Summary of findings:

32. Adenoidectomy compared to no adenoidectomy as an adjunct to tympanostomy tube placement for recurrent acute otitis media

Patient or population: Children aged Recurrent acute otitis media in children aged

Setting: Hospital

Intervention: Adenoidectomy and tympanostomy tubes.

Comparison: No adenoidectomy / Tympanostomy tubes alone.

Outcome № of participants (studies)	Relative effect (95% CI)	**Anticipated absolute effects (95% CI)**			Quality	What happens
		Without Adenoidectomy / TT alone	**With Adenoidectomy + TT**	**Difference**		
Treatment failure (classified as: ≥4 episodes of AOM per year, presence effusion for >50% of time (>6 months), need for additional surgery, hearing improvement <10dB) follow up: 12 months № of participants: 329 (2 RCTs) [1,a]	**RR 0.81** (0.27 to 2.40)	12.3%	**9.9%** (3.3 to 29.5)	2.3% fewer (NS) (9 fewer to 17.2 more)	⨁⨁◯◯ LOW [b,c,d]	In children with rAOM undergoing TTs placement and adjunct adenoidectomy compared to no adenoidectomy, there is possibly no reduction in treatment failures at 12 months follow-up. NNT Not applicable
Subgroup analysis - Patients >2 years old: Treatment failure (classified as: ≥4 episodes of AOM per year, presence effusion for >50% of time (>6 months), need for additional surgery, hearing improvement <10dB) follow up: 12 months № of participants: 83 (2 RCTs) [1,a]	**RR 7.09** (0.93 to 54.20)	2.6%	**18.2%** (2.4 to 100.0)	15.6% more (NS) (0.2 fewer to 136.4 more)	⨁⨁◯◯ LOW [b,d,e,f]	In children >2 years old with rAOM undergoing TTs placement and adjunct adenoidectomy compared to no adenoidectomy, there is possibly no reduction in treatment failures at 12 months follow-up. NNT Not Applicable

Summary of findings:

32. Adenoidectomy compared to no adenoidectomy as an adjunct to tympanostomy tube placement for recurrent acute otitis media

Patient or population: Children aged Recurrent acute otitis media in children aged

Setting: Hospital

Intervention: Adenoidectomy and tympanostomy tubes.

Comparison: No adenoidectomy / Tympanostomy tubes alone.

Outcome № of participants (studies)	Relative effect (95% CI)	**Anticipated absolute effects (95% CI)**			Quality	What happens
		Without Adenoidectomy / TT alone	**With Adenoidectomy + TT**	**Difference**		
Subgroup analysis - Patients <2 years old: Treatment failure (classified as: ≥4 episodes of AOM per year, presence effusion for >50% of time (>6 months), need for additional surgery, hearing improvement <10dB) follow up: 12 months № of participants: 439 (2 RCTs) [1,a]	**RR 0.66** (0.41 to 1.06)	16.5%	**10.9%** (6.8 to 17.5)	5.6% fewer (NS) (9.7 fewer to 1 more)	⨁⨁◯◯ LOW [b,d]	In children <2 years old with rAOM undergoing TTs placement and adjunct adenoidectomy compared to no adenoidectomy, there is possibly no reduction in treatment failure at 12 months follow-up. NNT Not Applicable

***The risk in the intervention group** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval; **RR:** Risk ratio; **NS:** Not significant; **NNT**: Number needed to treat; **NNH**: Number needed to harm

GRADE Working Group grades of evidence
High quality: We are very confident that the true effect lies close to that of the estimate of the effect
Moderate quality: We are moderately confident in the effect estimate: The true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different
Low quality: Our confidence in the effect estimate is limited: The true effect may be substantially different from the estimate of the effect
Very low quality: We have very little confidence in the effect estimate: The true effect is likely to be substantially different from the estimate of effect

Explanations

a. Studies taken from: Boonacker Meta-Analysis (Mattila 2003, Kujala 2012)
b. Risk of Bias: Attrition bias, selection bias (Mattila 2003)
c. Inconsistency: noted to have borderline heterogeneity. Not rated down.
d. Imprecision: Optimal information size not reached
e. Imprecision: Wide confidence interval
f. Strong association however only rated up one level given small numbers and low event rates.

References

1. Boonacker CW, Rovers MM, Browning GG, Hoes AW, Schilder AG, Burton MJ. Adenoidectomy with or without grommets for children with otitis media: an individual patient data meta-analysis. Health technology assessment (Winchester, England). 2014;18(5):1-118. Epub 2014/01/21. doi: 10.3310/hta18050. PubMed PMID: 24438691; PubMed Central PMCID: PMCPMC4780935.