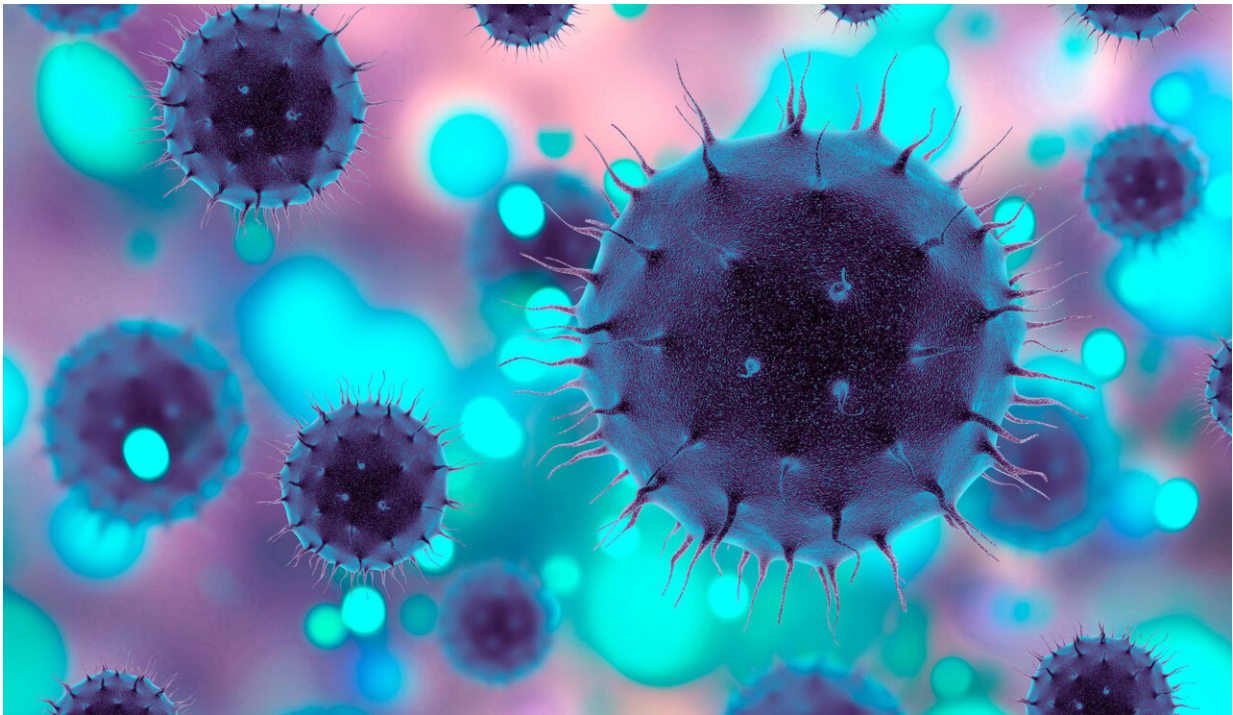


'Dual mutant' seasonal flu virus could make some treatments ineffective

June 13 2024, by Robin Foster



Two human cases of "dual mutant" strains of H1N1 flu have been reported by U.S. health officials.

Unfortunately, the [genetic changes](#) appear to render the leading flu antiviral, Tamiflu, less effective, researchers from the U.S. Centers for

Disease Control and Prevention noted.

The new analysis, published Wednesday in the agency's [Emerging Infectious Diseases](#) journal, describes these two concerning mutations—which scientists have dubbed I223V and S247N.

The latest finding follows a report published last March in the [Lancet](#) journal by Hong Kong scientists that found the two mutations seemed to raise resistance to the flu treatment oseltamivir (Tamiflu).

Lab tests found the mutated flu viruses were up to 16 times less sensitive to the antiviral, a smaller drop-off than in some previous worrying mutations, reported researchers led by Mira Patel, a senior scientist at the CDC.

Still, the agency isn't hitting the panic button at this point.

"These mutated viruses retained sensitivity to other anti-influenza medications, including a newer one, baloxavir marboxil. There are no immediate implications to change decisions for [clinical care](#)," a CDC spokesperson told CBS News, and vaccination still offers protection against mutated viruses.

Despite the "rapid spread of dual mutants to countries on different continents," the CDC report added that these new flu strains are still rare for now.

Since they were first spotted in a case sampled from the Canadian province of British Columbia in May 2023, 101 sequences have been submitted to the global [virus](#) database GISAID from Africa, Asia, Europe, North America and Oceania, CBS News reported.

The two U.S. cases were detected by labs at the Connecticut Department

of Health and University of Michigan this past fall and winter.

"It is unknown how widely these mutated viruses will circulate in the upcoming season. It is important to continue monitoring the spread of these viruses and the evolution of these viruses," the CDC spokesperson said.

Tamiflu is the most commonly prescribed flu treatment, according to the CDC. A study published in the journal [Pediatrics](#) last year found the drug made up 99.8% of flu antivirals prescribed to kids.

Doctors have also turned to Tamiflu to treat humans infected during an ongoing outbreak of [bird flu in dairy farms](#) this year, CBS News reported.

More information: Mira C. Patel et al, Multicountry Spread of Influenza A(H1N1)pdm09 Viruses with Reduced Oseltamivir Inhibition, May 2023–February 2024, *Emerging Infectious Diseases* (2024). [DOI: 10.3201/eid3007.240480](#)

Rhoda Cheuk-Ying Leung et al, Global emergence of neuraminidase inhibitor-resistant influenza A(H1N1)pdm09 viruses with I223V and S247N mutations: implications for antiviral resistance monitoring, *The Lancet Microbe* (2024). [DOI: 10.1016/S2666-5247\(24\)00037-5](#)

The CDC has more on the [flu](#).

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