










Adenotonsillectomy marginally reduced sore throat episodes compared with watchful waiting in children

van Staaï BK, van den Akker EH, Rovers MM, *et al.* Effectiveness of adenotonsillectomy in children with mild symptoms of throat infections or adenotonsillar hypertrophy: open, randomised controlled trial. *BMJ* 2004;**329**:651.

Clinical impact ratings GP/FP/Primary care ★★★★★☆☆ Paediatrics ★★★★★☆☆

Q In children with mild symptoms of throat infections or adenotonsillar hypertrophy, is adenotonsillectomy more effective than watchful waiting?

METHODS

	Design: randomised controlled trial.
	Allocation: {concealed*}†.
	Blinding: unblinded.*
	Follow up period: median 22 months.
	Setting: 21 general hospitals and 3 academic centres in the Netherlands.
	Patients: 300 children who were 2–8 years of age (mean age 4.5 y, 51% girls) and required adenotonsillectomy. Exclusion: ≥ 7 throat infections in the preceding year with ≥ 5 in each of the previous 2 years or ≥ 3 in each of the previous 3 years, suspected obstructive sleep apnoea, Down's syndrome, craniofacial malformations, or immunodeficiency other than IgA or IgG ₂ deficiency.
	Intervention: adenotonsillectomy (n = 151) or watchful waiting (n = 149).
	Outcomes: fever (temperature $\geq 38.0^{\circ}\text{C}$ for ≥ 1 day, throat infections, sore throat, upper respiratory tract infections, and health related quality of life.
	Patient follow up: 86% (intention to treat analysis).
	*See glossary.
	†Information provided by author.

MAIN RESULTS

Compared with watchful waiting group, adenotonsillectomy led to marginally fewer episodes of throat infections, sore throats, and upper respiratory tract infections per person year but did not reduce fever (table). Groups did not differ for health related quality of life.

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CONCLUSION

In children with mild symptoms of throat infections or adenotonsillar hypertrophy, adenotonsillectomy did not reduce fever incidence but marginally reduced throat infections, sore throats, and upper respiratory tract infections compared with watchful waiting.

Commentary

Parents usually report satisfaction after adenotonsillectomy, and parents and physicians often make the decision for surgery considering many factors other than obstructive sleep apnoea and frequency of recurrent infections.¹ Adenotonsillectomy has been shown effective for frequent, recurrent infections.² van Staaï *et al* explored whether adenotonsillectomy was more effective than watchful waiting in children with infrequent throat infections and mild symptoms of adenotonsillar hypertrophy.

They found only minor clinical improvements in the children randomised to adenotonsillectomy. The primary outcome, fever, was objective but non-specific. Fever episodes were not different in the 2 groups. Fever duration decreased by 0.6 days per year in the adenotonsillectomy group, although completeness of the daily fever measurements was not reported. Likewise, the secondary outcomes of sore throat, throat infections, and upper respiratory tract infections were marginally improved in the adenotonsillectomy group. Physicians and parents must decide whether these minor clinical benefits outweigh the anaesthetic and perioperative risks.

van Staaï *et al* acknowledge limitations in their study. The indications for surgery were unclear. Only 30% of eligible children were randomised; many parents insisted upon surgery. Furthermore, 34% of the watchful waiting group crossed over to adenotonsillectomy: parents apparently were more "watchful" than "waiting." The generic quality of life instruments were not disease specific and thus may have missed clinically important dimensions of improvement. Although not available at the time this study began, ≥ 3 disease-specific quality of life instruments have now been reported.³

Although adenotonsillectomy is not of major benefit for children with infrequent, recurrent tonsillar infections and mild symptoms of adenotonsillar hypertrophy, it continues to be the standard of care for children with moderate to severe obstructive sleep apnoea and helpful for those with frequent recurrent tonsillar infection.

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1 van den Akker EH, Schilder AGM, Kamps YJ, *et al.* *Int J Pediatr Otorhinolaryngol* 2003;**67**:603–7.

2 Paradise JL, Bluestone CD, Bachman RZ, *et al.* *N Engl J Med* 1984;**310**:674–83.

3 Sohn H, Rosenfeld RM. *Otolaryngol Head Neck Surgery* 2003;**128**:344–52.

Adenotonsillectomy v watchful waiting in children with mild symptoms of throat infections or adenotonsillar hypertrophy*

Outcomes at median 22 months	Adenotonsillectomy	Watchful waiting	Difference (95% CI)
Mean number of fever episodes per person year	2.97	3.18	-0.21 (-0.54 to 0.12)†
Mean number of throat infection episodes per person year	0.56	0.77	-0.21 (-0.36 to -0.06)
Mean number of sore throat episodes per person year	2.25	2.85	-0.60 (-0.90 to -0.30)
Mean number of upper respiratory tract infections per person year	5.47	6.00	-0.53 (-0.97 to -0.08)

*CI defined in glossary. †Difference not statistically different.