Summary of findings:

49. Oral antibiotics compared to saline rinsing of the ear canal for children with tympanostomy tube otorrhoea

Patient or population: Children aged 7 months to 9 years with tympanostomy tube otorrhoea (TTO).

Setting: Primary health care.

Intervention: Oral antibiotics (Study used: Amoxicillin 25-50 mg/kg/day divided into three daily doses for one week. In case of penicillin allergy, erythromycin, 40 mg/kg/day divided into three doses daily for a week was chosen).

Comparison: Saline rinsing of the ear canal (Study used: 10 mL saline through a syringe, by the parents, three times daily for 1 week).

Outcome № of participants (studies)	Relative effect (95% CI)	Anticipated absolute effects (95% CI)			Quality	What happens
		Without Oral antibiotics	With Oral antibiotics	Difference		
Resolution of ear discharge assessed with: otoscopy follow up: 1 weeks № of participants: 46 (1 RCT) [1,a]	**RR 0.65** (0.30 to 1.43)	46.2%	**30.0%** (13.8 to 66.0)	16.2% fewer (NS) (32.3 fewer to 19.8 more)	⨁⨁◯◯ LOW [b]	In children with TTO treated with Amoxicillin compared to saline rinsing there is possibly no difference to support one treatment over the other for resolution of ear discharge at 1 week follow-up. NNT Not Applicable
Proportion of patients with tube blockage assessed with: otoscopy follow up: 1 weeks № of participants: 46 (1 RCT) [1,a]	**RR 1.95** (0.36 to 10.58)	7.7%	**15.0%** (2.8 to 81.4)	7.3% more (NS) (4.9 fewer to 73.7 more)	⨁⨁◯◯ LOW [b,c]	In children with TTO treated with Amoxicillin compared to saline rinsing there is possibly no difference to report on tube blockage at 1 week follow-up. NNH 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: Cochrane Review, Venekamp 2016 (Heslop 2010)
b. Imprecision: Small study
c. Imprecision: Low event rate

References

1. Venekamp RP, Javed F, van Dongen TM, Waddell A, Schilder AG. Interventions for children with ear discharge occurring at least two weeks following grommet (ventilation tube) insertion. The Cochrane database of systematic reviews. 2016;11:Cd011684. Epub 2016/11/18. doi: 10.1002/14651858.CD011684.pub2. PubMed PMID: 27854381.