

4 December 2020

## **BRIEF19**

*A daily review of covid-19 research and policy*

### **RESEARCH BRIEFING**

#### **Moderna's vaccine continues to demonstrate a strong immune response, 4 months out.**

Many have worried that any immunity to SARS-CoV-2 after infection or vaccination may be short-lived. These fears were especially rampant after early reports emerged of recovered patients not having detectable antibodies after some period of time. Mostly, though, that narrative has been overturned as better antibody tests have become standard.

The abiding concern that vaccines, like Moderna's mRNA-1273 which was recently announced to have an efficacy rate of 94.5 percent in preventing covid-19, might not be enough to end this crisis. Yesterday, the vaccine's investigators shared further data suggesting promising immune responses from the vaccinated subjects collected 119 days after the initial inoculation (90 days after the second booster dose). In a letter printed in the [\*New England Journal of Medicine\*](#) the authors describe the most recent immune response data from the participants enrolled in the phase 1 trial that [previously](#) demonstrated a strong immune response in all 34 participants at 57 days. Most promising in this data was the comparison between the phase 1 participants and a group of 41 control participants, all of whom had been naturally infected with SARS-CoV-2. The titers (i.e. the concentration of antibodies) for the vaccine participants *exceeded* those of the control group, implying that the vaccinated group developed more robust immunity than was generated after a naturally occurring immune response to covid-19 infection. While there was a slight decline in the titer over time, this was expected. The reported levels show promise for long-lasting immunity with Moderna's vaccine. Additionally, no serious adverse events have been attributed to the vaccine over this time period, and the investigators will continue to monitor the phase 1 participants and assess long term immunity.

This new data adds to growing body of promising literature suggesting that the forthcoming vaccine candidates will change the way the United States, and the world, proceed with tackling the covid-19 pandemic. Nevertheless, it will be important to stay vigilant with public health measures such as social distancing and mask use for the foreseeable future.

—Fred Milgrim, MD

### **POLICY BRIEFING**

#### **With compliance in mind, CDC shortens quarantine.**

Due to a recent uptick in reported covid-19 cases following the Thanksgiving holiday, the Centers for Disease Control and Prevention (CDC) [updated](#) its quarantine recommendations this week. While still endorsing symptom monitoring for two weeks after a possible exposure, the agency has created two new options for a more abbreviated quarantine period. Those without symptoms may return to normal activities after ten days without a negative screening test, or after seven with negative testing. Despite these updates, the CDC stresses that it still believes that the fourteen day period is ideal, and [continues](#) to promote masking and social distancing. This policy may also be problematic because some patients spread disease longer than 10 days after initial exposure, regardless of symptoms. Nevertheless, the reduced restrictions may help unburden the healthcare system and critical industries struggling to maintain adequate staffing and may encourage better compliance. *The CDC.*

—Joshua Lesko, MD

Kimi Chernoby, MD, JD, Policy Section Founder, Joshua Niforatos, MD Research Section Editor, Frederick Milgrim, MD, Editor-at-Large, Barb Cunningham, Copy-editor, Anna Fang, Week-in-Review, Megan Davis, social media, Kane Eljman PhD, Publishing and Design, Jeremy Samuel Faust MD MS, Editor-in-Chief, <http://www.brief19.com/>, Twitter: [@brief\\_19](#) [submissions@brief19.com](mailto: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 and public policy.