



HEALTH ALERT

Pediatric Influenza Deaths and Invasive Group A Strep Infections

December 19, 2022

Summary

- Kentucky is on-track to have the worst flu season in at least ten years.
- Six children have died from influenza in Kentucky since late November, including three in the past week.
- All six children were old enough to be vaccinated against influenza, but none had record of receiving a flu vaccine for the 2022-2023 flu season.
- Several were co-infected with other respiratory pathogens, including three with group A streptococcus (group A strep or "GAS").
- Some states, including [Colorado](#) and [Minnesota](#), have reported recent increased frequency of severe presentations of group A strep, such as toxic shock syndrome and necrotizing soft tissue infections, resulting in pediatric hospitalizations. Increases in invasive group A strep (iGAS) have also been reported in a number of [European countries](#).
- Shortages of oseltamivir for treating influenza and amoxicillin for treating GAS have been reported.

Action Items

- The Kentucky Department for Public Health (KDPH) is requesting that healthcare providers notify local health departments as soon as possible about **pediatric influenza deaths** and/or **unusually aggressive iGAS infections** (resulting in hospitalization or death) among children under 18 years in Kentucky.
 - Report by calling your local health department or, if they are not reachable, by calling the KDPH Epidemiology On-Call number at 888-9-REPORT (888-973-7678).
 - Submit an [EPID 200 Reportable Disease Case Report](#) form for every case/death that is reported to the local health department.
 - Request that facility laboratories retain GAS isolates or influenza-positive specimens for the above categories for submission to the KDPH Division of Laboratory Services.
- As a reminder, all laboratory-confirmed influenza cases (not rapid antigen tests), all influenza-associated fatalities (of any age), and all iGAS resulting in [streptococcal toxic shock syndrome](#) (STSS) are routinely reportable in Kentucky.
- Consider [antiviral prioritization guidance](#) for influenza treatment when supplies of oseltamivir are limited.
- Consider [alternative antibiotics](#) for GAS treatment when amoxicillin supplies are unavailable.



Situational Update

Seasonal influenza activity is high across the United States and in Kentucky. [The Centers for Disease Control and Prevention \(CDC\) estimates](#) that in the 2022-2023 season to date, there have been at least 13 million illnesses, 120,000 hospitalizations, and 7,300 deaths from influenza. [Antiviral treatment](#) of influenza is an important adjunct to influenza vaccination in the prevention and control of influenza and, when given early, reduces the duration of symptoms and may reduce the risk of some complications. Recently, [CDC issued a Health Advisory](#) providing guidance for patient treatment options when antivirals such as oseltamivir are in limited supply due to localized shortages.

Concomitant infections with other respiratory illnesses, including RSV, COVID-19, and GAS can increase the risk of life-threatening complications. Some states, including [Colorado](#) and [Minnesota](#), have reported recent increased frequency of severe presentations of group A strep, such as toxic shock syndrome and necrotizing soft tissue infections, resulting in pediatric hospitalizations. Increases in invasive group A strep (iGAS) have also been reported in a number of [European countries](#).

GAS bacteria are the most common cause of bacterial pharyngitis in school-aged children. GAS infections usually cause mild illness, including sore throat, headache, and fever, sometimes with a fine, red rash (scarlet fever). The incidence of GAS pharyngitis usually peaks during winter months and early spring. GAS pharyngitis is diagnosed by rapid antigen detection test and/or bacterial culture and is treated with antibiotics and supportive care. Early this fall, FDA announced there was a [national shortage](#) of amoxicillin oral powder for suspension formations. The American Academy of Pediatrics [recommends alternative antibiotics](#) for GAS treatment when amoxicillin supplies are unavailable.

In rare cases, GAS bacteria can also cause a severe, life-threatening infection known as iGAS disease, which may manifest as bacteremia, pneumonia, or skin and bone infection (cellulitis, osteomyelitis, necrotizing fasciitis), meningitis or sepsis. Children with viral infections such as influenza, RSV, or COVID-19 are at higher risk of developing iGAS disease.

Prevention of viral illnesses is important for reducing the risk of iGAS disease. We urge healthcare providers to ensure that children are up-to-date with seasonal influenza and COVID-19 vaccines (and all other routine childhood immunizations) and to strongly encourage parents to vaccinate any children who are not up-to-date. Recognition of clinical courses that do not fit the pattern of what is expected of influenza, or a simple GAS infection, should lead to increased work-up and close observation for clinical deterioration, which may occur rapidly.