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BRIEF19

A daily review of covid-19 research and policy.

RESEARCH BRIEFING

SARS-CoV-2 Positivity Rate for Latinos in the Baltimore-Washington, DC Region. A new paper published in JAMA looks at the percent of positive SARS-Cov-2 among Latinx patients presenting to the Johns Hopkins Health System (JHHS) between March 11, 2020, and May 25, 2020. The JHHS comprises 5 hospitals, including emergency departments, and 30 outpatient clinics. Over the study period, 16.3 percent of 37,727 patients tested positive for SARS-Cov-2, the virus that can cause covid-19. Of those who tested positive, 35.9 percent were hospitalized. The positivity rate was 42.6 percent for Latinx patients, which was higher than any other group; the next highest group was Black patients, at 17.6 percent. On any given day, the positivity rate was significantly higher for Latinx patients compared to patients of other racial/ethnic groups. Interestingly, the hospitalization rate was lowest for Latinx patients (29.1 percent) compared both to Black patients (41.7 percent) and White patients (40.1 percent). The authors note that the study was not designed to ascertain the cause of such a notably high infection rate (> 40 percent of those tested in the Baltimore-Washington, DC metropolitan region). However, some hypotheses backed by existing medical literature include differential access to testing, lower health care utilization, and/or a higher disease prevalence owing to decreased opportunities for social distancing as well as engagement as essential workers.

-Joshua Niforatos, MD

Dosing in covid-19 treatments for kids may be a challenge. Simulations may help.

Children appear less likely than adults to develop respiratory illness from covid-19. However, for those that do, the discussion over how to administer medications that may be effective in treating covid-19 is complicated. Pediatric dosing cannot be directly estimated from adult dosing because the body compositions and ability to metabolize vary throughout childhood and adolescence. Additionally, drug trials are difficult to carry out for children, who cannot give consent and may suffer permanent damage from missteps. These difficulties lead to a gap in our knowledge of how to adjust doses for children. A recent study in JAMA Pediatrics used mathematical modeling to determine whether there was a need to adjust hydroxychloroquine (which is not currently recommended routinely) and remdesivir when treating children with covid-19. The authors simulated the blood levels of hydroxychloroquine after a 5-day course of 400 mg twice a day on day 1, followed by 200 mg twice a day for days 2-5. Likewise, they simulated the blood levels of remdesivir dosed at 5 milligrams per kilogram (mg/kg) of body mass on day 1 and 2.5 mg/kg once daily thereafter. In both cases, the researchers found that the dosing regimen lead to similar blood levels in children and adults. Also, in both cases, the blood concentration achieved was far below the level shown in laboratory experiments to have an antiviral effect. This simulation highlights gaps in physician knowledge of drug dosing. Additionally, the ability to metabolize drugs varies across races and ethnicities. For example, the authors note that some Koreans metabolize hydroxychloroquine differently, giving similar blood levels of hydroxychloroquine but also leading to higher levels of other byproducts of that drug which may be associated with irreversible eye damage. The authors did not take this variation into account. Also, they simulated the levels of hydroxychloroquine and remdesivir in the blood. They did not

have enough information to simulate the concentration of either substance in any part of the respiratory system. Taken together, this study suggests that proposed dosing regimens achieve the same blood concentrations in adults and children, but that those level may be far below the level shown in laboratory experiments to impart antiviral effects. Therefore, drugs may be ineffective

-Michael Chary, MD PhD

POLICY BRIEFING

New national health database created.

The National Institutes of Health (NIH) has <u>launched</u> a centralized repository of coronavirusassociated data as part of its National Covid Cohort Collaborative (N3C) to aggregate data for analysis with the goal of developing standardized treatments. To streamline the process, this database will use machine-learning to analyze disparate datasets and store them using the Observational Medical Outcomes Partnership (OMOP) common data model. Using these <u>standardized definitions</u>, the cloud-based information will be available to all approved researchers and healthcare providers, regardless of participation in contributing data. *National Institutes of Health*

–Joshua Lesko, MD

Bipartisan bill calls for permanent telehealth reimbursement

One of the most striking changes to the healthcare system during the pandemic has been the vast adoption of telehealth for many patient-provider encounters that would previously have required in-person visits. With the relaxation of HIPAA compliance standards and reimbursement parity from insurance providers, telehealth has become core to the maintain continuity of care. Now a bipartisan group of Representatives, led by G.K. Butterfield (D-NC) and Glenn Thompson (R-PA), have introduced legislation to permanently allow reimbursement by Medicare for such visits. Called the Helping Ensure Access to Local Telehealth, or HEALTH Act, if passed, the law would allow Federally Qualified Health Centers and Rural Health clinics to bill for care and would eliminate the originating site facility and distance requirements that have hampered telehealth adoption in the past. While not codifying all of the telehealth-related changes that occurred during the pandemic, this proposal demonstrates a willingness in Congress to consider more radical changes to the healthcare model in the United States. This open-minded approach may translate into additional legislation. *The House of Representatives*

–Joshua Lesko, MD

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