IN BUSINESS

No More Excuses: Why Pharmacists Need to Take Their e-Savvy Up a Notch

Joanne Kaldy

While e-prescribing is not a new concept in health care, long-term care has been slow to adopt this technology, even as facilities, practitioners, and others have embraced electronic health records (EHRs). Despite the benefits of e-prescribing, including fewer adverse events and medication-related problems, issues such as lack of interoperability created barriers to widespread and effective use of this technology. However, new regulations and the growing use of EHRs in long-term care have created a new urgency for the use of e-prescribing. Many pharmacists already are taking a leadership role on this and encouraging their colleagues to follow suit.

**KEY WORDS:** Data, Electronic health records, E-prescribing, Interoperability, Meaningful use, Pharmacist, Quality, Technology, Workflow.

**ABBREVIATIONS:** CMS = Centers for Medicare & Medicaid Services, EHR = Electronic health record, HIT = Health information technology, MDS = Minimum Data Set, MMA = Medicare Prescription Drug, Improvement, and Modernization Act, NCPDP = National Council for Prescription Drug Programs, PA/LTC = Post-acute/long-term care.

The use of electronic prescribing in long-term care has come a long way in a short time...well, maybe not. There are still barriers—some old, some new—to the use of this technology in post-acute/long-term care (PA/LTC). However, high-tech solutions are fast becoming a high priority as the Centers for Medicare & Medicaid Services (CMS) no longer is giving these facilities and practitioners a free pass or an excuse not to join the electronic age.

“Everywhere you look in health care, pharmacists, physicians, and others are using e-prescribing...everywhere except long-term care, that is,” said Rod Baird, president of Geriatric Practice Management, Asheville, North Carolina. “About half of prescriptions in the ‘real world’ are transmitted this way,” he said. In fact, according to one report, nearly 800 million prescriptions—44% of all those written—in 2012 were transmitted via e-prescribing. This is up from 570 million in 2011.¹ A large majority (87%) of these prescriptions were processed through an electronic health...
record (EHR), which includes an electronic prescribing component, versus a stand-alone e-prescribing system.\(^1\)

It is true that when it comes to e-prescribing—and health information technology (HIT) in general—PA/LTC has lagged behind other settings. For example, said Baird, when the original standard for e-prescribing was written several years ago, long-term care facilities and pharmacies asked to be exempted because it was designed for ambulatory settings. “Post-acute and long-term care medication prescription and dispensing is a completely different model, and the message in the original standard was incomplete for this setting,” said Baird. Frank McKinney, president of the Frank McKinney Group, LLC, in Minnetonka, Minnesota, and a health care standards and development expert, added, “One key difference in long-term care is that the patient is not present at the dispensing point, so medical information, such as allergies, needs to be shared with the pharmacy via a medication order.”

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Few would argue about the benefits of e-prescribing for the patient, mainly because it reduces the potential for human error. Several studies have documented the positive impact of e-prescribing on patient safety. One 2008 systematic review of research on the effect of e-prescribing showed that of 25 studies, 23 showed a 13% to 19% reduction of medication-error risks.\(^2\) It also has been documented to reduce costs. One recent study found that e-prescribing systems resulted in increased prescribing of generics and other cost-effective treatment options, resulting in a savings of $845,000 per 100,000 patients per year for patients and insurers.\(^3\)

Yet, despite the obvious benefits and a push by legislators and others to promote this technology, e-prescribing took off slowly. This is partly because there was little incentive for facilities and practitioners to make the necessary investment of time and money. However, this technology has gained momentum in recent years, thanks in part to federal incentives to practitioners.

Show Me the Money: Incentives to e-Prescribe

A Medicare and Medicaid EHR Incentive Program started in 2011 offers financial rewards for so-called “meaningful use” of certified EHR technology to improve patient care—including the use of e-prescribing.

