strategies and tools where appropriate
- If there is clear obstructive sleep apnoea then discuss surgery
- Children with simple snoring without symptoms or signs of apnoea are unlikely to benefit from adeno-tonsillectomy
- Where there is diagnostic uncertainty consider overnight pulse oximetry, ideally at home or in selected cases an overnight Polysomnogram to determine further management

## TONSILLECTOMY

---

- Consider allergy testing and appropriate treatment
- Children with moderate signs and symptoms consider active monitoring prior to a decision on surgery. These children should be followed-up in secondary care
- There is insufficient evidence at present to be able to recommend Tonsillotomy (Intracapsular tonsillectomy) versus Tonsillectomy

### *Surgical setting*

- Within a surgical facility for children
- Younger children (criteria consensus statement) with severe disease should be managed in a facility with access to paediatric intensive care facilities

## 2. Procedures explorer for tonsillectomy

Users can access further procedure information based on the data available in the quality dashboard to see how individual providers are performing against the indicators. This will enable CCGs to start a conversation with providers who appear to be 'outliers' from the indicators of quality that have been selected.

The Procedures Explorer Tool is available via the [Royal College of Surgeons](#) website.

## 3. Quality dashboard for tonsillectomy

The quality dashboard provides an overview of activity commissioned by CCGs from the relevant pathways, and indicators of the quality of care provided by surgical units.

The quality dashboard is available via the [Royal College of Surgeons website](#).

## 4. Levers for implementation

### *4.1 Audit and peer review measures*

The following measures and standards are those expected at primary and secondary care. Evidence should be able to be made available to commissioners if requested.

	Measure	Standard
<i>Primary Care</i>	Documentation of symptoms	Significant symptoms should be documented prior to referral
	Referral	Do not refer patients who do not fulfil criteria for referral unless specific exceptions apply
	Patient information	Patients are signposted to appropriate information prior to referral
<i>Secondary Care</i>	Patient engagement and information	Evidence of patient's engagement in shared decision making process including signposting patients to appropriate patient information
	Criteria for surgery	Evidence of appropriate documentation that patients fulfil criteria for surgery
	Criteria for non-day case decisions	Evidence of appropriate documentation supporting any non-day case decision
	Audit	Audit of : <ul style="list-style-type: none"> <li>• Post-operative complications and morbidity</li> <li>• Appropriate peri and post- operative management (pain control, post-discharge information etc.)</li> </ul>

#### 4.2 Quality Specification/CQUIN

Measure	Description	Data specification (if required)
<i>Length of stay</i>	Provider demonstrates a mean LOS of <2 days	Data available from HES
<i>Day Case Rates</i>	Provider demonstrates day case is the expectation	% achieving Best Practice Tariff
<i>Unplanned readmissions within 30 days</i>	Provider demonstrates low readmission rates within 30 days: up to 15% is acceptable for post-operative pain/nausea & vomiting and bleeding)	Data available from HES

## 5. Directory

### 5.1 Patient Information for tonsillectomy

Name	Publisher	Link
Shared decision making tool	Right Care	<a href="http://sdm.rightcare.nhs.uk/pda/recurrent-sore-throat/">http://sdm.rightcare.nhs.uk/pda/recurrent-sore-throat/</a>
ENT-UK Patient Information leaflet on tonsillectomy	ENT-UK	<a href="https://entuk.org/ent_patients/information_leaflets">https://entuk.org/ent_patients/information_leaflets</a>
Tonsillitis	NHS Choices	<a href="http://www.nhs.uk/conditions/tonsillitis/pages/treatment.aspx">http://www.nhs.uk/conditions/tonsillitis/pages/treatment.aspx</a>
Tonsillitis	Patient.co.uk	<a href="http://patient.info/doctor/tonsillitis-pro">http://patient.info/doctor/tonsillitis-pro</a>

