

Enhancing the patient and family experience – and nurse workflow and job satisfaction

HIMSS researchers measure the impact of Stryker's Vocera® Ease app at a Florida medical center

The hospital experience can be stressful for patients and families. When patients are separated from their loved ones, nurses can be overwhelmed by calls from family members who want updates and reassurance. With fewer nurses caring for more patients as a result of staffing shortages, healthcare organizations need to enable effective communication with families in a way that reduces the burden on nurses.

Stryker's Vocera Ease is a patient and family communication app that has been proven to increase satisfaction and reduce anxiety for patients and families.^{1,2}

In light of the opportunity healthcare organizations have to use technology to reduce the burden on care teams, Stryker wanted to quantify the app's impact on nurses' workflow and job satisfaction. The company asked HIMSS Market Insights to assist with a study at Jupiter Medical Center (Jupiter Medical), a 207-bed facility in Jupiter, Florida, along with two of Stryker's senior clinical executives.

The study included field observation before and after deployment of the app, as described in the "About this Study" section at the end of this document. It also included surveys of nurses prior to deployment and almost four months after. Among the factors observed and measured were:

- The volume of phone calls nurses made to family members
- The need for nurses to make phone calls to multiple family members, repeating the same information
- Nurses' job satisfaction

Improving nurses' job satisfaction and the patient and family experience

During the COVID-19 pandemic, Jupiter Medical sought to reduce nurse burnout and improve communication with patients and families. So, in 2022, the medical center piloted Ease in the hospital's surgical unit.

Ease is a cloud-based application that empowers care team members to securely send messages, creating a richer, more human connection for patients and their loved ones before, during and after care. It is part of the Vocera Clinical Communication and Workflow Platform.

For Jupiter Medical's surgical nurses, the Ease app proved to be a great way to communicate with patients' family members who would otherwise have had to sit for hours awaiting news as patients went from preoperative to recovery rooms. Nurses could text updates to patients' loved ones whether they were in the hospital waiting room or across the country. What once

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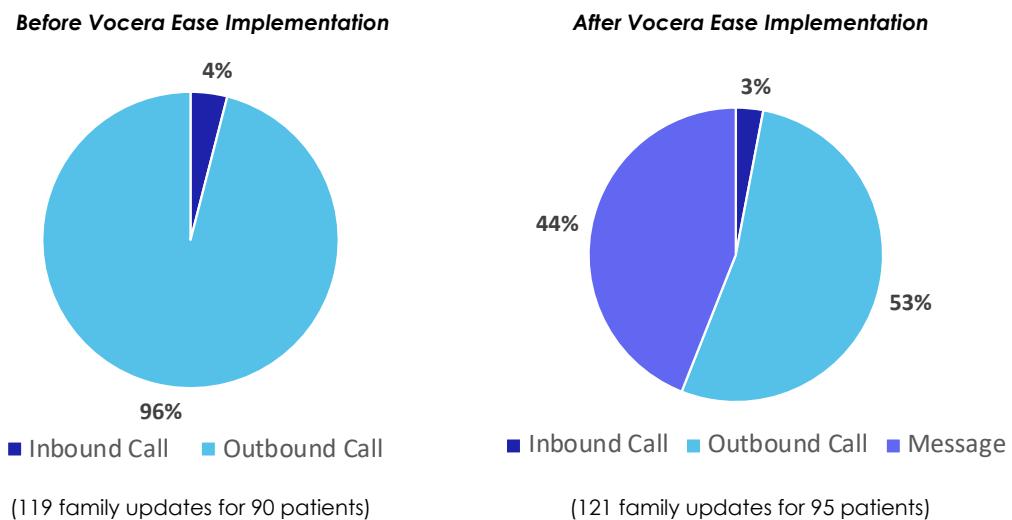


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MICHELLE WIENKE | Director of Patient Experience | Jupiter Medical Center

Figure 1. The volume of nurse-initiated outbound phone calls decreased by 44% following the Vocera Ease implementation, with calls replaced by more time-efficient Vocera Ease messages.

Family Status Updates by Communication Channel



took many minutes could now be conveyed in seconds – and to everyone seeking updates, not just one point person who might then have to further relay news to others.

Using the Ease app to send quick texts to family members and loved ones – often multiple loved ones with a single text – enabled nurses to eliminate 44% of outbound phone calls (see Figure 1).

“Having a tool where a nurse can so quickly engage with family has made a huge difference,” said Michelle Wienke, Director of Patient Experience at Jupiter Medical Center.

“Just from a workflow perspective, it’s improved,” said Lisa Woody, Director of Perianesthesia and Endoscopy at Jupiter Medical. She admitted that there had initially been resistance among nurses who saw adopting Ease as one more task. But once nurses began using it to communicate with families, their opinions changed. “The reward we get for it far outweighs the few minutes it takes to help [family members] initiate logging on to the application,” she added.

