Dr. Delgado COVID-19 Update 7-10-20

Drug research update

Researchers have designed a staggering 1,200 clinical trials aimed at testing, treatment and prevention strategies against Covid-19 since the start of January. Approximately one in every six trials was designed to study the malaria drugs hydroxychloroquine or chloroquine, which have been shown to have no benefit in hospitalized patients.

The data and findings come from a new analysis performed at clinicaltrial.gov, a US government database. It shows that too often these studies are too small to answer questions (39% enrolled fewer than 100 patients), lack real control groups, and put too much emphasis on a few potential treatments, as occurred with hydroxychloroquine/chloroquine. They suggest that the methods/metrics used are unlikely to yield any clear results.

Because the prognosis for patients with Covid-19 varies so dramatically — some patients have no symptoms, while others die on ventilators — only large studies that

randomly assign patients to a treatment or placebo can deliver real insight into whether or not medicines are actually helping patients. Otherwise, researchers are fooled into thinking that differences between groups of patients with varying degrees of illness are caused by the medicines they are testing.

Some useful conclusions can be gleaned from this prodigious research and it comes mainly from the RECOVERY trial. It has shown that the use of dexamethasone, an inexpensive oral steroid, reduced the rate of Covid-19 patients on ventilators by a third. It also demonstrated that neither hydroxychloroquine nor a pair of HIV drugs with early promise in laboratory models — lopinavir and ritonavir — benefited hospitalized patients.

The RECOVERY study took a unique approach. In order to run such a large study, the researchers stripped down the amount of data collected on each patient — focusing mainly on whether patients lived or died — so that frontline researchers would be able to collect the data needed.

More on Risk

A study of more than 17 million people in England, just published in Nature, has confirmed the various factors that are linked with an increase in a person's risk of dying from Covid-19.

As expected, age is the single biggest indicator of whether someone will die from the coronavirus and the risk increases among those over 80. Ninety percent of deaths in England were in people over 60 and men were more likely to die than women of the same age.

People with obesity (nearly half of US hospitalized patients), diabetes, underlying pulmonary disease or cardiovascular disease, etc., were also at higher risk, as were people with lower incomes or ethnic minority groups.

Of particular note, a recent update from Johns Hopkins (6/26) shows adults 20-44 years of age still account for about 20% of hospitalizations and 12% of all ICU admissions. This ongoing narrative that young adults who become infected are fairly innocuous may be true as to overall mortality, but not so as to resource allocation and ongoing hospital capacity for care.

Covid is airborne?

A group of 239 scientists from 32 countries have written an open letter to the WHO arguing that Covid-19 can be transmitted through the air. You might think we know this already, but the most current guidance is based on the idea that Covid-19 is transmitted via droplets expelled from an infected person's nose or mouth.The thought is that these larger respiratory droplets quickly fall to the floor and hence why the current recommendations involve keeping a safe distance from each other.

However, the scientists feel that there is an underestimation of the role of airborne transmission of smaller droplets (called aerosols) stay suspended in the
air. These aerosols can therefore travel farther than respiratory droplets and linger in an area even when an infected person has left.

The strongest evidence for airborne transmission of the novel coronavirus, SARS-CoV-2, is a prior study in the New England Journal of Medicine suggesting that the related virus behind the 2003 SARS epidemic spread

through airborne transmission. It would be reasonable to expect that this mode of transmission would also occur with the coronavirus.

But for epidemiologists investigating the matter, the question is not whether airborne transmission is theoretically possible, or even whether it has occurred in isolated cases. The question is whether airborne microdroplets are a significant pathway for infection — significant enough to warrant changes in WHO guidelines and major adjustments to masking and ventilation protocols.

There, the evidence is less compelling, experts say. For the time being appropriate distancing, hygiene and use of face masks remain the recommendation.

Persistent symptoms

A recent study published in JAMA (7/9) studied 179 patients in Italy who were hospitalized for coronavirus and then followed for persistent symptoms. Patients were assessed a mean 60 days after onset of first symptom; at the time of the evaluation only 12.6% were asymptomatic or over 87% reported continued symptoms. Of those with

continued symptoms, over half (55%) reported at least 3 or more symptoms and over 44% of those in the survey reported a worsened quality of life.

The data shows that a high proportion of individuals reported continued fatigue (53.1%), shortness of breath (43.4%), joint pain (27.3%) and chest pain (21.7%) and many more persistent symptoms that only arose post infection.

While this study does have its limitations, it provides a glimpse as to the chronicity of illness and symptoms from the coronavirus. Most of my small practice cohort of PCR positives for Covid-19 who were not hospitalized continue to have many of these same persistent complaints and diminished quality of life.

Continuing to adhere to the current guidelines of face masks, social distancing and good hand hygiene certainly behooves anyone who has yet to acquire the virus.

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