### 5.2 Clinician information for tonsillectomy

Name	Publisher	Link
Management of sore throat and indications for tonsillectomy <i>A national clinical guideline</i>	SIGN	<a href="http://www.sign.ac.uk/pdf/sign117.pdf">http://www.sign.ac.uk/pdf/sign117.pdf</a>
Prescribing of antibiotics for self-limiting respiratory tract infections in adults and children in primary care	NICE	<a href="http://www.nice.org.uk/CG69">http://www.nice.org.uk/CG69</a>
Clinical Knowledge Summary: Acute Sore Throat Management	NICE	<a href="http://cks.nice.org.uk/sore-throat-acute">http://cks.nice.org.uk/sore-throat-acute</a>
Tonsillectomy and adenoidectomy in children with sleep related breathing disorders: consensus statement of a UK multidisciplinary working party	RCPCH	<a href="http://www.rcpch.ac.uk/sites/default/files/asset_library/Research/Clinical%20Effectiveness/Final%20Publicationm.pdf">http://www.rcpch.ac.uk/sites/default/files/asset_library/Research/Clinical%20Effectiveness/Final%20Publicationm.pdf</a>
Tonsillectomy and Adenoidectomy in Children with Sleep Related Breathing Disorders	RCOA	<a href="http://www.rcoa.ac.uk/document-store/tonsillectomy-and-adenoidectomy-children-sleep-related-breathing-disorders">http://www.rcoa.ac.uk/document-store/tonsillectomy-and-adenoidectomy-children-sleep-related-breathing-disorders</a>
EPOS 2012: European position paper on rhinosinusitis and nasal polyps 2012	EPOS	<a href="https://aaaai.confex.com/aaaai/2014/webprogram/Handout/Paper6814/Fokkens-Lund-Mullol-Bachert%20et%20al.%20Rhinology%2012.pdf">https://aaaai.confex.com/aaaai/2014/webprogram/Handout/Paper6814/Fokkens-Lund-Mullol-Bachert%20et%20al.%20Rhinology%2012.pdf</a>



[202012%20\(EPOS-12%20for%20ENT\).pdf](#)

## 6. Benefits and risks of implementing this guide

Consideration	Benefit	Risk
Patient outcome	Ensure tonsillectomy is only undertaken on patients with appropriate and significant symptoms	As guidelines are well defined, some patients who might otherwise have benefitted from tonsillectomy will not have been offered the procedure (see section 1)
Patient safety	Patients receive appropriate information about their condition and treatment.	HES data indicate that as tonsillectomy rates have fallen in the UK there has been an annual increase in acute hospital admissions with tonsillitis and its complications.
Overnight oximetry	Significantly cheaper than overnight Polysomnography as an in-patient	
Patient experience	Improved shared decision making with patients and family	
Equity of Access	Improve access to effective procedures for those most likely to benefit	To deny access to some patients who might otherwise have benefitted from tonsillectomy
Resource impact	Reduce unnecessary referral and intervention Reduce unnecessary societal costs of recurrent tonsillitis	Increased activity in primary and secondary care in managing acute sore throats. Costs of potential increased surgical activity

## 7. Further information

### 7.1 Research recommendations

### TONSILLECTOMY

---

- Development of core outcome sets for common ENT conditions, including recurrent sore throat and sleep disordered breathing
- RCT of tonsillectomy in adults with recurrent tonsillitis (In progress)
- Development of most clinical and cost effective peri and post-operative clinical protocols
- Systematic review evaluating tonsillectomy versus Tonsillotomy for sleep disordered breathing
- Research on clinically and cost effective diagnostic and therapeutic pathway for children with sleep disordered breathing
- Research in effective self-management by patients with recurrent sore throats/tonsillitis
- Research into most effective methods for practitioners having a shared evidence based knowledge

#### 7.2 Evidence base

1. SIGN. Management of sore throat and indications for tonsillectomy. Edinburgh: *Scottish Intercollegiate Guidelines Network*; 2010. Report No. 117
2. RCSEng. National prospective tonsillectomy audit: final report of an audit carried out in England and Northern Ireland between July 2003 and September 2004. London: *Royal College of Surgeons of England*; 2005
3. Burton MJ, Glasziou PP, Burton MJ, Glasziou PP. Tonsillectomy or adeno-tonsillectomy versus non-surgical treatment for chronic/recurrent acute tonsillitis. [Review] [20 refs][Update of Cochrane Database Syst Rev. 2000;(2):CD001802; PMID: 10796824]. *Cochrane Database of Systematic Reviews* 2009;(1):CD001802.
4. Wilson JA, Steen IN, Lock CA, Eccles MP, Carrie S, Clarke R, et al. Tonsillectomy: a cost-effective option for childhood sore throat? Further analysis of a randomized controlled trial. *Otolaryngology - Head & Neck Surgery* 2012 Jan;146(1):122-8
5. Alkhalil M, Lockey R, Alkhalil M, Lockey R. Pediatric obstructive sleep apnea syndrome (OSAS) for the allergist: update on the assessment and management. [Review]. *Annals of Allergy, Asthma, & Immunology* 2011 Aug;107(2):104-9.
6. Marcus CL, Books LJ, Draper KA, Gozal D, Halbower AC, Jones J, et al. Diagnosis and Management of Childhood Obstructive Sleep Apnea Syndrome. *Pediatrics* 2012;130(3):275-584.
7. Baugh. R et al. Clinical Practice Guideline:Tonsillectomy in Children. *Otolaryngology–Head and Neck Surgery* 2011. Vol 144(1S)
8. Garetz SL, Garetz SL. Behavior, cognition, and quality of life after adenotonsillectomy for pediatric sleep-disordered breathing: summary of the literature. [Review] [71 refs]. *Otolaryngology - Head & Neck Surgery* 2008 Jan;138(1 Suppl):S19-S26.
9. Van Staaij BK, van den Akker EH, van der Heijden GJ, et al. Adenotonsillectomy for upper respiratory infections: Evidence based? *Arch Dis Child* 2005;90:19-25.

