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The Future of COVID-19: Vaccines and the Trajectory of Care
Webinar FAQs
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1) **How effective are the current vaccines on the new variants?**

   mRNA (i.e., Moderna, Pfizer/BioNTech) and Johnson & Johnson ("J&J") appear effective for all variants of COVID-19 to date, especially when it comes to preventing severe disease.

2) **If someone tests positive post-initial COVID-19 testing, when do you test for the variant, especially with ongoing symptoms (e.g., coughing)?**

   Generally, people do not test again for COVID-19 within 90 days of initial infection. After 90 days, if there were respiratory symptoms, we would test again for COVID-19 and other respiratory pathogens (e.g., the flu, respiratory syncytial virus). If tested positive for COVID-19 once again (PCR COVID-19 RNA testing), with symptoms and low cycle threshold, we would then consider sequencing for variants of COVID-19.

3) **Can the people who continue to test positive months after recovery still spread the infection?**

   In general the answer is "no," but depending on the person's age, severity of illness, and comorbidities, the period of viral shedding can be variable, lasting months. However, if the patient has "recovered" and no longer has any symptoms, transmission is not expected.

4) **Regarding the shedding of the virus and testing positive after no longer infectious, is there anything going on in medical technology that might identify someone who is shedding the virus and not infectious?**

   We no longer do "test of cure" for COVID-19. Cycle threshold on PCR platforms can provide proxy for viral load and others, and we have shown it drops rapidly over the initial 10 days. Exceptions may be very immunocompromised patients (e.g., bone marrow transplant patients).

5) **If 95% of positive cases have immunity for eight months, can they be vaccinated during that eight-month period?**

   Patients with COVID-19 can be vaccinated after resolution of acute infection and certainly after 90 days.

6) **Have there been many cases where people have cardiac and pulmonary issues months after recovering from COVID-19?**

   There are hundreds of such cases, lasting up to a year after recovering.

7) **Do we have cost estimates for monoclonal antibody treatments?**

   There is no charge for the product to the patient, but there may or may not be administration fees.

8) **Have scientists been studying biologics? I have heard that people who are on a biologic (Humira, for instance) may have a greater immunity to COVID-19 and that studies are being done to see if this is a possibility.**

   Biologics include products and drugs that are made from—or come from—living organisms. Therefore, monoclonal antibodies are an example of biologics, as well as Remicade and Humira, which are used to treat immune mediated conditions like Crohn's disease, RA etc. So, these immune-modulating medications can theoretically decrease the level of hyperactive immune reactions involving Cytokine; hence, theoretically mitigating cytokine storm related complications. However, the downside is that being immunocompromised due to such medications and underlying autoimmune conditions, the likelihood of organ damage from direct viral cytotoxicity is higher and the duration of the COVID-19 infection can be longer. This is why those taking immunosuppression meds can have a longer duration of COVID-19 illnesses, as well as a higher likelihood of hospitalization. This is one reason why it is recommended that people with immunocompromised conditions get their vaccines sooner rather than later.

9) **Is there any new information on the clinical trials regarding hydroxychloroquine as a treatment for COVID-19?**

   It is not effective and should not be used for treatment or prevention.

10) **There is some evidence that aerosolization of the virus is an important route of transmission and that indoor HVAC systems may need to be upgraded in workplaces. The CDC has yet to address this; what is your sense?**

    Aerosolization is a continuum of respiratory droplet spread; hence, the reason for ensuring avoidance of "poorly ventilated" indoor spaces. The reality is, the closeness of contact and duration of the closeness of contact are the critical factors. HVAC systems certainly help, but are not a driver of infectivity as compared to the closeness of contact and duration of contact.

11) **If someone has one kidney, is it wise to get the COVID-19 vaccination?**

    Yes, individuals with one kidney or on dialysis should get the vaccine.

12) **Do Pfizer and Moderna provide sterilizing immunity?**

    It was not studied in EUA, but data is pending.

13) **How soon after the second dose of vaccine does full immunity occur?**

    Seven days after the second dose for mRNA vaccines However, CDC recommends two weeks after the second dose before presuming immunity protection.

