18 June 2020

BRIEF19

A daily review of covid-19 research and policy.

RESEARCH BRIEFING

The prone position: does it work? Of the treatments that have been proposed and studied for the treatment of covid-19, perhaps none are as simple and inexpensive as "proning." Proning refers to the body position in which patients rest face down on a bed. It is thought to increase oxygen flow to the back of the lungs. A new study in *JAMA Internal Medicine* conducted in France assessed the effect of proning among awake, nonintubated, spontaneously breathing patients with covid-19 and "severe acute respiratory failure." Severe acute respiratory failure was defined as patients with SARS-CoV-2 who were breathing more than 30 times per minute, and who had oxygen levels of 93 percent or lower despite supplemental oxygen being given through the nose (up to 6 liters per minute) and via mask (up to 15 liters per minute). A total of 88 patients were considered for inclusion in the study of which only 24 were actually enrolled. Patients underwent awake proning on average one day into their hospital stay. Approximately 63 percent of patients tolerated prone positioning for more than three hours and did not require sedation or medications for anxiety. Only 6 of 24 patients (25 percent) responded to prone positioning, of which all were among the 63 percent who were able to tolerate greater than three hours of the prone positioning. Notably, patients were deemed to be "responders" if their blood oxygen levels increased by more than 20 percent after proning. While proning is an extremely safe treatment, even it is not devoid of side effects. Back pain was the most frequently reported complaint relating to prone positioning (42 percent). At the conclusion of the 10-day follow-up period, five patients had progressed to needing mechanical ventilation. None of those five patients came from the group of individuals who were able to sustain prone positioning for longer than 3 hours. What is unclear, then is whether the ability to prone was responsible for keeping patients off of mechanical ventilators or, alternatively, whether the position itself promoted enough of an improvement in oxygen delivery to the lungs that the need for mechanical intubation was prevented. What we can say, however, is that patients who cannot tolerate prone positioning for three hours appear to be at a higher risk for requiring mechanical ventilation over the following 72 hours. *–Joshua Niforatos MD*

Coronavirus knowledge and behavior survey reveals gaps and disparities. A new survey that gathered data on how well Americans understand coronavirus risks was published in *JAMA Network Open* today. Other information obtained included knowledge of how the virus spreads, its symptoms, how likely members of various demographic groups are to be infected or know someone who is, and how frequent actions such as handwashing and leaving the home occurred during the early phase of the outbreak in the United States. Among political affiliations, Republicans were less likely to have knowledge of covid-19 symptoms, and more likely to have contracted or know someone with the virus. Among racial groups, Black Americans were more likely to have, or know someone with, the virus. Hispanic and Black Americans were also more likely to have left the home in the last 3 days before taking the survey, perhaps owing to having jobs that precluded telecommuting. However, Hispanics and Black respondents were also more likely than White respondents to wash their hands more frequently. Male gender and young age (18-29) were by far the greatest risk factors for infrequent handwashing. *–Jeremy Samuel Faust MD MS*

POLICY BRIEFING

Pandemic forces changes in medical board exams. Early on in the pandemic many medical schools graduated their fourth year students early to help with the increased demands of patient care. Now two

new changes to the training pipeline have been announced that may have long-term repercussions for the state of medical education. The first change, announced by the National Board of Medical Examiners (NBME), is a 12-to-18-month suspension of the United States Medical Licensure Examinations (USMLE) Step II Clinical Skills exam. Due to the nature of this exam, which is held at five centralized testing centers using a group of actors who portray standardized patients, the risk of infection spread was deemed too high to justify its continued administration. While the results of this exam have classically been a part of residency applications as a metric of clinical acumen and communication proficiency, NBME and the Federation of State Medical Boards (FSMB) will work with the medical education community to find a workable alternative. Second, the Coalition for Physician Accountability released a set of recommendations for residency applicants that will fundamentally change the process. The use of audition rotations, where a medical student works at an outside medical facility (often as part of the application process) should be limited to instances where a student's home institution does not have an available rotation in that specialty. Residency tours and interviews should be conducted virtually. Finally, due to anticipated delays in scheduling national exams and administrative delays due to workforce reduction, the timeline for residency programs to receive complete applicant data is expected to be delayed. *Various* *–Joshua Lesko, MD*

Federalism and masking. The guiding principle of federalism is that of a limited central government and more powerful local governments. The idea is that local governments are closer to the governed and can better reflect their wishes and more nimbly answer their needs. In the US, this idea often translates to a smaller role for federal government and stronger ones for state governments. However, there is no reason those same principals should not also apply to the relationship between states and the counties or cities within. This is particularly true for managing an infectious disease outbreak where transmission and infection rates can vary between neighboring communities. The tension between federal and state governments was apparent in this Spring, when states insisted that they retained the power to decide when to close or re-open their economies and stay at home orders were issued on a state-by-state basis. It is therefore interesting to see these same governors now turn around and resist yielding decision making power to local governments in their jurisdictions. Specifically, in states with rising infection rates such as Arizona and Texas, mayors and other county officials are asking for permission to require mask wearing in public. These requests reflect spikes in local infection rates in some of these communities, and best practices for stemming the transmission of SARS-CoV-2. However, the governors of these states have so far appeared unwilling to grant wholesale permission to local officials to enact mandatory masking policies on their own authority. If the governors were truly committed to the principles of federalism though, it would stand to reason that allowing local officials to enact policies that would best serve their community would reflect the treatment these governors wish to receive for states from our federal government. *New York Times.* *–Kimi Chernoby MD, JD*