Facility Spotlight

Innovation Amid Crisis: An Anesthesiology Team Shares Its COVID-19 Strategy

Kelly Wolfgang

When New Orleans reported its first presumptive positive case of COVID-19 on March 12, the anesthesiology team at Ochsner Health took immediate action to ensure the safety of its patients and staff. Although cases spread rapidly in the region, the team's proactive measures, innovative contributions, and constant flexibility allowed for unparalleled patient care. With steadily decreasing numbers of intubated patients and steadily increasing scores for departmental engagement, the anesthesiology team is looking forward with confidence.

Serving New Orleans

"Mardis Gras brought COVID to New Orleans early and led to a rapid rise of cases; within seven days of the first presumptive positive case, our ICUs were at capacity, 140 ventilators were in use, and we opened 100 additional beds over a 10-day period," Melissa Russo, MD, said. The community was hit hard, especially the Black population. A study of 3,481 COVID-19-positive patients found that although Black patients comprised only 31% of the Ochsner Health population, they accounted for 76.9% of patients who were hospitalized and 70.6% of patients who died (*N Engl J Med* June 25, 2020). The study found that Black race, increasing age, public insurance (Medicare or Medicaid), a higher score on the Charlson Comorbidity Index (indicating a great burden of illness), residence in a low-income area, and obesity were associated with increased odds of hospital admission. After adjustment for differences in sociodemographic and clinical characteristics on admission, the study found that Black race was not associated with higher in-hospital mortality than white race.

Kelly Wolfgang is a contributing writer.

"The community learned firsthand of the severity of COVID-19," Dr. Russo said. "Everyone was affected somehow, in a personal way." Dr. Russo said that impact led to the community strictly adhering to government mandates on wearing masks and social distancing. "The people of New Orleans understood the necessity of the safety measures, which allowed the number of cases to decrease."

Early Safety Measures

But in the early days of fighting the COVID-19 pandemic, Dr. Russo said the quickly changing best practices, increasing number of patients, and influx of information required a key sense of flexibility among the team. "Our early practice was to intubate patients when they were admitted to the ICU," she said. "We were called to intubate, place arterial and central lines, and prepare patients for their stay." The demand for staff was so high, three anesthesiologists were converted to full-time positions and 40 CRNAs were added to provide bedside medical care – a critical factor in the ability to open the additional 100 beds.

Even prior to the first case being reported, Dr. Russo said the hospital started preparing by discussing PPE supplies and setting up a database to provide the most up-to-date COVID resources and protocols, which enabled clinicians to ensure they were following appropriate guidelines. A decision among the department just a few weeks prior to the outbreak of COVID-19 to commit further in the role as perioperative physicians – and even a change to the department's name – allowed the team to unite when the pandemic rapidly spread. "We didn't realize the change would require us to so quickly demonstrate our ability to come together, but the pandemic united us," Dr. Russo said.

"So many of our staff volunteered to work in the COVID unit, do research, and share ideas to help the department that the anesthesiology team was the first to enter the COVID unit and put together detailed care summaries," she continued. "Many team members had not worked in the ICU as far as managing patients directly, and certainly never a patient with COVID," Dr. Russo said. "But lessons were learned quickly and that helped significantly with the management of patients."

Dr. Russo said team members quickly found innovation in the challenges presented by COVID, such as one team member who worked with a friend to build a prototype for a clear intubation box and another who obtained respirators from non-traditional sources for protecting staff. The team also used new software to help schedule over 50 anesthesiologists and 18 non-operative clinicians each day to one of five ICU floors and to keep the ER staffed.

In addition, the hospital launched in-house testing, allowing for rapid diagnosis and appropriate use of PPE. Universal testing was implemented for pre-procedure patients, a designated COVID OR was established, and the team created a detailed process for caring for patients in the OR. "Communication was the most necessary factor, and our department leadership focused time every day on prioritizing about five daily messages with the most important information and how they would impact the physician at the bedside," Dr. Russo said. "We also held successful weekly conference calls where we encouraged team members to text in questions and download our database app directly to their phones so they could always have the most up-to-date information."

Evolving Needs

Although the situation continues to evolve, Dr. Russo said the team has a strong ability to adapt. "Although we began with early intubation, we have evolved to using non-invasive positive pressure ventilation, which has shown a decrease in the number of patients needing intubation." The team has also seen a decrease in the need for sedation and central lines in the ICU, which ultimately led to fewer patients requiring tracheostomies.

"I'm proud of the response of our department and institution to this crisis," Dr. Russo said. "We came together as a team and an organization. Despite the potential disruption of this crisis, our departmental engagement scores actually increased, which we believe is a result of our anesthesiologists leaning in to their role as perioperative physicians like never before."

For those who are working to improve their own departments or contributions to the COVID-19 crisis, Dr. Russo said one thing is key, "Be flexible. If numbers rapidly rise in your community, the OR will slow down, so seek ways to contribute. Make yourself essential to the patients and your organization by allowing a focus on your abilities as a perioperative physician." ■

Town Hall

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directors are broadening the way they look at applications to account for that.

Interview Support and Guidance (Both Virtual and In-Person)

- The Association of American Medical Colleges (AAMC) strongly encourages all interviews to be done virtually by phone or video conference.
- The Coalition for Physician Accountability workgroup recommends:
  - That all programs commit to online interviews and virtual visits for all applicants, including local students, for the entire cycle.
  - That the medical education community commit to creating a robust digital environment and set of tools for the best program/applicant experience.
- Program directors are planning for virtual interviews at least through January, and tips were provided to conduct a professional virtual interview.

Application Gaps and How to Handle Them

- Gap types discussed were related to academic gaps (e.g., USMLE scores, course failures) and time in training gaps (e.g., additional degrees, family/illness, remediation/probation)
- General messages on how to handle these gaps:
  - Show your strengths, and honesty is the best policy.
  - Reflect on what happened and show how you improved on that through a growth mindset – learn from mistakes.
  - Evaluate where you are applying based on your gaps to determine fit. There are online databases available for this, like FREIDA and Texas STAR.
  - Signaling program interest has become more challenging. Attend virtual open houses or away rotations, send targeted emails to program leaders, create a personal statement, and leverage faculty connections. ■