14) **Given that the vaccine is less than one year in existence, how can we state with certainty that there is no long-term risk?**

    We cannot, but these vaccines are undergoing intense post-approval surveillance. In contrast, look at all the reports of chronic issues for those who got COVID-19.

15) **I recently received a claim for hearing loss after an individual received the COVID-19 Pfizer vaccine. Have you heard of anything like this? Is this one of the reactions after the vaccine?**

    Not that I am aware of, but with millions receiving the vaccine, we will need to sort association versus casualty.

16) **How do the COVID-19 vaccines compare to flu vaccines in regard to effectiveness?**

Effectiveness is greater than 90% for mRNA and 40-60% for most flu vaccines (depends on the season and remember there are four strains in each flu vaccine).

17) **Did the CDC just state not to take anti-inflammatories or over-the-counter medications before and/or after receiving the vaccine, to ensure your immune system is not compromised? Is it true that you receive the full effect of the vaccine when your immune system is at its normal stage?**

It is not recommended to take anti-inflammatories or over the counter medications the day before receiving the vaccine.

18) **Is the vaccine going to be required yearly just like the standard flu shot?**

It is not clear at this time.

19) **South Africa's government is allowing limited use of Ivermectin for treating COVID-19, and some claim it's all a conspiracy to push big pharma (vaccines) instead of much cheaper medicine (like Ivermectin). How do you respond to this?**

The FDA has not approved Ivermectin for use in treating or preventing COVID-19, and neither the NIH nor the IDSA endorses it as a treatment outside of the setting of a clinical trial. Therefore, we are following this guidance and not using Ivermectin for patients with COVID-19 at this time.

20) **I was told to wait 90 days post-COVID-19 infection before getting the vaccine, but would the monoclonal antibody help to prolong symptoms?**

Receipt of the monoclonal antibody or convalescent plasma may theoretically impact vaccine effectiveness, so we do recommend that if received, no vaccine for 90 days.

21) **How long does it take each vaccine to become effective after receiving the injection?**

Receipt ranges from 14 days after the first vaccine and 7-14 days after the second.

22) **What is the role of pulse oximetry in the home to detect increased symptoms?**

It is part of a bundle of home surveillance for high-risk patients, or those with respiratory symptoms.

23) **Do any of the vaccines carry the risk of infertility?**

There is no data that we are aware of.

24) **If someone had COVID-19 several months ago, and then gets the vaccine, are they more likely to have negative side effects after the first dose than those who have never had the virus?**

Some data suggests that reactogenicity is more frequent in those receiving the vaccine who have had COVID-19 in the past, but they are still candidates to get the vaccine if they have had COVID-19.

25) **If someone is given a specific brand of vaccine initially, will it make any difference as to what brand of vaccine you may need later for a booster?**

The vaccines are not recommended to be interchangeable.

26) **For those who get the mRNA vaccine, could they have a positive test for the nasal COVID-19 test over a month after the second dose? Some states/countries (such as the U.S.) are requiring a test within three days to travel to or from their jurisdiction.**

They would not receive a positive test due to the vaccine.

27) **It was noted that the immunity from having COVID-19 was approximately eight months. Is the same true for the vaccine, eight months? Will the vaccine need to be repeated yearly? What time of year is best to receive the COVID-19 vaccine?**

Data is currently being collected. The January NEJM letter showed 120-day durable immunity (specialized tests); a follow-up report is pending. National Institute of Health (NIH) also published a research brief on January 26th of 2021 that 95% of people who recovered from COVID-19 had durable immunity for up to eight months after infection. This research was published in Science on January 6th. This has good implications for vaccinations, but will need further confirmation.

28) **Are there comparison studies of the various vaccines concerning the duration of conferred immunity?**

It's in process, at least > 120 days.

29) **Why does China not show on the vaccination list, since the virus originated there? What protection method are they implementing?**

China has their own approved vaccine called Sinopharm.

30) **Have you heard of anyone developing PoTS after a COVID-19 infection?**

Yes, there are reports of postural orthostatic tachycardia syndrome, which requires a cardiologist to manage.

