Summary of findings:

21. NSAIDs +/- Paracetamol compared to paracetamol for pain relief in acute otitis media

Patient or population: Children aged 6 months to 18 years with acute otitis media and pain

Setting: Primary health care

Intervention: NSAID (ibuprofen) 10mg/kg/dose 6-8 hourly (maximum 3 doses in 24 hours) +/- Paracetamol 10-15mg/kg/dose 4-6 hourly (maximum 3-4 doses in 24 hours)

Comparison: Paracetamol 10-15mg/kg/dose 4-6 hourly (maximum 3-4 doses in 24 hours) alone

Outcome № of participants (studies)	Relative effect (95% CI)	**Anticipated absolute effects (95% CI)**			Quality	What happens
		Paracetamol	**NSAID +/- Paracetamol**	**Difference**		
Pain - NSAID vs Paracetamol assessed with: patient/parental report follow up: median 24 hours № of participants: 39 (2 RCTs) [1,b]	**RR 0.83** (0.59 to 1.18)	77.8%	**64.6%** (45.9 to 91.8)	13.2% fewer (NS) (31.9 fewer to 14 more)	⨁⨁◯◯ LOW [a,c,d]	In children with AOM treated with NSAIDs compared to Paracetamol there is possibly no difference in pain reported at 24 hours. NNT Not Applicable
Pain - NSAID + Paracetamol vs Paracetamol assessed with: patient/parental report follow up: median 24 hours № of participants: 41 (2 RCTs) [1,b]	**RR 1.07** (0.78 to 1.47)	70.6%	**75.5%** (55.1 to 100.0)	4.9% more (NS) (15.5 fewer to 33.2 more)	⨁⨁◯◯ LOW [a,c,d]	In children with AOM treated with NSAID + Paracetamol compared with Paracetamol there is possibly no difference in pain reported at 24 hours. NNT Not applicable.
Adverse events (gastrointestinal, cutaneous and wheeze) - NSAID vs Paracetamol assessed with: patient/parental report follow up: 2 days to 2 weeks № of participants: 197 (2 RCTs) [1,e]	**RR 1.71** (0.43 to 6.90)	3.0%	**5.1%** (1.3 to 20.7)	2.1% more (NS) (1.7 fewer to 17.7 more)	⨁◯◯◯ VERY LOW [a,c,d]	In children with AOM treated with NSAIDs compared to Paracetamol there is possibly no difference to report on adverse events. NNH Not Applicable

Summary of findings:

21. NSAIDs +/- Paracetamol compared to paracetamol for pain relief in acute otitis media

Patient or population: Children aged 6 months to 18 years with acute otitis media and pain

Setting: Primary health care

Intervention: NSAID (ibuprofen) 10mg/kg/dose 6-8 hourly (maximum 3 doses in 24 hours) +/- Paracetamol 10-15mg/kg/dose 4-6 hourly (maximum 3-4 doses in 24 hours)

Comparison: Paracetamol 10-15mg/kg/dose 4-6 hourly (maximum 3-4 doses in 24 hours) alone

Outcome № of participants (studies)	Relative effect (95% CI)	**Anticipated absolute effects (95% CI)**			Quality	What happens
		Paracetamol	**NSAID +/- Paracetamol**	**Difference**		
Adverse events (gastrointestinal, cutaneous and wheeze - NSAID + Paracetamol vs Paracetamol assessed with: patient/parental report follow up: 2 weeks № of participants: 56 (1 RCT) [1,f]	not estimable	0.0%	**0.0%** (0.0 to 0.0)	0.0% fewer (0 fewer to 0 fewer)	⨁◯◯◯ VERY LOW [a,c]	In children with AOM treated with NSAID + Paracetamol compared to Paracetamol there was insufficient data to report on adverse events. 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. Imprecision: Optimal information size not met.
b. Studies taken from: Cochrane Review, Sjoukes 2016 (Little 2013, Hay 2009)
c. Risk of Bias: Performance bias (lack of blinding) (Little 2013)
d. Imprecision: Broad estimate of effect.
e. Studies taken from: Cochrane Review, Sjoukes 2016 (Bertin 1996, Little 2013)
f. Studies taken from: Cochrane Review, Sjoukes 2016 (Little 2013)

References

1. Sjoukes A, Venekamp RP, van de Pol AC, Hay AD, Little P, Schilder AG, et al. Paracetamol (acetaminophen) or non-steroidal anti-inflammatory drugs, alone or combined, for pain relief in acute otitis media in children. The Cochrane database of systematic reviews. 2016;12:Cd011534. Epub 2016/12/16. doi: 10.1002/14651858.CD011534.pub2. PubMed PMID: 27977844.