11 June 2020

BRIEF19

A daily review of covid-19 research and policy.

RESEARCH BRIEFING

GI symptoms and fecal viral shedding in patients with Covid-19. A new systematic review published in *JAMA Network Open* sought to investigate the frequency with which patients with covid-19 have gastrointestinal symptoms, such as diarrhea. Twenty-nine studies were included in the systematic review that evaluated diarrhea, nausea, and vomiting, as well as evidence of liver dysfunction, and fecal shedding of the virus (i.e. how much of the virus is transmitted in bowel movements). In the 29 included studies, there were 4,805 patients of which 7.4 percent reported diarrhea, and 4.6 percent reported nausea or vomiting. Up to 20 percent of patients with covid-19 had blood work that reflected liver injury. In eight studies fecal shedding of SARS-CoV-2 was assessed, and genetic material from the virus was detected in the stool from 40.5 percent of patients. What does this mean for clinical care among patients seeking evaluation for possible covid-19?, The findings of this systematic review corroborate what many of us in emergency departments have observed already during this crisis: patients presenting with vague complaints of abdominal pain, nausea, vomiting, and/or diarrhea may have be positive SARS-CoV-2. At the height of the outbreak, especially in places where testing was severely limited, gastrointestinal symptoms were seen as possible clues that a patient might have covid-19, steering clinicians towards testing. However, these conclusions must be tempered by the quality of evidence presented in this study. When the authors combined the data from the various previous studies, there was what statisticians refer to as a high degree of heterogeneity; this means there was a large amount of variability between the individual studies, in regards to how the studies were designed, the demographic and clinical characteristics of the patients, and/or results reported in the studies. This renders the conclusions of the analysis less reliable. One important message for healthcare professionals evaluating patients who come to the emergency department (or other healthcare settings) with gastrointestinal symptoms, is that a diagnosis of covid-19 can reasonably be considered among these patients, but that other causes of these symptoms, including other emergency conditions that may require immediate treatment, must be thoroughly considered, so as to avoid what is known as "anchoring bias." *–Joshua Niforatos, MD*

Here comes the sun. Will weather help covid-19? A new study appearing in JAMA Network Open reports on the possible effects that local climates may have had during the outbreak of SARS-CoV-2. Researchers found that community spread was been limited to a relatively narrow band of latitude as of March 10, where temperatures ranged in the 5 to 11 Celsius range (41 to 52 Fahrenheit) and relatively lower humidity, approximately along the 30° N to 50° N corridor. The authors state that these patterns are all the more impressive because proximity to Wuhan, China seems to have been less important than climate. This could provide a possible explanation for why places like Seattle and eventually New York were hard hit, while cities closer to Wuhan such as Moscow were not. However, these data are admittedly undermined by more recent observations of increased spread in areas like Brazil and parts of the US, even in far warmer weather. It could be that weather played a role, along with other features like travel patterns, differences in approach among the many nations, and even change. The authors expressed hope that this meant that SARS-CoV-2 might have some seasonality to it. If so, containing it in the summer months would be an important opportunity. *–Jeremy Samuel Faust MD, MS.*

POLICY BRIEFING

Vaccine candidates to enter massive clinical trials. Following what have been reported in the media as successful initial trials, though not yet published in literature, the United States government plans this fall to begin more robust studies on the effectiveness of candidate vaccines for the novel coronavirus. The trials, known as Phase 3 studies, will determine if the vaccines are both safe and effective for use in human subjects. It is expected that tens of thousands of clinical subjects will be enrolled around the country. Typically, vaccine development and testing can take several years. However, given the toll of the coronavirus pandemic on the global economy and health care systems around the world, every effort has been made by federal agencies to speed the process. This includes coordination across several competing trials, including the use a shared oversight committee. Under normal circumstances, competing clinical trials would have a different group monitoring the safety and progress of the trials. President Trump has previously stated he believes a vaccine may be widely available by October, though infectious disease experts have stated they believe it could take at least 18 months from the time that initial trials begin until a vaccine is widely available. Concerns have already arisen that there may be difficulty in manufacturing of a vaccine in adequate quantities even after one or more products gains approval for use in the United States, due to anticipated shortages in some of the raw materials that will be needed, including glass vials that will hold the vaccine serum. *Wall Street Journal.*

–Jordan M. Warchol, MD, MPH

New round of funding targets safety net hospitals. Healthcare leaders was voiced concerned that the most financially at-risk hospitals in the US have not receiving adequate support from federal stimulus packages so far. In response, the Department of Health and Human Services (HHS) Secretary Alex Azar announced an additional $25 billion in support, which will be aimed at facilities that did not qualify under the initial stimulus bills, "HHS is using funds from Congress, secured by President Trump, to provide new targeted help for America's safety-net providers and clinicians who treat millions of Medicaid beneficiaries." The Provider Relief Fund established as part of the CARES Act passed by Congress, and replenished in a subsequent round of relief, used Medicare claims data to proportionally allocate funds. However, this approach overlooked facilities that rely heavily on Medicaid and Children's Health Insurance Program (CHIP) payments to stay in business. This newly announced allocation will be split into two pots; $15 billion will be made available to CHIP and Medicaid hospitals that have not received previous Provider Relief Fund payouts, with facilities able to submit their annual expenses through HHS portals. $10 billion will be reserved for safety net hospitals, defined as having on average at least $25,000 of uncompensated care per hospital bed, reported profitability of three percent or less, and a Medicare Disproportionate Payment Percentage of 20.2 percent or greater. *The Department of Health and Human Service*

–Joshua Lesko, MD

Kimi Chernoby, MD, JD, Policy Section Editor. Joshua Niforatos, MD Research Section Editor. Kate Taylor, Editor-at-Large.

Kane Elfman PhD, Publishing and Design. Jeremy Samuel Faust MD MS, Editor-in-Chief.

http://www.brief19.com/ Twitter: *@brief_19* *submissions@brief19.com*

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.