31) **We manage workers' compensation claims for many school boards. Although teachers are beginning to be vaccinated, there is hesitation from female teachers who are pregnant. What is the recommendation for vaccinations during pregnancy?**

There is no contraindication to getting the vaccine if pregnant, as studies show more severe disease in pregnancy than non-pregnant controls, and the recommendation is usually a discussion with the patient and OB-GYN. Formal studies are ongoing in pregnant women.

32) **Is it okay to take ibuprofen or Tylenol as needed after the vaccine injection?**

Yes, it is okay (per the cdc.gov website).

33) **If an injured worker is already on long-term blood thinners from a post-surgical DVT and PE, does that provide any protection from some of the blood clotting symptoms of COVID-19? Have there been any studies about that?**

COVID-19 is a disease of hypercoagulability and perhaps pre-COVID-19 anticoagulation can be protective for some injured workers, but COVID-19 is also a pneumonia, and anticoagulation is not protective. There is mixed data on full systemic anticoagulation for the sickest patients, but most critical care specialists do tend to anticoagulate if certain blood markers (e.g., D-dimer, thromboelastography) indicate a high chance for blood clots.

34) **I have heard when receiving the second dose of the vaccine, you become sick with a 48-hour bug. Is this happening everywhere, or just here in California?**

This is more expected with the Moderna vaccine, and was seen during Phase III trials for vaccines.

35) **Just because you get the shot(s), should you still wear your mask and continue to social distance?**

Yes, it is important to continue with safety precautions, including mask wearing and social distancing, since vaccination trials have not looked at transmission rates with mRNA vaccines. The AstraZeneca vaccine had shown reduction in transmission during their trials—up to 68% or close to 70%, but others did not look at this.

36) How common are long-term complications with gastro issues (e.g., vomiting)?

10-20% of post-COVID-19 patients have varying issues of the GI tract, usually early, and these resolve with treatment from a gastroenterologist.

37) If a COVID-19 claimant was never hospitalized, can they have PTSD?

In general, PTSD is noted more with hospitalized and severely ill COVID-19 patients.

38) What vaccine is best for someone with autoimmune disease, such as Sjögren's?

Any of the EUA-approved vaccines.

39) For those who have tested positive for COVID-19, is the vaccine still recommended?

Yes, and they should wait until 90 days after diagnosis.

40) What is believed to cause the change in smell and taste that can be very prolonged? Do most recover from this?

Anosmia, which is the medical term for loss of taste and smell, is very common in the mild to moderate group. Most recover, but symptoms can persist for months after infection.

41) We just received a workers' compensation claim for a 49-year-old male who contracted COVID-19 at the end of November, was hospitalized 12/5 to 12/21, and has been on dialysis three times a week since he was discharged. The employee denies having any prior kidney problems; his only pre-existing condition was high blood pressure. Have you seen kidney issues, with dialysis specifically, because of COVID-19?

COVID-19 is a disease of blood clotting, and dialysis-dependent renal failure is quite common in the most severe cases. Most who survive do resolve over time. Others with underlying previously undiagnosed kidney disease (and hypertension is a risk) will not resolve and remain dialysis dependent and ultimately go on to a renal transplant. This is definitely related to COVID-19.

42) If you get the vaccine, are you immune going forward from ever contracting COVID-19?

No, we know now that immunization can lead to immunity for at least 3-5 months, and will need more research as to the duration going forward.

43) If you had to handicap it, when do you think we will reach herd immunity?

It is hard to forecast based on vaccine uptake, but I suspect summer/fall of 2021.

44) If you only had a mild case of COVID-19, could you still have the long-term effects, or does it only pertain to those who were in the critical and/or moderate stage?

Yes, even with a mild COVID-19 infection, you can have long-term symptoms, but this is being investigated currently.

45) Anecdotally, we know a person who reported severe long-hauler symptoms for several months, but that all symptoms ceased immediately following their first Moderna vaccination. Have you heard of anything like that and/or is there science that might support that?

Not that I am aware of.

46) When they focus on hypertension as a main pre-morbid concern, is it specified if these patients have controlled hypertension versus uncontrolled hypertension?

I do not think the answer is in on this, but certainly uncontrolled hypertension seems to be more serious of a pre-morbid concern.

