BRIEF19

A daily review of covid-19 research and policy.

RESEARCH BRIEFING

Do patients under 65 years of age have poor outcomes when infected with SARS-Cov-2? A new paper published in *The Lancet* from two New York-Presbyterian hospitals affiliated with Columbia University Irving Medical Center in Manhattan monitored patients admitted with laboratory confirmed SARS-CoV-2 from March 2 to April 1, 2020. Patients included critically ill persons with acute respiratory failure (with low blood oxygen levels) and each patient was followed for at least 28 days after the initial evaluation. During the 30-day initial period, 1,150 adults with covid-19 were admitted to these two hospitals, a staggering number. The average age of patients admitted was 62 years, and 22 percent were deemed to have been in critical condition. At the time of publication, 39 percent of the patients had died. 79 percent of the entire cohort required mechanical ventilation, for an average of 18 days, though typical ranges included 9 to 28 days. Over 25 percent of those patients were *under* the age of 50 years. Furthermore, 37 percent remained in the hospital at the time the paper was published; Many hospitalized patients soon became sicker, with an average time to in-hospital deterioration of 3 days. This implies that patients appropriate "self-diagnosed" the severity of their illness by virtue of having presented to the hospital when they did. Using a statistical model, researchers found that the presence of chronic heart and lung disease and high levels of interleukin-6 (an inflammatory "cytokine") and blood d-dimer levels (a marker of abnormal blood clotting) were independent risk factors for dying while hospitalized. Commentary: These data are remarkable both from the perspective of patient outcomes and hospital capacity. The number of patients treated and hospitalized by just two New York City hospitals is highly unusual if not unprecedented in modern history. It is also noteworthy that over one-fourth of all patients who died were under the age of 50 years old.

-Joshua Niforatos MD

Second infections may not be contagious.

In a <u>report</u> released by the Korea Centers for Disease Control and Prevention, patients found to have become re-infected with SARS-CoV-2 were closely tracked to determine whether they were contagious during the second bout. The agency has been tracking 447 "re-positive" cases, which they define as testing positive for the virus after release from isolation. On average, repositive cases were detected 45 days after the end of the initial isolation period (at which time the patients were believed to be negative for the virus). So far, researchers have data from 285 of those cases. 790 contacts (family and others) have been reached by the agency and no individuals have been observed to have caught the virus. No information was given as to the clinical outcome of the "re-positives," but there was no mention of any serious illness.

-Jeremy Samuel Faust MD, MS

POLICY BRIEFING

FDA approves more home test kits. To get a better handle on the extent of the coronavirus pandemic, the Food and Drug Administration (FDA) has ramped up its evaluation and issuance of emergency use authorizations for at-home tests. After <u>approving</u> a nasal swab send-in kit from Laboratory Corporation of America (LabCorp) in April, the FDA has increased the number and

types of home tests approved. It has issued an emergency use authorization to Everlywell, Inc., for a home nasal.swab.test and another to RUCDR Infinite Biologics, part of Rutgers
University's Human Genetics Institute of New Jersey, for the first home saliva.swab.test. None of these tests can be used without pre-approval by a healthcare provider, and samples must be sent to a lab for processing and results. Separately, the FDA has instructed the Seattle
Coronavirus Assessment Network (SCAN), a partnership between the Seattle Flu Study and
Public Health - Seattle & King County, to pause the testing of samples collected using its home nasal-swab system while it completes the process to get an emergency use authorization. (It is not the first roadblock for members of this team: Early this year, The New York Times has reported, researchers with the Seattle Flu Study tried to get permission to use nasal swabs they had already collected to monitor the coronavirus, which would have provided early information about how the virus was circulating in Washington State, but FDA and CDC regulations stood in the way.) The Food and Drug Administration.

—Joshua Lesko, MD

Federal judge weighs in on voting by mail. Last month, after the Supreme Court weighed in, Wisconsin proceeded with in-person voting for its primary elections. The in-person voting has since been linked to an increase in covid-19 infections, the outcome that was feared by advocates for voting by mail. The issue has now appeared in Texas. The Texas Democratic party has filed a lawsuit demanding that mail voting be extended to all Texans to prevent the transmission of the coronavirus. The State has raised concerns about fraud associated with mail voting and wants to limit the extension of absentee ballots only to citizens over age 65. Yesterday, a federal court sided with the Democratic party and held that the risk of illness and death was too great compared to concerns of voter fraud, and that voting by mail should be made available to all voters. Various.

—Kimi Chernoby MD, JD

CDC guidance finally issued. This past weekend the Centers for Disease Control and Prevention finally issued recommendations on reopening. Previously, a leaked draft of the recommendations caused public disagreement between the agency and the White House because Trump administration officials felt that some recommendations were overly cautious. The recently published document is far-reaching, and includes a review of the Center's surveillance efforts, recommendations for schools, businesses, and places of worship, among other institutions, on how to safely reopen. Suggestions include that school desks not all face the same direction and that shared objects like reusable menus and shared condiments be removed from restaurants.

Centers for Disease Control and Prevention –Kimi Chernoby, MD, JD

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Brief19 is a daily executive summary of covid-19-related medical research, news, and public policy. It was founded and created by frontline emergency medicine physicians with expertise in medical research critique, health policy, and public policy.