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Dr. John Lang has been treating critically ill COVID-19 patients during the month of March at University Medical Center of Washington in Seattle. The following is a summary of his important points used at that institution during this time regarding ventilation strategies, anticoagulation, and CPR.

Regarding COVID pneumonia with and without ARDS:

- 1. Protective ventilation (6ml/kg) tidal volumes with higher PEEP settings and keeping plateau pressures less than 30mm Hg is the primary ventilation treatment. This can be achieved with a volume or pressure mode of ventilation. APRV can be effective as well.
- 2. As described, most COVID patients start out with higher compliances but go on to develop lower compliances as they progress.
- 3. Placing the patient in prone position is helpful. Dr. Lang uses 16 hours prone and eight hours supine.
- 4. Conservative fluid therapy with negative fluid balance is important.
- 5. 40 to 50 percent of these patients develop a secondary bacterial pneumonia.
- 6. It takes at least three to four weeks to recover a patient from COVID pneumonia with ARDS.
- 7. Dr. Lang feels hypercoagulopathy is a real COVID-related phenomenon; therefore, their patients are all placed on low-dose unfractionated heparin drips following anti-Xa levels.

Regarding CPR:

- 1. It is imperative that full PPE be worn by CPR personnel even if it means a delay in establishing CPR.
 - a. Lack of protection poses a risk to the providers.
 - b. Infection of providers not only can affect a team member's health but deteriorate the response of the hospital to the mission of maintaining access to care for the maximum number of patients.
- 2. Prolonged hypoxemia of the patient may occur because of the need for proper PPE measures. This is inherent in the problem of caring for these patients.
- 3. On a few occasions because of the medical complexity of a specific case, comfort care instead of CPR may be the best option.
- 4. To prevent waste of materials and contamination of the main Code Cart, modular packs of resuscitation drugs/supplies are placed in rooms.
- 5. They used a Code Czar who assures proper PPE donning and doffing and to limit the number of people into a code situation.