47) Are there any studies that support the theory that COVID-19 vaccines given to patients who have already had COVID-19 assist with symptoms of "long-haulers?"

Not that I am aware.

48) Is there any known outcome for newborns of pregnant women who acquired COVID-19 during pregnancy?

Only small numbers at this time. The good news is that there has not been any obvious adverse events noted with infants delivered from mothers who had COVID-19.

49) Are there any advances regarding the COVID-19 vaccine and pregnancy? Would it be safe to assume that it might be contradicted during the first trimester, as it may cause miscarriage, due to a strong immune response? Is it possible for antibodies to pass on to the fetus if administered during the second or third trimesters?

It has been noted that the current CDC vaccine monitoring system had not noted any worse rates of complications or miscarriages with vaccination with COVID. So, there is no reason to avoid the vaccine when pregnant. As to the last question regarding passing antibodies to the fetus, it is not known to date.

50) What are your thoughts on treating with Ivermectin?

The FDA has not approved Ivermectin for use in treating or preventing COVID-19, and neither the NIH nor IDSA endorses it as a treatment outside the setting of a clinical trial. Therefore, we are following this guidance and not using Ivermectin for patients with COVID-19 at this time.

51) Can pulmonary fibrosis lead to lung cancer? What is the long-term treatment for this long-term issue, post- COVID-19?

No, pulmonary fibrosis cannot by itself cause cancer. Long-term treatment includes constant attention to pulmonary function, pulmonary rehabilitation, and close follow-up by a pulmonologist.

52) In speaking to folks who are refusing to be vaccinated, many of them refer to the large number of health care and frontline workers who are refusing the vaccine, like 60% of nursing home staff in Ohio, 55% of the NYFD firefighters, etc. Will you please comment on this?

There are people who are vaccine skeptics and vaccine concerned, but the percentage of these people is declining.

53) Given the myriad of symptoms, how do we in workers' compensation determine what is related to the COVID-19 virus versus a natural life progression?

It is a challenge to determine whether the constellation of symptoms that may be present post-COVID survival are from COVID-19 or from something that may have been pre-infection. The key is to do a very careful comprehensive assessment to determine what the individual's pre-infection health was like prior to the infection if possible.

54) Does the efficacy of the vaccine diminish with variants?

It is likely that the efficacy of the AstraZeneca vaccine diminishes for the South African strain, but mRNA vaccines look good to date.

55) Is there any validity that certain blood types tend to have more severe symptoms?

There are mixed studies on this, with some showing protective effects for O- blood, but some studies showed no difference.

56) If you have breathing problems one month after testing positive for COVID-19, can you still be positive for COVID-19?

Yes, viral shedding is varied and can last even a few months, depending upon a person's age, severity of illness, and comorbidities, but they would not be considered infectious.

57) Are most people who get COVID-19 going to get residual symptoms?

Although the majority of people with COVID-19 infection will experience longer-than-expected symptoms post-COVID-19, the duration of these symptoms will vary. Some will have persistent symptoms for much longer, but we will need more research. The current estimate is about 10-25% will experience longer-term symptoms.

58) Unfortunately, most of the residual symptoms are subjective. How can we get any objective evidence of this?

These symptoms are more than just subjective; they are all part of the myriad of symptoms. Objective evidence will come as time passes and the specialty "COVID-19 clinics" will help us make them more objective.

59) Do the long-term effects of COVID-19 also apply to children under the age of 18 who contract COVID-19?

Children do not seem to have any persistent symptoms so far, but more research is needed.

60) Can a person currently undergoing chemotherapy get the vaccine?

I would likely try to work around the chemotherapy schedule if possible.

61) I understand SARS-COV-2 to be 78% identical to SARS-COV-1. Are these "long-term" problems found in SARS-COV-1 as well, and what exactly are they defining as "long-term," since this illness has really only been on the radar for a year now? How do you feel these two compare, if at all?

They are two different viruses, so some there are differences clinically and with transmission. The definition of "long COVID-19," is evolving; it is a syndrome.

62) Are all these post-COVID-19 symptoms found in more mild cases that do not require initial hospitalization?

