

Summary of findings:

47. No swimming or head submersion during bathing compared to unrestricted swimming or head submersion during bathing for prevention of tympanostomy tube otorrhoea

Patient or population: Children aged 3 months to 12 years with tympanostomy tubes (TTs).

Setting: Community.

Intervention: No swimming or head submersion during bathing. Duration was for 1 year.

Comparison: Unrestricted swimming or head submersion during bathing.

Outcome № of participants (studies)	Relative effect (95% CI)	Anticipated absolute effects (95% CI)			Quality	What happens
		Without No swimming or head submersion during bathing	With No swimming or head submersion during bathing	Difference		
Rate of otorrhoea (annual) assessed with: review of medical record and parental report follow up: 1 years № of participants: 92 (1 RCT) ^{1,a}	-	The mean rate of otorrhoea (annual) was 1.17 episodes otorrhoea / year	-	MD 0 episodes otorrhoea / year (0.14 lower to 0.14 higher) ^b	⊕○○○○ VERY LOW ^{c,d}	In children with TTs advised to avoid swimming and head submersion during bathing compared to unrestricted swimming or head submersion during bathing there are possibly no fewer episodes of otorrhoea at 1 year follow-up.

*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; MD: Mean difference

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 taken from: Cochrane Review, Moualed 2016 (Parker 1994)

b. Some caution must be taken with interpretation of the 95% confidence interval in this case as it was not possible to calculate standard deviations for the study data and Goldstein 2005 values have been used.

c. Risk of Bias: Performance bias, selection bias, attrition bias

d. Imprecision: Small study

References

1. Moualed D, Masterson L, Kumar S, Donnelly N. Water precautions for prevention of infection in children with ventilation tubes (grommets). The Cochrane database of systematic reviews. 2016(1):Cd010375. Epub 2016/01/28. doi: 10.1002/14651858.CD010375.pub2. PubMed PMID: 26816299.