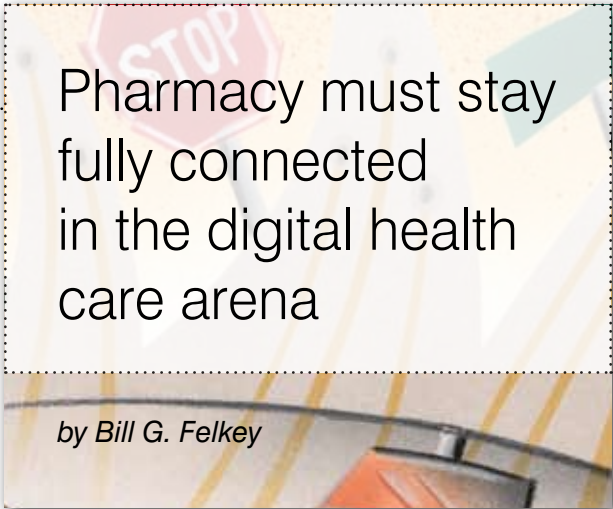


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PHOTO ILLUSTRATION: COCO MASUDA / SARAH DJAB

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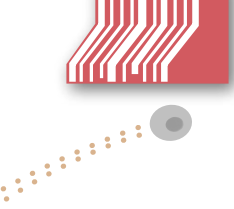
Pharmacy must stay fully connected in the digital health care arena

by Bill G. Felkey



I AM FINALLY BEGINNING TO SEE ALL OF THE DIGITAL 'DOTS' GETTING CONNECTED

as the U.S. health care system struggles to move from antiquated, paper-based processes into becoming the country's newest digital field. I am seeing systems creating electronic health records that combine data from several specialized electronic medical records. I see electronic prescribing getting smarter as medical records supply more of the essential data elements to make safety-focused, clinical-decision support systems able to provide evidence based oversight to the prescribing process.



With barcode oversight of the technician-active dispensing process, I see pharmacists freeing themselves to have more patient interaction. I am just starting to see insurance companies do an extra level of prospective drug utilization review that oversees the prescribing of multiple physicians while aggregating the patient-specific medication profile of multiple pharmacies. Networks are integrating that help to identify drug-seeking substance abusers and those looking for meth lab ingredients. I see pharmacists walking around with portable information appliances that not only keep them connected with their colleagues, but also provide tertiary references that reduce their uncertainty while they are making clinical decisions. I see the same devices allowing them to remotely access their practice management systems from anywhere at any time.

Patient Self-Care Management Emerging

At the same time that these health care providers are going digital, patients have quietly made it possible for pharmacists to engage them in their own self-care management through numerous telecommunication channels. It is estimated that 91 percent of Americans have a cell phone within three feet of them 24 hours a day, seven days a week. Imagine using this infrastructure for patient prompting of medication dosing times, health behaviors such as blood glucose or blood pressure measurements, refill reminders/requests, and lifestyle changes including weight loss and exercise interactions. When was the last time you sent or received a text message related to health care? Europe has had more than four conferences exploring how health care can use mobile patient connectivity. The United States just had its first conference on the topic.

MOBILE PATIENT CONNECTIVITY

Patients are also finding that personal health records (PHRs) and health system-provided patient portals can give them access that allows health content and communication to flow in both directions. This infrastructure allows a more patient-centric approach to health care, whereby patients can be more fully involved in decisions regarding their health. Patients are highly satisfied with health care providers who allow them online appointment scheduling and chronic medication refill requests.

