Transmission of Strep A disrupted by the COVID-19 pandemic

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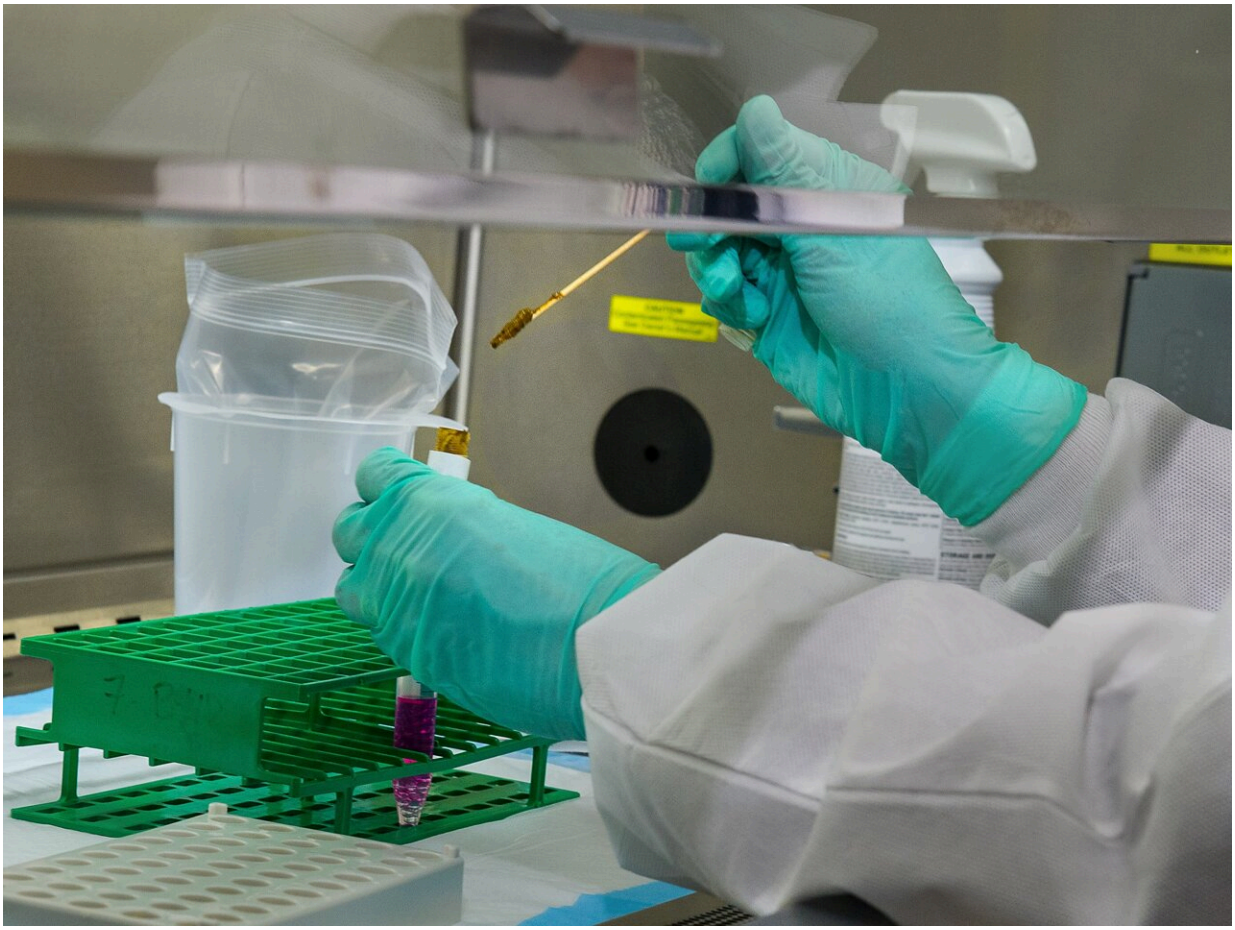

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Kent-led research has shown that the COVID-19 pandemic has disrupted

the transmission patterns of a broad range of infectious diseases including group A streptococcus (GAS) infections also known as Strep A, and could be responsible for the current increase in cases.

The international team of researchers from Kent, Goethe-University (Germany), and the Dr. Petra Joh Research Institute (Germany), analyzed the transmission patterns of 22 different infectious diseases during the COVID-19 pandemic in England. The results showed that the COVID-19 prevention measures generally reduced the spread of pathogens that are transmitted via the air and the fecal-oral route.

After these measures were removed in England, the circulation of infectious diseases that can be effectively prevented by vaccines (for example mumps and measles) remained suppressed for a prolonged time. However, non-vaccine preventable diseases, including Strep A infections, displayed a rapid rebound.

Moreover, COVID-19 and the associated prevention measures interrupted the seasonal transmission patterns that used to be typical for many pathogens before the pandemic. This interruption may explain the unusual behavior of infectious diseases like Strep A or the flu that we are currently experiencing.

Mark Wass, professor of computational biology and head of the School of Biosciences at Kent, said, "The impact of COVID-19 and the pandemic prevention measures is remarkable. We have never experienced anything like this before."

Prof Jindrich Cinatl from Goethe-University and Dr. Petra Joh Research Institute added, "The pandemic has provided us as with a real-world experiment on infectious disease transmission. We have to make the most out of this to answer open research questions."

Kent's Professor Martin Michaelis said, "After the removal of restrictions, only those diseases for which we do not have vaccines that provide effective long-term protection quickly returned. These findings strongly support the importance and effectiveness of comprehensive vaccination programs."

The study is published in the *Journal of Medical Virology*.

More information: Lauren J. Hayes et al, Impact of the COVID-19 pandemic on the circulation of other pathogens in England, *Journal of Medical Virology* (2022). DOI: 10.1002/jmv.28401