



NY Nursing Facility's Electronic Medical Record: A Model of Success

Metropolitan area's first LTC EMR streamlines processes, reduces expenses

BY JOHN HALL

WHEN JONATHAN SHAATAL, MS, R.PH., joined the Four Seasons Nursing & Rehabilitation Center in Brooklyn, NY, as director of pharmacy, he knew he had arrived at a place that openly embraced the future.

Shortly after starting his job, Shaatal and Four Seasons' Administrator Caroline Rich had a series of "aha" moments. "When I came on board, one of the things Caroline and I had on our radar screen was to open an on-site pharmacy that was head and shoulders above all others, and would use the best available technology to improve patient health care," he recalls.

Their shared vision began taking shape with a plan to bring a degree of automation to dispensing using a machine that pre-packages medications according to the time of administration. They didn't stop there. "We wanted to do something different – a seven-day turnaround instead of

the usual thirty, and storing all the medications together instead of having them in separate blister cards," he says. "We knew this would speed up administration of medications by nursing."

The next improvement was to the facility's existing pharmacy software system. "When the doctors would write their orders, we would enter them into our software just like everyone else. We wanted to do away with all the paper and have a system that would be accessible and portable yet transparent to all disciplines, as well."

In 2006, Shaatal's ultimate goal was realized when the Four Seasons implemented an electronic medical record (EMR), a computerized file documenting everything about a patient's care, including medical treatment histories, vital statistics, prescription records, clinical notes, progress reports, test results and more. The Four Seasons is the first long-term care facility in the New York metropolitan area to

accomplish such a feat. The 270-bed facility also offers on-site dialysis, and dedicated vent and rehab services.

Today, the Four Seasons' EMR is a model of success in the industry, and Shaatal has transformed his experience to become a consultant on the subject and speaker in high demand. In fact, last November, he presented a case study on the Four Seasons' EMR implementation at the American Society of Consultant Pharmacists' Business Forum for Long-Term Care Pharmacy.

Here's a look at many of the key enhancements the Four Seasons has realized since implementing the EMR.

1 Better formulary management

Before the EMR, a physician would sometimes write a prescription for a non-formulary medication. While paperwork coursed its way to the pharmacy and medical director awaiting a physician's approval to switch to a formulary equivalent, the patient would get a small supply of non-formulary medication and the approval/denial process would begin.

Now, when non-formulary medications are written, the pharmacist screens the order for a potential therapeutic alternative at the time of order entry. If an alternative is identified, the original order is cancelled and re-entered with the formulary equivalent as a verbal order by the pharmacist. The script sits in the EMR queue. When the prescriber approves it, the new order automatically goes into the patient's medication administration record (MAR). Since prescribers are on the system all day, alerts arrive instantly. "The result is no more phone calls, no more non-formulary medication forms and no more seven-day supplies of non-formulary medications," notes Shaatal. "This truly enables the pharmacist to work hand-in-hand

with the prescriber to ensure that the patient receives the most therapeutic, cost-effective medication."

Prior to implementation of the EMR, the pharmacy and therapeutics committee agreed on therapeutic substitution of certain medications, categories and dosage equivalents. Now the pharmacy can override non-formulary scripts with therapeutic alternatives. "All these things are taking place with little or no human intervention in real time—no more manually filling non-formulary medications until the doctor gets around to changing it."

2 Improved medication administration and diagnosis management

There are times when a physician may prescribe a medication with an incorrect frequency, a duplicative dosage, inappropriate administration time or one that's not well matched to a diagnosis. "When doctors write everything by hand, they aren't always able to see what information other disciplines have written down somewhere else," Shaatal says. Moreover, medications may inadvertently be administered beyond their prescribed period. "Sometimes, a physician would write a medication order for seven days, and a nurse would unknowingly administer it for several days more."

"As a result, costs go up and patients may be receiving medications longer than the prescriber has indicated," Shaatal observes. "This is a potential medication error waiting to happen." EMR prevents this from occurring thanks to a "hard stop" with acute-type medication orders. This means that the order is automatically removed from the active profile screen and cannot be administered for longer than the prescribed time. "Today, if we see something that needs to be changed,

we don't have to wait for the doctor," he observes. "We can change it ourselves. The EMR is automatically updated each time a change is made. This is a huge safety enhancement."

3 Efficient drug regimen reviews

Before the EMR, pharmacy recommendations would consist of therapeutic alternatives, laboratory orders, consults and other suggestions that would sometimes go unanswered for days or even weeks, because they were lost in a giant paper shuffle. Today, thanks to the EMR "dashboard" that displays all physician messages at a glance, those requests are handled in a very timely and efficient way. "Now, the doctor gets the message, goes into the EMR to agree to the change, and orders the lab test or the consult with a few clicks. I can easily logon to the EMR a few days later to follow up," Shaatal says. Consequently, drug regimen reviews are a much simpler and speedier process.

