COVID-19 and Pediatric Hematology/Oncology: Implications and Opportunities
Webinar Questions - May 18, 2020

1. What is the PPE protocol at MSK? Universal for all patients (given asymptomatic caregivers) or only for patients with known symptoms or known pos caregivers?
   a. *Answered during the webinar:* We do not do universal PPE on all patients. All patients are subject to the universal droplet masking. Since we are testing pts and caregivers prior to admission and then every 72 hrs, COVID-19-specific PPE is reserved for those known to be COVID+. We do have universal masks for all staff and patients however. (Dr. Andrew Kung)

2. The 'new normal' with an increased proportion of Telemedicine visits will only persist as long as payors reimburse for this. Will ASPHO play a role advocating for these telemedicine payments AFTER the pandemic/state of emergency wanes/recalled.
   a. Telemedicine has been expanded in response to COVID-19 and ASPHO has resources available for members to help navigate telemedicine on the COVID–19 Resources page. Continued advocacy for telemedicine and reimbursement after COVID-19 is being considered by the ASPHO Advocacy Committee along with our coalition partners. Telemedicine advocacy aligns with our access to care policy priority and it is something that members have expressed interest in. ASPHO leadership will continue discussions about potential advocacy on this for after the public health emergency and will keep members informed. (ASPHO Staff)

3. For MSK presentation: Is your outpatient staff back in the hospital. More specifically, are you back to different attendings in the clinic every day or still with same attending per week as you mentioned at one point? Thanks!
   a. We have just transitioned back to our usual outpatient staffing. However, attendings are still largely working from home on their non-clinic days, including doing remote visits from home. All staff continue to work from home if possible. (Dr. Andrew Kung)

4. Universal masking with droplet mask or N95?
   a. Universal droplet masking for staff and COVID-19 negative patients, N95 masks and facemasks for COVID-19+ care. (Dr. Andrew Kung)

5. Thank you for the MSKCC experience. I was wondering what the rationale behind testing q72hrs were for current inpatients? Thank you so much.
   a. To make sure we do not have a patient or caregiver who was admitted during their incubation period, and becomes positive a few days after admission (we have seen this). And as surveillance for nosicomial spread/outbreak. (Dr. Andrew Kung)

6. Can Dr. Panepinto describe the inclusion criteria to be included in the SCD registry?
   a. *Answered during the webinar:* It's COVID positivity, so understanding that the COVID testing is not 100% sensitive and specific, we decided very early on, modeled after the inflammatory bowel disease registry, to report cases only of COVID+ in addition to long after enough of the infection that the patient has recovered or had death. (Dr. Julie Panepinto)

7. Are you testing for antibodies for patients?
    a. *Answered during the webinar:* Here at Children's of Wisconsin, for our sickle cell patients, we do not yet have the ability to run that test, but I do see that might evolve over time. (Dr. Julie Panepinto)

    b. *Answered during the webinar:* We have deployed serology testing. We are testing both for IgG and IgM and we are moving forward with testing all of our patients, so that every patient has serology testing done much as you would do for VZV or other infectious diseases. (Dr. Andrew Kung)

8. How have guidelines changed regarding chemotherapy patients' admissions?
    a. *Answered during the webinar:* Within our program, we went through a period of time before we knew what the consequences of COVID-19 infection in our children would be, where we would delay any scheduled chemotherapy, not only inpatient but outpatient for a period of time. We are now sufficiently comfortable with the mild symptomatology in our patients that we are proceeding with all scheduled chemotherapy, whether inpatient or outpatient. (Dr. Andrew Kung)

9. To Dr. Panepinto - Since only COVID+ cases are being reported to this registry, is the data for age distribution skewed, and how might that affect the outcomes data?
    a. *Answered during the webinar:* So I think in general, just as precautions, the data are likely very inherently skewed for many different reasons. Likely the biggest one being across the United States there has not been widespread availability of testing, so we're not testing all comers or sort of a representative sample. Most likely these represent patients seeking healthcare and hospitalization – since they were tested because of that. So we do know the data in that sense are skewed. I do think that for whatever reason we are definitely seeing this illness hit younger adults and we know that's true in sickle cell disease, that those patient's disease seems to get worse with age. When we look at our utilization data and our pain utilization data nationally, the curve looks remarkably similar, so we don't know, and someday if we're able to get more epidemiological studies that help us with that denominator of no-COVID, COVID, and the population at large, that would be great. We don't have a good registry of all patients with sickle cell disease across the United States, so that is a difficult thing to think about, but hopefully that's something we can do with administrative data most likely going forward. (Dr. Julie Panepinto)

