

# Review: Some nonantibiotic treatments are effective for relieving acute sore throat

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

In patients with acute sore throat, are non-antibiotic treatments effective?

## DATA SOURCES

Studies were identified by searching MEDLINE (from 1966) and the Cochrane Controlled Trials Registry.

## STUDY SELECTION

Studies in any language were selected if they were controlled trials of any non-antibiotic intervention in a clinical setting. Exclusion criteria were excessive dropouts, no treatment, and unclear randomization and blinding.

## DATA EXTRACTION

Data were extracted on type of treatment, definition of illness, patient characteristics, setting, blinding, and estimate of treatment effect. Outcome measures were patient-centered sore-throat symptoms.

## MAIN RESULTS

22 randomized, blinded, controlled trials met the selection criteria. 7 studies involved children only, and 10 involved adults only. 10 studies measured short-term outcomes (< 24 h). Results are shown in the Table.

## CONCLUSIONS

In patients with acute sore throat, ibuprofen, steroids, nonsteroidal anti-inflammatory

drugs (NSAIDs), and paracetamol (acetaminophen) reduce sore throat in the short term (< 24 h). Longer-term effective treatments include paracetamol, NSAIDs, super-colonization with benign bacteria, better doctor-patient communication, and vaccination against influenza and pneumococcus.

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## Nonantibiotic treatment vs placebo for acute sore throat\*

Treatment	Number of trials (number of patients)	Patient type	Follow-up	Relative treatment effect†
Ibuprofen	3 (118)	Adults	2 to 6 h	32% to 80%
	1 (78)	Children	2 h	25%
	1 (153)	Children	2 d	56%
Other NSAIDs	2 (276)	Adults	1 h	55% to 75%
	2 (290)	Adults	2 to 5 d	17% to 81%
	2 (207)	Children	2 to 5 d	14% to 93%
Paracetamol	1 (81)	Adults	3 and 6 h	50% and 20%
	1 (77)	Children	2 h	31%
	1 (154)	Children	2 d	34%
Corticosteroid plus AB	1 (51)	Age 12 to 65 y	24 h	38%
Aspirin-containing gum	1 (20)	Adult men	≤ 24 h	50%
Influenza vaccine	1 (849)	Adults	> 24 h	25%
Pneumococcal vaccine	1 (405)	Children	2 y	18%
Supercolonization with $\alpha$ -streptococcal bacteria	2 (166)	Age 3 to 59 y	≤ 3 mo	42% to 90%
Greater attention to patients plus AB	1 (100)	Age > 16 y	2 d	40%
Benzydamine 0.15% oral rinse	1 (51)	Age 17 to 74 y	3 d	42%

\*AB = antibiotics; NSAIDs = nonsteroidal anti-inflammatory drugs.

†Relative decrease in symptom score in intervention group relative to placebo group.

## COMMENTARY

Sore throat is one of the most common conditions managed in primary care. Irrespective of the cause and whether antibiotics can be targeted to prevent complications (1, 2), patients require help with symptoms. The review by Thomas and colleagues is important in bringing together a diverse range of evidence for nonantibiotic management, particularly given current concerns about resistance and the marginal effectiveness of antibiotics for the symptoms of sore throat in most patients (2).

These data suggest that paracetamol, aspirin, and other NSAIDs are effective, although there is no evidence that NSAIDs—with their greater side effects—are more effective than paracetamol alone (3). Vaccination and  $\alpha$ -streptococcal spray may also help, although the practicalities and cost-effectiveness are unclear. Some care is also required in interpreting the data: The estimates of treatment effect are relative and refer to diverse outcomes, and most studies were not done in typical primary care settings.

Clearly, more evidence is needed in primary-care settings about the safety and effectiveness of nonantibiotic treatments. Nevertheless, these

data should give doctors confidence that, on the basis of current evidence, nonantibiotic treatments are probably at least as effective as if not more effective than antibiotic treatment for the symptoms of sore throat.

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## References

- Zwart S, Sachs AP, Ruijs GJ, et al. Penicillin for acute sore throat: randomised double blind trial of seven days versus three days treatment or placebo in adults. *BMJ.* 2000;320:150-4.
- Del Mar CB, Glasziou PP, Spinks AB. Antibiotics for sore throat. *Cochrane Database Syst Rev.* 2000;(4):CD000023.
- Bertin L, Pons G, d'Athis P, et al. Randomized, double-blind, multicenter, controlled trial of ibuprofen versus acetaminophen (paracetamol) and placebo for treatment of symptoms of tonsillitis and pharyngitis in children. *J Pediatr.* 1991;119:811-4.