Chicago and Illinois Departments of Public Health Confirm First Illinois Case of the COVID-19 Variant First seen in United Kingdom

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CHICAGO – The Chicago Department of Public Health (CDPH) and Illinois Department of Public Health (IDPH) today announced the first case in Illinois of the SARS-CoV-2 variant B.1.1.7 first identified in the United Kingdom. The case was identified by the Northwestern University Feinberg School of Medicine through sequencing analysis of a specimen from bio-banked samples of COVID-19 positive tests.

The new strain was first identified in the United States about two weeks ago in Colorado and has since been identified in several other states. Evidence suggests that this variant can spread more easily than most currently-circulating strains of COVID-19, but there is no evidence that the new strain affects the sensitivity of diagnostic tests or that it causes more severe illness or increased risk of death. In addition, data suggest current vaccines will be effective and safe in providing protection against the variant.

“This news isn’t surprising and doesn’t change our guidance around COVID-19. We must double down on the recommended safety strategies we know help stop the spread of this virus,” said CDPH Commissioner Allison Arwady, M.D. “In order to protect Chicago, please continue to wear a mask, practice social distancing, wash your hands often, do not have outside guests in your home, and get vaccinated when it is your turn.”

CDPH, IDPH and the U.S. Centers for Disease Control and Prevention (CDC), in collaboration with various public health agencies, are closely monitoring this strain.

“When we learned of this and other COVID-19 variants, we increased our surveillance efforts by performing genomic sequence testing on an increased number of specimens,” said IDPH Director Dr. Ngozi Ezike. “We will continue to collaborate with our academic partners, local health departments like CDPH, hospitals, and the CDC to monitor for additional cases.”

A follow-up case investigation by CDPH found that the individual had travelled to the UK and the Middle East in the 14 days prior to the diagnosis. CDPH has worked to identify close contacts of the individual to reinforce the importance of adherence with quarantine and isolation measures.

CDPH is also working with the CDC and IDPH to contribute to national SARS-CoV-2 strain surveillance. Building regional capacity and coordination for this more advanced, specialized molecular laboratory public health work is a top priority for CDPH. Last year, prior to the detection of this variant, CDPH awarded $3 million to lay the groundwork for a Regional Innovative Public Health Laboratory, in partnership with Rush University Medical Center and working with laboratories and academic centers across the City, to increase public health surveillance of possible COVID-19 variants in the Chicago region.

“It is important to monitor the spread of virus variants,” said Dr. Egon Ozer, an assistant professor of medicine in infectious diseases at Northwestern University Feinberg School of Medicine. “We expected this variant to show up eventually. We will continue to sequence and study these samples.”

Some data show a higher concentration of the virus in the respiratory tract for the UK variant that could be related to a higher infectivity and easier spread of the variant, but this needs to be confirmed, Ozer said. Some modeling and molecular data also seem to indicate the variant may attach more strongly to the receptor of the human cell, but this also remains under study. Importantly, no data suggests an increased severity of illness, and early studies have shown the vaccine is still effective against this variant.

Dr. Ozer, Dr. Judd Hultquist, Dr. Ramon Lorenzo Redondo and their team in the Northwestern Pathogen Genomics and Bioinformatics Group have been sequencing virus samples obtained from the Northwestern Medicine Diagnostics Molecular Biology Lab and other collaborating institutions. Their goal is to identify populations of SARS-CoV-2 viruses circulating in the city and see how they change over time in their ability to cause disease and spread. In December, the Northwestern team sequenced 180 random residual samples from individuals who came to Northwestern clinics or other sites for COVID-19 testing or screening that would have otherwise been discarded.

The COVID-19 virus – also known as SARS-CoV-2 – like other viruses, constantly changes through mutation, and new variants of a virus are expected to occur over time. According to the CDC, this variant is estimated to have first emerged in the UK during September 2020. Other novel variants of SARS-CoV-2, which also might change the way the virus transmits or behaves, have been identified in South Africa, Nigeria, Brazil, Japan and the US. More novel strains are likely to be identified in the coming weeks and months.

As a pre-cautionary measure, the CDC earlier this week announced that all international passengers headed to the United States will first need to show proof of a negative coronavirus test, a policy which goes into effect on Jan. 26. The new policy requires all air passengers, regardless of vaccination status, to get a test for current infection within the three days before their flight to the United States departs, and to provide written documentation of their test results or proof of having recovered from Covid-19.

Everyday preventive actions by the public can help to slow the spread of all known COVID-19 variants, including wearing a mask, washing hands often, staying six feet away from others and avoiding crowds, avoiding non-essential travel and getting vaccinated when it is your turn.