Below is the Q&A transcript from the March 12, 2022, Clinician Call. The views and opinions expressed here are those of the presenters and do not necessarily reflect the official policy or position of the CDC or IDSA. Involvement of CDC and IDSA should not be viewed as endorsement of any entity or individual involved.

1. **What is the threat of COVID BA2 producing another surge?**

   Unlikely given case rates continue to drop despite increasing BA.2. We are also seeing a steady increase in doubling time at more than 9 days now for BA.2. (Derek Eisnor)

2. **What are the monoclonal options for omicron subvariant BA.2? Is sotrovimab still effective?**

   We are still awaiting real world clinical evidence. (Derek Eisnor)

3. **Could the panelists comment on need for booster #2 for the non immunocompromised host? Especially for elderly, HCWs and SNF residents? Many are over 6 months from the first booster and going by the delta experience, this is the time for waning of immunity, in the wake of BA2.**

   The potential for an additional boost to increase protection makes sense and we can see boosting of the immune response in in vitro assays, however the clinical data to guide us are in process. So we are left with ‘it makes sense’ (Lindsay Baden)

4. **How well does prior Omicron infection with BA.1 protect against reinfection with BA.2, or prior Delta or earlier variants protect against either omicron? is it time since prior infection or the strain you were first infected with or both that are important in providing immunity?**

   Early data suggests prior infection with BA.1 provides some protection against BA.2 (see Occurrence and significance of Omicron BA.1 infection followed by BA.2 reinfection. Stegger et al. medRxiv https://www.medrxiv.org/content/10.1101/2022.02.19.22271112v1 (Preprint February 22, 2022). But limited time has elapsed to determine how well this holds up over time. All subvariants of Omicron seem to show some immune evasion relative to Delta, and reinfection is relatively common with BA.1 or with BA.2 after primary Delta infection (but does not seem to be more so with BA.2 than with BA.1 -- see preliminary SIREN data in Figure 16 of this UKHSA technical briefing posted yesterday) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1060337/Technical-Briefing-38-11March2022.pdf) (Debbie Dowell)

5. **Also what is the latest on treatments like Paxlovid for those under 18? What is on the horizon and likely timeline for treatments/therapeutics for this age group? Adolescents for example often have similar weight and height as smaller adults.**
Paxlovid down to age 12, and RDV 3-day infusion authorized age <12 and weight down to 3.5 kg in at risk individuals. (Suzanne L Steele, MD)

6. Can the panel please include how the treatments covered can be applied to prolonged or Long Covid patients

Use is authorized only early in disease course: 5 days for Paxlovid, 7 days for sotrovimab or outpatient remdesivir. (Mari Nakamura)

7. Is Evusheld recommend for all solid organ transplants?

https://www.myast.org/sites/default/files/AST%20Statement%20on%20Use%20of%20Monoclonal%20Antibody_Final%20Mar%202022.pdf (Shmuel Shoham)

8. Can you comment on Evusheld and the variants?

Under new CDC Guidelines, "On a case by case basis, providers who care for moderately or severely immunocompromised patients may administer mRNA Covid 19 outside of FDA and CDC dosing intervals based on clinical judgment when the benefits of a different vaccine schedule or dosage is deemed to outweigh the potential and unknown risks". How exactly does a doctor implement this, the doctor not generally the person administering the vaccine. Should the doctor write a prescription? (Michelle Fontenot)

Note that CDC's clinical considerations (https://www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html) go on to note that "providers should not routinely administer additional doses of COVID-19 vaccine beyond those recommended in this guidance." However, some providers, including some who care for patients with moderately or severely immunocompromising conditions, are providing vaccines, and this language is meant to allow these providers to use clinical judgement when benefits of a different vaccine schedule or dosage are deemed to outweigh the potential and unknown risks for patients with moderate to severe immunocompromising conditions. (Debbie Dowell)

9. If a patient has received their primary series and booster, but now develop a malignancy, should we give them another full dose? If recommended, what should the timing of that dose be in relation to the booster? Should we request antibody levels to help with the decision of whether or not to give an additional dose? Do we have data yet on what antibody levels are protective against moderate to severe disease and neutralizing capability?

A challenge is to understand the durability of protection - which takes time to determine and needs to be understood in the shadow of the circulating variant. Remember in immunocompromised patients a 3 dose initial series is recommended with then a boost which is a 4th immunization. (Lindsey Baden)

10. This data seems to argue that we need to sequence variants to determine therapy?

Agreed. A bedside test to inform future mAb therapy could be very helpful. Also agree the need to sequence hospitalized cases that fail outpatient therapeutics. (Derek Eisnor)

11. I had understood that Paxlovid is still in trials for adolescents? So it is authorized now and able to be administered for someone age 14? Does having asthma qualify someone?

