

## COVID-19 Update

By Gerald Ente M.D. 04/09/21

Although it is only a month since my last update, there is so much new information about COVID-19 that I think I must share this with you. Let me begin with a **changing Pediatric disease** because, after all, I was a Pediatrician for over 50 years. It is frequently said that kids did not matter because Covid-19 did not seriously affect infected children...sometimes not true. In April 2020 in London, 8 children developed shock along with multi-organ dysfunction all at one time. Several of these kids tested positive for SARS-CoV-2. They all were seriously ill with high fever, peculiar rash, pink eye, generalized pain in arms and legs, vomiting, belly aches and diarrhea, and a new disease was born. **MIS-C** is a multi-system inflammatory syndrome (group of symptoms) - C for children. Of course, this disease came to the USA and has travelled around the globe. There have now been thousands of cases reported. Almost all cases have presented with evidence of having or having had an infection with the SARS-CoV-2 virus. As of 2/8/21 the USA reported 2060 cases, mostly in children and adolescents ages of 1 and 14 years with median age of 9 years.

Laboratory tests show that the mainstay of this syndrome is excessive inflammation rather than infection itself. In October '21, researchers reported 27 cases of adults having a similar syndrome calling it **MIS-A** [instead of C] with age ranging from 21-50 years. Just like MIS-C, these adult patients all had fever, gastro-intestinal symptoms, and lab markers of inflammation. Some adults tested positive for the virus [they had active disease] and some had antibodies for the virus [they were in recovery phase]. MIS-A patients usually do not show up with shortness of breath or other respiratory problems as they do with this viral infection. They also have severe dysfunction of at least 1 organ like the heart or the liver. There also seems to be a racial and ethnic disproportion in the effected patients and MIS-A, occurring mostly in Blacks and Hispanics.

MIS-A develops after a period of time...somewhere after 10-14 days. While patients are improving, they suddenly develop these alarming symptoms. This appears to be an immune-mediated phase of COVID-19 infection. Luckily, this is rare. We do not know why this happens. It can even happen to asymptomatic people.

The good news on a lighter side is that **Krispy Kreme** will give a free glazed donut to anyone who shows proof of vaccination and you can get this daily for the remainder of 2021. The day after this was reported, in March 2021, the Atilis Gym in Bellmawr, N.J. offered free memberships to all who do not get vaccinated (a tweet from @IanSmithFitness).

Other news includes a vaccinated mother in Florida who delivered the first baby born with Covid antibodies. The **newborn** was healthy and vigorous. Mom had received only 1 dose of Moderna vaccine 2 months before delivery. The latest meta-analysis of 42 studies of almost 500,000 **pregnant women** who developed COVID-19 during

pregnancy showed primary outcomes of pre-eclampsia, pre-term birth and other adverse maternal and newborn complications. Severe maternal disease was associated with worse outcomes than milder maternal disease. Studies show that COVID-19 vaccine given to pregnant women generates robust immune response in women with adequate antibodies transferred to the newborn infants.

**Major League Baseball** built on its 2020 experience and came out with 108 pages of rules and regulations for the 2021 season. This includes a 5-day quarantine before reporting to spring training, shorter spring training games, mandatory wearable contact tracing device as well as no indoor dining. Also, discipline for violations which include dealing with proper mask wearing at the stadium. The operational protocol manual will evolve during the season. There will be testing every other day and postponing games for positive tests. The protocols established by the league and the union worked pretty well last season, so they are expecting this to work this season.

The main reason a “COVID-19 Experienced Person” (one who has recovered from the disease) gets re-infected is because of **variants**. These are mutations (the variant is a “good” mutation) from a viral point of view if it increases transmissibility. To become a successful variant, the mutating virus needs a bit of luck, like a super-spreader event where it can acquire a solid foothold.

