

Should we treat strep pharyngitis with antibiotics?

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Oct 10/17

Guidelines

- Uptodate: Antimicrobial therapy is warranted for patients with symptomatic pharyngitis if the presence of group A streptococci (GAS) in the pharynx is confirmed by culture or rapid antigen detection testing (RADT).

- CDC: When left untreated, the symptoms of group A strep pharyngitis are usually self-limited; however, acute rheumatic fever and suppurative complications (e.g., peritonsillar abscess, mastoiditis) are more likely to occur when it is left untreated. Antibiotic treatment is indicated for patients, regardless of age, who have a positive RADT or throat culture.

- ISDA: Patients with acute group A streptococcal pharyngitis should be treated with an antibiotic that is likely to eradicate the organism, usually for 10 days.

- TopAlbertadoctors: Antibiotic therapy for confirmed Group A Strepto-coccal Pharyngitis decreases:
 - severity of symptoms
 - duration of symptoms by ~1 day
- • risk of transmission (after 24 hours of therapy) • likelihood of suppurative complications and rheumatic fever.

Why do we treat?

- Antibiotics reduce symptomatology:
- self limited disease that gets better in about 7 days with no treatment (supportive care).
- The addition of antibiotics provides a modest benefit in terms of symptomology resolution (12-16 hours) (Del Mar 2006).
- Benefit was when compared to placebo.
- No good studies with acetaminophen/
NSAIDS

- Antibiotics reduce the rate of suppurative complications:

	Yeh 2005	Del Mar 2006
AOM	NNT 25	NNT greater than 200
Sinusitis	NNT infinity	Not reported
PTA	NNT 28	NNT 55-225

Overall 1.3% suppurative complication rate and no difference between those who received antibiotics and those that did not (Little 2013)

- Antibiotics reduce the rate of non suppurative complications:
- post strep glomerulonephritis
- rheumatic fever
- No studies have ever shown that PSGN can be prevented
- Warren airforce base 1950's
- 2% of patients with strep throat developed RF
- with antibiotics rate fell to 1%

- Does this apply to patients of today?
- Rate of RHD extremely low in westernized world.
- CDC stopped tracking in 1995 when it fell below 1 in 1 million
- Numerous RCTs show no case of RF or RHD with placebo

- In US would need to treat 2 million cases of strep pharyngitis to prevent 1 case of RF
- 1 out of 3 patients with RF develop RHD

- Did treating strep throat decrease rates of RF?
- The incidence of streptococcal diseases fell long before the advent of antibiotics but fell concurrently with improvements in public health.

- “acute pharyngitis should not typically be treated with antibiotics. The great majority of cases are viral in origin, and suppurative complications following streptococcal infection are both easily treated and too rare to justify routine use of antibiotics. In particular, antibiotics were beneficial in reducing rheumatic fever only during a single military epidemic in the mid-twentieth century, and the decline of rheumatic fever is unrelated to trends in antibiotic use.” (Rosen’s 2014)

- Complications of antibiotic treatment:
- 1 in 10 patients will develop antibiotic associated diarrhea (some of these will be *C. diff*).
- Severe allergic reactions occur in 0.24% of patients.
- Increased antibiotic resistance.

- Should we be treating strep pharyngitis?

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