Dr. Delgado COVID-19 Update 5-11-20

NOT A TIME TO LET UP

As restrictions begin to loosen both locally and nationally, we must take a pause to understand that our risk, both individually and collectively, remains essentially unchanged.

The vast majority of our local population (confirmed by our recent non-randomized IgG antibody testing) remains susceptible to this novel virus. Essentially, this majority is in the same position it was at the onset of this pandemic with no known immunity to a new pathogen.

The risk of acquiring the infection, transmitting it to others and the possibility of navigating an illness that may offer significant morbidity and continued mortality has not diminished, in any way, shape or form with the passage of time.

Self quarantine and social isolation measures have proven to slow the rate of viral transfer and hence the spread of the illness within communities. This has been beneficial in addressing the initial surge and our limited capacity and resources.

Pandemics historically are reproducible and current data appears to portend that the loosening of these measures will likely lead to a reigniting of the illness and its subsequent communal spread.

The number of cases in Blaine County has averaged 0-6 newly reported cases daily over the last several weeks. These numbers, while hopeful, reflect our community's adherence to measures that have reduced person to person interaction and transmission. Unfortunately, these numbers may

rise with the increased mobilization and interaction of the population that is beginning to take place.

While we all yearn for some return to normalcy, the virus poses health risks that remain concerning:

1. The current treatment options (more on this later), such as remdesivir or convalescent plasma transfer, are limited in availability, remain under study as to any benefits in mortality and are indicated only for those hospitalized and acutely ill.

2. Continued anecdotal reports, as we learn more about this novel virus, shows a growing number of physical and psychological manifestations of the illness that can be quite dramatic. We are only starting to grasp the scope and relevance of these observations.

3. The piecemeal approach to mass testing means that we still don't know the "true" rate of infection in our community. This limits our ability to formulate any rational, cohesive or even sensical approach to easing restrictions.

4. Any acute illness with Covid-19 will mean a minimum 14 days of self quarantine and will entail cooperation from close contacts to also isolate for that period. Will the public health resources necessary for this endeavor be available and coordinated to properly navigate these inevitable "flash points?"

5. Factors that statistically pose a higher risk of morbidity and mortality from Covid-19 infections such as age or chronic disease remain in place. Those at high risk remain so.

6. A vaccine remains elusive. Even if a breakthrough were to occur in the near future, the challenges in distribution and availability for over 300 million people will likely mean delays in obtaining access.

TREATMENT UPDATES

Remdesivir, in the recent NIH study, was shown to shorten the duration of hospital stay or need for oxygen statistically. It did not prove to reduce mortality, although the study suggests it does so. The decision to stop the study prior to doing placebo-controlled trials to answer this question remains controversial.

Shouldn't mortality be the right end point of any study involving such a virulent pathogen? During the study, the endpoint was modified out of concern that the study could fail to meet its initial endpoints even if the medication was effective.

This decision remains a heated debate with both camps making germane arguments as to their views. While the findings were reassuring, they failed to address the most fundamental question.

Convalescent serum transfer remains under study as another potential treatment option, but this is only intended for those acutely ill or those exposed and at high-risk. This idea, already being used to prevent diseases such as tetanus, may offer only tangible benefit as injected antibodies don't generally stay with us for long. For any lasting protection, you need to muster your own antibody response (hence the benefits of a vaccine).

INTRA OFFICE IgG RESULTS

Results as of 5/11/2020:

175/197 tested were negative for IgG antibody-a rate of only 11.2% of those tested were noted to have a discernible antibody response.

All the Covid-19 PCR positive patients (100%) were noted to have an antibody response.

Five patients who were completely asymptomatic tested positive for antibodies.

Multiple patients that reported symptoms highly suggestive of Covid-19 were negative for an antibody response.

Lastly, three couples that quarantined together had separate positive and negative results for antibodies.

HOW TO INERPRET THESE RESULTS?

It suggests that an IgG antibody responses remain variable across the population as expected. This rate of positive IgG results is likely higher than the national average due to our early outbreak.

For those with negative results many interpretations exist. Foremost, you likely have not been exposed to the virus.

Other considerations include:

1. The antibody response was limited and rapidly waned.
2. The IgG response is delayed and/or the test was obtained too early for capture
3. Some people failed to muster a response at all even with exposure to Covid-19

All of these scenarios remain plausible and within the realm of immunological responses to infections. Illness or exposure to Covid-19 does not automatically confer antibodies or immunity. For that, you need both sufficient numbers of antibodies and they need to be effective antibodies. We don't yet know the degree to which people with coronavirus antibodies are protected from getting COVID-19 a second or third time. Much further study is warranted for any inference of immunity to be truly known.

REASONS FOR OPTIMISM

Some trends give us a reason to be a bit more optimistic as to how to navigate testing for suspected new cases.

1. Testing availability (access to reagents and capacity for more rapid results) and accuracy (initial nasal/oropharyngeal swab PCR testing had a false negative rate of 30% or more) have improved dramatically. This past week, the FDA approved a third test that can rapidly detect early traces of viral proteins, rather than the genetic code of the virus itself, and provide results in about 15 minutes. Another step forward.
2. Now, anyone with suspected symptoms should be able to procure a test promptly if acutely ill or they have been exposed to a known case (this was a significant limitation in April).
3. Lastly, we now are aware that people are most likely to test positive in the first week of the illness when their symptoms tend to be milder. Many of these patients were turned away during the initial wave of the contagion due to limitation of resources.

While the above will help us establish your Covid-19 status more expeditiously and accurately when tested, the focus should clearly remain on limiting your exposure risk. I have witnessed a range of illness that includes mild symptoms to severe and disabling symptoms that have lasted for weeks in healthy individuals.

Please call our office to discuss your indication for testing if you have develop any of the following symptoms:

1. A new cough regardless of fever
2. Altered sense of taste and smell
3. New or profound fatigue
4. Flu-like symptoms-body aches, night sweats, etc.
5. Shortness of breath or atypical chest pain
6. GI symptoms-nausea, cramping, diarrhea or loss of appetite
7. Atypical dermatologic rashes, lesions or sudden changes in your skin's hue

If you're not sure about your symptoms, I strongly recommend you self quarantine for several days to see if any evolution of your symptoms occur and reach out to our office for guidance.

Continue to social distance, wear masks and avoid clusters of people to your best abilities regardless of your perceived antibody status.

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