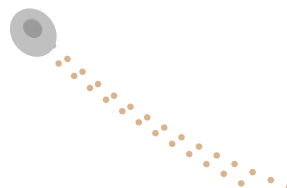
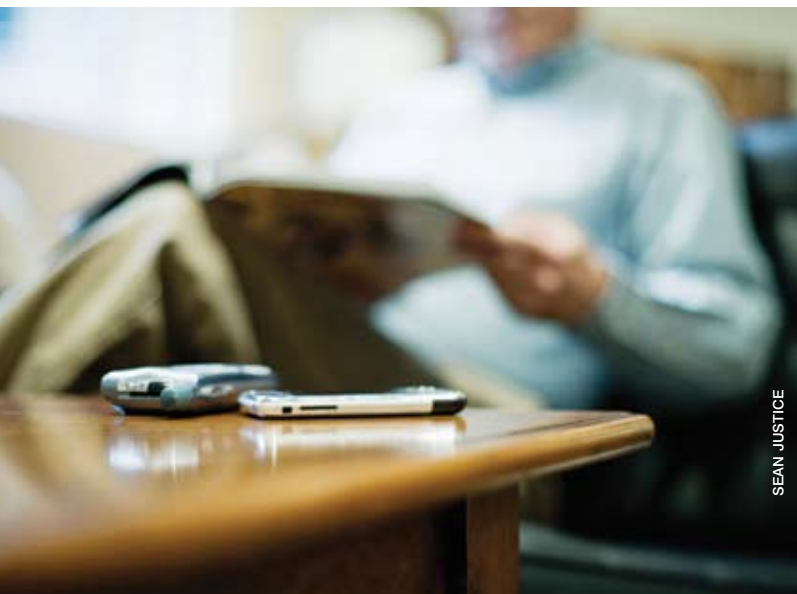
Would any of us use an airline that wouldn't allow us to book flights online? Why would patients tolerate a pharmacy in the future that lacked basic connectivity services? Patients want to get their medication profiles for themselves and their families. They also want to receive lab results (with provider impressions attached) and visit summaries following their health care encounters. Even though patients legally own the information in their medical records, in practical terms they don't have a sense of ownership. Also, typical patients may decide to treat their health maintenance as they treat their automobile maintenance. That is, only when there is a problem. They drop off their vehicle for work by a mechanic, they pick it up at the end of the day, and continue to drive it hard until the next problem occurs.

Participatory Health Care

With the level of connectivity possible in health care today, we can begin to encourage patients to adopt a different approach to their health, or "participatory health care." In this paradigm, patients are actively engaged in self-care management behaviors. Additionally, through the same connectivity, family members and other loved ones can become active caregivers locally or from a distance. In this environment,

although I live in Alabama, I can easily monitor my mother's overall health status in Illinois.

Health care providers and interested third parties are addressing another problem with patients. We know on





a basic level that they fail in their areas of responsibility for their health care regimens because they don't know what to do, they don't know how to do it, or they are not motivated to do behaviors that optimize their health status. Web sites such as Patientslikeme.com and Revolutionhealth.com provide interactive environments that patients view as trusted communities.

After being diagnosed with a serious medical condition, you may want to go someplace where expert advice is given, with people just like you who are suffering with the same condition. How about finding a place where these same people can tell you how well that advice worked with them before you decide that you will try any given intervention or suggestion? Motivation is one of the toughest problems to overcome. Receiving encouragement from both health care providers and patients who understand you can be very important in having patients reach desired outcomes.

Family practice physicians have initiated a movement called the patient-centered medical home. It's a primary care-based innovation, whereby patients establish a medical relationship with a physician who then becomes the gatekeeper for the patient's health care decision making. While patients are more involved, the arrangement stresses a stable relationship with a primary caregiver. Is it possible that the patient-centered pharmacy home is an innovation that should be re-examined in the light of increased complexity for today's health care? How do you help patients believe that you are currently focused primarily on them?

We've always known the benefits of a patient choosing a single-pharmacy home. The safety net of a comprehensive screening of all prescription, OTC, herbal, and home

PATIENT-CENTERED PHARMACY HOME

remedy products can be described as a "no-brainer," but the relationship with a caring pharmacist is perhaps even more important. The accessibility of pharmacy practices has always been a major strength of the profession.

