

Review: NSAIDs, paracetamol, and analgesic/anti-inflammatory oral rinse reduce sore throat symptoms

Thomas M, Del Mar C, Glasziou P. How effective are treatments other than antibiotics for acute sore throat? *Br J Gen Pract* 2000 Oct;50:817-20.

QUESTION: Are non-antibiotic treatments effective for acute sore throat?

Data sources

Randomised controlled trials from 1966 onwards were identified by searching the Cochrane Controlled Trials Registry and Medline with the content terms tonsillitis, pharyngitis, and sore throat.

Study selection

Trials published in any language were selected if they assessed a non-antibiotic intervention, and outcomes included patient reported sore throat symptoms.

Data extraction

Data were extracted on the treatment, definition of illness, patient characteristics, study setting, blinding, and estimate of relative treatment effect (compared with control). Each symptom was assigned a score on the same scale (with a score of 100 assigned at baseline). Main outcome was percentage change in symptom score in intervention group compared with the control group.

Main results

22 studies were included in the analysis; 7 included an antibiotic treatment and 2 evaluated vaccinations to prevent sore throat episodes. The table shows study results for the remaining 13 studies of non-antibiotic treatment. Studies could not be meta-analysed because of heterogeneity.

Conclusion

Non-steroidal anti-inflammatory drugs, paracetamol, and analgesic/anti-inflammatory oral rinse are more effective than placebo for reducing acute sore throat symptoms.

COMMENTARY

This systematic review by Thomas *et al* consolidates the research comparing pharmacological, non-antibiotic interventions with placebo for the treatment of acute sore throat. A previous meta-analysis by the same authors found that antibiotics offer a small reduction in duration and complications related to sore throat, compared with placebo or no treatment.¹ Many of the alternative treatments to antibiotics had larger effect sizes than antibiotics; the authors acknowledge, however, an absence of data comparing these alternatives directly with antibiotics. In addition, the trials included in this review did not seem to address potential side effects, drug interactions, allergies, contraindications, and other complications of the non-antibiotic treatments.

Strengths of this review include the focus on randomised controlled trials, the exclusion of studies with excessive dropouts and unclear randomisation and blinding, and the inclusion of trials written in any language. Unpublished studies were not included which, as the authors note, can lead to publication bias and exaggerated treatment effects.

The finding that non-antibiotic interventions reduce sore throat symptoms better than placebo has implications for client education done by nurses and physicians in the primary care setting; that is, practitioners can promote client empowerment by encouraging self care for sore throats.

Future research may focus on obtaining information that compares the effects of various dosing amounts, timing, and duration of the pharmacological methods described.

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1 Del Mar CB, Glasziou PP, Spinks AB. Antibiotics for sore throat. *Cochrane Database Syst Rev* 2000;(4):CD000023.

Non-antibiotic treatments v placebo for sore throat symptoms

Drug	Dosage	Patients	Decrease in throat pain
Ibuprofen	400 mg (1 dose)	80 adults	80% at 4 hours, 70% at 6 hours
	400 mg (1 dose)	20 adults	47% at 2 hours
	200 mg (1 dose)	18 adults	32% at 2 hours
	10 mg/kg (1 dose)	78 children (3.5-12.5 y)	25% at 2 hours, not significant at 6 hours
Aspirin	10 mg/kg 3 times/daily for 2 days	153 children (6-12 y)	56% at 2 days
	800 mg plus caffeine, 64 mg (1 dose)	139 adults	75% at 1 hour
Aspirin	800 mg (1 dose)	137 adults	55% at 1 hour
	Aspirin containing gum	20 men	53% initially, 50% at 2 hours
	1000 mg/day for 4-5 days	230 adults	17% at 2 days, 33% at 4 days
Paracetamol	1000 mg (1 dose)	81 adults	50% at 3 hours, 20% at 6 hours
	15 mg/kg (1 dose)	77 children (3.5-12.5 y)	31% at 2 hours, not significant at 6 hours
	10 mg/kg 3 times/day for 2 days	154 children (6-12 y)	34% at 2 days
Oral rinse	Benzydamine HCl 0.15% 3 hourly	51 patients (17-74 y)	42% at 3 days

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