

Recollections of Dennis Dimaculangan, MD: Regarding His Work as an Anesthesiologist During COVID-19

GOOD FRIDAY 2020, BROOKLYN, NEW YORK -- On call today. Coming in at 5pm. Back to the trenches. Forgive me for using a social media forum for a personal diary. I never posted like this in Facebook before but believe me, this is serving as a cathartic and therapeutic outlet for me.

All the prayers and well wishes I get from you, my friends, give me and my colleagues in the front lines strength and hope to continue what we are doing. Thank you all! Until we have a vaccine, an anti-viral, plasma antibodies, hydroxychloroquine that will be proven to work -- there is no cure.

The treatment of CoViD+ patients will largely remain supportive -- with oxygen therapy. As pneumonia progresses, and shortness of breath and hypoxemia ensue, oxygen treatment will be mainly delivered through nasal cannulas, then facemasks, then 100 percent non-rebreathers, then non-invasive ventilation (NIV) via CPAP [continuous positive airway pressure] or BiPAP [bilevel positive airway pressure] machines.

If they continue to deteriorate, tire out, and spiral down into respiratory failure, the last resort is endotracheal intubation and oxygenation through a ventilator.

This is when we, anesthesiologists are called in. Our role as airway management experts is to intubate. We are the ones who will come when patients are at the end of their rope.

In non-emergencies, standard intubation is straight forward, especially in patients with good airway anatomy. You have a relaxed, non-distressed patient whom you will anesthetize smoothly in a controlled step-wise manner: Pre-oxygenation --> hypnotic --> muscle relaxant --> bag-mask ventilation --> laryngoscopy --> endotracheal tube --> ventilator --> anesthesia.

Intubation in an emergency, when a CoViD-19 patient is in extremis, is totally different.

You have a patient who is in severe respiratory distress, anxious, and severely hypoxic. The clinical picture is like someone in status asthmaticus. You will see the patient desperately gasping for air, in pain, in distress, and with terror in his eyes -- a heartbreaking sight.

Add to this scenario -- in your end -- is your own fear of knowing the risk that you face because you will be moving in close at mere inches from the patient's mouth and nose that are laden with the highest viral load.

To start with, the NIV being administered as a means of delivering oxygen is already generating aerosols around your patient. As you approach, expect the air around you already dense with a mist of viral aerosols, especially if you are situated in a non-negative pressure room that does not suck the dangerous mist out.

Endotracheal intubation is an aerosol-generating procedure. In the process of intubation -- when you bag-mask and when your patient bucks or coughs -- you are at risk of getting showered with virus straight to your face.

This akin to facing the muzzle, and looking straight down the barrel of a locked and loaded shot gun.

Most people get infected by accidentally getting fomites rubbed over their eyes, nose, or mouth. This is exposure with a small viral load which is, oftentimes, possible to overcome by the body.

In most infected persons, as you may have read, about 80 to 85 percent of them will recover.

It is a different story if you get directly hit by a massive viral load in your face, such as during intubation. If you get infected this way, this will not be easy to overcome, even if you are in the peak of baseline health.

Probably this is why infected healthcare providers who deal very closely with their patients -- ER docs, ENT [ears-nose-throat] doctors, ophthalmologists, pulmonologists, and anesthesiologists -- have such a high mortality rate because they often get infected with a high load of virus that get shot straight to their faces.

So, understand the risks we have to face, and the fear we have to overcome as anesthesiologists when we try to rescue our CoViD-19 patients. Sometimes I even question if it is worth the risk if the current outcome is already grim for patients who get intubated.

Every hospital setting is different, but ours does not have the best outcomes after intubation because we generally have sicker patients who have a lot of co-morbidities. Currently at our institution, only 10-15 percent of those who get intubated make it out, get extubated, and recover fully. Most succumb after three to four days in the ventilator.

This is why we do the intubation in the CoViD-19 patient differently. We modify our intubation technique by preventing any aerosol-generation as much as possible. We do this by avoiding bag-masking or ambu-bagging without a HEPA [high-efficiency particulate air] filter, by making sure the patient is paralyzed completely so they do not cough during intubation, by using video-laryngoscopy so we can avoid facing the patient's mouth directly -- and of course, by relying on Level 4 PPE [personal protective equipment].

Thank God that currently, we are good with our supplies of PPE. But I worry with all this talk about shortages in PPE; if it happens that we will finally run out, we can only continue with our work until our PPE supplies last.

So friends, this is the cross that we, anesthesiologists, have to bear on Good Friday. But alas,

recognize that our patients carry a heavier cross!

Please do not be a CoViD patient, and follow the guidelines. I know most of you already are. I just want to re-emphasize this because I don't want to be in a position where I will need to intubate you. Praying for everybody's health and safety.

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