The data I researched showed that post-COVID-19 symptoms were present in up to 80% of the mild cases.

63) I believe they changed the PCR cycle threshold post-election to a lower cycle to detect SARS Cov-2 (the virus, not the disease, which is COVID-19). Do you know the PCR cycle currently being used to document cases? Pre-election, I believe they were using 40-45, which would increase cases.

Not that I am aware. CT are a measure of "viral load," but can differ among platforms.

64) What is the status of workers' compensation coverage for injured workers in the front lines (or others exposed in the workplace)?

It varies from state to state.

65) If still contagious for seven days after symptoms end, why is the CDC saying people can return to work 48-72 hours after symptoms end?

The viral infection transmission is unlikely after 7-10 days, since the period of greatest infectivity is front-loaded. This is why the CDC now gives guidance of return to work after 7 -10 days post first day of symptoms as long as the individual has had no symptoms of fever 1-2 days prior to returning.

66) What is the percentage of the population, in your professional observance, that you believe are aware that "approved for emergency use" means experimental? What are the concerns for long-term effects of the mRNA vaccines with inflammatory processes in the body?

mRNA vaccines have had no serious safety signals in pre- or post-FDA studies. FDA's emergency use approval does not mean it is experimental; but rather it has been fully evaluated for the near term period and it has both safety and benefit profile that far outweighs the potential risks/harms. However, the long-term effects are pending.

67) Regarding the case study you shared, is the carrier subrogating against the medical provider for the spinal cord injury?

No subrogation has been discussed. I do not believe there is a case to subrogate. The injured worker is not filing medical malpractice claims (which is all the carrier would have to subrogate against), and the carrier is not pursuing any direct action against the acute hospitals, as the spinal cord injury was a direct result of COVID-19 complications and nothing done incorrectly by the providers.

68) If you had your choice of vaccine, which one would you select?

We would choose whichever is available first. All three vaccines have been found to be safe and effective by the CDC.

69) Do you anticipate vaccinations for adolescents?

Yes.

70) In COVID-19 case study #2, I am curious why he had to be discharged to Shepherd Center in Atlanta, GA, when he was from New York? I understand he had some unique and potentially overwhelming issues; I am just wondering about the psychosocial and family support?

Shepherd Center is one of the finest and best-equipped spinal cord injury centers in the country. They provide huge psychosocial support. Additionally, the injured worker's mother was onsite the entire time he was in Atlanta, and supportive of the move. I believe the experts in New York made the referral to Shepherd, as they are probably in agreement with my opinions.

71) Any correlation between monoclonal antibodies and long-term COVID-19 symptoms/effects?

Not that I am aware.

72) If reinfection happens to individuals, are the long-terms effects worse than, or about the same as, the first infection?

Fortunately, reinfections are rare. Long-term effects are currently being researched and we are not sure if we know currently whether the long-term effects will be worse, the same, or neither.

73) For people with anaphylaxis, are any of the vaccines better than the others for having less of a chance of anaphylaxis?

It is reported less often with the J&J vaccine.

74) Have you had any cases from employees with complaints of eye issues?

Yes, we have had injured workers with eye symptoms—some pre-existing, but others related to emboli and clots to ophthalmologic blood vessels.

75) I have quite a few claimants who are experiencing brain fog/short-term memory problems on a long-term basis. There was a recent article in neurosciencenews.com referencing a study from Memorial Sloan Kettering that suggested this is due to inflammation in the cerebral spinal fluid and that steroids can help. Is there more front-line evidence that this actually works, and how long would it take to show results, and will positive results be permanent?

Steroids are one of only two or three drugs that have been shown to make a definite change for the better in outcome. The “brain fog” is not yet well understood and is the primary reason why I feel these post-COVID-19 centers of excellence will help treat these unfortunate patients and get a better understanding. Too much is unknown at this time.

76) Will COVID-19 eventually become seasonal, like the flu? In addition, since vaccinations only protect us for three months, when would it be safe for people to be vaccinated again?

Boosters may be in our future and modified annually, similar to influenza vaccines.

77) Are tremors a part of post-COVID-19 symptoms?

Yes, a myriad of neurologic symptoms can be a result of COVID-19.