## TONSILLECTOMY

10. Robb PJ, Bew S, Kubba H, Murphy N, Primhak R, Rollin A-M, Tremlett M. Tonsillectomy and adenoidectomy in children with sleep-related breathing disorders: consensus statement of a UK multidisciplinary working party *Ann R Coll Surg Engl* 2009; 91: 000–000
11. Burton MJ, Pollard AJ, Ramsden JD. Tonsillectomy for periodic fever, aphthous stomatitis, pharyngitis and cervical adenitis syndrome (PFAPA). *Cochrane Database of Systematic Reviews* 2010, Issue 9. Art. No.: CD008669. DOI: 10.1002 / 14651858. CD008669.
12. Barraclough J, Anari S. Tonsillectomy for recurrent sore throats in children: indications, outcomes and efficacy. *Otolaryngology - Head and Neck Surgery* 2014; 150: 722 - 729.
13. Teo DT, Mitchell RB. Systematic review of effects of adenotonsillectomy on cardiovascular parameters in children with obstructive sleep apnea. *Otolaryngology - Head and Neck Surgery* 2013; 148: 21-28.
14. Kuhle S, Urschitz MS. Anti-inflammatory medications for obstructive sleep apnea in children (review). *The Cochrane Collaboration* 2011; 1. Published by John Wiley and Sons, Ltd. Sleep apnoea cardiovasc paper
15. Chen, X., et al. (2015). Effect of continuous positive airway pressure on leptin levels in patients with obstructive sleep apnea: a meta-analysis. *Otolaryngology - Head & Neck Surgery* 152(4): 610-618.120
16. Witsell D L et al. Quality of life after tonsillectomy in adults with recurrent or chronic tonsillitis. *Otolaryngology - Head and Neck Surgery*.2008. Vol 138
17. De Luca Canto, G., et al. Adenotonsillectomy Complications: A Meta-analysis. *Pediatrics*. 2015; 136(4): 702-718.114
18. Cho, H. K., et al. (2015). Can perioperative acupuncture reduce the pain and vomiting experienced after tonsillectomy? A meta-analysis. *Laryngoscope*.119
19. Horwood L, Brouillette RT, McGregor CD, Manoukian JJ, Constantin E. Testing for Pediatric Obstructive Sleep Apnea When Health Care Resources Are Rationed. *JAMA Otolaryngol Head Neck Surg*. 2014;140(7):616-623. doi:10.1001/jamaoto.2014.778
20. Pavone M et al.2013. Night to night consistency of at home nocturnal pulse oximetry testing for obstructive sleep apnoea in children. *Paediatric Pulmonology*. Vol 48;8' pp.754-760

### 7.3 Guide development group for tonsillectomy

A commissioning guide development group was established to review and advise on the content of the commissioning guide. This group met once, with additional interaction taking place via email and teleconference.

Name	Job Title/Role	Affiliation
Sean Carrie	Consultant ENT Surgeon (Chair)	ENT-UK
Anthony Narula	Consultant ENT Surgeon	ENT-UK
Jonathan Hobson	Consultant ENT Surgeon	ENT- UK
Martin Burton	Consultant ENT Surgeon, Cochrane ENT discussion group	ENT-UK

**TONSILLECTOMY**

---

Anne Schilder	NIHR Research Professor and Professor of Paediatric Otorhinolaryngology	NIHR
Michael Vidal	Patient Representative	Patient Representative
Jill Morrison	Professor General Practitioner	
Peter Robb	Consultant ENT Surgeon	ENT-UK
Philip Taylor	General Practitioner, Newcastle Gateshead CCG	

*7.4 Funding statement*