

Shift Report Redesign

A Midwest medical center uses server-based phone technology to streamline shift reporting.

By E. Victor Brown, Senior Editor

Shift change patient reporting takes place several times a day at every hospital in the country. And for many, it can be an inefficient, noisy and potentially error-prone process. Things were no different for Provena St. Joseph Medical Center, who began their search for a solution that would standardize handoff communications and thereby eliminate those challenges while complying with The Joint Commission requirements.

Celebrating 125 years serving the region, the 475-bed Provena St. Joseph Medical Center (PSJMC) in Joliet, Illinois, is part of the Provena Health System, consisting of six hospitals, 16 long-term care and senior residential facilities, 28 clinics, five home health agencies and other health-related activities operating in Illinois and Indiana. With more than 24,000 admissions each year, PSJMC CNO Kathy Mikos and other managers began to focus on finding a way to standardize and streamline the shift handoff reporting process. "We had been using a verbal report process, and while our systemic goal was to have nurses provide a complete report in a 30-minute shift overlap, we found that it was taking an hour or more," says Mikos.

According to Mikos, the medical center has very large nursing units consisting of 55-, 52- and three 47-bed units. When operating at full capacity, each unit could have 10 nurses on the night shift reporting off to as many as 11 nurses coming on the day shift. The resulting shift changes could have 21 RNs tied up in shift-to-shift reports, thereby resulting in a long process that was chaotic and noisy. "Our general medical/surgical unit would typically have five to six patients for every nurse, so they would need to receive reports on five to six patients verbally," says Mikos. "So, we started exploring other ways of conducting reports."

With more than 30 years in nursing, Mikos has seen every imaginable process for shift reporting including the use of tape recorders, group reports, as well as walking rounds where nurses go to the bedside of the patient and do handoff reporting. The tape recorder solution revealed numerous frustrations such as dead batteries, broken tapes or interruptions, which caused continuity issues. Walking rounds posed a concern, especially for PSJMC, which is currently 75 percent semi-private rooms. "Although our new bed tower will take us to 100 percent private, at the

time, we had concerns about potential HIPAA privacy violations if you were openly discussing a case in front of a patient in ear shot of another patient," says Mikos.

Prototype

Having worked with The White Stone Group (TWSG) several years earlier to implement the company's Voicert voice technology platform for case management, the PSJMC management staff began to look at voice technology for handoff reports in early 2005. Mikos and her management team invited one of their large med/surg units and some of their highly motivated staff to explore what this technology would look like.

Provena and TWSG worked together to design a shift reporting solution based on voice technology that they then piloted on that unit for a month. "We used a process improvement model that allowed us to evaluate a system or process, and then make rapid changes if needed, re-evaluate, tweak it again and continue to make those process improvements rapidly," says Mikos.



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—Kathy Mikos
Provena St. Joseph Medical Center

The then unnamed server-based solution was installed in Provena's data center and integrated into the phone system rather than a standalone recorder. The system would allow them to build in the type of prompts that nurses felt would provide the necessary consistency. Once installed and integrated into the network, unit nurses were given PIN numbers and the system access number, which was labeled on all of the phones for quick referral. The nurses would dial into that number, use their PIN number to gain access to the system, and then the nurse would initiate into his/her report.

The system doesn't require a special phone so it could be from a landline at a desk, a decentralized report area phone, a conference room or they could use the portable Ascom wireless phones that are made available to the nursing staff for direct patient-to-caregiver calls prompted by the bedside call. "It had to be simple because there are so many things we introduce into healthcare that can become very complicated and time consuming, and I knew that to get staff buy-in to this solution, it had to be easy to use," says Mikos.

Training and Rollout

Educating nurses on the system took just 10 minutes per nurse. The reporting process was further simplified with distribution of individual reference cards containing the access number and the nurse's personal PIN number. System functionalities were also included such as the ability to pause recording and vary playback speed. During the first month of operation, management made system improvements such as inputting code status for those patients who would potentially require it so that the caregiver would be informed during report playback what to do in the event of situations like cardiac or respiratory arrest.

Refinements to the system could be made almost daily with staff working closely with TWSG, who would integrate those refinements into the system within one or two days. "This was great for staff morale and buy-in because they could see when they brought their suggestions forward, we could try them out almost immediately, get feedback and make a decision to keep it, reject it or modify it," says Mikos.

At the end of the month, PSJMC rolled out the new solution, now called OptiVox, in every area of the medical center with the exception of the mother-baby unit, the ICUs, and the behavioral health unit. These units wanted a continuous report that they could move through as a group, and at the time, they would have had to put in each medical record number before continuing. In the year following the prototype implementation, TWSG updated the solution for group report functionality, and the current version of OptiVox was rolled out in the spring of 2007. The three units that had not gone live with OptiVox could now easily accommodate group reports.

