NSW Health

Notification and contact management of invasive group A streptococcal disease (iGAS) and serious clinical syndromes associated with GAS infection

Clinician information sheet

Certain serious clinical syndromes associated with group A streptococcal (GAS) infections (streptococcal toxic shock syndrome, necrotising fasciitis and puerperal or neonatal sepsis) are now notifiable to public health authorities by medical practitioners in NSW.

iGAS continues to be laboratory notifiable. Laboratories are required to notify group A streptococcal infections from sterile sites.

For both iGAS and GAS-associated clinical syndromes, contact management is required. This should be done in collaboration with your public health unit. Contact management may include provision of information, and antibiotic chemoprophylaxis if indicated.

Notification requirements for medical practitioners

Individuals with one or more of the below clinical syndromes and isolation or detection of *Streptococcus pyogenes* by culture or molecular methods from a non-sterile site now meet the criteria for notification:

- streptococcal toxic shock syndrome (STSS)
- necrotising fasciitis
- puerperal or neonatal sepsis

Medical practitioners **must** notify their local public health unit by telephone on 1300 066 055 or by sending the completed NSW Doctor/Hospital notification form.

For more information, please refer to the NSW Health invasive group A streptococcal (iGAS) disease control guideline for public health units.

Contact management

Contact management involves a collaborative approach between the treating clinician(s) of a patient and public health units.

A close contact is defined as any individual who had prolonged close contact (>24 hours cumulative or sexual contact) with a patient with iGAS or a serious GAS-associated clinical syndrome during the 7 days prior to the patient's symptom onset.

Treating clinicians should work with patients to provide information to household and sexual contacts in the 7 days prior to symptom onset. The invasive group A streptococcal (iGAS) disease factsheet should be provided. Contacts should monitor for symptoms for 30 days.

If a patient attends, lives or works in residential, institutional, or childcare settings, the public health unit should be contacted to assist in assessing and managing contacts.

Chemoprophylaxis

Chemoprophylaxis is not given to all contacts as there is limited evidence that this prevents secondary cases.

Chemoprophylaxis should always be routinely provided to birthing person-neonate pairs where either the birthing person or neonate develops iGAS disease within 28 days of birth.

Other close contacts who are at higher risk (see Table 1) may be considered for chemoprophylaxis on a case-by-case basis at the treating clinician or public health unit's discretion.

The local public health unit may be contacted for support in assessing contacts' eligibility for chemoprophylaxis. Treating clinicians can directly provide chemoprophylaxis to eligible contacts. Alternatively, public health units can assist to arrange chemoprophylaxis for eligible contacts. When eligible, chemoprophylaxis should preferably be given to contacts within 48 hours and no more than 10 days after the patient's diagnosis.

For further information on appropriate antibiotic prophylaxis regimes, please see Table 2 below or Therapeutic Guidelines: Antibiotic prophylaxis regimens for invasive iGAS infection.

Contacts eligible for chemoprophylaxis

Table 1: Chemoprophylaxis eligibility

Contact Type	Eligible for chemoprophylaxis
Birthing person-neonate pairs	Yes
Household or household like contacts (including sexual contacts) or residential/institutional* contacts who have one of the below additional risk factors: • elderly people, particularly those aged over 75 years • children aged less than 5 years • Aboriginal and Torres Strait Islander people • people with a chronic condition or immunocompromise • haemodialysis recipients • people who inject drugs • people experiencing homelessness.	May be considered by PHU and/or treating clinicians on a case-by-case basis.
Healthcare workers who have had unprotected close exposure of their airway to respiratory droplets of a case.	Generally, not recommended. Can be considered if risk factor is present.

*Refers to residential aged care or disability facility, childcare, hospital, prison, or military barracks.

Table 2: Therapeutic Guidelines: Antibiotic prophylaxis regimens for eligible close contacts

1. Benzathine benzylpenicillin intramuscularly*, as a single dose#

- adult: 1.2 million units (2.3 mL)
- child less than 10 kg: 0.45 million units (0.9 mL)
- child 10 kg to less than 20 kg: 0.6 million units (1.2 mL)
- child 20 kg or more: 1.2 million units (2.3 mL)

OR

2. Cefalexin 1 g (neonate and child: 25 mg/kg up to 1 g) orally, 12-hourly for 10 days.

* The ventrogluteal site is preferred for administration of intramuscular benzathine benzylpenicillin because of reduced pain and risk of nerve injury.

It is unclear if eradication of pharyngeal group A streptococcus carriage is required to prevent secondary cases. Limited evidence suggests the addition of rifampicin to benzathine benzylpenicillin increases the rate of pharyngeal carriage eradication. However, the role of rifampicin in the prevention of secondary invasive group A streptococcal infection is uncertain, and routine combination prophylaxis is not recommended.

For close contacts with delayed non-severe hypersensitivity to penicillins, cefalexin can be used in most cases^.

For close contacts with immediate (non-severe or severe) or delayed severe hypersensitivity to penicillins, antibiotic choice depends on the susceptibility of the isolate from the index case (as rates of resistance to non–beta-lactam antibiotics are higher). If susceptibility results are not available, a reasonable regimen is:

- azithromycin 500 mg (child: 12 mg/kg up to 500 mg) orally, daily for 5 days.

^ It is safe to use cefalexin in patients who had a delayed non-severe reaction to a penicillin in the distant past. It is also safe to use cefalexin in patients who have had a delayed non-severe reaction recently, unless the reaction involved amoxicillin or ampicillin, because cross-reactivity between these drugs is possible. For patients who have had a recent delayed non-severe reaction to amoxicillin or ampicillin, use the drug recommended for patients with immediate (non-severe or severe) or delayed severe hypersensitivity.

Note: Recommendations regarding the provision of antibiotics for chemoprophylaxis to close contacts of a single case are not intended as a substitute for the expert knowledge of treating clinical teams. Decisions about antibiotics for chemoprophylaxis must always consider the individual and population risks and benefits of this intervention.

More information

NSW Health invasive group A streptococcal (iGAS) disease control guideline for public health units

NSW Health invasive group A streptococcal (iGAS) disease fact sheet