Some variant information follows: • All variants mutate. • RNA viruses mutate quickly and frequently. • SARS-CoV-2 mutate from the moment it enters the body. • If the virus is replicating, it is mutating. • The only way to prevent mutation is by preventing replication or viral infection. • THE ANSWER IS VACCINE. **Variant B.1.1.7** first appeared in Britain...Thought to be more than 50% more infectious than previous versions...35% more deadly...Current vaccines work well against this...It appears to be the dominant US strain at present, raging through Michigan and Minnesota...present in all 50 states...accounts for almost 30% of US cases. **Variant B.1.351** first identified in South Africa...Is less protected by the vaccine...present in more than 24 countries and in US in VA, SC and MD. **Variant P.1** strain first found in Brazil...raging in Brazil and neighboring countries...Now present in more than 20 countries... it came to Brooklyn in March...3.2 times more contagious and 61% more infectious than previous versions...A close viral relative of variant B.1.351. **Variant B 1.526** first identified in NYC...Neutralized by vaccine and responds well pandemic monoclonal antibodies. **Variants B.1.427 and B.1.429** first identified in California ...20% increased transmissibility... Present in more than 50% of L.A samples.

These above variants account for 70% of recent cases in NYC. The World Health Organization (WHO), after months of resistance by Chinese authorities, was finally permitted to send a team of researchers to Wuhan, China to study the **origin of the pandemic**. A 120-page report that they compiled concluded that the virus probably spilled over from the reservoir of infected bats to humans via another animal host. China is satisfied with this report, but WHO, USA and most other scientists believe that the

origin of the pandemic study is not complete until that intermediate animal host can be identified. This is work in progress.

**Vaccine side effects** need a few words: Side effects are worse after the second shot. They are worse in women. They are worse after Moderna rather than Pfizer vaccine (both are mRNA vaccines). Pfizer and Moderna vaccines both 80% suppress the carrier state (asymptomatic transmission). Pfizer reports their vaccine is 100% effective in ages 12-15 with almost no side effects. Side effects should mean to you that the vaccine works (although it still works if you have no side effects). The first dose merely primes the immune system, and the second shot launches a more robust response. The effects are an inflammatory response indicating that the immune system is trying to get rid of this foreign invader to your body. For someone who has had the previous disease, which already primed the immune system, the first dose will produce a robust response (more and/or stronger side effects). Loss of taste and smell happens in 60% of colds and sinus infections. Smell and taste are closely related in COVID-19 infections. These often occur before other symptoms. The loss of smell may also be an indicator that the infection will be milder. With this virus, these losses occur an average of 40% of cases and last an average of 9 days. Moderna Vaccine's side effects are reported about 80% by women and 20% by men. A "Moderna arm", which refers to a large red swollen painful and tender area around the site of the second shot ...an immune mediated inflammatory reaction, is not uncommon.

Another side effect that received lots of media press time was a rare blood disorder, immune **thrombocytopenia** - a lack of blood platelets, a component in blood necessary for clotting. This has been reported with the **Astra-Zeneca vaccine**, which is not yet approved in the USA. Careful review shows that the 40 reported cases among the millions of vaccine shots given occurred no more than in the normal population. AstraZeneca Vaccine has also come under fire for presenting some older data as more recent data. Many worldwide countries have suspended its vaccine use. A-Z has stated that its blood clot incidence is not significant. A-Z updated all their data. In mid-March, the EU agency ruled A-Z vaccine safe. A USA study of 30,000 volunteers found this vaccine to be 70% elective in preventing symptomatic COVID-10 and 100% effective in preventing severe disease, hospitalizations, and death. Again, let me state that this A-Z vaccine is not approved in the USA yet.

**Vaccine Passports** are another major topic of concern. In the US there is no actual data collection system for those people receiving the COVID shots as of yet. Several individual states have recently began producing these vaccine passports. Proof of vaccination becomes the responsibility of the individual. This is unfortunate in air travel, international travel, school and college entrance, many sporting events, restaurants and who knows what else. The plan is for these to be made by the private sector as well as the government...uncertain at present. As of 2007, international health regulations had required an international certificate of vaccination against yellow fever for entry to countries where yellow fever is present. So this concept is not new. Many countries are

working on this certificate. A few use it on their own national vaccines only. There already are many scams and counterfeit passports in circulation. This entire problem has become a divisive political issue for no logical reason that I can understand. If you test positive for COVID-19, it is too late for the vaccine to be effective, so you may ask, what **treatment** can I get? For the early non-hospitalized patients, we in the USA have an available and free elective treatment called **monoclonal antibodies**. These are antibodies, natural fighters of infection, which our bodies produce in response to natural invaders. They cannot make you sick! These antibodies reduce the amount of the virus in the body (the viral load), which will reduce the severity your illness and may prevent hospitalization. These are given by intravenous infusion. The only downside to this antibody treatment is the time you need to sit there or lie there while the IV is running into your vein. Already, in the USA, 3 companies have been approved by the FDA to manufacture these monoclonal antibodies. At present they are plentiful. This treatment is available to adults over 65, to those 55-65 with high blood pressure, heart disease, chronic lung disease, obesity, chronic kidney disease, diabetes, immunosuppressive disease, or those receiving immunosuppressive treatments.

