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BRIEF19

A daily review of covid-19 research and policy.

RESEARCH BRIEFING—Focus on Obstetrics

Over the last few days, several research papers have been published describing outcomes of pregnancy in patients with SARS-Cov-2 infection. Today, we look at three of them.

Can the SARS-nCov-2 infection be transmitted to the fetus? Two papers appeared in *JAMA* today, both from investigators in Wuhan, China. In [one](#), a woman with a SARS-Cov-2 positive test during the last twenty-three days of her pregnancy gave birth to a newborn who subsequently was found to have elevated immune markers (IgM antibodies) against the SARS-Cov-2 virus, as well as elevated inflammatory markers (cytokines). Both of these findings are suggestive of active or recent infection. However, the picture is more complicated than that. Namely, “IgM antibodies are not transferred to the fetus via the placenta.” Because the delivery was a vaginal, it is possible that the newborn could have acquired SARS-Cov-2 during delivery. However, the investigators of the study also collected vaginal secretions from the mother which showed no evidence of SARS-Cov-2 infection. Additionally, IgM antibodies typically take around 3-7 days to form once a person becomes infected, and the infant was found to have elevations of these immune markers only two hours after delivery. Both observations render the possibility of transmission of the virus from mother to child during delivery to have been less likely. Interestingly, the baby’s laboratory results were consistently negative for the SARS-Cov-2 virus, which, given the information provided, is difficult to explain.

A second *JAMA* [paper](#) describes a case series of six pregnant women with SARS-Cov-2. All six infected women underwent cesarean section (C-section) and delivered health babies. All six of the babies were tested and were found to be negative for the SARS-Cov-2 virus (by serum and throat swabs). However, two of the six infants (33.3 percent) had elevated IgM antibodies, which usually do not transfer from mother to fetus.

Analysis: Taken together, what do these two papers of seven infected pregnant mothers tell us? The picture remains muddy. It is uncertain whether babies with elevated IgM antibodies and negative SARS-Cov-2 were either (a) infected with virus *in utero* or (b) if the placentas were damaged by the virus, allowing IgM antibodies--and even the virus itself--to pass through the placental barrier. Elevated inflammatory markers, (i.e. the cytokines), are not specific to SARS-Cov-2 and can not be seen as definitive evidence of SARS-Cov-2 infection. Additionally, the serum and throat swabs taken from the babies could have been “false negatives” for SARS-Cov-2 (i.e. the results of the tests were negative, even though the infants were in fact infected).

Columbia University’s experience with covid-19 positive pregnant patients. In a [paper](#) published in the *American Journal of Obstetrics and Gynecology*, physicians documented their experience with seven confirmed covid-19 infected pregnant women. Five of the seven women did not have a documented fever, and four of the seven did not have a cough at the time of initial medical evaluation. Furthermore, two of the seven (28.6 percent) infected women had no

symptoms when they were first seen by medical teams. However, those two patients eventually did require intensive care. Given the growing evidence that symptom-free carriers of SARS-Cov-2 are common, the authors made the following recommendations: universal personal protective equipment (with N95 masks) for all covid-19 positive deliveries, whether vaginal or cesarean). The same guideline applies to patients with unknown covid-19 status. The use of surgical masks for all providers on the inpatient labor and delivery units at all times was also strongly suggested.

--Joshua Niforatos MD.

POLICY BRIEFING

Unaccompanied minors seeking asylum are being sent back. Last week the Trump administration [announced](#) that individuals arriving at the border in search of asylum would be quickly returned to their home countries. The justification was that detention centers ran the risk of quickly becoming epicenters of covid-19 outbreaks. At the time the administration said there would be an exception for unaccompanied minors. Now it turns out that unaccompanied children are being sent back to their home countries, as well. *New York Times*.

Compassion in short supply. Among the drugs being studied as a possible treatment for covid-19 is Remdesivir, an antiviral drug produced by Gilead. Until now, Gilead was granting access to the drug, which is still in clinical trials, under so-called “compassionate use,” a process sanctioned by the Food and Drug Administration that grants access to a drug being studied when it is the only remaining option. Gilead [announced](#) on Thursday that it was suspending compassionate use for non-pregnant adults because of overwhelming demand. It said it was hoping to move to a new expanded access program soon. *CNBC*.

You can't stay here. Hahnemann Hospital in Philadelphia earned notoriety last year when its 400-bed hospital closed, leaving hundreds of residents and fellow trainees without a place to continue their education. The hospital remains shuttered and, for obvious reasons, has been identified as a possible place to create a pop-up hospital to help with surge capacity during this covid-19 pandemic. However, as of yet, Philadelphia and the new owners of the hospital have been [unable](#) to reach a deal that would allow use of the facility. *CNBC*.

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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.