



PHARMACY PRACTICE MODEL INITIATIVE  
Redefining. Reconstructing. Reinventing.  
A joint project of ASHP and the ASHP Foundation

## In the Spotlight – September 2009

### Martha Jefferson Hospital

Charlottesville, Virginia

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#### **IN YOUR VIEW, HOW WOULD YOU DEFINE THE IDEAL PHARMACY PRACTICE MODEL?**

The ideal pharmacy practice model would encompass the use of pharmacy services as well as ensuring systems are in place to support these activities. This includes how and where pharmacists practice, how technicians are utilized and what technology is employed to support clinical and distributive activities. The practice model must be organized in such a way that best leverages the pharmacists' expertise and maximizes their contributions. There must be a high level of coordination of all components of the pharmacy enterprise for the purpose of optimizing the value of drug therapy and medication-use safety. I cannot talk about our practice model without talking about our residency program. We are in our third class and their activities and projects continue to support the advancement of our pharmacy practice at MJH.



#### **HOW DO PHARMACISTS IN YOUR RE-DESIGNED PHARMACY PRACTICE MODEL PROVIDE CARE TO PATIENTS AND ENSURE SAFE AND EFFECTIVE MEDICATION THERAPY?**

We have a decentralized, integrated practice model for deploying pharmacists. We want the pharmacists to be part of a unit based team that is accessible to physicians, nurses and patients. There are 3 pharmacists stationed on the patient care units all day. Our average daily census is 102 patients, so each pharmacist is responsible for providing order entry and clinical consultations for about 34 patients. If their unit has patient rounds, they also participate in those. This also allows for limited pharmacist coverage for the emergency department. We are planning to add a 4th pharmacist on the patient care units this Fall after we expand our Infusion Center with the addition of an Ambulatory Oncology Infusion Service. Some IV compounding that is centralized now will be decentralized with the expanded infusion service freeing another centralized pharmacist to move to the patient care unit.

We also rotate all our pharmacists through *all* areas of practice. So, pharmacists can be found everywhere from the IV room to the ICU. We felt strongly that a clinical service is best provided 24/7 and not just 8-5. In the evening there is one clinical pharmacist and then the night pharmacist provides any new consultations needed during their shift. Our pharmacists with specialized training, such as oncology and critical care, serve as a resource for the other staff that rotate through those areas. While specialty-trained pharmacists generally do not work exclusively in their area; they serve as the residency preceptors for their specialty. This model ensures that every pharmacist maintains some level of competence and can function in all areas.

This model has allowed pharmacists to be responsible for everything related to the care of a group of patients. The pharmacists are more accessible to the rest of the health care team and patients, and this results in better utilization of their medication management expertise.

### **WHAT SERVICES HAVE YOU DETERMINED TO BE ESSENTIAL TO SUPPORT YOUR PHARMACY PRACTICE MODEL?**

Providing clinical consultations (e.g., anticoagulation, antibiotics), drug information, TPN ordering and management, renal function screening, high-alert drug review, chemotherapy dose evaluation, ICU patient rounds, and order entry and verification are the pharmacy services that we believe to be essential to the success of our practice model. We are now moving to incorporate core measure compliance into the mix of clinical services. We believe that pharmacists are in a great position to help improve compliance with a number of drug-related quality measures. For example, we worked with our medical executive committee to give pharmacist the ability to initiate orders for patients who meet the criteria for influenza vaccination. Another example is having pharmacists monitor heart failure patients to ensure those patients are discharged from the hospital with the correct medications. This model gives us the opportunity to *truly* partner with the medical staff. Most importantly it allows us to demonstrate the value of pharmacists by helping the hospital meet compliance requirements before a lack of compliance affects hospital reimbursement.

### **WHAT TECHNOLOGIES HAVE YOU IMPLEMENTED WITHIN YOUR PRACTICE SITE TO FACILITATE YOUR PRACTICE MODEL?**

New technologies we implemented in our hospital include dispensing robots, automated medication storage and retrieval systems, high-speed packagers, automated medication dispensing cabinets, and bar code medication administration (BCMA). However, the tool that has most recently helped us decentralize our pharmacy services is medical order imaging. Having physician orders scanned into an electronic format, instead of receiving a hard copy of the order, has made it feasible for the pharmacist to review and enter orders from virtually anywhere in the hospital. This imaging technology is a bridge until we implement computerized physician order entry (CPOE). Implementing technologies like medical order imaging, which effects non-pharmacy staff, does however require a higher level of coordination and training among hospital staff.

### **HOW WOULD YOU SHARE THE SUCCESSES OF YOUR PRACTICE MODEL WITH OTHER PHARMACY DIRECTORS AND ADMINISTRATORS?**

A key factor in the success of our practice model was the implementation of both robot and carousel technologies that support bar code dispensing. This technology has allowed us to delegate significant

medication dispensing functions to our well-trained pharmacy technicians (supported by bar code verification). 91% of our non-IV doses are dispensed using bar code verification. These doses are checked again with bar code verification at the bedside. This frees pharmacists to be more involved at the time of order writing to help optimize medication therapy. Another byproduct of the distribution technology is that it allows pharmacists to take on additional activities like core measure compliance and medication reconciliation.

**WHAT ARE SOME KEY CONSIDERATIONS TO GAIN EMPLOYEE ACCEPTANCE AND BUY-IN TO IMPLEMENT A NEW PRACTICE MODEL?**

Our technicians have more responsibility, which increases job satisfaction. The pharmacists are now more involved in direct patient care where they can make a greater difference. These changes were not difficult to sell once we had all the technology pieces in place. The key was implementing changes on a gradual basis and tweaking the process as we went along.

**WHAT ARE SOME LESSONS LEARNED WHILE IMPLEMENTING YOUR PRACTICE MODEL THAT YOU WOULD LIKE TO SHARE WITH OTHER PHARMACISTS?**

The most important lesson we have learned is that communication is key. Staff needs to understand what they are working for; they need to understand your vision. This includes not only the pharmacy staff, but also the nursing and medical staff. It is important to review your master vision on a yearly basis to remind the pharmacy and hospital staff of where you are going and why you are implementing these changes. We began this process in January 2001 and have just finished implementing the last piece of technology this summer, so it has been an 8-year process. In our case, it has been several incremental changes over a number of years that ultimately allowed us to change our practice model. While it may not always be obvious as you implement each piece of technology, going back to the “big picture” and reviewing where the change falls in relation to your master vision, helps the pharmacy and hospital staff see how the changes will ultimately benefit their practice.