T3 Webinar Questions
"Optimizing Vaccination in Transplant Candidates and Recipients" (1/13/2021)
https://ast.digitellinc.com/ast/sessions/3231/view

1. Are any of the COVID-19 vaccines (other than Pfizer & Moderna) contraindicated in SOT recipients?
   - **Only live vaccines would be contraindicated. There are only a couple of live vaccines being developed and none are in advanced stages. Pfizer and Moderna mRNA vaccines are not live and could be given to transplant patients.**

2. A pediatric patient was found to have an equivocal VZV IgG on pre-renal transplant evaluation, 3 years after his 2nd dose of VZV vaccine. Is it worth giving a 3rd dose despite data suggesting low likelihood of seroconversion among healthy recipients?
   - **While it is possible that the child in question may have cell mediated immunity despite negative antibody titers several years out from 2nd dose of VZV vaccine, I typically recommend giving a 3rd dose in this setting in an effort to optimize immunity prior to going in to the transplant. While this may not lead to seroconversion, it is safe and may provide protection. Please see similar question below for additional comments.**

3. Is there any indication to measure pneumococcal antibody titers?
   - **We don't measure titers in adults.**
   - **We also do NOT measure SPN antibody titers in our pediatric SOT candidates.**

4. Once the PCV20 vaccine is ultimately approved as routine, do you think we will be forgoing the PPS23V?
   - **Currently in adults, the rationale for the PPV23 is to give immunity against the additional 10 serotypes. There does not appear to be any boosting effect for the 13 types contained in PCV. Therefore, once PCV20 is part of the recommendations, the benefit of the additional 3 serotypes is very small. There will need to be an analysis to see how prevalent the additional 3 types are before making that decision.**
   - **The rationale above also applies to pediatrics. Once PCV20 is approved, a similar process will also have to be considered in children.**

5. What if you gave 2 doses of varicella and/or MMR and they still don't have antibody titres, and knowing the limitation of these assays, would you re dose? Thank you.
   - **The AST ID Guideline on Vaccinations includes the statement that if two doses of vaccine have been given, the patient is considered immune regardless of antibody results. However, while this statement may be applicable to adult SOT recipients who may have been vaccinated at a time that they were healthy, data from children after SOT has show that titers can wane, and that revaccinating can lead to a boost in both antibody levels and in cell mediated immunity. Based on this experience and the safety of providing these vaccines prior to transplant, it has been my practice to provide an additional dose of MMR and/or VZV prior to transplant in those children who have had 2 doses who do not have a protective level of antibody.**

6. When to give and how long delay transplant in the case of Shingrix?

- **Answered live**

7. Will there be recommendations for caregivers of children recipients? (Copied from chat)

- **I think that this question will be referring to providing COVID-19 vaccination to caregivers of pediatric SOT recipients. If vaccine is available, I would recommend following the approach we take with Influenza vaccine and would recommend that all household members and care givers of the pediatric transplant recipient be vaccinated if supply allows and there are no contraindications.**

8. Should all SOT candidates receive the 40 micrograms dose HBV vaccine series, or just those on dialysis?

- **Answered live**

9. Should I recommend high dose influenza vaccine post-transplant irrespective of patient age (< 65 years).

- **Answered live**

10. Do you give MenACWY to all pediatric patients prior to transplant, what about MenB?

- **Answered live**

11. Do you recommend checking MMR titers after MMR vaccine in all adults? Are one or two doses recommended before titers?

- **Since MMR in adults is given pre-transplant, the transplant candidate needs to be on hold for 4 weeks after each dose. In order to reduce the hold period, you could check MMR titers after the first dose and if positive, then potentially forego the second dose if the transplant is urgent. Ideally, however, you would want to give both doses in a patient that has never had MMR.**

12. Transplant candidates who are VZV negative - Shingrix vaccine or varicella vaccine?

- **Answered live**

13. If you have a 55-year-old transplant candidate who is varicella IgG negative, would you provide the Varivax series followed by the Shingrix series? Or would you skip straight to the Shingrix series to avoid the requirement of making the patient inactive on the list following Varivax?

- **Ideally, you would give Varivax to this patient and put them on hold for transplant. We are not sure how well Shingrix will work as a primary vaccination against varicella. In the study I showed (post-transplant setting) only about half the patients mounted a response after the 2nd dose (doses given 2 months apart).**

14. Are you aware any commercially available test to check seroconversion after COVID vaccine? The standard test is checking antibody against neurocapsid

- **There are two types of commercial assays (anti-nucleocapsid and anti-Spike). Since the vaccine encodes for spike antigen, only the anti-S assays will detect vaccine-immunity. However, not all anti-S assays detect the same part of the Spike antigen so there will be variability in terms of whether they detect vaccine immunity.**

15. Is there a waiting time to get the vaccine post-transplant? (Copied from chat)

- **For influenza and COVID vaccine, it can be one month. For other vaccines, 3-6 months.**

16. Are live vaccines such as yellow fever and live typhoid vaccine also safe for pediatric SOTs? (Copied from chat)

- **At this time there is only data for use of MMR and VZV in pediatric liver and kidney transplant recipients. In the absence of any data, I would NOT provide either yellow fever virus vaccine or live typhoid vaccine to children after SOT.**

17. When do you think we will know if covid 19 vaccine prevents carrier status?

- **Further studies are needed on this. In the mRNA vaccine trials, only symptomatic subjects were tested for COVID. However, in the adenovirus vector vaccine (Oxford/AZ) study, subjects were swabbed weekly even if asymptomatic, so carrier status wasn't detected with this vaccine.**

18. Some countries such as the UK have taken the approach of delaying the second dose of the Pfizer vaccine for up to 12 weeks after the first dose. What is your view regarding immunogenicity and should SOT recipients be prioritized to receive 2 doses in a timely manner? Thank you for a very informative webinar. Vicky Gerovasili, Harefield, UK

- **The immune response to COVID vaccines is likely to be low in SOT patients than in immune competent persons – although there should be at least partial protection. I think we should be following the protocol done in the trials. Although one dose may have reasonable immunogenicity and even partial efficacy – the durability of protection may be less. So, in transplant patients, I would definitely give both doses in a timely manner.**

19. Are other centers recommending the transplant center provide the COVID vaccine or allowing the patient to get the vaccine elsewhere. (Copied from chat)

- **There is state to state variability in how vaccines are being delivered. Whether a transplant center can provide vaccine will depend on vaccine availability, the type of vaccine (eg storage conditions) and availability of staff trained in immunizations. The transplant center should determine what is the most efficient method to ensure that their patients have access to vaccination. This could either be done locally or at the transplant center depending on availability.**

20. Are live vaccines such as live typhoid vaccine and yellow fever safe for pediatric SOTs?

- **Same question as above**

21. Can a patient who just received the COVID-19 vaccine and then develops infection within the first week receive monoclonal antibody therapy.

- **The advantages and disadvantages of this are really unknown. If a patient gets COVID, regardless of prior vaccination, they should be treated the same way ie with monoclonal antibody if they fit the clinical criteria for administration. However, there are theoretical possibilities that the Mab could interfere with natural antibody formation.**

22. Do you give shingrix even igG negative for VZV (Copied from chat)

- **If patient is VZV IgG negative, ideally, they should get live varicella vaccine if pre-transplant. If post-transplant (adults), the options are limited with regards to giving live vaccines, so you could try off-label use of Shingrix.**