10. There are many different testing kits that are available, and there's been a lot of discussion in the news regarding false positives and false negative rates. How is your institution dealing with the variety of tests that are out there, especially as the FDA has temporarily suspended many of its rules relating to the approval process?
    a. *Answered during the webinar:* At Sloan Kettering, we went through a period of evaluation of the available tests. We are currently using the Abbott test, which we feel is highly specific. This is based not only on our own experience and validation experience, but also other medical centers, and that is our current approach. (Dr. Andrew Kung)

11. Have any of the panelists had experience with COVID associated MIS-C (multisystem inflammatory syndrome in children) in pediatric patients with oncologic or benign hematologic conditions? If so, curious about your experiences re: incidence and severity.
    a. *Answered during the webinar:* We have not seen that in our patient population. Obviously, within the press within New York City, there have been over 20 cases at this point, but we have not seen it within our patients. I don't think that our sample size is large enough to draw any conclusions as to whether there is a protective effect of having cancer, but we have not seen it. (Dr. Andrew Kung)

12. Any comments on the inflammatory syndrome in children (atypical Kawasaki like). We are getting consults on these cases. Any comments on clotting and anticoagulation prophylaxis on patients with the new inflammatory syndrome?
    a. I recommend participants view a recent CDC webinar which outlines the clinical course of these patients and therapies that have been tried in addition to keeping up with new literature that may be published as more cases are described. (Dr. Julie Panepinto)

13. Are you using Clexane (enoxaparin) to treat the symptomatic cases?
    a. Thromboprophylaxis is recommended in patients with severe disease, especially in patients who are >14 yo, and considered in patients with moderately severe disease who have other thrombosis risk factors. Thromboprophylaxis is continued until hospital discharge. (Dr. Amy Geddis)

14. Dr. Panepinto: Do you know of increased findings of thrombosis in patients with SCD who presented with severe or moderate presentation?
    a. *Answered during the webinar:* As many may remember, when we first heard about COVID in March, and as we built the registry, thrombosis was not being thought about, and so we didn't put that on the case report form, but we have since pivoted to add that as a data capture field in the registry. So we hope to have some of that data moving forward. We wonder if some of those sudden deaths perhaps could be related to clotting, which is now being widely described in the literature. (Dr. Julie Panepinto)

15. If caregivers are found to be positive, do they have to leave? And how frequently are you allowing caregivers to swap out?
    a. Yes. Currently only once in a week. We might liberalize soon as community prevalence drops. (Dr. Andrew Kung)

16. For MSKCC, are you guys doing universal eye protection in addition to universal masking for negative inpatients and all outpatients?
    a. No, only for positive. (Dr. Andrew Kung)

17. For MSK: how was the positive rate when you tested COVID every 72 hrs for the inpatients?
    a. Very low, but we have seen patients and caregivers who become positive 2-3 days after admission. (Dr. Andrew Kung)

18. Can anyone please speak to their experience with prophylaxis anticoagulation in COVID positive patients and whether they are continuing prophylaxis after discharge?
    a. *Answered during the webinar:* So that's also some information that we're collecting in the registry. But in addition, as we think about these patients who are hospitalized at least, most of the Children's Hospitals around the US and adult hospitals as well, have prevention of venous thromboembolism protocols that they follow for high risk patients. For example, a patient I was taking care of met that criteria for prevention of thrombosis treatment, and so that varies by hospital, but for our hospital that was using Lovenox twice a day. I think that was despite any COVID specific recommendations, so I think those are being recommended across the country. In addition, many of the physicians that specialize in clotting on our team have shared that there are some NHLBI guidelines for COVID and clotting and treatment, whether its prevention or treatment of clotting. In addition, the American Society of Hematology is assembling a guideline panel to address COVID and treatment and prevention of clots. (Dr. Julie Panepinto)

19. In regards to the sickle cell patients that died, what was the age range? More likely to be adult patients vs pediatric?
    a. Answered during the webinar: So we've only had one reported death in a child. All of the rest of the deaths have occurred in adults. (Dr. Julie Panepinto)

20. Have you started routine anticoagulation ppx in those admitted with covid or base it on severity of illness?
    a. There are no recommended guidelines for children and the use of anticoagulation in COVID-19. I recommend utilizing your hospital's recommended prevention of VTE standards in addition to evaluating patients and the need for anticoagulation on a case by case basis. (Dr. Julie Panepinto)

21. Thank you for the great talks. For Dr. Panepinto: From the registry data, is there an indication of increased COVID related mortality in the SCD population?
    a. *Answered during the webinar:* I think unfortunately yes. We have not seen the death rate drop below 8-10%. Again, understanding the data may be skewed, but this is really quite high when we look at what's being reported not only for the US as a whole, but other countries across the world. I think I like to compare to the inflammatory bowel registry only because that registry was also started around the same time as ours, and that mortality rate was more like 4% - So those with a chronic disease. I don't know if it's a fair comparison to compare sickle cell disease to inflammatory bowel disease, so it will be helpful as we gain more information on other diseases if it's the presence of a chronic disease or as was eluded to by Dr. Kung if there's something about other illnesses where immunosuppressive medication is being used that might actually be protective in this illness. (Dr. Julie Panepinto)