Meaningful use involves using EHR technology to improve quality, safety, and efficiency, and reduce health disparities; engage patients and families; improve care coordination and population/public health; and maintain privacy and security of patient health information. Ideally, according to CMS, meaningful use compliance will result in better clinical outcomes, improved population health outcomes, increased transparency and efficiency, empowered individuals (practitioners, staff, and others), and more robust research data on health systems.\(^4\)

CMS has defined three stages to meaningful use that facilities and physicians must implement to meet several objectives. Stage 1 includes establishing a means to capture and share data securely with various stakeholders. Stage 2 involves the documentation and communication of advanced clinical processes. Stage 3 is about improved outcomes.\(^4\)

Practitioners begin by meeting Stage 1 requirements for a 90-day period in their first year of meaningful use, then for an entire second year. Once they complete Stage 1, they have to fulfill Stage 2 requirements for two full years. Eligible practitioners, i.e., those who will fulfill the requirements, can receive up to $44,000 through the Medicare EHR Incentive Program and $63,750 through the Medicaid EHR Incentive Program.

While money is a powerful incentive, a recent move by CMS has created a sense of urgency among providers and practitioners alike to adopt and use e-prescribing systems.

Movin’ On Up to 10.6

E-prescribing has been in the works for close to a decade and was established as part of the Medicare Modernization Act of 2003, which created Part D (see sidebar). The road to implementation has been a long one. On June 23, 2006, CMS published an interim final rule to adopt the National Council for Prescription Drug Programs (NCPDP) SCRIPT Standard Version 8.1 on a voluntary basis and
which must be used as the standard for e-prescribing. The final rule was published on November 16, 2007. In January 2009, CMS published a revised rule in which the e-prescribing foundation standards were updated, but they still focused on the prescribing processes used in ambulatory care and hospital settings where prescriptions move in a straight line from the prescriber to the patient. The standard wasn’t appropriate or practical for long-term, where the prescribing process is a three-way transaction: prescriber, nursing facility, and long-term care pharmacy. As a result, PA/LTC was exempted from the standard. While they still had to meet rules and requirements regarding privacy and security, long-term care providers didn’t have to use the federal standard for e-prescribing transactions.

Use of SCRIPT 8.1 in the PA/LTC setting was pilot tested in 2006. The pilot determined that:

- Additional standards work was needed to provide a complete e-prescribing solution in these settings.
- Orders with multiple directions—such as “twice daily” and “as needed”—posed the biggest e-prescribing obstacle for the PA/LTC pharmacy.
- The 8.1 standard format required that medication orders be communicated to the PA/LTC pharmacy via separate messages, with each one addressing dosing and other information for one medication.

The pilot also reinforced the belief that e-prescribing standards could improve patient care and safety in PA/LTC. Additionally, it stressed that prescriber adoption of this technology would need to increase for e-prescribing to be effective on a broad scale.

**Pharmacy Meets E-Prescribing**

Using the data from the pilot, along with feedback from long-term care providers and other stakeholders, CMS was determined to come up with a standard that is appropriate for all care settings. The result was SCRIPT version 10.6, and as of November 1, 2014, PA/LTC providers and practitioners—including pharmacists—must comply with this for all electronically transmitted prescription information, Baird stressed that this standard is sweeping: It applies to new prescription requests, prescription changes, prescription cancellations, refills/renewal requests/responses or resupply, fill status notification, and medication history exchanges. The revised standard also accounts for three-way data exchange among prescribers, pharmacies, and intermediaries.

SCRIPT 10.6 uses RxNorm, a drug codification system that provides a more accurate and precise drug selection list. It also includes an enhanced “Sig” codification, which contains instructions on how patients should take their medications. Additionally, SCRIPT 10.6 supports a medication-history feature where users can see who obtained this information and when.

The new standard also includes fields for dates of a wide range of transactions, including when the facility received and reviewed the medication. At the same time, it enables prescribers to send prior-authorization codes and supports a scheduled medication function to be used with controlled substances.

