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BRIEF19

A daily review of covid-19 research and policy

RESEARCH BRIEFING

Some covid-19 patients require a second hospitalization. How do they fare?

A new research [letter](#) published in *JAMA* adds more information about the outcomes of covid-19 patients who are hospitalized and then sent home to complete their recoveries. The study conducted in US Veterans Administration hospitals compared the outcomes to those of similar patients who were hospitalized either for pneumonia caused by pathogens other than covid-19 or heart failure exacerbations (characterized by an increase in fluid retention in the body, often in the lungs, making it difficult to breathe).

First, the study provides another data point for what we call “hospitalization fatality rate,” (HFR) or the rate of death among covid-19 patients sick enough to require hospital admission; an HFR of 18.5 percent was reported, which is not unexpected given the average age of survivors in this study were 70 and 80 among those who died.

Secondly, among survivors sent home from the hospital, around 20 percent had to return for another admission within 60 days. Of those, around 46 percent died (albeit, this accounted for 9 percent of those who survived the first hospital stay). Covid-19 was the most common reason for re-admission, though at a plurality of 30 percent.

Covid-19 survivors also had a better chance of surviving a second hospitalization than similar patients re-hospitalized for other causes of pneumonia or due to worsening chronic congestive heart failure. That said, covid-19 re-admissions and deaths occurred sooner, reflecting the fact that covid-19 is, as we know, an acute and rapidly progressive illness, rather than merely a reflection of chronic illnesses (which in reality are often the prime movers behind of heart failure and pneumonia hospitalizations).
—Jeremy Samuel Faust MD MS

Azithromycin fails to deliver on covid-19 outcomes.

Azithromycin is among the most overprescribed antibiotics out there. Many healthcare providers prescribe it (“Z-packs”) because it is seen as relatively harmless even when patients have a virus. (Antibiotics treat bacterial infections, not viral ones).

Nevertheless, azithromycin has some uses beyond bacterial infection—most notably in patients with emphysema. It’s not that these patients have infections. Rather, azithromycin is known to have some anti-inflammatory activity, which can make breathing easier.

On that basis, the drug has been floated as a possible treatment for covid-19 (including in combination with hydroxychloroquine, a roundly debunked regimen).

Now a new [preprint](#) on medrxiv has again found the drug has no impact on covid-19. The study is the latest report from the RECOVERY trial in the United Kingdom and it’s another example of theory versus reality. Based on its ability to modulate inflammation and our immune systems, it was reasonable to test azithromycin for any clinical effects against covid-19. A variety of outcomes were tracked, from mortality to the need for mechanical ventilation, and recovery times. Across the board, no differences were found. —Jeremy Samuel Faust MD MS

POLICY BRIEFING

Vaccinations begin. Who will and won’t roll up their sleeve and what can be done to increase the numbers? Black women are leading the way.

Yesterday, a nurse in New York named Sandra Lindsay became one of the first Americans to be vaccinated against SARS-CoV-2 outside of a clinical trial environment. It was a stirring moment, and an important one for public health messaging.

Since the covid-19 crisis began, there were only ever two realistic end games: total eradication of the virus or herd immunity. Eradication quickly became [unlikely](#), as the virus rapidly made its way into and across every continent. Herd immunity—the notion that if enough people have been exposed to the virus itself or get vaccinated—was always the more likely scenario. Thanks to scientific and medical progress, a safe and effective vaccine is now available in the United States outside of clinical trials.

Vaccines only work if people are willing to receive them. All year, we have heard jitters about Americans not readily accepting a SARS-CoV-2 vaccine. A new [poll](#) found that around 84 percent of Americans would be willing to be vaccinated, though half of those want to wait to see how things progress.

Those numbers have changed over time. A Gallup [poll](#) from a month ago found that around 60 percent of Americans would agree to be vaccinated. That number was as low as 50 percent in mid-September, after a steady decline during the mid-to-late Summer, coinciding to a time when the President of United States was putting public pressure on the US Food and Drug Administration to approve convalescent plasma for emergency use on an accelerated timeframe, based solely on retrospective data, while largely ignoring genuine clinical trial data that has been largely underwhelming. The most common reasons that many Americans are skeptical, according to the Gallup poll, are concerns that the timeline for developing the vaccine was rushed with 37 percent of those saying they would not yet be vaccinated citing this rationale. Perhaps the cutesy name of the private-public effort to bring a vaccine to fruition—"Operation Warp Speed"—should have been more thoroughly tested in focus groups before it went live.

Attitudes about the vaccine depend on many factors, including demographic and geographic differences. Men were more likely to be willing to vaccinated than women (61 percent versus 54 percent), possibly owing to concerns about pregnancy data (though early signs suggest that the mRNA vaccines will be safe for pregnant people). Among Democrats, 69 percent will accept the vaccine, versus 49 percent among Republicans and Independents. There are racial/ethnicity differences, with vaccine acceptance among White persons at 61 percent versus 48 percent in non-White persons.

Addressing these racial differences will be key. Many note that the medical system has undertreated and mistreated Black and other people of color, especially with respect to unethical clinical trials. In that light, suspicion about any new medical therapy is understandable. That's why the image of Registered Nurse Sandra Lindsay, a Black woman, being vaccinated by another Black woman was an important moment for the country. It showed the medical system wants to be more inclusive than ever, with people of color leading the way. Similarly, Dr. Anthony Fauci has routinely made a point to highlight that among his most influential colleagues at the NIH during the SARS-CoV-2 vaccine development process was Dr. Kizzmekia Corbett, a Black scientist.

Meanwhile, my physician colleagues like Dr. Uché Blackstock have appeared on network news and even in orchestrated media campaigns aimed at increasing the rates of vaccine acceptance. These efforts and others like them will save lives by helping us more quickly achieve herd immunity safely—via injection, not infection.

—Jeremy Samuel Faust MD MS

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