

Thanks all for your participation in the 4/9/20 version of COVID in 20. Thanks especially to our colleagues in Critical Care and Hospital Medicine for sharing their experience and wisdom with us.

We value your time, so we want to make sure to keep to the 20-minute timeframe. This will limit our ability to answer all questions on the call, so here are answers to questions posed during the COVID in 20. A special thanks to Drs Claibe Yarbrough and Mel Anderson for answering these.

Can you share any successes in changing pulmonary function in COVID, any adjuvant therapy?

- CY - Not as yet. Since there is no treatment, everything is supportive, and lung protective strategy is our best shot at allowing the disease to be controlled by the patient.

Can you discuss awake proning? Also interested as to whether awake proning might be of benefit even for inpatients only on lower levels of O2 (before they get sicker)?

- CY - This is unlikely to help, as a recent metanalysis of ARDS showed no benefit unless the patient had severe ARDS.

How low O2 sats do you tolerate prior to intubation?

- CY - In Dallas, we use less than 90% saturation on 6 lpm oxygen as our threshold for considering intubation and mechanical ventilation. We have seen individuals on 5 lpm oxygen for a week that then recover.

How many VA patients would you estimate are on ventilators (at least in our facilities) at present?

- CY - As I write this 10:00 4/12/2020, there are over 30 patients on ventilators at NY harbor and almost 20 at the Bronx VA. In contrast, in Dallas there are only four. I assume you are referring to COVID-19 patients. Virtually all in NY vent pts are positive, none in Dallas.

Is anyone using the vest airway clearance to help remove secretions?

- CY - This has not shown to be of benefit in resolution of pneumonia. Most secretions are not cleared though sputum production.

Have you tried/are you impressed with role of hydrochloroquine in your patients?

- CY - The Jury is still out on this, although it is being used.

Would there be any positive effect in Physical Therapy to do nursing education to perform safe transfers from bed to chair to increase the patient's level of mobility/functionality in preparation for this COVID + patients to transition out of ICU level of care in order to decrease PT/OT exposure to those patients?

- MA - Great idea and encourage this sort of teamwork!
- CY - The ABCDEF bundle is widespread use and the "E" stands for early mobility.

We are seeing some new diagnostic algorithms geared toward looking for COVID viral myocarditis, via increased imaging (CCTA and CMRI). I wondered if you have any comment about how things are changing with respect to cardiac involvement/workup? The other observation was that we are now seeing more and more about the effect of cytokine storm, and the investigational therapies directed toward the inflammatory pathways, particularly late in the course. Any general comments about where we are on that?

- MA - Cardiac involvement is increasingly recognized – showing itself as incipient LV systolic failure, dysrhythmia and even heart block. Baseline BNP, troponin, 12-lead EKG are a must. Highly recommend telemetry with careful collaboration w tele techs to notify providers of new ectopy, couplets, basically any new abnormal ventricular ectopy as this could be an early sign of cardiac involvement (at which point repeating troponin, 12-lead, BNP and likely an ECHO would make sense). The algorithms thus far are a best guess about what may be effective – nothing has been formally derived or validated. The presence of abnormal imaging outside of a clinical suspicion would be of unclear utility at this stage.
- CY - The two most common drugs, Hydroxychloroquine and Azithromycin prolong the QT interval and may predispose to arrhythmia. The cardiac issues in this disease may occur more in those patients with underlying heart disease.

In which scenario are you guys considering full anticoagulation, and what/if any markers are you using to make that decision?

- MA - On protocol only, as the risks and benefits are not yet well understood. We're recommending VTE prophylaxis for all patients, ideally with a heparin agent as DOAC's carry a risk of drug-drug interaction with some antivirals, for example, enoxaparin 40mg SQ daily (fewer doses per day = less nursing PPE use).
- CY - Agree, the idea of clotting in this disease is not well understood.

Using SOFA as the only criteria for triage is problematic – do you agree that we should be not include comorbidities for triage?

- MA - Unfortunately, all triage systems will be imperfect. It is important that sites are using the same ethical guidance around if and when to consider contingency or even crisis standards of care, and that they are using the same tools to do so.
- CY - The SOFA score allows the allocation team and triage team to know which group contains patients that are less likely to benefit from further support. It is the start, and is only important when you are running out of resources (beds and ventilators)

One thing that is being done at the Denver VA to prepare is to convert entire floors to negative pressure. Is this being done elsewhere?

- MA - It is indeed and makes sense for a number of logistical reasons.
- CY - Yes, we have done it in Dallas as well.

Mention again the criteria to discharge home from the ED or Inpatient with home oxygen

- MA – If you're asking about when it might be safe to discharge while still needing supplemental oxygen, I am not aware of specific criteria. As Claibe states below, the criteria for needing oxygen are unchanged. To your question, the most important factor will be clinical stability in light of patient-specific comorbidities. For example, if an inpatient has had a clinical peak in their illness (maybe they were in the ICU on a nonrebreather mask) but since then they required only 4 lpm by nasal cannula and have otherwise improved in terms of fever curve and overall recovery, one could justify discharge from acute care to the next level of care (home or other), **particularly** if resources are constrained. Patients will shed virus for at least 2-3 weeks; having them out of the hospital makes sense from a number of perspectives – balancing patient safety and health system safety is always challenging. Sending a patient home from the ED with a new oxygen requirement is even tougher, and should be undertaken in contingency or crisis standards of care settings.

- CY - The criteria for home oxygen should not be different for this disease than for any other. Resting hypoxemia (e.g. PaO₂ < 55 mmHg or Sat < 88 on room air) is the main indication.