



TO USE OR NOT TO USE?

Antibiotic Use in the Management of Sore Throats -by Kazushi Noiri



BACKGROUND

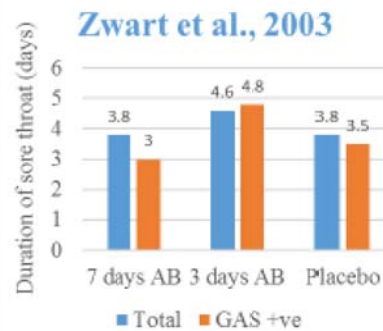
- In New Zealand, 27,000+ patients visit the GP each year due to their sore throat.
- Bacteria and viruses are the main causes for pharyngitis, and with viral being the most common.
- Pharyngitis is self-limiting, and resolves itself after a week without any treatments.
- Group A Streptococcus bacterial pharyngitis (GAS) can lead to rheumatic fever (RF) and rheumatic heart disease (RHD).
- A 10 day course of oral penicillin V is the first line of treatment for GAS pharyngitis to prevent RF, and is commonly used for sore throats.
- Overuse of Antibiotics (ABs) can lead to AB resistant outbreaks.
- ABs are proven to prevent RF but are they beneficial to control sore throat symptoms?

RESEARCH QUESTION

How effective are antibiotic treatments in controlling pharyngitis related sore throats?

FINDINGS

- Some studies indicated benefits of AB use to reduce sore throat (Olympia et al., 2005; Zwart et al., 2000) while some could not (Apinks et al., 2013; Zwart et al., 2003).
- However several studies showed reduction of sore throat with ABs from GAS positive individuals (Dagnelie et al., 1996; Olympia et al., 2005; Zwart et al., 2003).
- ABs can also reduce fever and headache.
- By considering the risk of developing AB resistance, ABs should be limited to specific groups.



Difference in the duration of sore throats when compared to 7 day AB treatment (days)

	3 day AB	0 day AB
All	+1.9	+1.7
GAS +ve	+2.5	+2.5
GAS -ve	+0.3	+0.9

(Zwart et al., 2000)

CONCLUSION & RECOMMENDATION

- The effect of AB treatment to reduce the duration of sore throat is controversial.
- AB use is beneficial amongst GAS positive individuals to prevent RF as well as reducing sore throat.
- Specific sore throat management is required in New Zealand, and it is well developed in *New Zealand Guidelines For Rheumatic Fever*.
- AB use should be reduced amongst the low risk groups in New Zealand.
- AB use should be discretionary rather than prohibited or mandatory.
- Early detection, accurate diagnosis and appropriate AB interventions are the key to sore throat management.

REFERENCES

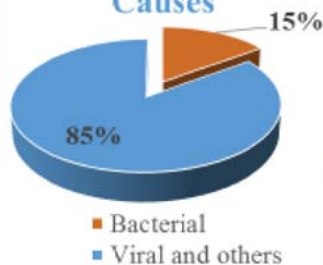
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NEW ZEALAND CONTEXT

- High rate of RF and RHD are reported.
- RF guideline indicates high and low risk groups.
- High risk groups for RF in New Zealand are:

Young Maori and Pacific individuals	Living in lower socio-economic environment
Living in the North Island	Living in overcrowded households

Pharyngitis Causes



Sore Throat

0.3 - 3%

Rheumatic Fever

40 - 60%

RHD