

Summary of findings:



43. Topical antibiotic ear-drops (with or without a corticosteroid) compared to no treatment for tympanostomy tube otorrhea

Patient or population: Children aged 1 to 10 years with tympanostomy tube otorrhea.

Setting: Primary health care.

Intervention: Antibiotic ear-drops (Study used: hydrocortisone–bacitracin–colistin ear-drops, five drops, three times daily, in the discharging ear or ears for 7 days).

Comparison: No treatment

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: 2 weeks № of participants: 151 (1 RCT) ^{1,a}	RR 2.09 (1.62 to 2.69)	45.3%	94.7% (73.4 to 100.0)	49.4% more (28.1 more to 76.6 more)	 MODERATE ^{b,c}	In children with TTO treated with topical antibiotic+/-steroid eardrops compared to no treatment there is probably more resolution of ear discharge at 2 weeks follow-up. NNT ~3
Persistence of ear discharge assessed with: otoscopy follow up: >4 weeks № of participants: 147 (1 RCT) ^{1,a}	RR 0.08 (0.01 to 0.62)	16.4%	1.3% (0.2 to 10.2)	15.1% fewer (16.3 fewer to 6.2 fewer)	 MODERATE ^{b,c}	In children with TTO treated with topical antibiotic+/-steroid eardrops compared to no treatment there are probably fewer children with persistent ear discharge at >4weeks follow-up. NNT ~7

*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 (van Dongen 2014)

b. Risk of Bias: Open label trial

c. Imprecision: Small study, however trial stopped early due to recommendation by committee given results of interim analysis.

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.