

Dr. Delgado COVID-19 Update 7-2-20

Coronavirus symptoms update

The Centers for Disease Control and Prevention has added nasal congestion (runny nose or sneezing), nausea and diarrhea to its list of potential coronavirus symptoms.

That means there now four-times as many potential indicators of the virus compared to the earliest days of the pandemic's onset in the US, when officials only considered fever, coughing and shortness of breath credible evidence of coronavirus. Notably, gastrointestinal symptoms like diarrhea and nausea, are more commonly reported by younger patients, among whom cases have been surging in recent weeks.

CDC officials now count among the signs and symptoms suggestive of COVID-19:

- 1. Chills**
- 2. Fever**
- 3. Cough**
- 4. Shortness of breath or difficulty breathing**

5. Fatigue

6. Muscle or body aches

7. Headache

8. New loss of taste or smell

9. Sore throat

10. Congestion or runny nose

11. Nausea or vomiting

12. Diarrhea

Please call us if any combination of symptoms appear to determine whether testing is indicated.

Antibody Therapies

The breadth of the efforts and resources being devoted to this potential treatment option for Covid-19 is quite dramatic. So much so, that many researchers feel that these options are likely to become available prior to a viable vaccine. While vaccines may offer longer protection if efficacious, these shorter acting antibody treatments may offer potential benefits both as prophylaxis and treatment for high-risk cohorts such

as health care providers, nursing home residents or those acutely ill with the virus.

Currently, there are over 100 studies being explored and in various stages of development. They entail using either natural antibodies (convalescent plasma) from an exposed source with a robust antibody response or laboratory generated monoclonal antibodies targeted against this specific virus.

Some are under study to be used to directly attack and kill the virus itself and others towards addressing the secondary effects of Covid-19 and its inflammatory aftermath. Many human trials are currently underway. No large scale preliminary data has yet to be published, but it merits continued review.

One phase 3 trial involves the drug canakinumab. It has previously been approved to treat other auto-inflammatory syndromes by the FDA. It is the hope that it can be used to treat the cytokine release syndrome or “cytokine storm” that has been postulated to be a major factor in the poorer outcomes with Covid-19. Another player to follow is lenzilumab which has shown promise in a limited Mayo study and is also in a phase 3 trial.

Is more testing indicated?

Since June 7, the national average of positive tests for Covid-19 has increased from 4.4% to 7.0% in just 3 weeks. In Idaho over the same period, the number of positive tests has nearly quadrupled from 2.8% to 9.8% as of June 30 (John Hopkins CRC). This reflects a rapid surge in the spread of the virus and is an alarming increase in the rate of positive results independent of testing volume.

While these numbers and the trend is concerning, their utility and value as to whether further testing is indicated remains complex. The US is currently testing about 500,000 people daily and appears to have significantly more capacity. Some states — such as Arizona - are experiencing testing shortages while other large swaths of the country are reporting underutilized availability.

Just ramping up testing without appropriate contact tracing or a cohesive and strategic approach would offer minimal benefit. Estimates as to what the appropriate level of testing is range drastically. Finding new infections is not the only avenue for this untapped capacity.

Though capacity has improved, most states haven't eased their restrictions for testing those with mild or no symptoms or haven't encouraged more people to seek testing. By easing mandatory restrictions — surveys show Americans practicing isolation dropped from 75% to 58% in May - without a

concomitant commitment to testing, the surge in new infections will likely persist.

Not every expert is for mass testing. Some suggest the current level is adequate and increasing the levels has downsides including cost, diversion of resources, spread of further infections at larger testing sites and the continued concerns related to false negative results. They continue to advocate testing only symptomatic patients while communities focus should remain on the day-to-day habits that are proven to limit the spread such as distancing wearing face masks, regular hand washing, etc.

Others argue that more extensive testing is most important at the beginning of a pandemic, when cases are spiking and it's critical to isolate those clusters that are forming. It may also behoove us to maintain that additional testing capacity for a second wave that is expected to hit the US this fall.

Other countries that have managed the virus well have navigated more comprehensive testing, but the data clearly shows that mandated use of face masks has been more impactful. In a study published 6/30 by the Proceedings of the National Academy of Sciences of the United States of America, their analysis reveals that the difference with and without mandated face covering represents the determinant in shaping the trends of the pandemic. This protective measure

significantly reduces the number of infections unequivocally. Other mitigation measures implemented such as social distancing, while helpful, seem insufficient by themselves in protecting the public. Bravo to the Hailey City Council for taking the lead locally on this issue.

Worse than the flu?

Much discussion continues as to the influenza virus being more deadly than the coronavirus and that this is all a clear overreaction. The facts dispute that assertion.

The US death toll from the coronavirus currently exceeds 125,000 by far surpassing the CDC high-end estimates of flu deaths (24,000-62,000) since October. This has all occurred at a much faster rate than the flu in just the last 5 months. In fact, approximately 62,00 coronavirus-linked deaths occurred from the first known US case February 6 to the end of April.

Research shows influenza infects an average of 1.28 other people while the coronavirus infects an average of 2-3 other people which is an exponential difference. In addition, while influenza tends to dissipate in summer as temperatures rise, the coronavirus continues to currently accelerate in the Southern Hemisphere which is in its summer months suggesting warm weather won't slow its spread.

Lastly, the incubation of influenza is short, people feel ill 1-4 days after the infection with the symptoms generally appearing within two days prompting those patients to stay home. In comparison, the incubation period for the coronavirus is from 3-14 days and symptoms typically appear 4-5 days after exposure. That means that a person with Covid-19 may be contagious or shedding virus for 2-3 days prior to experiencing symptoms hence increasing the rate of transmission to others.

Vaccine Update

A 30,000-patient trial of Moderna's coronavirus vaccine candidate, expected to start next week, has been delayed, a potential hurdle in the company's ambitious effort to deliver key data by Thanksgiving. It is presently unknown how long or as to why the onset of the Phase 3 study or human trials will be delayed. Their hope was to start this month and it remains unclear if they will be able to do so.

Multiple Phase 3 trials are slated to start over the next few months from several candidates and this may imperil Moderna's pole position.

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