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Findings

As Provena approaches their 2-year anniversary with OptiVox, the medical center has reduced the report process for the RN managing five or six patients from 60 to 90 minutes to just a 15-minute report time. According to Mikos, the nurse preparing to end a shift can complete patient reports anytime that is convenient. Night shift nurses can now complete their reports before things get too hectic around the 6 a.m. hour. When the day shift nurse comes onto the unit, she can retrieve the report while the nighttime nurse is taking care of patients, rather than being tied up with shift report. There is time allotted for the oncoming nurse to ask questions and interact with the off-going nurses. After a nurse gives report, she can go back

into the system if a patient's status changes, and create an addendum to the report.

Mikos and staff recently introduced the SBAR reporting methodology into the current OptiVox system. Each time a nurse utilizes OptiVox to give a report, she completes the one-time demographic section (e.g., patient name, age, room number, diagnosis, code status). The SBAR prompts the nurse to describe the patient's medical situation and background information, which is followed by recent assessment and recommendations. "We built the SBAR system in to bring a very consistent methodology to the reporting style and the information that we are giving about our patients," says Mikos.

Upon realizing the possibilities of OptiVox, PSJMC began reviewing other possible areas of implementation. The medical center focused on expanding OptiVox into the emergency department (ED) to promote effective patient throughput. Prior to this, the ED nurse would contact the receiving patient care unit and be unable to speak with the RN accepting the patient. It was difficult to pull the nurse away from patient care to take report. Many times it would take one to two hours for this process to occur in the often- hectic environment. Faxing reports also was tried and rejected, as they sometimes weren't received. "People tried all sorts of things. At one hospital with which I am familiar, they tried pinning the report to the patient to help alleviate the frustration and keep the process moving," says Mikos.

For more information on OptiVox and other solutions from The White Stone Group, www.rsleads.com/708ht-205

To combat the sometimes-lengthy wait times when getting a patient from the ED to a destination unit, the team built a number of different protocols that allow the ED and the patient destination unit to coordinate room assignment, transport and patient reporting. This worked so well that about four months ago, Nursing made a decision to eliminate verbal reports. Bed assignments are sent via text messaging to the receiving units. The accepting nurse is now aware that the patient will arrive within 30-45 minutes and is responsible for accessing the patient's report through OptiVox prior to arrival. "Technically, we could use that same process in our recovery room when transferring patients out to a surgical unit, the cath lab or Critical Care, so this has transformed the way the entire medical center communicates on every level," says Mikos.

Present and Future

Of late, Provena has focused on expanding the reporting system to a multidisciplinary report that allows other members of the care delivery team to interact by contributing pertinent patient information through the OptiVox report system. Case managers are able to facilitate the discharge process by leaving pertinent information for the RNs in their reports. Pastoral Care, Respiratory Therapy, and Nutritional Support can interact with specific RNs to facilitate improved patient care management.

Additionally, the unit manager messages for the entire unit can now be broadcast to every nurse at the beginning of their shift with OptiVox. Another big advantage to the system is that nursing students can get a more accurate and detailed report on their assigned patient without interrupting the staff nurse providing bedside care. "As the next generation of nurses, optimally, our students should be learning how to do the report, so it becomes a secondary teaching tool," says Mikos. "In addition, the preceptor or mentor of a new nurse to our medical center can review the quality of the reports given by the new nurse, critique them, and provide constructive feedback."

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Not only is PSJMC utilizing the system to conduct report reviews for case analysis, but also for critiquing and improving the quality of reports. Soon, the system will be expanded to allow family members to access the system via PIN number. Family members or nursing staff may leave an updated report through "Family Link," which will assist external family members to remain connected and updated on the patient's progress. This helps to relieve the stress and time outlays for contacting multiple family members at the end of each day. "We don't have all of the answers, but with everyone brainstorming, we can come up with new solutions to some age-old communications problems in the hospital with this system," says Mikos.

Physician-to-physician interaction has been improved as doctors making rounds for colleagues can leave reports for them and vice versa. Provena is making the system available to their eICU as well. The eICU remote center uses cameras, microphones and a secure phone link to carefully monitor cardiac rhythms, blood pressure, digital X-rays and other data sent in real time. Then, when problems develop, the eICU instantly alerts the onsite staff, who can access the reports using their PIN numbers and patient medical record numbers.

Thanks to the new shift reporting solution, Provena St. Joseph Medical Center was able to show a yearly savings of nearly $120,000 just in reducing incremental overtime related to shift reporting. According to Mikos, that alone easily paid for the system in year one. For continued process improvements, it is imperative that we all become innovators, looking for different ways of doing things and learning from one another," says Mikos. "Our innovations really benefit nurses at the bedside, while significantly improving the care we provide for our patients." HMT