- Face masks and other personal protective equipment (PPE) used to stop the stream of COVID-19 are tax deductible (IR-2021-66).
- California beat out NYS for most coronavirus deaths in the
- USA reached 4 million shots in 1 day (that is more than 1% of US adult population).
- People with dementia are twice as likely to get COVID-19. Black people with dementia are 3 times as likely (study of 20,000 people).
- Canada's Prime Minister Justin Trudeau is experimenting with his citizens by giving the first dose of the Pfizer vaccine and delaying the second dose for months until there is adequate vaccine. This system is in use in the U.K. The basis for this plan is that it is better to afford some protection to many than full protection to a few. Data shows that 1 shot works producing 80% efficacy and followed in 3 weeks with 2nd shot giving 94% efficacy. Dr Fauci is not an advocate of this plan while the experts at Johns Hopkins believe that it should work.
- Flu shots give 24% protection against COVID-19. It reduces severity of the COVID disease.
- Rutgers University is first university to require vaccine for students who take on-campus classes starting in the fall.
- Pfizer and Moderna vaccine prove to be 90% effective, after 2 doses in real life conditions (80% effective after 1 shot).
- USA has more than 30 million reported cases of COVID-19 disease with over 560,000 deaths.

- COVID-19 death rate is 10 times higher in countries where most adults are overweight.
- Pandemic scientists are burning out after stressful 16 months.
- Amish and Mormon communities in Pennsylvania are said to have reached “herd immunity” since 90% of households have had at least 1 infected person. This will not last without vaccine.
- Majority of cancer patients who also have COVID-19 respond to COVID vaccine with good results. .92% efficient.
- Early reports show that higher blood levels of Omega-3-fatty-acids may potentially create a reduced risk of COVID-19 death.
- Night-shift workers with chronic circadian rhythm disruption have a greater risk of catching COVID-19.
- Slow walkers are 4 times more likely to die from COVID-19.
- Higher airborne pollen counts are associated with increased COVID-19 infection rates.
- 12 state AG’s sent a letter to FB and Twitter that they must do more to enforce their own policies against vaccine disinformation. They labeled over 167 million pieces of COVID-19 data as false. Much of this was Russian phony data.
- High speed hand dryers spread (blow around) more germs than paper disposable towels.
- Social distancing in schools is not 3 feet
- Low vitamin D levels are more common in Blacks than Whites. These are associated with higher COVID-19 risk.
- COVID-19 pandemic has fueled a worldwide Tuberculosis epidemic. Coexistence of both diseases have 3 times mortality of TB alone.
- As of 3/19/21, 40% of health care workers have not been vaccinated.
- 15 million doses of J&J COVID vaccines were ruined at a subcontract firm in Baltimore, MD by “human error”.
- 1 dose of mRNA vaccine may be enough for COVID-19 experienced people. During March of 2021, CDC reported that 50% of American seniors had been vaccinated. President Biden’s original goal of 100 million shots in his 100 days was met on day 58 and now he is pressing for 200 million doses in his first 100 days. In spite of this, CDC Director Rochelle Wallensky is worried. She said she has an issue of “impending doom”, probably because all the COVID numbers are rising. This may be due to the combined results of spring break, young peoples’ wild lifestyles, various states’ lifting

restrictions too early, widespread invasion of variants, the anti-science movement, and the hesitancy to vaccinate group.

This last group is the target group for the education push by our government. Former President Trump has finally recommended the vaccine. Even Sarah Palin has praised the vaccine. We now know that vaccines not only prevent Covid severe disease and death, but they also reduce transmission. All the three US choices of vaccines are worthy of your arms. It is reported that 96% of COVID-19 vaccine recipients received the second dose on time. Herd immunity is still not close since 1 out of 4 adults at present say that they will not get the vaccine. This is the reason that our White House has deployed a \$3 billion vaccine education plan. We need to reach herd immunity first in the USA and then globally to end this pandemic.

We can do it. DO YOUR SHARE...GET YOUR VACCINATION.

Stay safe and be well.

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