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Acute Infective Sore Throat

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Sore throat is often caused by an acute upper respiratory tract infection that affects the respiratory mucosa of the throat.

About 10% of persons in Australia present to primary health care services with sore throat each year.

- The causative organisms of sore throat may be bacteria, most commonly *Streptococcus*, or viruses, typically rhinovirus, but it is difficult to distinguish bacterial from viral infections clinically.

Paracetamol (acetaminophen) seems to effectively reduce the pain of acute infective sore throat after regular doses over two days.

- There is a risk of rare but serious skin reactions with paracetamol.

Nonsteroidal anti-inflammatory drugs (NSAIDs) may reduce the pain of sore throat at two to five days.

- NSAIDs are associated with gastrointestinal and renal adverse effects.

Antibiotics can reduce the proportion of persons with symptoms associated with sore throat at three days.

- Reduction in symptoms seems greater for persons with throat swabs positive for *Streptococcus* than for persons with negative swabs.
- Antibiotics are generally associated with adverse effects such as nausea, rash, vaginitis, and headache, and widespread use may lead to bacterial resistance.

Corticosteroids added to antibiotics may reduce the severity of pain from sore throat compared with antibiotics alone.

- Most trials used a single dose of corticosteroid. However, data from other disorders suggest that long-term use of corticosteroids is associated with serious adverse effects.

Definition

Sore throat is often caused by an acute upper respiratory tract infection that affects the respiratory mucosa of the throat. Because infections can affect any part of the mucosa, it is often arbitrary whether an acute upper respiratory tract infection is called sore throat (pharyngitis or tonsillitis), common cold, sinusitis, otitis media, or bronchitis. Sometimes, all areas are affected, simultaneously or at different times, in one illness. In this review, we aim to cover persons whose principal presenting symptom is sore throat. This may be associated with headache, fever, and general malaise. Suppurative complications include acute otitis media (most commonly), acute sinusitis, and peritonsillar abscess (quinsy). Nonsuppurative complications include acute rheumatic fever and acute glomerulonephritis. This review does not include persons with previous rheumatic fever or previous glomerulonephritis, who are importantly different from the general population of persons with sore throats. It also does not include persons who are clinically seriously unwell, as they are typically not included in the primary studies.

Incidence and Prevalence

There is little seasonal fluctuation in sore throat. About 10% of the Australian population presents to primary health care services annually with an upper respiratory tract infection consisting predominantly of sore throat. This reflects about one-fifth of the overall annual incidence. However, it is difficult to distinguish the different types of upper respiratory tract infection. A Scottish mail survey found that 31% of adult respondents reported a severe sore throat in the previous year, for which 38% of these persons visited a physician.

Etiology and Risk Factors

The causative organisms of sore throat may be bacteria (*Streptococcus*, most commonly

Clinical Questions

What are the effects of interventions to reduce symptoms of acute infective sore throat?

Likely to be beneficial	Corticosteroids (in persons receiving antibiotics)
	Paracetamol (acetaminophen)
Trade-off between benefits and harm	Antibiotics
	Nonsteroidal anti-inflammatory drugs

group A beta-hemolytic streptococcus, but sometimes *Haemophilus influenzae*, *Moraxella catarrhalis*, and others) or viruses (typically rhinovirus, but also coronavirus, respiratory syncytial virus, metapneumovirus, Epstein-Barr virus, and others). It is difficult to distinguish bacterial from viral infections clinically. Features suggestive of *Streptococcus* infection are fever greater than 101.3°F (38.5°C), exudate on the tonsils, anterior neck lymphadenopathy, and absence of cough. Sore throat can be caused by processes other than primary infections, including gastroesophageal reflux disease, physical or chemical irritation (e.g., from nasogastric tubes or smoke), and occasionally hay fever. However, we consider only primary infections in this review.

Prognosis

The untreated symptoms of sore throat disappear by three days in about 40% of persons, and untreated fevers in about 85%. By one week, 85% of persons are symptom free. This natural history is similar in *Streptococcus*-positive, *Streptococcus*-negative, and untested persons.

EDITOR'S NOTE: Paracetamol is called acetaminophen in the United States.

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