

Should you treat carriers of pharyngeal group A strep?

Evidence-based answer

The jury is out as to whether you should treat asymptomatic carriers of group A streptococci (GAS), because no studies specifically address the issue. In addition, many patients are unlikely to care about their carrier status, although they probably care about symptoms and treatment side effects. Nonetheless, you may want to consider treating GAS carriers under the following circumstances (strength of recommendation [SOR]: **C**, expert opinion):

1. recurrent pharyngitis without cough or congestion
2. acute rheumatic fever or poststreptococcal glomerulonephritis outbreaks

3. GAS pharyngitis outbreaks in a closed community
4. family history of acute rheumatic fever
5. multiple documented GAS pharyngitis episodes within a family over several weeks despite therapy
6. excessive patient/family anxiety about GAS
7. all treatment options, except tonsillectomy, have been exhausted.

Oral clindamycin for 10 days is probably the most effective treatment for carriers. A single dose of intramuscular penicillin plus 4 days of oral rifampin is also effective (SOR: **C**, 2 randomized controlled trials [RCTs]).

Clinical commentary

A case I won't soon forget

My most memorable encounter with GAS carriage involved a family of 5 when I was practicing in a small town. The youngest child, about 6 years of age, had recurrent, culture-positive GAS pharyngitis. I tested the family twice, but all cultures remained stubbornly negative. When the mother complained to the family veterinarian the next week about her son's recurrent infections, the vet decided to culture the

dog. The dog was positive, was treated, and the infections stopped!

Be sure to culture all household contacts before prescribing antibiotics. Patients (and parents) want to break the cycle and avoid future infections, so they are motivated to make sure that everyone is cultured. Providers and staff must be flexible in order to accomplish this.

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FAST TRACK

My most memorable encounter with GAS carriage? When I learned a family dog was probably to blame for a young boy's recurrent infections

Evidence summary

As many as 25% of patients with GAS pharyngitis remain culture-positive after an adequate regimen of antibiotic ther-

apy and are deemed GAS carriers.¹ Appropriate screening and management of asymptomatic carriers continues to cause confusion.

CONTINUED

FAST TRACK

Oral clindamycin for 10 days is the treatment of choice for GAS carriers

Routine treatment is usually unnecessary

The Infectious Diseases Society of America (IDSA) considers GAS carriers at low risk for developing complications and spreading infection to close contacts.² The 2002 IDSA practice guidelines recommend against routine screening for and treatment of GAS carriage except under the circumstances (2 through 7) outlined in the evidence-based answer.² It may be reasonable to treat patients whose carrier status is unknown when they have a second case of pharyngitis. For known GAS-positive patients, however, repeated episodes of pharyngitis over months or years should raise suspicion of intercurrent viral pharyngitis rather than true GAS pharyngitis.

When you should consider routine treatment

Some experts practicing in areas with a high prevalence of acute rheumatic fever take a different position: They favor routine treatment of patients with active pharyngitis and a positive throat culture, even if the patient is a known GAS carrier.³

No clear consensus on prophylaxis

In 1995, the Centers for Disease Control and Prevention convened a consensus group to address the issue of prophylaxis for people exposed to GAS-positive carriers, but the consensus group failed to reach a definitive conclusion.⁴

Clindamycin works; penicillin + rifampin is also effective

Most RCTs investigating effective antibiotic treatment of GAS target cases of acute pharyngitis. A wide variety of antibiotics have been studied, including cefadroxil, amoxicillin, amoxicillin/clavulanate, cefuroxime, azithromycin, cefprozil, and cephalexin. We evaluated 41 of 43 studies of treatment of acute GAS. Only 2 RCTs specifically address effective antibiotic regimens for treating GAS carriers.

The most recent study demonstrated a significantly greater eradication rate with oral clindamycin than penicillin plus rifampin ($P<.025$).⁵ Compared with penicillin plus rifampin after 3 weeks of therapy, the number needed to treat (NNT) for clindamycin was 4.⁵

An older study found intramuscular penicillin plus 4 days of oral rifampin superior to intramuscular penicillin alone ($P<.005$) or no treatment at all ($P<.0005$) for eradicating GAS in carriers.¹ Compared with placebo after 3 weeks of therapy, the NNT for penicillin plus rifampin was 2.¹

The IDSA recommends a 10-day course of amoxicillin/clavulanate as an alternative treatment option.²

Recommendations

The 2006 *Red Book: Report of the Committee on Infectious Diseases* notes 6 possible indications for treating GAS carriers; they're nearly identical to circumstances 2 through 7 in the evidence-based answer.⁶ The *Red Book* also acknowledges several treatment options, including clindamycin, amoxicillin, azithromycin, and penicillin plus rifampin. A 10-day course of oral clindamycin, however, is the therapy of choice.⁶ ■

References

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