Pharmacies will have to be vigilant to ensure that communications covered under this standard don’t fall through the cracks. Baird stressed that the rule doesn’t just apply to prescriptions. “A physician’s written medication order is subject to the rule, as are verbal physician orders transcribed by a facility into an EHR system,” said Baird. The only exempt processes are those that do not involve e-prescribing. These include:

- Hand-signed medication orders (these may be faxed)
- Telephone orders directly between the prescriber and the pharmacy
- Internal orders, where the facility and pharmacy share common ownership

The implications of this new standard are huge, Baird stressed. “According to CMS, if Part D plans determine that the pharmacy failed to use the 10.6 standard, they can ask for a refund of payments,” he said. He stressed that pharmacists can’t just worry about their own payments. “If a facility or resident ends up with additional costs or loses money, the resulting dissatisfaction can hurt the business relationship and lead to lost clients and a damaged reputation,” said Baird. He added that operational disruption caused by facilities or organizations having to resort back to traditional prescribing practices to prevent noncompliance can cost time and money, as well as cause staff frustrations and increase the risk of medication-related errors.
By November 1, 2014, providers and facilities must comply with standards for electronic transmission of prescription information.

Pharmacists Can Be Lifesavers
Pharmacists, who traditionally have been more likely to embrace and use technology than prescribers and facilities, can help them both wade safely into the e-prescribing waters.

At the facility level, pharmacists can help organizations determine their readiness. “A lot of facilities have systems that support e-prescribing, but they don’t use them effectively because of challenges with processes and rules within those systems,” said Baird. The pharmacist can help the facility determine what changes to the system will enable effective e-prescribing and consistent interoperability with the pharmacy’s systems.

McKinney suggested, “My sense is that there is a sort of threshold of readiness to take on managing orders that not only includes capturing and maintaining a medication list, but also the administration records.” He added, “A growing number of facilities are no longer waiting for pharmacists to provide medication administration records [MARs], but managing these for themselves. E-prescribing is a complement to managing MARs.”

He further suggested, “If I were a pharmacist, I would want to see what the facility’s workflow is like and how well it brings in data without being manually entered. I would want to see how it streamlines the review and acceptance of orders.”

Louis Hyman, executive vice president and chief technology officer for SigmaCare in New York, observed that pharmacists need to know what functionalities are available in the market. They need to know what systems exist that are flexible enough to allow them to help facilities integrate best practices without manual oversight. He added that such capabilities enable pharmacists to create a template for best practices and move them from facility to facility without reinventing the wheel.

Helping increase physicians’ and other prescribers’ comfort level with e-prescribing is an important role for pharmacists. Some prescribers already have embraced e-prescribing, so they likely will welcome pharmacists’ efforts to partner on this technology. With others, the challenge will be great. “Some prescribers have concerns about how e-prescribing may impact their clinical decision-making and authority,” said Baird. At the same time, he observed that some older practitioners will never really be interested in this technology because they are near retirement and aren’t motivated to learn.

Pharmacists can work with software vendors to ensure that their existing systems can send and receive SCRIPT version 10.6 messages starting November 1, 2014. They should test this in advance so they have time to make necessary adjustments and changes.

Enabling a Three-Way Conversation
Shelly Spiro, RPh, FASCP, ASCP past president and president of Spiro Consulting, is optimistic about the potential of the new standard, which she helped develop. “We set it up to address the flow among the facility, the prescriber, and the pharmacy. We’re getting there,” she said. “With the exemption for long-term care being lifted, we will see more pharmacies pushing to follow the standard and working with facilities and prescribers to make it work.”

A greater use of e-prescribing in this care setting can help improve quality, she stressed. Traditionally, nurses would call the physician, discuss orders, and add the orders to the chart either electronically or manually, then send the written order to the physician for clarification or approval. The pharmacy then works off of these orders. Spiro said, “What we have here are several breaks in communication and several places where errors can occur. We want to reduce the opportunity for error, and an effective e-prescribing system can do just that.”

Road Is Smooth…Well, Mostly
While more organizations and practitioners are embracing e-prescribing, some barriers remain in PA/LTC. The most significant is that prescribers and facilities both may have EHRs and electronic communication and documentation abilities, but they may use them for different purposes. As
A Brief History and Overview of e-Prescribing

E-prescribing has long been on the radar screen of regulators, providers, and others, but what it means has evolved over time.

