10 June 2020

BRIEF19

A daily review of covid-19 research and policy.

RESEARCH BRIEFING

C-section or vaginal delivery and the risk of transmission of SARS-CoV-2. Whether pregnant women with SARS-CoV-2 can transmit the virus during childbirth—a process known as vertical transmission—has been an area of great interest. Relatively little is known. Some research has been published based on studies in China. However, the rates of cesarean-sections are high in many Chinese hospitals making findings there possibly less applicable to other countries, where rates are lower. To address that, researchers from Spain also studied the question of vertical transmission. Women with a singleton pregnancy (i.e. non-twins, triplets, etc) and laboratory confirmed SARS-CoV-2 infection were included in the study. Newborns underwent a nasopharyngeal swab within the first six hours of life. Of the 78 women who had with no symptoms or mild symptoms of covid-19, 53 percent delivered vaginally and 47 percent delivered via c-section. Among the women who delivered by c-section, 21.6 percent delivered via this method because of symptoms of covid-19, including the need for oxygen administration at the time of admission to the delivery unit or because of abnormal findings on chest x-rays. The researchers reported both on the outcomes of the SARS-CoV-2 positive mother and those of their newborns. Among women who delivered vaginally, there were no bad outcomes related to covid-19. On the other hand, 13.5 percent of women who underwent a c-section eventually developed symptoms severe enough to have required admission to the ICU (including signs of organ failure, serious infection, or need for oxygen). As for the newborns, those born by c-section had an increased risk of needing admission to the neonatal ICU. Interestingly, only 3 of 72 newborns (4.2 percent) tested positive for SARS-CoV-2 within 6 hours of birth, but repeat tests performed within 48 hours were all negative and none of the newborns developed covid-19 symptoms within 10 days. Of note, two other newborns who tested negative at birth later developed symptoms and were found to have contracted the virus. However, those babies were in physical contact with their parents shortly after birth, and so it may be that these infections occurred not via "vertical transmission" during birth but rather through typical means. Overall, the data presented in this important study provide important insight into vertical transmission of SARS-CoV-2. Whether this study should be taken as a warning against c-section, however, is less clear. Often, the choice to proceed with c-section instead of vaginal delivery has to do with other risks, and covid-19 may not actually influence these choices. One way to assess what role that covid-19 played in the seemingly high rate of ICU admissions among women who delivered by c-section would be to compare the rates to outcomes from the pre-covid-19 era. If we knew the rates of illness requiring intensive care during "normal" times, we would be able to draw more relevant conclusions. But the topline finding of the paper is that no newborns developed covid-19 during the study period, other than two babies whose symptoms resolved within 48 hours. These are encouraging findings and they suggest that both vaginal delivery and c-section are safe options with respect to SARS-CoV-2 transmission.

–Joshua Niforatos, MD

WHO me? Comments on symptom-free disease walked back. Monday, Dr. Maria Van Kerkhove stated in a press conference that the WHO had data suggesting that symptom-free spread of SARS-CoV-2 was "very rare." Those comments were clarified yesterday in which Dr. Kerkhove, the technical lead for the WHO's covid-19 response, stated that the rate of symptom-

free (or very mild symptom spread) may be between 16 and 40 percent. Contact tracing, the topic of the earlier briefing, may not be able to detect such high levels. *–Jeremy Samuel Faust MD, MS.*

POLICY BRIEFING

FDA revises its N95 reuse policy. To keep up with the demands of masks and respirators in the covid-19 era, some hospitals have turned to decontaminating (recycling) respirators for reuse. Previously, *Brief19* covered the US Food and Drug Administration's (FDA) emergency use authorizations (EUAs) regarding the decontamination of respirators. Now the FDA is reissuing its EUA in order to address concerns of respirator effectiveness based on new evidence. The updated EUAs further specify which respirators are appropriate for reuse after decontamination processes. The FDA will also end authorization of the decontamination and reuse of respirators with exhalation valves. The reasoning behind the changes in part stems from findings made by the Centers of Disease Control and Prevention's (CDC) National Institute for Occupational Safety and Health (NIOSH) which revealed the variability in both design and performance of these particular kinds of respirators. Based on recommendations made by the CDC, decontamination of such masks should only occur as a measure of last resort, when FDA or NIOSH approved N95 respirators (or other FDA authorized respirators) are not available. Further, decontamination should only be performed on "non-cellulose" compatible N95 respirators. Proper fit (which has been a problem after some decontamination procedures) and the presence of soiling should also be assessed prior to reuse. If any of the criteria are not met, previously used respirators should not be worn as PPE. Finally, the FDA is reissuing EUAs regarding the importance of non-NIOSH-approved respirators, emphasizing stricter regulations in order to ensure public and healthcare worker safety. *The FDA. Visit Brief19's partner online at GetUsPPE.Org* *–Onyeka Otugo MD, MPH*

More relief legislation anticipated. Nearly one month ago, House Democrats passed a relief bill that was swiftly rejected by Senate Republicans. The bill took on contentious issues such as direct relief to states. Opponents of state-directed relief argue that such aid would reward bad fiscal behavior, and unfairly punish states that have not incurred significant debt related to the pandemic. It should be noted though that states with the highest coronavirus-associated costs also have the highest burden of disease. Since that bill failed, there has been little talk of what a future round of relief would look like. As the economy showed signs of recovering, there was some question of whether additional aid would be needed at all. Yesterday, a White House advisor signaled that President Trump continues to see another round of relief as necessary to America's recovery. However, there were no details shared about what that legislation could look like, nor were questions addressed pertaining to whether individual states could expect aid in the near future. However, with this signal of support from the White House, we now expect legislators in both houses to renew efforts to draft another round of relief legislation. *Various*.

–Kimi Chernoby MD, JD

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.