Safety Alert 001/23

Issue date
5 January 2023

Distributed to:
Chief Executives
Directors of Clinical Governance
Director, Regulation and Compliance Unit

Action required by:
Chief Executives
Directors of Clinical Governance

We recommend you also inform:
Directors, Managers and Staff of:

- Emergency Departments
- Infectious Diseases
- Paediatrics
- General Medicine
- Public Health Units
- Nursing

Other relevant staff, departments and committees

Deadline for completion of action
9 January 2023

Expert Reference Group

Content reviewed by:
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January 2024

Clinician Alert - Invasive group A streptococcal disease

There has been an increase in cases of invasive group A streptococcal disease (iGAS) observed in New South Wales, Victoria, and internationally.

Clinicians are reminded to exercise caution when attributing symptoms such as fever, sore throat or lethargy to a viral infection alone; do not ignore even subtle features of more severe disease.

As signs and symptoms of early sepsis may be subtle, concerns of any member of the treating team or family should be escalated, including through the REACH program. Early and aggressive treatment may be life-saving – this includes rapid escalation if any signs of sepsis as deterioration may be very rapid. Refer to the Sepsis Kills program for further information.

Increase in invasive GAS Disease in NSW

Invasive group A streptococcal disease (iGAS) is caused by infection with the bacterium *Streptococcus pyogenes* (also known as group A (beta-haemolytic) Streptococcus (GAS) or Strep A). GAS can cause a spectrum of disease from non-invasive infections, such as pharyngitis, impetigo and scarlet fever, to invasive disease (iGAS) including bacteraemia and sepsis, streptococcal toxic shock syndrome, necrotising fasciitis, maternal sepsis, meningitis, bone/joint infections, and pneumonia.

An increase in iGAS presentations, amongst both children and adults, has been observed in New South Wales over the last few weeks. At times this has closely followed a viral illness.
Increased iGAS cases have also been reported in some European countries and the USA in the last few months. Some countries, including the United Kingdom, have also observed an increase in cases of scarlet fever.

Who is at risk?

The overall risk of iGAS for the general population remains low. People most at risk of severe group A strep infections include:

- Adults over the age of 65, infants/young children
- Recent diagnosis of impetigo, pharyngitis or scarlet fever
- People who have been in contact with someone with Group A streptococcal infection in the past 30 days

Clinical picture

iGAS is a severe disease which can include bacteraemia and sepsis, streptococcal toxic shock syndrome, necrotising fasciitis, maternal sepsis, meningitis, bone/joint infections, and pneumonia. A person with iGAS can become very ill within 12 to 24 hours.

Symptoms of iGAS vary depending on site of infection and are often non-specific. They may include:

- dizziness or light headedness
- nausea, vomiting, abdominal pain
- red, warm, painful, and rapidly spreading skin infection which may have pus or ulceration
- bleeding or purulent discharge from the vagina with or without lower abdominal pain can occur with maternal sepsis

iGAS may initially be difficult to distinguish from a viral infection, however the persistence of these signs, the presence of multiple signs, or their extreme nature (e.g. very high fevers, severe muscle aches and tenderness, rapidly spreading and intense redness of the skin), signals likely serious bacterial infection rather than a common viral syndrome.

Specific considerations in children

Signs and symptoms of iGAS in children are non-specific but can include fever, erythematous sunburn-like rash (scarlet fever rash), cold or mottled limbs, limb pain, not wanting to walk, poor feeding, abdominal pain, vomiting, lethargy, throat infection, increased work of breathing, persistent tachycardia and reduced urine output.

Transmission

GAS bacteria are usually spread from one person to another by sneezing, coughing, or kissing. It can also spread by direct contact with other people with GAS on their skin.
Some people carry GAS bacteria in their throat or on their skin and have no symptoms but can spread the disease.
Droplet precautions are recommended in caring for those with iGAS.

Clinical management

Clinicians should be alert for the signs and symptoms of iGAS and should thoroughly evaluate all patients with a clinically compatible illness.

Be alert to the patient, particularly an infant or child, who is more unwell than you would expect with a viral illness, or who had a viral illness and then becomes more unwell. A dual diagnosis with a common respiratory virus and iGAS is possible. Follow the paediatric sepsis pathway or adult sepsis pathway.

Laboratory investigations of suspected iGAS cases should include:

- blood cultures,
- full blood examination
- and venous blood gas.

Management of suspected iGAS should include:

- early fluid resuscitation,
- empiric antibiotics (NB Group A Streptococcus remains susceptible to beta lactams.)
- urgent escalation to assess most appropriate location for management (eg ICU, in the case of children, retrieval to a specialist children's hospital)

Notification and Public Health intervention

Household contacts should be counselled and provided written information regarding their increased risk of iGAS to ensure early intervention is taking place if a household member becomes unwell.
Management (including potential chemoprophylaxis) of household contacts should be discussed with infectious disease clinicians or other local experts.

If a clinician becomes aware of two or more cases in institutions such as residential aged care facilities, hospitals or childcare centres within a three-month period they should contact their local public health unit.

Further information

NSW Factsheet

https://www.health.nsw.gov.au/Infectious/factsheets/Pages/Invasive-group-A-streptococcus.aspx

NSW control guideline

https://www.health.nsw.gov.au/Infectious/controlguideline/Pages/invasive-group-a-strep.aspx

Required actions for the Local Health Districts/Networks

1. Distribute this Safety Alert to all relevant clinicians, clinical departments for awareness
2. Include this Safety Alert in relevant handovers and safety huddles
3. Notify your Public Health Unit of any suspected or confirmed clusters to facilitate management and prevent further transmission
4. Confirm receipt and distribution of this Safety Alert within 48 hours to cec-recalls@health.nsw.gov.au