Pharmacy Automation and Technology

Where Are Patients Positioned in Your Seamless Care Strategies?

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In our earliest thoughts of how to engage patients in self-care management, we found online banking and finance to be the best model for health care to follow. This model is still right for today. Although no digital approach will apply to 100% of any population, there is evidence that older patient populations see the benefit of being able to access their health care providers online and on mobile devices. It's all about the data, the systems, and the people.

Several months ago, we wrote about the 5 myths related to health information technology (HIT).¹ One of those myths stated that only the younger generations want to use digital services. We provided statistics that largely refuted this myth. Most of those statistics looked at general use of digital services (and tools) and did not focus on health-related uses. We know that Baby Boomers represent a large part of the US population. They all have a little age on them, but they still want to be treated as individuals and with respect. We also know that a quick walk through the halls of your hospital will find an inpatient population that is largely from the older segment of society, excluding those of you in pediatric settings and a few other specialty care settings.

Whether older individuals have recently been discharged, are currently in your hospital, or are one community-based medication misadventure away from being an inpatient, is it time to rethink how your institution engages them as active participants in their own care? In a small study, researchers asked 75 community-based individuals who were at least 50 years old what their preferences were for receiving prescriptions.² Slightly more than 80% of respondents reported that they preferred e-prescriptions over paper prescriptions. Although the study participants may not reflect the population at your institution – most identified as White or Caucasian, all lived in the Pittsburgh area, and nearly half had bachelor's degrees – their open-ended comments about e-prescriptions provide insight into the factors that are increasingly important to this age group.

Comments in favor of e-prescriptions focused on convenience due to saving time and preventing the loss of physical prescriptions. Participants who favored paper prescriptions expressed feelings of greater control and the ability to learn more about paper versus electronic prescriptions. Those who favored paper prescriptions also indicated it was easier to put a prescription on file because e-prescriptions were often filled before the patient arrived at the pharmacy. Regardless of the participants' stance in support of or against e-prescriptions, comments suggest that preferences are based on nontechnical aspects of the nature of the prescriptions. This suggests to us that, at least in this group of older adults, factors that made the participants' experiences with the health care system easier and more manageable were ultimately most important. The nature of the prescription was less important than how it impacted their daily life.

News out of the Consumer Electronics Show 2015 (CES) in January suggests that your patients will have a growing range of digital tools to connect them to their health care providers. The survey results above suggest that patients will ultimately determine the value of how the tools fit in their lives.

At CES, Walgreens and Qualcomm announced that they are partnering to connect hyperglycemic and hypertensive patients with Walgreens pharmacists.³ You may not know the Qualcomm name, but you likely have used their products as they are the world's largest producer of chips for mobile devices. Qualcomm will provide the technical capabilities to

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wirelessly connect patients' blood glucose and blood pressure devices with Walgreens' applications in the mobile and Web environments as well as their loyalty program that encourages healthy lifestyles.

This collaboration is important because Qualcomm brings unparalleled expertise, experience, and resources in the mobile connectivity market. As the largest retail pharmacy chain in the United States, Walgreens brings broad access to over 80 million persons. We know that the most inexpensive hospital stay is the one that never occurs. We also know that hospitalizations can be prevented if patients and providers are informed and actively engaged in the patients' care. The Walgreens-Qualcomm initiative certainly has the potential to inform pharmacists regarding their patients' conditions, if patients can be engaged in managing their own care.

Noted above, the value that patients found in e-prescriptions was that they made their lives easier or removed a part of the prescription filling process that was deemed bothersome. Unlike e-prescriptions, wirelessly enabled sphygmomanometers and glucometers require overt participation on the part of the patients (or their caregivers). It is important to note that the non-connected versions of blood pressure and blood glucose monitoring tools also require the patients' participation. Could your discharge patient population benefit from similarly connected devices that inform staff in your affiliated clinics of their condition? We believe they can.

We also believe that these devices will not be a fit for every patient who receives care in your institution. For patients who are interested in remote monitoring and capture of clinical data, the potential upside of having access to their data is exciting. Certainly it is important to define procedures for monitoring data and steps to take in the event that critical values (eg, exceedingly high blood pressure) are reported by patients' devices. In the case of pediatric patients (who are more likely to have asthma than hypertension or diabetes), parent involvement will be necessary to ensure proper device use.

How does your institution get started? We believe a stepwise approach is best, beginning with identification of staff members who are best positioned and interested in being involved with a pilot initiative that is intended to test procedures. Examine your patient mix to identify the target condition(s). If your institution partners with a local employer or health plan, conversations with these partners can help identify your targets. Determination of target conditions then leads to identification of existing monitoring tools. It is important at this step to select tools that have demonstrated validity and reliability. Patient recruitment will occur after internal policies and procedures have been vetted. We would like to add that pharmacy students on experiential clerkships are a potentially valuable resource for patient recruitment and training efforts. Follow-up once the patient is home will be important to ensure continued device functionality. Longitudinal monitoring then begins, guided by your institution's policies. Ideally, data captured while the patient is not in the hospital will be incorporated to scheduled clinic visits as well as admissions.

We recognize that we painted a pretty picture of the process of implementing a remote monitoring program. We also recognize that it is not as easy as we described it. We welcome comments describing your experiences (Brent at foxbren@auburn.edu and Bill at felkebg@auburn.edu).

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