Challenges

By mid-April 2020, Saratoga County in New York had documented nearly 300 cases of COVID-19. Saratoga Hospital, the county’s only acute-care facility, needed to prepare its staff for the impending patient surge. Leaders at this 117-bed hospital needed to minimize staff exposure to the virus and make sure they could conserve personal protective equipment (PPE) supplies. Additionally, communication with patients and staff in isolation rooms added complexity.

Vocera solution

Several years prior to the pandemic, Saratoga Hospital expanded its intensive care unit (ICU) from 5,900 to 20,000 square feet and made all rooms private. Leadership looked for an enterprise clinical communication system that would allow staff to communicate and collaborate efficiently in the new environment. The organization selected the wearable Vocera communication device and the Vocera mobile application to support efficient clinical communication and workflows. Saratoga Hospital also integrated its Vocera solution with its patient monitor and nurse call systems, so alerts from these clinical systems would be sent to the appropriate care team member’s Vocera device or app.

The hospital’s leadership couldn’t have foreseen the crucial role Vocera technology would play years later in enabling them to prepare and respond to COVID-19.

Nearly all staff at Saratoga Hospital use Vocera technology. Care team members working in isolation environments wear the Vocera communication device under PPE to facilitate seamless hands-free communication.

“One of the main reasons we chose Vocera technology is that the wearable communication device functioned really well underneath isolation gowns,” explained Diane Bartos, DNP, RN, NEA-BC, Director of ICCU at Saratoga Hospital. “We needed a communication solution that would work seamlessly in isolation conditions. Our ICU nurses were concerned with how they would communicate in isolation and get help quickly in our more private patient care environment.”

While some roles at Saratoga Hospital use the Vocera app on their personal smartphones, staff working in isolation find that smartphones can’t be used under PPE. “A phone can’t be worn on your body under PPE, because it presents a huge risk for contamination,” said Bartos. “The Vocera communication device is essential to facilitate safe, efficient communication when you need to be in isolation and wearing PPE.”

“If a clinician dons PPE, goes into a patient room, and suddenly realizes they forgot something, we have runners, each wearing a Vocera communication device, who can be reached to bring the forgotten item to the room,” explained Bartos. “Frontline staff can stay in isolation rooms the entire time they need to treat their patients. Staff don’t have to waste time or PPE by donning and doffing it if they forget something.”
As part of their COVID-19 preparation, leadership at Saratoga Hospital focused on educating frontline staff on the right way to don PPE and the safest way to doff it.

“We diligently practiced donning and doffing PPE as we prepared for COVID-19 in early 2020,” said Bartos. “We had a dedicated educator watch our frontline staff and critique them, until staff were experts at donning and doffing PPE.” The PPE educator and trainee would communicate via their wearable Vocera devices during the training so the educator could correct any PPE errors or potential risks of contamination they saw, in real time.

To reduce the potential for staff exposure to the virus during intubation procedures with COVID-19 patients, the hospital minimizes the need for care team members to be in the patient room.

A physician and respiratory therapist wearing Vocera communication devices under PPE intubate a patient while a nurse spotter observes from outside the room. If the nurse sees any risk of cross-contamination, he or she uses the Vocera communication device to communicate a warning to stop the action.

“We’re extremely careful with how many people are in a room when an infected patient is intubated. We use Vocera technology, so clinicians inside a patient room can stay connected and get support from observers outside the patient room,” Bartos said. “We wouldn’t be able to limit the number of clinicians in the isolation room without our Vocera solution – it helps nurses, doctors, respiratory therapists and other care team members reduce their risk of self-contamination.”

Staff who intubate COVID-19 positive patients have expressed comfort in knowing an extra set of eyes is helping to ensure they don’t cross-contaminate.

**Results**

Saratoga Hospital initially deployed Vocera technology to allow seamless communication in isolation environments. When the COVID-19 pandemic reached Saratoga County, the technology enabled the hospital to prepare and respond with agility.

- Care teams can communicate safely and efficiently in isolation environments and while wearing PPE.
- Team members reduce their risk of self-contamination by minimizing the number of team members who must be in the patient room during intubation.
- Staff working in an isolation environment don’t have to waste time or PPE or interrupt patient care if they need supplies.

“We use Vocera technology incredibly effectively across our hospital,” Bartos said. “I can’t even imagine what hospitals would do without it during the COVID crisis.”

*In addition to Vocera technology, the facility’s results may reflect the additional training, policies, procedures and specific configuration parameters implemented by the facility. The results are not necessarily representative of what another facility may experience.*