4 More efficient lab test scheduling

Before EMR, it was possible for a physician to neglect to order a lab test needed for certain prescribed medications, or a nurse to overlook documenting such orders. "This all happened by fax or phone," remembers Shaatal. "We'd have to write a physical note to the doctor telling him the patient takes Warfarin, for example, and asking him or her to order an international normalized ratio (INR). With EMR, we can easily spot prescribed drugs that require a frequent INR when we review a patient's profile, see at a glance when a patient's last lab test was administered, requisition a lab test and notify the physician, all with a few keystrokes. Everything is documented and automated now."

5 Enhanced reimbursement

Because of the EMR's ability to more accurately and thoroughly document procedures, prescriptions, drug administration, tests and overall care, the Four Seasons has improved the amount of, and speed at which it receives, reimbursement. "Electronic point-of-care documentation captures more information and increases our minimum data set (MDS) score, which translates into higher Medicare and Medicaid dollars," Shaatal notes. The EMR also has led to enhanced Medicare Part D reimbursement because of a greatly improved audit fulfillment process. "Now we're able to bill for various Medicare Part D plans and be reimbursed for their medications," he adds. "In the past, we might get a request to pull medication orders and administration records for thirty patients covering hundreds of prescriptions during a given time period. Someone would have to go into storage, break out the file box and go through all those thousands of pieces of paper." What once took three days to accomplish, now takes less than an hour.

6 Reduction in expenditures

Thanks to the EMR, the pharmacy saves approximately 15% in medication expenditures through such things as better formulary management, appropriate dosing and diagnosis and non-administration of completed medications. And because progress notes, admission forms, medication administration records, medication treatment records and MDS booklets are all online now, the facility saves thousands of dollars a month on paper costs, as well.

7 Level of management transparency

Before the EMR, a supervisor would spend time talking to clinical staff

or reviewing paper logs to ensure care plans or MDS assessments were completed, or medications administered. Today, that is visible at a glance on the EMR dashboard. "The EMR has given us greater management transparency, which translates to quality care delivered in a timely manner," Shaatal says.

8 Improved staff efficiency and morale

The positive impact EMR has had on the Four Seasons' staff is inestimable. For instance, it has made them more efficient and accountable. Staff can enter EMR information in a variety of ways, through Wi-Fi enabled laptops on med carts, laptops in nursing stations or PDAs that nurses' assistants use to log notes. Physicians can access the EMR from facility laptops, their own PDAs or online through their home or office computers. In addition, the EMR has also led to greater staff retention, which translates into better continuity of care and lower recruiting and training expenses. And the EMR has made the Four Seasons a more efficient and more pleasant place to work. "After an initial period of ambivalence, our nursing staff didn't know how they ever got along without the EMR," Shaatal says. "In fact, some nurses have actually told me it's going to be really hard if they ever leave to work at another facility that has an antiquated paper system. It's such a convenience that our staff is actually referring other colleagues to apply for work here because of it." The bottom line: Less documentation spent by the clinical staff has translated into more time spent at the bedside providing hands-on patient care.

LOOKING TO THE FUTURE

Looking back at the journey, Shaatal is thrilled by the progress the EMR has brought to the level

of care and efficiency at the Four Seasons. "Everyone benefits from the EMR because of the transparency, accessibility and availability of medical information it provides," he remarks. "Orders are viewed and processed in real time, illegible handwriting is a thing of the past, and the access and exchange of information is leading to better outcomes for our patients. The EMR has made us extremely efficient. It allows us a lot more time to scrutinize orders and spend a little more time trying to get reimbursed for our medications. Most importantly, it helps ensure that the right patients are getting the right medications at the right time."

Refinements and improvements to the Four Seasons' EMR system are an ongoing process. For example, Shaatal is working with his pharmacy software provider and other vendors to develop resident assessments, and explore improvements in the EMR interface, pharmacy information, and exchange of certain lab and radiology databases.

"At some point hospitals and private physician offices will be required to have a certified EMR system," he notes. "While this has not yet trickled down to other providers such as long-term care and assisted living facilities, I believe it is just a matter of time. I'm so proud to be part of an organization that had the foresight to initiate something like this."

Shaatal's advice to his peers: "Sometimes, you just have to grab the bull by the horns and do it. Understand there will be issues. But instead of looking for problems, look for solutions."

John Hall is a paid consultant of Innovatix, LLC.