

# DSEN ABSTRACT

## Effectiveness and safety of antibiotic prophylaxis for persons exposed to cases of invasive group A streptococcal disease

### Summary

- Thirty-seven studies including 26 outbreak investigations and 11 case series/reports were included in this systematic review.
- Limited information (predominantly descriptive) suggested that antibiotic prophylaxis may be effective in preventing GAS infection or GAS carriage.

### Key messages

- Current available evidence is scant (with limited information on contacts of iGAS cases) and of low quality and does not allow for any definitive conclusions on efficacy and safety of antibiotic prophylaxis.
- High quality prospective studies are needed to establish the benefit-harm profile of antibiotic prophylaxis for secondary prevention of GAS disease in close contacts.

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### What is the issue?

- In close contacts of patients with invasive group A streptococcal (iGAS) infection, the benefits and harms of antibiotic prophylaxis are uncertain.
- In 2006, there was limited evidence available regarding the antibiotic prophylaxis of iGAS close contacts to inform Canadian guidelines for the prevention and control of iGAS disease.
- An evidence synthesis is needed to inform planned updates to the current Canadian guidelines.

### What was the aim of the study?

- The aim of this systematic review was to determine the efficacy and safety of antibiotic prophylaxis for the prevention of group A streptococcal (GAS) infection and carriage in persons exposed to cases of iGAS disease.

### How was the study conducted?

- A comprehensive literature search was performed in multiple databases and unpublished literature (October 2021) to identify studies of any research design reporting children or adults who, after being exposed to a case of laboratory-confirmed or probable iGAS, received antibiotic prophylaxis for the prevention of GAS infection or carriage (Protocol: <https://osf.io/bqjwx/>).

### What did the study find?

- Thirty-seven studies (26 outbreak investigations, 11 case series/reports) were included in the systematic review.
- The predominantly descriptive evidence suggested that antibiotic prophylaxis may be effective in preventing GAS infection or carriage with very few serious adverse events, although there is a limited amount of evidence available and very little information on outcomes in iGAS close contacts (low quality evidence).
- The current evidence does not allow for any definitive conclusions on efficacy and safety of antibiotic prophylaxis for iGAS close contacts.
- High-quality prospective studies are required to establish the benefit-harm profile of antibiotic prophylaxis for secondary prevention of GAS infection or carriage in close contacts.

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