

## July 30: Testing Update and Epidemiology of COVID-19 in Chicago

Today's issue features an update on virology and serology testing from Northwestern Memorial HealthCare Senior Vice President Daniel Derman, MD, and an overview of the current epidemiological state of COVID-19 in Chicago from Bluhm Cardiovascular Institute Cardiologist Sadiya S. Khan, MD.

## **TESTING UPDATE**

Testing volumes have continued to increase over the past several weeks, with the average testing volume reaching more than 2,000 tests completed per day. With increased volumes, test results for outpatients may experience a slight increase in turnaround time to prioritize results for hospital admissions and requirements for pre-procedure testing. The lab continues to research new SARS-CoV-2 testing platforms and is actively working to expand testing in the coming months.

Other testing-related topics under evaluation include the use of saliva as a method for sample collection, as well as antigen testing. The use of saliva as an alternative method of sample collection for testing SARS-CoV-2 is currently undergoing validation in the lab. Initial findings show promising results, but there is a continued effort to validate these samples.

Antigen testing is a new type of diagnostic test designed for rapid detection of SARS-CoV-2. Due to decreased sensitivity, there are no plans to adopt antigen testing for broader clinical use across the health system at this time. However, there may be a limited role for antigen testing in situations where frequent retesting is indicated.

For more information about COVID-19 virology and serology testing, please visit the **Testing Resources page** on Physician Forum.

## **EPIDEMIOLOGY OF COVID-19 IN CHICAGO**

As of July 29, Cook County has reported 103,008 confirmed cases and 4,842 deaths related to COVID-19, placing it fourth in the country in total cases and third in total deaths. While the city of Chicago has entered phase four of reopening, an average of 246 new COVID-19 cases and three new COVID-19 deaths are occurring every day. These numbers contrast with the peak of the pandemic in late April to early May when Chicago was seeing more than 1,000 new cases and more than 50 deaths per day.

An important shift in COVID-19 cases that has been observed over the past several weeks in Chicago is the higher positivity rates and greater absolute number of confirmed cases in younger

adults (ages 18 to 49 years). Approximately two-thirds of new confirmed cases are occurring in this age range with a seven-day positivity rate ranging from 5.5% to 6.7%, compared with 3.1% to 4.7% in adults 50 years of age and older. Significant racial and ethnic disparities in COVID-19 infection and mortality rates persist, with 47% and 30% of total cases reported in Black and Latinx residents, respectively. Community-engagement efforts in the highest-risk populations are needed to develop strategies for prevention and treatment, as well as recruitment for vaccine testing and implementation.

Overall, the spatiotemporal spread of COVID-19 across the U.S. has been heterogeneous. While New York and contiguous areas in New Jersey were the epicenter in the early part of the pandemic, this has now shifted towards some areas of the Midwest and the South, such as Arizona and Texas, where cases and deaths attributed to COVID-19 are continuing to increase. As a result, an emergency order was passed by the City of Chicago to require a two-week quarantine for travelers from any state that has more than 15 new daily COVID-19 cases per 100,000 population over a seven-day average.

While fatigue and desensitization of the potential risks of COVID-19 may be playing a role, public health messaging confirming the importance of masking in public, physical distancing and handwashing needs to be maintained. At the same time, adequate testing, rapid return of test results and contact tracing efforts will be needed to mitigate spread of COVID-19 and prevent a second wave in Chicago.

For more information about COVID-19 in Illinois, including infection rates and hospital capacity, visit the **Illinois Department of Public Health COVID-19 website**.

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Thank you to all NM physicians and clinicians for your ongoing commitment, collaboration and leadership in providing exceptional *Patients First* care during this unprecedented time.

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