Threats and Opportunities

As other health care disciplines move into this connectivity arena, I see that the redefining of competition is both a threat and an opportunity to the profession. Take for example, the capability of in-home patient monitoring technologies that will allow closed loop connectivity. It could include interfaces to digital scales, glucometers, sphygmomanometers, pulse oximetry, EKGs, spirometry, and the capturing of diet and exercise data. When I have spoken to health systems, physicians, pharmacists, manage care case managers, home health nurses, diabetes educators, and home services for the aging agencies, they all have said this is the frontier that they should organize and manage for the patient populations they currently serve.

What is yet to be determined is which entity or combination of entities will capture the biggest share of this emerging market. It is interesting to observe that many pharmacies already sell these products, as well as other durable medical equipment. Will the profession expand its current level of service provision to include this area to stay ahead of other industries vying for marketshare? You may have heard that the neighborhood security company, ADT, has entered into this home health monitoring market. If someone breaks the window glass of a monitored home or exceeds a normal variance for a blood pressure reading, ADT personnel can now dispatch the appropriate party to intervene.

This next connectivity issue is a big one. Hospitals are required to do medication reconciliation by The Joint Commission. You are electronically holding the information they are seeking. You would like medication orders that are generated at discharge to be transmitted to you electronically. Currently, large chains are moving the data from their computer systems to patients' personal health records and to other providers within the health system. Are you prepared to do health information exchanges?

Does your pharmacy practice management system allow you to exchange health information as your competitors do? I believe this is a central issue that may

HEALTH INFORMATION EXCHANGES

even determine which pharmacy practice individual patients will select. Consider the scenario where my local and convenient independent pharmacy requires that I take a piece of paper home and type all of my medication profile (and that of my mother) into my (or her) personal health record. How tedious is that? Wait, I hear that the chain pharmacy across the street from my current pharmacy does this service for me automatically whenever my mother or I get a prescription filled. I believe that, increasingly, people will “vote with their feet” with regard to these issues of connectivity and digital convenience.

Assessing Connectivity Needs

With everything discussed here serving as prelude, let's get tactical on assessing your current and future connectivity needs. I have prepared a pharmacy practice and management system connectivity checklist document and have placed it at the top of my document downloads on my share site, <http://felkey.shutterfly.com>. This has



just become a working document for the NCPA Technology Steering Committee to enhance and improve. You might want to check back more than once to see how this document evolves.

For example, NCPA has created a Web-based gadget that will allow patients who are looking for a service offered by your pharmacy to enter their ZIP code and be pointed to your practice. This tool can be placed on every Web site where millions of patients congregate. Want to discuss in more detail? Please feel free to e-mail me at felkebg@auburn.edu to turn this into a conversation. **ap**

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CONNECTIVITY TOOLS

What follows is my top 20 listing of connectivity items (separated by categories) you should be considering to effectively practice in a highly digital environment:

Decision Support and Resources

- A suite of online tertiary references
- A suite of PDA/Smart phone references
- Multilingual patient leaflets to suit the practice patient population

Error Prevention/Quality Assurance

- Barcode verification within the dispensing process
- Image scanning capabilities for remaining paper documents
- Workload sharing outsource connectivity

Telecommunication Infrastructure

- Fully developed pharmacy Web presence
- Fully integrated interactive voice response system
- Patient communication channels to include e-mail, chat and/or instant messaging
- Fully integrated electronic prescribing applications
- Remote pharmacy system and automation access
- Point of sale connectivity
- Comprehensive vendor and regulatory connectivity

Collaborative Practice Connectivity

- Health information exchange between electronic health records, prescribers, laboratories, hospitals, long term-care, and personal health records

Telepharmacy Connectivity

- Online consultation infrastructure
- Medication regimen adherence connectivity
- Home-based outcomes monitoring connectivity
- Telecommuting connectivity

Delivery Service Support

- Dispatch connectivity with efficient routing
- Real time GPS and order status tracking

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