

Adapting to Delivering Patient Care in the Pandemic

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As a member of the Foundation for Anesthesia Education and Research (FAER) Board of Directors, I was pleased to have the opportunity to write on incident command systems, all the more so given their heightened prevalence in the current world climate. FAER is proud to support anesthesiology research focused on a myriad of topics and welcomes grant applications related to incident command systems. When considering all that has been asked of physicians during this once-in-a-century pandemic, anesthesiologists have further defined our role as perioperative physicians and expanded our administrative roles in health care delivery systems. Each of us can think back to our own experiences as we cared for patients with a virus we did not understand, and against which there seemed to be no defense. We managed with inadequate PPE, converted our PACUs and ASCs to ICUs, moved rapidly to use simulation to instruct on the correct manner to don and doff PPE, and we adapted our OR ventilators to provide respiratory support for patients with COVID who needed long-term ventilatory support.

These demonstrations of adaptability, innovation, and resilience should neither be forgotten nor minimized with the passage of time. Rather, they should serve as a foundation for our approach to future surges in COVID infection rates and hospitalizations. While the first case of SARS-CoV-2 in the U.S. was reported in January 2020, the course the virus will take after Omicron remains uncertain (asamonitor.pub/3HH1ngE; asamonitor.pub/3JkSXfi; asamonitor.pub/3GJj3qJ). Will new mutations be more contagious? Will they cause more severe disease or less? Will immunity have increased to the point that concerns about infection can be minimized? As we adapt to living and practicing in the presence of COVID, we continue to learn more about the virus, its treatment, and keeping individuals relatively protected from it through hygiene, maintaining distance, and wearing masks. In hospitals, our response to the surges evolved with time (asamonitor.pub/3szXrrR; asamonitor.pub/33g6iq2; *Anaesthesia* 2021;76:748-58; *JAMA Surgery* Jan 2022). We remain fatigued, but our approach to patients infected with COVID is more measured and more informed.



The activation and updating of previously untested incident command centers has played a role in our ability to respond to the evolving challenges introduced by COVID. Historically, hospital incident command centers were created to manage the effects of natural disasters and unplanned events (*J Res Med Sci* 2017;22:36). Hospitals and other social support systems are consistently most significantly tested during a far-reaching event – whether related to weather, violence, or infection. Until the start of the COVID pandemic in the U.S., events such as Ebola, the Boston Marathon bombing, and Hurricane Katrina caused concern but impacted relatively few health systems. In contrast, COVID has been indifferent to city, state, and national borders and has impacted our entire populace in one way or another, whether through our daily care of infected individuals or infection of colleagues, friends, and family members. During the early days of the pandemic, previously untried incident command plans had to be dusted off, updated, and revised. In-person meetings to review, plan, and strategize approaches were no longer possible because of the risk of viral spread. Paper documentation of events and decisions was too cumbersome to allow for rapid adaptation during an evolving pandemic.

The specifics of the evolution of incident command centers vary across medical centers because of any number of

factors. Key factors include earlier need for an incident command, size of the populations served, number of hospital beds in a community, and the differing rates of infection in countries, states, and local communities. While the initial response to managing patients during the pandemic largely consisted of stopping all unnecessary surgery, converting ORs and PACUs into critical care wards, and in some instances, building field hospitals to accommodate the burgeoning number of patients, our responses are now more nuanced, and the plans of each hospital have been designed to suit their individual needs.

At the Medical College of Wisconsin, where we had a previously untried incident command plan, the early emphasis was on anticipating events. The initial focus was in four distinct but related areas: ensuring adequate staffing, ensuring adequacy of supplies and PPE, maintaining patient and health care provider safety, and developing clinical pathways for individuals with COVID who needed medical intervention. The incident command structure was such that physicians comprised much of the leadership team, and the hospital and ambulatory operation sections as well as the safety section had physician representation. As our medical system became more proactive, the incident command structure, its goals, and its timelines for implementing change evolved.

During the first wave of the pandemic, we learned how to manage and



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be more prepared. Elective procedures were stopped, and staff were redeployed to ensure patients received the necessary care. Because of retirements and illness, we were, and remain, relatively short staffed. In the Omicron surge, our critical care bed shortages are tracked in daily census memos, and the amount of PPE available relative to anticipated use is closely monitored. The ability to closely monitor resources has allowed us to continue to proceed with some elective surgical procedures and flex OR capacity based on our daily occupancy and local COVID infection trends, while we are operating at 99% bed occupancy. Other hospital systems either more or less impacted by the surge have taken different approaches. Requirements for beds, PPE, and staff during a surge and adaptation of day-to-day practices to accommodate these changing needs demand system-wide communication and cooperation as well as the creation of previously non-existent systems to monitor both patient needs and available resources. The relentless persistence of COVID has also led to more critical examination of our care of patients and the opportunities we have to increase the value of the care we provide.

Incident command has allowed for rapid cycle improvement on a system-wide scale during the pandemic, and departmental efforts have supplemented the hospital-wide efforts – whether adding additional airway response teams, running simulation sessions to educate all patient care providers about the safe care of patients infected with COVID, or adapting our equipment and patient care space to long-term ventilation for patients not requiring surgery. While there is absolutely nothing that can make up for the tremendous physical and emotional toll the pandemic has had on each of us, it has reinforced how essential we are in the care of patients and provided an opportunity to demonstrate the importance of our role in the larger health care system. ■