BRIEF19

A daily review of covid-19 research and policy

RESEARCH BRIEFING

Convalescent plasma: a rare win, if you squint hard enough.

Prior trials of convalescent plasma in patients hospitalized with severe covid-19 have fallen short of expectations. Many have argued that the benefit to this therapy is in preventing severe covid-19 and that patients in these trials received the plasma too late in their course for any difference to be seen. Now, in the *New England Journal of Medicine*, researchers report on a trial in which 160 patients over the age of 65 with mild covid-19 symptoms less than 72 hours in duration were randomized to receive either convalescent plasma (from donors who recovered from covid-19) or a saline placebo. The average age of the patients in the study was approximately 77 years age, and subjects reported around a day and a half of symptoms. Measured viral loads of SARS-CoV-2 were high on average and 81 percent had at least one medical comorbidity.

Overall, 16 percent of patients with received convalescent plasma had severe respiratory disease by day 15 compared with 31 percent of patients who received the placebo. This translates to nearly half the risk of disease progression. Unfortunately, the trial was stopped early due to a decreasing number of cases in the locales where the study was carried out (Argentina). Thus, the results could be turn out to be more or less impressive in larger trials. Additionally, the trial was too small to detect differences in specific outcomes such as death or the need for invasive or noninvasive mechanical ventilation; however, the numbers favored the convalescent plasma group in all of these end points.

One reason why this trial may have succeeded where others have not is that the investigators specifically used plasma with high concentrations (or "titers") of antibodies. Some previous trials did not control for that, meaning some donor plasma was stronger than others. In addition, other trials had younger adults with longer bouts of symptoms. The signs of benefit in this trial are therefore relatively narrow; older patients who are very early in their disease course.

This study provides some hope for convalescent plasma, yet it is important to recognize that the patients in this study were a very small cross-section of those with covid-19. The results very well may not be generalizable to younger people, those without comorbidities, patients with vital sign abnormalities, severe symptoms, or more than 2 days of symptoms.

—Lauren Westafer, DO MPH

POLICY BRIEFING

States call in National Guard to help speed vaccination efforts.

According to data from the US Centers of Disease Control and Prevention, <u>less</u> than 30% of the covid-19 vaccine doses distributed so far have made their way into the arms of Americans. One major hurdle is the lack of trained personnel available to administer the vaccine, especially in states hardest hit by recent surges in covid-19 patients requiring hospitalization.

In Arizona as well as North Carolina and Maryland, members of the National Guard are being used to assist in vaccination efforts. Governor Gavin Newsom of California has granted a temporary waiver to dentists so that they too can administer vaccinations after undergoing training on how to do so safely. Anthony Fauci, Director of the National Institute of Allergy and Infectious Disease at the National Institutes of Health and a member of the President's coronavirus task force, admits that the vaccine rollout has been slower than the administration had hoped, but added that he believes rates will ramp up moving forward.

—Jordan M. Warchol, MD, MPH

A whole new world of possibilities for Biden. A flipped Senate has pandemic implications.

Just thirteen days from Inauguration, President-elect Joe Biden is poised to have a Democratic majority in both the House of Representative and the Senate. In the early morning hours of January 6th the Associated Press called one of the Georgia senate races for the Democratic candidate, Rev. Raphael Warnock, over incumbent Sen. Kelley Loeffler, a Republican. The other runoff in Georgia, between Sen. David Perdue and challenger Jon Ossoff, was called for Ossoff later in the day, flipping the Senate control to the Democrats.

From the standpoint of managing the pandemic, this could mean increased direct stimulus payments to Americans, and more money for state and local governments. Biden's cabinet picks will also likely have an easier road to confirmation, which could mean quicker mobilization of federal agencies key to defeating the coronavirus, including those within the Department of Health and Human Services.

—Jordan M. Warchol, MD, MPH