Wishful thinking about the use of technology for prescribing actually dates back as far as 1984 and an article entitled "Writing All Prescriptions by Computer." However, it wasn’t until 2001 that health care saw the rise of electronic systems that allowed physicians to use personal data assistants to write prescriptions. In turn, this information would be synched to a desktop computer; the prescription then would be printed and handed to the patient or faxed to a pharmacy. Two years later the evolution began:

- In 2003, the Medicare Prescription Drug, Improvement, and Modernization Act (MMA) required that Medicare Part D plans support e-prescribing if providers and pharmacies chose to use it. The bill also called for the adoption and testing of technical standards for the data-exchange transactions that Part D plans would use.
- In 2005, the Centers for Medicare & Medicaid Services (CMS) published its “foundation standards” for e-prescribing. These became effective in January 2006 and applied to all electronic prescribing done under MMA Part D.
- In 2006, CMS published an interim final rule to adopt NCPDP SCRIPT Standard Version 8.1 on a voluntary basis to be used for e-prescribing, and in 2007 CMS adopted three additional standards for use in e-prescribing under Part D. In 2009, these e-prescribing foundation standards were updated.
- In 2009, the Health Information Technology for Economic and Clinical Health Act took a giant step toward promoting the adoption and “meaningful use” of HIT. It encouraged the use of health technology and suggested timelines for implementation. It also addressed privacy and security concerns associated with e-transmissions of health information and strengthened civil and criminal enforcement of Health Insurance Portability and Accountability Act rules.
- In mid-2010, CMS published an interim final rule to adopt NCPDP SCRIPT Standard version 10.6 on a voluntary basis to be used for e-prescribing. The final rule, passed in 2013, lifted the long-term care exemption, effective October 1, 2014.

This year also marked the adoption of a newer version of the NCPDP Formulary and Benefits 3.0 transaction (effective February 28, 2015) and retires version 1.0 on March 1, 2015.
Baird said, “Physicians [and other prescribers] generally use their systems to support clinical decision-making, while facilities tend to use theirs to record data as part of the MDS [Minimum Data Set] and quality assurance.” (MDS is a federal data system used to clinically assess Medicare and Medicaid residents.)

This disconnect between what clinicians need from their EHR systems and what facilities need can’t be solved by more technology, said McKinney. Instead, he suggested, “The answer is combining technology with workflow. You need to determine a more convenient way for prescribers to use the system.”

Instead of expecting a physician to be at his or computer at all times and expecting facility staff to enter orders and address problems, he suggested a practice where the physician communicates via smartphone; the facility enters the order in draft form and sends it to the prescriber, who then can review and forward the final order to the pharmacy. McKinney said, “This would enable us to use technology to move information around and move responsibilities to the right places. It puts the responsibility back on the physician in a way that is more accessible to him or her.”

Hyman and others are working to develop EHR and e-prescribing systems that work for long-term care—and for senior care pharmacists. “With the long-term care exemption about to expire, software vendors have a greater focus on allowing the consultant pharmacist to do his or her job. They no longer have to [search] for orders. It’s all within the facility’s system.”

Increasingly, Baird said, “We will see EHR systems developed with the clinicians’ needs in mind, systems in which it is easy to record notes and manage orders. We will see more systems that complement the workflow in which physicians and other practitioners aren’t always onsite.” He added that these systems also will make it easy to access laboratory and other test results to create a full picture of the patient. “This is what prescribers want. They don’t want to look in different places for various pieces of information,” Hyman said.

These e-prescribing systems have great potential to improve quality, processes, and accuracy. Hyman said, “These also present opportunities to transform operations. This technology can help you have a more streamlined process and improve productivity.” He added, “A good vendor will work hands-on with you and include you in the implementation process.”

Hyman believes that e-prescribing actually will enhance the pharmacist-prescriber relationship. He said, “It takes the conversation up a level. The system guides physicians, and it will automatically flag problems, errors, and concerns as they are writing orders. As a result, pharmacists spend less time on administrative activities and writing notes to physicians and more time on clinical quality improvement and implementing best practices.”

Joanne Kaldy, a freelance writer, lives in Harrisburg, Pennsylvania.

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