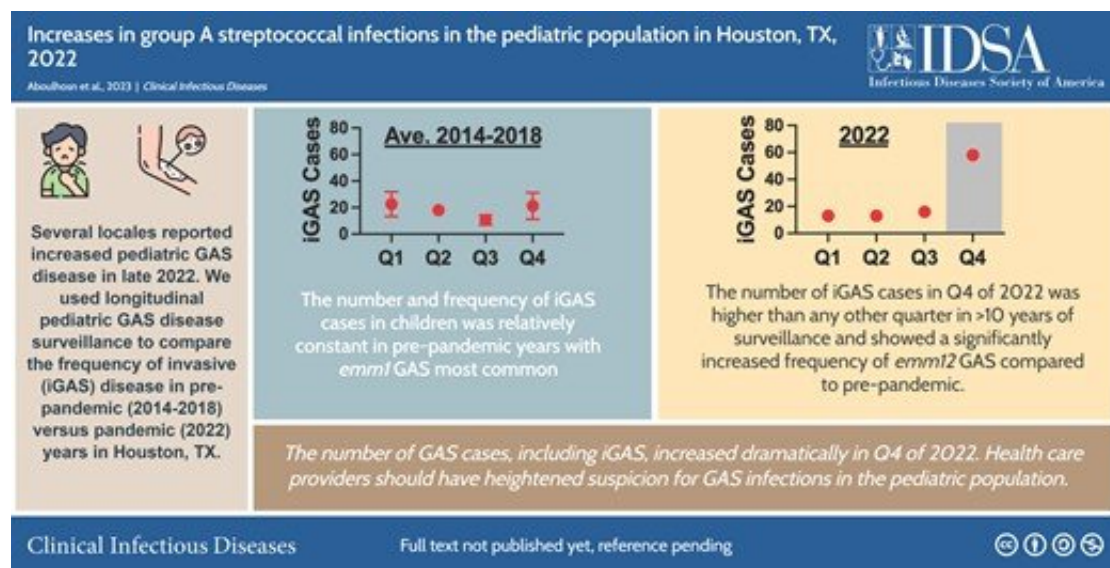


Physicians should be on alert for group A strep as cases experience historic rise, says study

April 6 2023, by Halle Jones



Credit: *Clinical Infectious Diseases* (2023). DOI: 10.1093/cid/ciad197

The U.S. experienced an unprecedented number of group A streptococcal infections in children from October to December 2022, which should alert physicians to check for the potentially deadly infectious disease as the country moves out of the pandemic, according to research published by UTHealth Houston.

The study, led by senior author Anthony R. Flores, MD, Ph.D., MPH, associate professor and chief of pediatric infectious diseases at

McGovern Medical School at UTHealth Houston, was published this month in *Clinical Infectious Diseases*.

During the COVID-19 pandemic, the rate of other infectious diseases dropped due to safety measures such as social distancing and mask-wearing, according to researchers. But as those [safety measures](#) began to lift, diseases such as [respiratory syncytial virus](#), the flu, and group A strep all experienced a resurgence in cases.

Infectious disease experts first noticed the rise in cases in the UK, with 355 deaths, of which 40 were children dying from severe group A strep infections. Researchers such as Flores then turned to what was occurring in the U.S.

"In 2020 and 2021, the overall number of infections that we saw due to group A strep were far lower than what we had seen before the pandemic," Flores said. "When we look at the number of infections by quarter, historically, pre-pandemic cases of group A strep were pretty consistent from quarter to quarter with a little variation and more infections in the winter months. But during the last quarter of 2022, the number of infections we saw, including invasive infections, were far greater than what we'd ever seen before."

In 2022, a total of 318 individual group A strep cases were identified in [young children](#) in Houston. Researchers looked at three group A strep disease types: invasive group A strep (iGAS), skin and soft tissue infections (SSTI), and pharyngeal, or throat, infections (PHG). The study found that group A strep strains derived from iGAS accounted for 31.4%, SSTI for 17.6%, and pharyngeal for 50.9%.

"Proportionately speaking, if we just looked at the percentage of all infections that were invasive, it was the same as we had seen in the past," Flores said. "It wasn't like, all of a sudden, 75% of our cases are invasive

diseases. What we're seeing is an increase in the total number of infections."

The study also found that emm12 group A strep strains were disproportionately represented, compared to emm1 group A strep, which was the dominant emm type pre-pandemic. Emm type is a marker that differentiates different strains of group A strep.

"By looking at the molecular epidemiology, we can look at specific things about the bacteria that give us clues as to whether or not something is changing," Flores said. "What we will be observing as we go forward is whether it will shift back to what it was pre-pandemic, and if it doesn't, then we hope to have some work underway that is going to tell us why."

As cases of group A strep continued to be high in the first quarter of 2023 in Houston, the disease is a cause for concern for pediatricians who see children with symptoms of group A strep.

"The reason why this is important is we're seeing group A strep more frequently than what we have seen in the past, and therefore, if a physician has a child coming in with a [sore throat](#) or with a skin infection, we should have a high index of suspicion for group A [strep](#)," Flores said.

Co-authors on the paper from McGovern Medical Schools department of pediatrics infectious diseases division included Aya Aboulhosn, MD; Misu A. Sanson-Iglesias, MD, Ph.D.; Luis Alberto Vega, Ph.D.; and Maria G. Segura, MD.

More information: Aya Aboulhosn et al, Increases in group A streptococcal infections in the pediatric population in Houston, TX, 2022, *Clinical Infectious Diseases* (2023). [DOI: 10.1093/cid/ciad197](https://doi.org/10.1093/cid/ciad197)

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