



Increase in Invasive Group A streptococcal infections among children in Europe, including fatalities

Press release

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A number of European countries (including Ireland, France, the Netherlands, Sweden and the United Kingdom) indicate an increase seen during 2022, particularly since September 2022, in the number of cases of invasive Group A Streptococcus (iGAS) disease among children less than ten years of age.

During the same period, several deaths associated with iGAS in children less than 10 years of age have also been reported, including from Ireland, France, and the UK. In France and the UK, the increase in iGAS cases observed in children has been several-fold higher than pre-pandemic levels for the equivalent period of time.

The observed increases reported to the European Centre for Disease Prevention and Control (ECDC) and WHO Regional Office for Europe and have followed a period of reduced incidence of Group A Streptococcus infections observed during the COVID-19 pandemic. It is likely that the increase in iGAS cases in children is also associated with the recent increased circulation of respiratory viruses, including seasonal influenza and respiratory syncytial virus (RSV), as coinfection of viruses with Group A Streptococcus may increase the risk of invasive disease (iGAS).

Disease symptoms

Group A Streptococcus (GAS) represents the most common cause of bacterial pharyngitis in school aged children. GAS infections usually cause a mild illness including a sore throat, headache, and fever, along with a fine, red rash (scarlet fever). The incidence of GAS pharyngitis usually peaks during winter months and early spring in Europe. Outbreaks in kindergartens and schools are frequently reported. GAS pharyngitis is diagnosed by rapid antigen detection test and/or bacterial culture and is treated with antibiotics and supportive care.

In rare cases GAS bacteria can also cause a severe, life-threatening infection known as invasive group A Streptococcus (iGAS), which may manifest as bacteraemia, pneumonia, or skin and bone infection (cellulitis, osteomyelitis, necrotising fasciitis). Children with viral infections such as varicella (chickenpox) or influenza are at higher risk of developing iGAS infection.

Risk assessment

GAS and iGAS infections are notifiable diseases in only a limited number of European countries, therefore it is difficult to assess the overall level of circulation in the European region at this point.

Although investigations are ongoing, early typing data suggests that the surge of cases is **not related to a specific or new strain, nor an increase in antibiotic resistance of GAS.**

Given that the current increase in cases of iGAS is overall relatively low, the reported cases are not caused by a new strain, and that the disease is **easily treatable with antibiotics**, ECDC and the WHO Regional Office for Europe currently assess that the risk for the general population posed by iGAS is low. This will be reviewed as investigations continue.

Response

All European countries should be vigilant for a similar rise in cases in children, considering, in particular, the increase in respiratory virus circulation that is now occurring across Europe.

Reducing the transmission of GAS will help to reduce the risk of severe iGAS infection. Early recognition of iGAS and prompt initiation of specific and supportive therapy for patients can be lifesaving. Public health authorities should therefore consider activities to raise awareness among clinicians and the general public and encourage prompt testing and treatment of GAS infections according to national guidelines. GAS infections should be included in the differential diagnosis of children who present with severe respiratory syndromes and those with preceding viral infection (including chickenpox), as well as those who have been in close contact with scarlet fever patients. Close contacts of iGAS cases should be identified, assessed, and managed according to national guidelines.

WHO Regional Director for Europe Dr Hans Henri P. Kluge calls on countries to "increase vigilance to iGAS cases, especially when respiratory viruses are widely circulating in children". ECDC Director Dr Andrea Ammon notes that "cases of iGAS can be managed easily if detected in a timely manner."

ECDC and WHO Regional Office for Europe encourage countries to undertake public health messaging to parents of young children. **iGAS infections can present initially with non-specific symptoms (fever, general tiredness, loss of appetite) and children, in particular, can have rapid progression to severe disease.** Therefore, parents and guardians should be aware of worrisome symptoms and seek clinical advice and assessment if their child's health is not improving.

Public health authorities are encouraged to coordinate with laboratories to obtain specimens for and/or data regarding molecular testing and antibiotic susceptibility testing.

Prevention of viral illnesses is likely to be important in reducing the risk of invasive disease, **therefore vaccination against seasonal influenza and COVID-19 should be promoted.**

Adequate hand and respiratory hygiene, as well as good indoor ventilation, should continue to be emphasized as important protective measures during this winter season. Schools and other educational facilities where GAS infections are reported should follow cleaning and disinfection guidance for toys and frequently touched surfaces.

ECDC and the WHO Regional Office for Europe will continue to work together with countries to gain a better understanding of the epidemiological situation in the region, and to provide practical recommendations to the public and guidance for country responses

Corrigendum: In an earlier version of this web article, Spain was identified among the countries reporting an increase in cases. Although several cases have been reported in Spain, an increase in comparison to previous years has not been detected.

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