

In the Spotlight

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Focus: Pharmacy Informatics



Brief Bio

Marc Young earned a Bachelor of Science in Pharmacy from the University of Texas at Austin. He then went on to earn his Doctor of Pharmacy degree from Idaho State University, Pocatello, Idaho in 2001. In 2006, Dr. Young also earned his Master of Science in Pharmacy Care Systems from Auburn University, Auburn, AL. He has served as a peer reviewer for the American Journal of Health-System Pharmacy and the Annals of Pharmacotherapy. He is also on the ASHP Section of Pharmacy Informatics and Technology Task Force on Education & Publications. Currently, Dr. Young is a Lieutenant Commander in the U.S. Navy, serving as the Program Manager for the DoD/FDA pharmaceutical Shelf Life Extension Program managing \$2.2 billion in pharmaceutical assets. This program is the only one of its kind for the United States and is a key component of medical readiness for Pandemic Influenza and chemical or biological both at home and abroad. Dr. Young also serves as a Pharmacy Informatics advisor for Navy Pharmacy, which includes duties such as managing the implementation of systems such as telepharmacy, electronic prescribing and automation within all Navy facilities worldwide.

Role

While Dr. Young's primary day job is serving as the Program Manager for the Shelf Life Extension Program, he wears another hat- as a Pharmacy Informatics advisor for the Navy. In this role he primarily focuses on pharmacy informatics management issues at the corporate level. He approves all major purchases of automation and technology for all the different medical centers and clinics around the world. In addition, he is also working to standardize processes and practices in order to have a standard set of requirements throughout the different Services. This initiative to develop a standardized business practice throughout the Services is a collaborative effort that involves working on committees with service members from the Air Force, and Army.

Dr. Young also serves as the Navy representative on the DoD Pharmacy Information Technology Advisory Committee (PITAC) where he provides guidance on technology initiatives such as Electronic Health Records (EHR), Electronic prescribing (E-Rx), Personal Health Records (PHRs) and integration and management of healthcare information systems. This advisory role ensures that the Navy is fully engaged with initiatives coming from the DoD. Dr. Young also serves as the Pharmacy representative to a Navy Medicine Informatics Action Team (NMIAT) that seeks to find best of breed technology initiatives within Navy Medicine and evaluate their application for global integration.

Managing Pharmacy Informatics in the Navy

Currently, Dr. Young is working on an outpatient telepharmacy initiative, which has been ongoing for about two years. The DoD has a very regimental set of security requirements for putting in a new system beyond what you might have at a standard hospital. This initiative is nearing the final stages of the test phase.

While the Navy has nearly 100% internal prescriptions that are computerized provider order entry (CPOE), they still process outside paper prescriptions. In order to connect different pharmacies that only have

technicians, telepharmacy needs to be in place to accept outside prescriptions. Much like in a rural setting, the pharmacy technician might be the only pharmacy staff member at a location, therefore extending the pharmacist review is critical. Currently, the Navy plans to deploy telepharmacy in land based facilities where there is an independent technician.

Managing different initiatives like outpatient telepharmacy, standardizing different business practices, and working with a larger group from the DoD are many of the responsibilities of Dr. Young. He is the first person to be working on these types of initiatives and has grown the position over the last few years into what he is doing today.

Moving Towards 100% Electronic Prescribing

Dr. Young also works on some joint committees with other DoD practitioners to standardize practices. One of these joint initiatives is to move the DoD towards being able to accept electronic written prescriptions from outside entities, like a doctor in the community sending a prescription to a mail order pharmacy or pharmacies located throughout the world. They are trying to provide patients with the ability to manage prescriptions differently. Given the shortage of pharmacists in the nation and the length of time it takes the DoD to recruit and obtain pharmacists, the DoD is trying to branch out and utilize technology. These innovations in technology and standardization of processes will be looked at by CMS and other agencies as a model of information sharing.

Lessons Learned

In working towards 100% electronic prescribing, the DoD realized that they need a standardized drug database. They found that compounded prescriptions were a problem area. To address this problem, they had a group of pharmacists from the different services (Army, Navy, and Air Force) start collecting all the compounding recipes in order to come up with a standardized recipe list based on accepted literature. They had to look at each compounded product uniquely because there aren't NDCs for compounds. This became the standardized book of recipes and names of the compounds that would become part of the drug database. In addition, as a part two of this project, they are working on establishing a standard process to introduce new compounds to the recipe list. This project is a big undertaking and the compound product database is still in the construction process. "Level of complexity for compounded solutions was amazing," said Young.

Opportunities for Practitioners Interested in Informatics

Pharmacists who want to get involved in informatics have various opportunities, including informatics residencies, master's programs in health information technology or a master's of information systems degree. While there is not a specific degree that will focus 100% on pharmacy informatics, these programs help to standardize you to some of the different business practices and different ways to look at technology. Having a baseline understanding of information systems is important.

Pharmacy informatics is such a new area that it doesn't have a direct route or clear path and therefore it is more self-tailored. Everyone who is involved in informatics comes from a different background. Dr. Young did not think he would stay in the Navy beyond three years, but he's now coming upon his 14th year in the Navy and it's been a very enjoyable time for him. His Navy experience has paid for much of his education and training, and has given him various opportunities to grow.

Advice

There are multiple avenues in which pharmacists can get involved with technology. Depending on the route you take, you need to understand what you are going to do with that education, how you are going to apply it, and how to harness your skill set. Pharmacists can be involved with either the day to day management of the different pharmacy systems or can be involved as a high level strategic thinker who looks to plan future procurement and integration of systems. In Dr. Young's case, he earned a graduate degree in technology, but also has clinical training and certification, as well as the technical experience. Dr. Young believes it was helpful to have the clinical pharmacy practice experience along with the technical practice experience. "Where I'm sitting today and what I'm doing is not what I thought I definitely would be doing 5 or 6 years ago. I had a dotted path that didn't take a straight line in pharmacy," said Young.

If you are going to pharmacy school it's important to obtain some clinical practice experience and go through an informatics residency or earn a graduate degree. "You have to understand that informatics management is a different type of leadership that you may not be expecting. In addition, having an understanding of the clinical needs of pharmacists and other medical professionals will only help you in your work with information systems," said Young.

The Value of ASHP Membership

The Section of Pharmacy Informatics and Technology has become a new home for Dr. Young. While in the past he had not been an active member of ASHP, he is now an active member due to the creation of this new Section. Some of the initiatives of the Section are very relevant to his work in the military and therefore he has become involved in the Section Advisory Group on Education and Publications. He has even written a chapter in a new book that will be coming out this summer. Dr. Young believes that ASHP has more initiatives that fit with his military work and ASHP membership provides him with an avenue to network with others involved with informatics.