22. Comment please on the pediatric stem cell transplant recipients - are they at any greater risk either during the peritransplant period or post-transplant period? Is there any risk associated in those with more severe GvHD, especially those on steroids or tacrolimus?
    a. *Answered during the webinar:* I think we've been very careful in terms of testing prior to initiation of transplant and have not taken a patient with active disease into transplant to speak to that piece. Our experience, in terms of following not only pediatric but also the adult side has not suggested that there is increased risk beyond that of the general population. As for GvHD, I think we just don't have the numbers to address that specifically. (Dr. Andrew Kung)

23. Are the panelists bringing patients with common diagnoses that we follow such as neutropenia, anemia and routine sickle cell patients in for lab work?
    a. *Answered during the webinar*: So for general hematology and sickle cell disease, we have tried to limit exposure to the health system as much as possible. So for sickle cell disease, for example for hydroxyurea labs, we have spaced those labs out, and we're actually not changing doses of hydroxyurea to prevent any inability to monitor response to that. So we are going more like 4-6 months without labs and without changing dose. (Dr. Julie Panepinto)

24. What policies have places implemented for anticoagulation for non-oncology patients diagnosed with COVID? Are hematology services a part of the collaborative care of these patients?
    a. Hematology should be active consultants in any COVID-19 cases where there is concern for clotting. (Dr. Julie Panepinto)

25. If a caregiver tests positive, do you require them to leave or are they still able to stay at bedside?
    a. For a COVID- patient, caregiver must leave. For a COVID+ patient, they can stay isolated within the patient's room. (Dr. Andrew Kung)

26. Does anyone have any thoughts about whether our on-treatment oncology patients will even be eligible to receive a vaccine if one becomes available? I'm thinking it will need to be tested further in patients with acquired immune deficiencies. Or are we looking only to vaccinate those around them (herd effect)?
    a. *Answered during the webinar:* I think as people are aware, there are multiple different types of vaccines in development right now, so what type of vaccine and its safety profile I think will ultimately dictate who is eligible for it. As a transplanter, obviously we would worry a lot in terms of live attenuated vaccines, but none of the current leads in terms of vaccines for COVID-19 are live attenuated, so I think the devil will be in the details. (Dr. Andrew Kung)

27. Many hospitals are moving back towards business as usual (especially re: in-person vs telehealth visits). Given the increase risk of mortality seen in patients with sickle cell disease, do you believe that this is appropriate for this population? Would you make a distinction between younger and older patients?
    a. The CDC considers patients with sickle cell disease to be vulnerable during this COVID-19 pandemic. Given that, the risks and benefits for patients to be seen face to face in clinic must be weighed against the risks of COVID-19 exposure to patients and families. (Dr. Julie Panepinto)

28. How would you distinguish between COVID induced thromboses vs. SCD strokes for example?
    a. This would not be possible to distinguish if a patient with sickle cell disease experienced a stroke during an active COVID-19 infection. (Dr. Julie Panepinto)

29. Dr. Geddis: Are there any educational resources you can share that you've found helpful having to do more distance learning?
    a. *Answered during the webinar:* I think there's been discussions of how to make the big problem with remote learning being that it's not as interactive, so discussions of using things like the flipped classroom. There's also been talk among the APPD about a weekly webinar that they conduct to talk about different ways to improve fellow education in this remote setting, and out of the box ideas, like people having access to teaching that is happening at other institutions through remote learning. So I think this will be a constantly evolving area. There are groups like APPD and ASPHO that are trying to optimize this. (Dr. Amy Geddis)

30. Are any of your institutions keeping fellows out of procedures (LPs, marrows, etc.) in order to conserve PPE?
    a. Initially, when PPE restrictions were strictest, we asked fellows and their preceptors to assess the fellow's competency with the planned procedure. If the fellow was deemed competent, then the attending performed the procedure alone to preserve PPE. Currently, we have enough PPE that fellows are performing procedures with attending supervision as per our usual standard. Of note, procedures for patients suspected to be COVID-positive are not being performed in the outpatient clinic procedure room and would not be done by fellows. (Dr. Amy Geddis)

31. Thank you for the wonderful presentation. For Dr. Panepinto, there are 3 patients with SCD that died outside of the hospital. Any information about the cause of death? Is there any consideration of VTE prophylaxis outside of the hospital?
    a. We do not have details on exact causes of death for these patients. To my knowledge, there are no current guidelines for anticoagulation and COVID-19 infection in children. (Dr. Julie Panepinto)

For more information, please visit the ASPHO COVID-19 Resources Page.