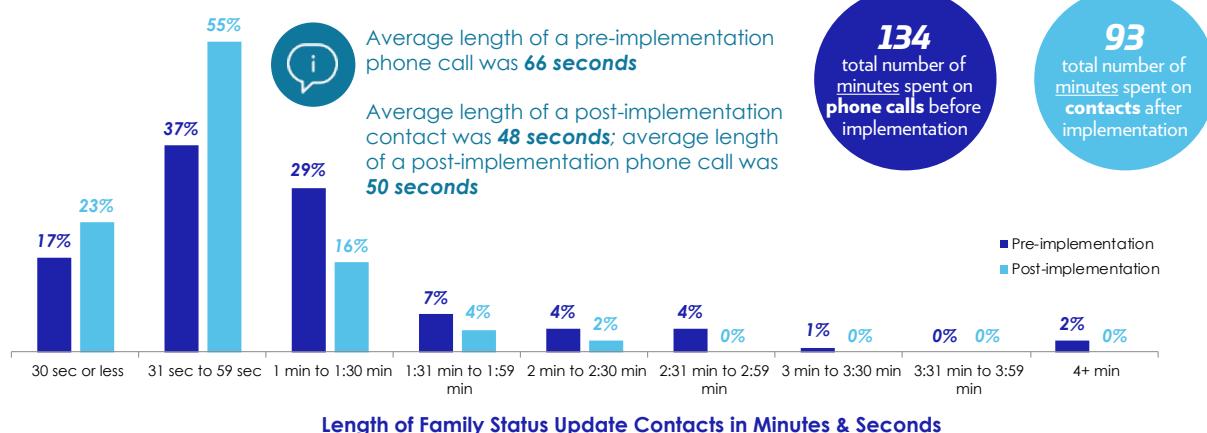
Saving calls, saving time

Woody said that using the Ease app to communicate with family members added a few minutes to preoperative nurses’ time. However, it saved “innumerable minutes” for OR circulating nurses and recovery room nurses, who tend to field far more family calls. “Instead of spending all the time it takes to find names, numbers and a phone and actually step away from the patient to make the calls . . . it now takes only seconds to open the application and send [an update],” Woody said.

Post-operative nurses still make some outbound calls to family members to ensure patients will have timely pickup for outpatient procedures and to put a human voice to post-surgical updates. However, as a result of Ease updates keeping family members in the loop, those calls take less time. Calls averaged 66 seconds per call before the Ease implementation and dropped to a mere 48 seconds afterwards. Even with time spent sending text updates using Ease, nurses saved 41 minutes in the post implementation study period (see Figure 2).

Figure 2. The average length of phone calls to family members dropped by 27% because the Vocera Ease app enabled nurses to securely text patients' families with updates.

Length of Family Status Updates Before and After Vocera Ease Implementation



Pre-implementation number of calls = 119; number of patients = 90
Post implementation calls = 68; messages = 53 (total contacts = 121); number of patients = 95

Working smarter, not harder

According to Woody, her nurses have gotten so good with the app that they're now sending unsolicited follow-up texts to keep families apprised of a patient's status closer to discharge. This signals to family members that their loved one is in good hands. "I think the nurses getting those messages back from the families makes a huge difference," said Wienke. "It's a person from the outside saying thank you so much for taking care of my loved one."

"We're working smarter, not harder, at this point," Wienke said. That time savings, she added, can then be used to focus on other nursing duties and to promote greater patient engagement.

Shifting work responsibilities to less repetitive, more meaningful work has, in turn, boosted nurses' job satisfaction. Five of the 16 nurses surveyed said that the Ease app has had a very positive impact on job satisfaction, and another four rated it as positive. For the remaining seven the impact was neutral (see Figure 3).

Jupiter Medical's results mirror those at other institutions

Jupiter Medical is early in its implementation, but its results are similar to those from the Lehigh Valley Health Network (LVHN) in Pennsylvania, a health system with an extended history of using Ease.

Hope Johnson, Vice President of Perioperative & Endoscopy Services at LVHN, described the positive results the network experienced when it introduced the app at its facilities in 2017.

"We did it as a differentiator, and because it's the right thing to do," said Johnson. Having the app available at the onset of the pandemic, especially once elective surgeries resumed following a moratorium, helped ease families' apprehensions although they were unable to accompany patients undergoing a procedure. In fact, 94% of patients or family members surveyed through the Ease app at Lehigh Valley Health Network said the app would influence their choice of hospital.³



