SARS-CoV-2 (COVID-19) Continues to Challenge Health care, Workforce and Families Across the Globe



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In 2019 in Wuhan China, a new coronavirus, SARS-CoV-2 or Covid-19, was identified as the cause of multiple cases of acute respiratory distress syndrome. What we did not know at the time was that this would cause a world-wide pandemic lasting more than three years and resulting in more than 23,686,690 deaths globally. But the loss of millions of individuals is only a small fraction of the devastation we have seen in the United States and other countries. Health care workers have left their

careers to avoid mandatory vaccination and for the mental health and safety for themselves and their families. This has caused an increase in health care workforce shortage in an already strained system. In addition to the drain on the health care system, families who continue to battle for love one's care and survival continues despite the knowledge and scientific advancements in the care for patients infected with Covid-19. The lingering effects and continued battle with the virus can be seen in survivors, patients, families, loved ones, health care workers and in the health care industry.

As a patient, I witnessed what I would consider, less than optimal health care early on during the pandemic when I was admitted to the hospital in August of 2020 for Covid-19. Recall that this was before any vaccinations were available and all treatment options were new and experimental. As a health care professional, myself, I am haunted by the memories of my experience being locked away for five days in what I would consider a suboptimal care situation. In addition, I continue to experience "long haul" symptoms that includes significant shortness of breath and at times unexplainable fatigue.

But what about those who become critically ill with Covid-19? How do they move forward and how does their family manage their care for recovery? Beginning in December of 2021, a family friend reached out to me for advice. Her husband, Roy, was suffering from Covid-19 symptoms and tested positive on December 23rd. Roy had chosen to not receive the Covid-19 vaccine. She took him to the emergency room when he began to experience severe shortness of breath. During that visit he was diagnosed with low blood oxygenation, an abnormal EKG (electrocardiogram), and a severely elevated glucose. Despite his condition, he was sent home and told to return if his symptoms worsened and to consider getting the Covid-19 vaccine when he recovered. He was not given monoclonal antibodies because the clinic that provided the infusion, would not be open until three days later. Approximately, 3 days later, December 26th, they returned to the emergency room, and Roy was immediately admitted for severe Covid-19 in what one would consider a critical state. Roy and his family experienced what I would consider a situation I would not want for any patient in any country or within any health care system. Roy is a 63 year old male, who was unvaccinated. Would he have been observed or even admitted upon his first presentation to the emergency room to determine why he had an abnormal EKG and elevated glucose, independent of Covid-19 had there not been a pandemic? Was the health care system simply overwhelmed? Within 4 days, Roy rapidly progressed to requiring intubation and being placed in a coma and on a ventilator. Roy was sedated and given a paralytic to put a feeding tube through his nasal passage. This first attempt resulted in a punctured lung and his lung collapsing. The medical staff was able to reinflate his lung, but it again collapsed about two



During the lengthy stay in the Covid-19 intensive care unit

hours later. Two days later, Roy again suffered a third collapsed lung from the damage that occurred when the feeding tube was put in place. The damage to the lung and the combined effects of the Covid-19 virus continued to make it difficult to keep Roy's blood oxygenation at an acceptable level. On January 11th, following just over two weeks "standard" Covid-19 treatment which consisted of steroids, anticoagulants, remdesivir,

enteral nutrition and respiratory ventilation, the medical team was ready to discuss "comfort care" with the family. The medical team was concerned that the inflammatory response induced by Covid-19 known as a cytokine storm, where the body's own defense mechanisms attack and cause damage to the lungs and other organs had destroyed approximately 95% of Roy's lung tissue making it difficult to nearly impossible for him to

recover. The family reached out for a consultation, and as a laboratory professional I visited with the medical team and the family on Roy's behalf.

During that initial visit to the intensive care unit, I saw numerous patients, isolated and attached to life-saving devices and health care workers experiencing Covid-19 fatigue. The medical team was receptive to discussing Roy's care and all his diagnostic tests with the family's approval. After that discussion, one of the primary care providers on the case, looked at Roy's wife and commented, "I think Roy needs more time." Roy was given more time; he was not placed on comfort care, and he continued to improve. On January 24th, nearly a month after being placed



in an induced coma and on a ventilator Roy had an MRI (magnetic resonance imaging test), to determine if his brain activity was normal in hopes of him regaining consciousness. When

the hospital staff brought him back to his room, "his eyes were open, and he looked at me," reported his wife.

It is now March 25, 2022. 90 days from the day Roy was admitted to the hospital with acute respiratory distress and critically ill from Covid-19. Roy is still recovering in a specialized rehabilitation center 3 $\frac{1}{2}$ hours from his home. His family takes shifts staying in a nearby apartment to help with his recovery and care. Roy is still receiving enteral nutrition and is unable to care for himself. How much longer will his recovery take and how much financial and personal challenges remain for the family are still unknown.

However, in this story, there is an amazing group of individuals that we often forget about. That is the family, friends and health care workers affected in Roy's story and everyone's story that has been touched by Covid-19. Throughout the experience, the Hoefert family and



Pam Hoefert, Roy's wife, with a Valentines day celebration for the nurses and other health care workers in the pulmonary wing of the hospital.

friends began to bring food to the nurses, valets and other health care workers caring for Covid-19 patients during Roy's nearly 72 days at the primary hospital. It was a small gesture, but one that not only gave the health care providers strength and hope but inspired the family to keep fighting for Roy and other Covid-19 patients and families alongside all the health care workers!

So, what is my point of this editorial? The pandemic is not over. The devastation to families and the health care system is not over! I encourage you to share your stories, your laboratory experiences and your challenges as we work to determine how to continue to move forward and look at what we have learned not

only in relation to Covid-19 care, prevention and treatment, but how globally we can better prepare for the next pandemic and improve all health care systems and workforce development.

This article is dedicated to the memory of all those lost, and an eternal thank you to all the researchers, health care workers, family, friends, and patients who have battled and continue to do battle with Covid-19.

Sincerely, IJBLS Editor in Chief,

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Permission to publish the information regarding the patient's case and experience was received from the Hoefert family.