

Summary of findings:


40. Antiseptic irrigation of middle ear at time of surgery compared to no treatment for the prevention of post-operative tympanostomy tube otorrhoea

Patient or population: Children < 12 years with rAOM or OME undergoing tympanostomy tube (TTs) insertion.

Setting: Hospital.

Intervention: Single application of triple irrigation of the ear canal with 50% solution of povidone-iodine topical antiseptic (Betadine) and saline for one minute before insertion TTs.

Comparison: No treatment.

Outcome № of participants (studies)	Relative effect (95% CI)	Anticipated absolute effects (95% CI)			Quality	What happens
		Without antiseptic irrigation of middle ear at time of surgery	With antiseptic irrigation of middle ear at time of surgery	Difference		
Post-operative TTO (by child) follow up: 1 weeks № of participants: 100 (1 RCT) ^{1,a}	RR 1.25 (0.36 to 4.38)	8.0%	10.0% (2.9 to 35.0)	2.0% more (NS) (5.1 fewer to 27 more)	 VERY LOW ^{b,c}	In children with TTs who receive antiseptic irrigation at time of surgery compared to no treatment there is insufficient evidence to support prevention of TTO at 1 week 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; TTs: Tympanostomy tubes; TTO: Tympanostomy tube otorrhoea

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. Study from: Cochrane Review, Syed 2013 (Cannon 1997)

b. Risk of Bias: Selection bias, participants and outcome assessor not blinded.

c. Imprecision: Small, single study. Broad estimate of effect.

References

1. Syed MI, Suller S, Browning GG, Akeroyd MA. Interventions for the prevention of postoperative ear discharge after insertion of ventilation tubes (grommets) in children. The Cochrane database of systematic reviews. 2013(4):Cd008512. Epub 2013/05/02. doi: 10.1002/14651858.CD008512.pub2. PubMed PMID: 23633358.