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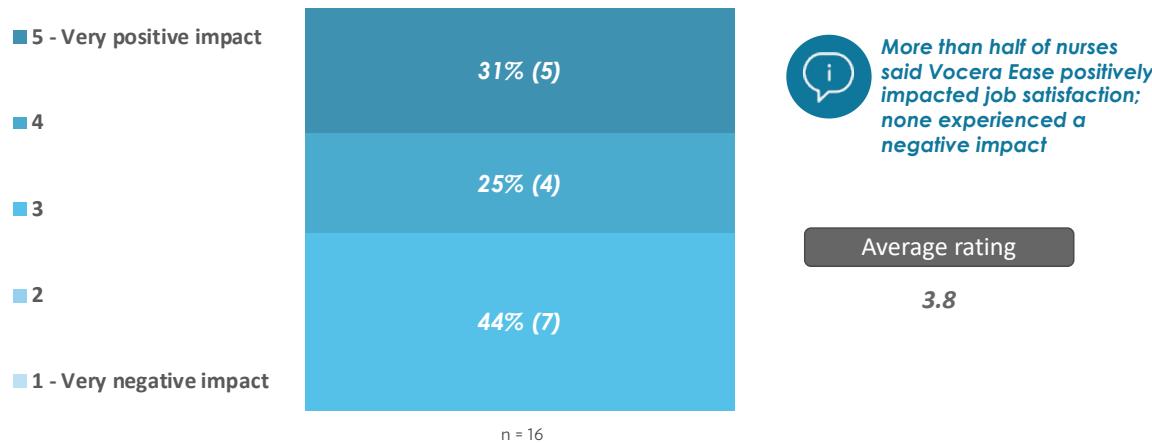


The second nurses see those positive comments, it just reinforces why they do what they do – and reminds them that what they do matters.”

HOPE JOHNSON | Vice President of Perioperative & Endoscopy Services | Lehigh Valley Health Network

Figure 3. Nine of 16 nurses surveyed after implementation said Stryker's Vocera Ease app had a positive impact on job satisfaction.

Q: When compared to calls previously made to loved ones, or received from loved ones, on patient status, how has the Vocera messaging tool impacted your job satisfaction?



The former operating room nurse added that nurses receive validation when patients send messages of gratitude through the app survey's "comment" box or respond to messages from the nurse with a heart, thumbs-up or prayer hands emoji.

"The second nurses see those positive comments, it just reinforces why they do what they do – and reminds them that what they do matters," Johnson said. "We've seen nurses say, 'Oh my gosh, I got back this shoutout and an emoji from them.' So, we immediately see the difference that feedback can make."

Fostering a sense of engagement and empathy

Lehigh Valley Health Network's Johnson, as well as Jupiter Medical's Woody and Wienke, agree that hospitals should also remember how family members' experiences factor into future patient satisfaction survey scores. Especially for elderly patients, it is often an adult child or spouse that completes survey forms – and that person will remember the attention they did, or did not, receive during their loved one's hospitalization.

Wienke said that Jupiter Medical plans to install Ease in its neonatal intensive care unit next, using data from the HIMSS Market Insights survey to demonstrate that Ease can raise job satisfaction along with productivity. She hopes that eventually every physician, clinician and nurse that interacts with patients and their families will use the Ease app.

"To harness technology in such a meaningful way in terms of the engagement and the empathy that our patients and their family members feel has been everything to me," she said.

And, apparently, it has also meant a great deal to frontline health workers who are now able to work under less stressful conditions. "For the teams that are using it, it really does make their lives easier," Wienke said. "And I'm thrilled about that."

To learn more, visit vocera.com/ease.

Disclaimer: The hospitals' results reflect the training, policies and protocols implemented by the hospitals, and the results are not necessarily representative of what another hospital may experience.

About this study

RESEARCH OVERVIEW

HIMSS Market Insights helped Vocera, now part of Stryker, with an onsite study at Jupiter Medical Center. The study was designed into two parts: behavioral observation and nurse interviews.

The objectives of the study included:

- Quantifying the amount of time nurses spent on patient update calls to loved ones
- Measuring the impact of inbound calls on nursing tasks
- Determining if calls have impacted nurse job satisfaction, as well as overall experience as a nurse at Jupiter Medical Center
- Understanding how the Ease app implementation has impacted daily patient updates

METHODOLOGY

HIMSS trained two clinical executive nurses from Vocera, now part of Stryker, to observe and record aspects of nurses' patient-family communication workflow.

For the pre-implementation observation, these two nurses were onsite at Jupiter Medical Center for the 7am – 7pm shift in the surgical unit from Monday, March 21 to Thursday, March 24.

For the post-implementation observation, the same two nurses were onsite at Jupiter Medical Center for the 7am – 7pm shift in the surgical unit from Tuesday, August 16 to Friday, August 19.

Each time nurses handled an inbound or outbound patient status call or (post-implementation only) Ease message, the observing nurses captured the activity into an online form (pre-implementation n=119; post-implementation n=121). The observing nurses also conducted short interviews of the nurses on the floor (pre-implementation n=15 post-implementation n=16).

References

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2. Garza, F. et al. Aug 2018. Perioperative team to parent communication done better. *Journal of PeriAnesthesia Nursing*. Aspan National Conference Abstract, Volume 33, Issue 4, E1-E2. [https://www.japan.org/article/S1089-9472\(18\)30151-5/fulltext](https://www.japan.org/article/S1089-9472(18)30151-5/fulltext).
3. Vocera, now part of Stryker. Lehigh Valley Health Network - improving patient and family communication. LehighValleyCS_2626.202104.US_1.pdf (vocera.com).



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