

Summary of findings:



#### 44. Antibiotic eardrops (without a corticosteroid) 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.

**Setting:** Primary health care.

**Intervention:** Antibiotic eardrops (Study used: Ciprofloxacin 3 mg/mL otic drops, four drops, twice daily for 1 week. This was accompanied by massage of the tragus).

**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 Antibiotic eardrops (with or without a corticosteroid)	With Antibiotic eardrops (with or without a corticosteroid)	Difference		
Resolution of ear discharge assessed with: otoscopy follow up: 1 weeks № of participants: 48 (1 RCT) <sup>1,a</sup>	RR 1.67 (1.04 to 2.69)	46.2%	77.1% (48.0 to 100.0)	30.9% more (1.8 more to 78 more)	 MODERATE <sup>b,c</sup>	In children with TTO treated with topical Ciprofloxacin compared to saline rinsing there is probably more resolution of ear discharge at 1 week follow-up.  NNT ~4
Tube blockage assessed with: otoscopy follow up: 1 weeks № of participants: 48 (1 RCT) <sup>1,a</sup>	RR 1.77 (0.32 to 9.67)	7.7%	13.6% (2.5 to 74.4)	5.9% more(NS) (5.2 fewer to 66.7 more)	 LOW <sup>b,c,d</sup>	In children with TTO treated with topical Ciprofloxacin compared to saline rinsing there is possibly no difference in TT blockages.  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: Cochrane Review, Venekamp 2016 (Heslop 2010)
- b. Risk of bias: Risk of performance bias noted but outcome assessor blinded. Not rated down.
- c. Imprecision: Small study
- d. 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.