22 June 2020

BRIEF19

A daily review of covid-19 research and policy.

RESEARCH BRIEFING

At home deaths increased in New York in March and April.

A new study out in *JAMA Cardiology* late last week describes an astronomical rise in at-home deaths in New York City from March 1st through April 25th 2020. The start and stop dates chosen for this analysis correspond to the first reported case of covid-19 in the city and the approximate date when 911 call volumes began to approach pre-outbreak levels. The number of at-home deaths tripled during the period, as compared to the same timespan during 2019. Compared to 2019, the at-home deaths in 2020 occurred in slightly older patients than usual—72 years old on average compared to 68 years old. The deceased were less likely to be White and more likely to have previously diagnosed high blood pressure and diabetes. All of these factors have been observed to have correlated with worse outcomes of covid-19. The authors also found that the number of 911 calls that included descriptions of previous symptoms suspicious for covid-19 rose dramatically from the start to the end of the study period, and that the frequency of these symptoms closely mirrored the number of excess deaths compared to 2019. While that finding strongly suggests that the measured increase in at-home deaths was due to covid-19 itself (rather than other diseases that went undertreated and neglected during this time period) the study was not designed, nor can the data obtained be definitively used to determine, whether this is the case. While other studies have found that emergency room use went down nationwide during the early phase of the pandemic, and that some conditions such as heart attacks appear to have been less frequently diagnosed as well, there has not been evidence that decreases in healthcare use led to more deaths during this time. It has been observed, however, that deaths due to some other causes, including trauma, plummeted during the widespread shutdown. *–Jeremy Samuel Faust MD, MS*

FDA provides updates on antibody test accuracy.

Early in the pandemic, the US Food and Drug Administration issued broad Emergency Use Authorization for a variety of tests designed to detect whether a person's blood had antibodies against SARS-CoV-2, which would indicate either recent infection, some degree of protective immunity, or both. However, at that time, the FDA did not require that manufacturers provide evidence of the accuracy of the tests. That position was later amended. The FDA is now publishing information antibody tests currently available in the United States on its website. It appears that most of the tests listed have excellent sensitivity (i.e. the ability to detect the presence of antibodies in persons who have them) and specificity (i.e. the ability to identify persons who truly do not have antibodies). While the accuracy of tests produced by a variety of well-known manufacturers are available for comparison, it is not immediately clear how many other tests are *not* listed. In short, it is unclear how many antibody tests that were at some point available to the public never submitted such data to the FDA. It is possible that many Americans took tests that were not validated, and that they may never find that out. *–Jeremy Samuel Faust MD, MS*

POLICY BRIEFING

Nursing home safety improvement sought. Nursing facilities across the United States have been hotspots for the covid-19 pandemic. The elderly are at increased risk in these facilities given not only their age, comorbidities, confined living spaces, but also the frequent influx of visitors and staff who may transmit SARS-CoV-2 even in the absence of symptoms. In Massachusetts, for example, 13 percent of the entire nursing home population statewide have died since March alone. Nationally, it is estimated that approximately 42 percent of covid-19-related deaths have occurred in a nursing or a long term care facility. In 650 of the nursing homes that have reported covid-19 outbreaks approximately 40 percent have received more than one citation for federal infection control violations. However, there have been some facilities that have been better equipped for managing the covid-19 outbreaks at their sites than others. The Centers for Medicare & Medicaid Services announced the first twenty five members of the newly formed Coronavirus Commission on Safety and Quality in Nursing Homes. The commission will function as an independent organization tasked to assess the covid-19 response that occurred across nursing home facilities. The MIRTE corporation was designated by CMS as the contractor responsible for the solicitation of applications for membership and for the commission's ongoing initiatives. The newly named members of the commission members represent diverse professional backgrounds, including physicians, nurses, attorneys, and others and represent an array of geographical locations. Several core areas of focus have been identified for this commission, including ensuring residents are protected, optimizing the delivery of care, rapid identification of infectious disease, and the enhancing infection control policies. The overall goal of this commission is to allow for transparency in order to prepare for potential future outbreaks and to have more robust continued efforts at improving nursing home care and safety as the current pandemic continues to unfold. *CMS.* *–Onyeka Otugo, MD, MPH*

Public private early screening tool announced. The Biomedical Advanced Research and Development Authority (BARDA), housed within the Department of Health and Human Resources (HHS), has been developing partnerships with private industry focused on "medical countermeasures" and "critical support activities" related to the covid-19 pandemic. The latest partnership is with Empatica, Inc. to develop the company's Aura wearable and predictive analytics system. Originally announced in 2018 for use in seasonal influenza, this system uses a proprietary smart band to continuously collect physiologic data and analyze it using a specially-developed algorithm. Empatica has refocused its efforts on an early detection system for coronavirus, with an attempt to identify symptom-free infections. To validate the data a study is being conducted using data collected from healthcare workers and comparing the findings to the results of daily pharyngeal swabs testing for coronavirus in order to determine patterns of physiologic change that may occur before any noticeable clinical manifestations emerge. The goal is to receive an Emergency Use Authorization from the Food and Drug Administration (FDA) for early detection before manifestations of clinical symptoms. *Various*. *–Joshua Lesko, MD*

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