Yes. https://www.fda.gov/media/155050/download (Derek Eisnor)

12. Are there any nomograms demonstrating one's individualized risk of hospitalization/death based on various factors to help guide treatment decisions on a shared decision making basis?
13. Do we know of current efficacy of Paxlovid vs BA.2 (compared to BA.1)? Any waning of efficacy?

There is no clinical data, but there is no reason to think that strain type will affect its pharmacology. That is a plus of antivirals that don’t act on spike proteins. (Jason Gallagher)

14. What is the current best practice for use of paxlovid in those on immunosuppressive meds, e.g. solid organ transplant recipients?

There is concern regarding drug interactions. Ritonavir is a powerful booster of drug levels of tacrolimus, cyclosporin, sirolimus and everolimus. Drug levels of tacrolimus and the others cannot be easily managed in a patient who is having active covid and is an outpatient and taking paxlovid. For those reasons we have tried to avoid using it in solid organ transplant recipients. (Shmuel Shoham)

15. What is the general supply status of Evusheld? Should it be indicated for all immunocompromised, regardless of antibody levels? Can Evusheld's contribution to antibody levels be quantified in those who have already developed antibodies through vaccination?

Recent allocations for the month of March=200k (300mg=one carton) doses nationwide. USG recently purchased all available production supply through September of 1million (300mg) cartons. (Derek Eisnor)

16. Is CCP harvested only after natural infxn or also after vax / mAb tx?

must have history of infection (at least 10 days after recovery). Evidence of past infection can be with antibodies. Can have vax as well (ideal in my mind, but not FDA requirement). FDA asks for 3 months delay after mAb. Not sure exactly why. (Shmuel Shoham)

17. Since there is a national shortage of blood how available is convalescent plasma treatment realistically?

Supply of blood products is a challenge. Having high titer CCP available for patients who need it is a worthwhile effort. (Shmuel Shoham)

18. Can you tell me what RDV 3-day infusion is?

remdesivir IV qd x 3 (Joanne Levin)

Based on this study: https://www.nejm.org/doi/full/10.1056/NEJMoa2116846 (Mari Nakamura)

19. do we have comparison of Paxlovid verus RDV in adolescent patients? (with underlying asthma)

No, not aware of any comparative data on these medicatons in adolescents. (Mari Nakamura)

20. Are solid organ cancer patients still not eligible for 4th covid vaccine at this time?

these are most recent recommendations. https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/immuno.html (Shmuel Shoham)

Based on clinical judgment, a doctor can prescribe additional doses outside the recommended dosing interval and outside the recommended dosage (e.g.. full dose moderna). This should not be done routinely but only on a case by case basis, based on clinical judgment. (Laura Burns)
21. If a patient has received Evusheld and then contracts Covid, are they eligible to receive another treatment, such as Paxlovid or Sotrovimab?

Yes (Derek Eisnor)

22. Any further studies on timing of glucocorticoids for the outpatient setting? Often patients call too late (past day 5) or testing results come in at a time where Paxlovid is no longer an option.

Unless there is another indication for systemic glucocorticoids, I recommend against them for non-hypoxemic patients. The potential for harm may exceed benefit. (Shmuel Shoham)

23. Any comments about the observation of covid resistant strains to Sotrovimab seen post treatment in Australia. Raises concern that we are generating resistant strains may be able to escape vaccine generated immunity.

Not to minimize but this has been shown with small molecule drugs, including Tamiflu and remdesivir as well as mAbs. I believe it was 4 of 100. It is certainly something we need to watch, particularly in hospitalized patients that have failed existing therapeutics. (Derek Eisnor)

24. In general, I rarely use baricitinib or tocilizumab in transplant patients. However if I consider to use it —

1) any suggestion in tacrolimus or MMF management
2) any specific study to use baricitinib VS tocilizumab in this population and if any mortality improvement?

At our center, we tend to stop mycophenolate in solid organ transplant recipients with COVID-19 regardless of whether they are also getting baricitinib or tocilizumab (Shmuel Shoham)

25. Since COVID itself causes lymphocytopenia, how rigidly do you stop baria if ALC drops below 200? I've found it < 200 one day and increases next day w/o stopping the baria

I’m with you. Personally I would not stop it. It is a warning carried over from knowledge with its chronic use over to the acute instead of reacting to data generated with covid. (Jason Gallagher)

26. Is anyone studying baricitinib in long haul (cytokine action)?

I admit that I don’t know. I’d search clinicaltrials.gov but admit that my knowledge of long-haul studies is limited. (Jason Gallagher)