Rethink Pharmacy: The Role of Technology in Patient Care

Upon successful completion of this article, the pharmacist and pharmacy technician should be able to:

1) Identify challenges or barriers to providing patient care services in their practice.
2) Discuss possible technology solutions to implementing patient care programs and improving patient health outcomes.
3) Discuss future technology ideas that need to be explored as the pharmacy profession continues to evolve towards health outcomes based models.

**Background:**

The role of the community pharmacist continues to evolve. Pharmacists across the country are implementing new patient care services than ever before in areas like diabetes management, immunizations, cardiovascular health, and transitions of care. Technology has played a huge role in allowing these pharmacists to implement these care services and continue to operate their practices efficiently. As we continue to move towards care outcomes based models, technology will play an integral part for the clinical community pharmacist.

**Traditional Technology roles:**

Pharmacy technology has traditionally focused on dispensing efficiencies. Technology like workflow tracking software, Integrated Voice Response (IVR) phone systems, and dispensing robotics have helped us to improve our accuracy and efficiency as we move to the goal of getting more time for the pharmacist to spend with the patient. This technology will continue to be an integral part of allowing a practice to move towards implementing additional patient care services and improving care outcomes.

**First Steps to determine technology needs:**

Before you can invest in technology it is important to evaluate your practice to determine how best to integrate new technology into your pharmacy. Here are a few questions to consider:

1) What are your biggest barriers to patient care?
2) Where is your workflow currently being held up or log –jammed?
3) Are there roles in the workflow that you are currently performing that could be handled by support staff or with a technology solution?
4) What technology currently exists that can overcome your barriers to patient care?
5) What types of services are you wanting to provide for your patients?
6) What technology needs to be developed to meet your needs?

**Medication Therapy Management:**

With the implementation of Medicare Part D in the Mid 2000s, pharmacists for the first time were recognized by a major payor as the best health care professional to provide and get reimbursed for medication therapy management, or MTM. Web based platforms like Mirixa and Outcomes were developed to help us identify patients who qualify for MTM, document our services, and bill for our time.
MTM services continue to expand from the traditional comprehensive medication reviews and now include programs in areas like medication adherence and cost saving opportunities. Pharmacists can now use the platforms to document for non-part D programs that they offer in house. Additionally, new web based platforms have been developed like Creative Pharmacist, which not only allow pharmacists to document care services, but also engage the patient to record health data for tracking and review.

It is now more important than ever to utilize these technologies to complete MTM cases in your practices. MTM case completion rate will be used to calculate star ratings that may impact how well your pharmacy is reimbursed, or which networks your pharmacy can participate in.

**Medication Adherence/Star Ratings:**

Medication adherence has been an important issue over the last several years. Pharmacists have been identified as the best provider to help patients to take their medication properly and improve health care outcomes. In addition, medication adherence in the areas of diabetes, hypertension, and cholesterol are the primary measures that will go into our star rating calculations. Many different technology solutions have been developed recently to help pharmacists improve these adherence rates.

Medication synchronization programs like Simplify My Meds have been implemented across the country to help improve these adherence numbers, and technology to streamline this process has not been too far behind. From Ipads to Web-based reporting platforms like Equipp and out-bound calling programs like Prescribe Wellness or Ateb, technology is currently being used or developed to help improve our efficiencies and better identify those patients that need our help to become more adherent.

**Electronic Health Records:**

Electronic health records have been discussed for a number of years as an integral part of coordination of care. Patients often see multiple providers, multiple pharmacies, and other various care givers as they work to solve their health related problems. Technology must continue to evolve in this area for us to truly be effective at taking care of our patients overall health.

Many emerging models like Medical Homes or Accountable Care Organizations (ACOs) have shown how much of an impact on patient care outcomes can be achieved thru coordination of care with electronic health records. One example of this was the North Carolina Pharmacy Home Project. Pharmacists participating in this project were given access to a patients electronic chart while the patient was still in the hospital, and then again after discharge. In addition, the pharmacists used a care triage program that assigned the patient a care risk level for re-admittance that allowed them to focus on the highest risk individuals. The results were outstanding. Although they saw a 24.7% increase in PCP visits and a 20.7% increase in pharmacy utilization, they observed a 46.8% decrease in inpatient admissions, a 35.4% decrease in preventable admissions, a 35.1% decrease in preventable readmissions, and a 16.1% decrease in ER visits. By having access to the “full picture” and focusing on the highest risk patients, these pharmacists were able to improve the health of their patients and decrease overall health costs.
Future direction and technology needs:

From iPads to smart phones or wearable technology like Google glasses or the iWatch, patients now have access to more information than ever before. In addition, thanks to many health care related apps, they are collecting health related data like miles run, steps taken, blood sugar values and calories eaten per day. As the role of the pharmacist continue to evolve, will it be possible to integrate this data into our platforms and use it to achieve better patient care outcomes?

I believe that integration of all of these technologies discussed today into common platforms is integral to helping our profession grow and expand and we continue to work to Rethink Pharmacy for the Clinical Community Pharmacist.

About the author:

Justin Wilson, Pharm.D. currently co-owns Valu-Med Pharmacy in Midwest City, OK, Bestyet Pharmacy in Harrah, OK and Valu-Med Pharmacy in Ft. Gibson, OK. In addition, Dr. Wilson is Adjunct Clinical Professor with the University Of Oklahoma College Of Pharmacy.

Since starting at Valu-Med, Dr. Wilson has implemented workflow design and utilized technology to help improve dispensing and enhance patient care. This has allowed the pharmacy to expand services in the areas of diabetes management, bio-identical hormone replacement therapy, travel health immunizations, medication therapy management services, refill synchronization, and skin care.

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