

Editorial

Pharmacy technicians: Expanding role with uniform expectations, education and limits in scope of practice

There is a growing body of literature describing the expanding role of the pharmacy technician, including the study in this issue describing the utilization of pharmacy technicians in performing medication reconciliation and focused prescribing reviews.^[1] The scope of practice for pharmacy technicians in Denmark is remarkable as it includes “focused prescribing reviews,” but may be overreaching for pharmacy practice in other countries, including the United States (US). The study brings to light many important issues to consider while expanding the role of the pharmacy technician, including the required education to meet the needs of the expanded role and determining where the role of the technician stops and the role of the pharmacist begin.

In the US currently, pharmacists pursue at minimum 6 years of education to obtain a Doctor of Pharmacy (PharmD) which is generally followed by 1 or 2 years of post-graduate residency training. This level of education and training is what is expected to allow a pharmacist to function as a clinical pharmacist and provide direct patient care. In the acute care setting, as described in the study, clinical pharmacists are active members of an interprofessional team through selecting, monitoring and adjusting medication therapies. Pharmacist collaboration in these interprofessional teams has been proven to have a beneficial impact on patient outcomes, including reductions in hospital readmissions, length of hospital stays and mortality rates, in addition to a beneficial economic impact through reducing and controlling health care costs.^[2-4] Removing the pharmacist from the dispensing function of medication-related services has allowed for increased direct patient care.

Health care reform in the US, with a focus on improved patient outcomes and decreased costs,

has compelled pharmacy stakeholders to redesign a practice model that optimizes the knowledge and skills of a clinical pharmacist in providing direct patient care. The American Society of Health-System Pharmacists (ASHP) and the ASHP Research and Education Foundation are co-sponsoring the Pharmacy Practice Model Initiative (PPMI) which is charged with creating a framework, determining services, identifying emerging technologies, developing a template and implementing change with regard to health-system pharmacists.^[5] The PPMI plans to address both the distributive and clinical functions of the pharmacist. A key message from the consensus of the Pharmacy Practice Model Summit was advancing the role of technicians to facilitate pharmacists practicing at the top of their license.^[6]

Through the Pharmacy Practice Model Summit, seven key recommendations regarding the pharmacy technician have been published.^[7] Table 1 lists the specific recommendations. The PPMI focus with regard to the pharmacy technician role is directed at expanding the distributive function to allow pharmacist more time to provide direct patient care. However, to do so requires standard, uniform, accredited technician education and some form of licensure. The requirement of a certified technician in most states in the US is a step in the right direction for the advanced role of the pharmacy technician and is one of the recommendations of the PPMI.

More recently, in August 2013, collaboration between the ASHP and the Accreditation Council for Pharmacy Education was established to accredit pharmacy technician education and training programs beginning late 2014. This collaboration will result in the birth of the Pharmacy Technician Accreditation Commission. The credentialing of pharmacy technician education and training paves the road for devising uniform education standards and quality to ensure safety in the medication-use system. The article published in this journal describes the education requirements of pharmacy technicians in Denmark, which appear to be more stringent than what is currently required in the US.^[1] This difference may be a reason for differences in the scope of practice.

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Table 2 details the proposed tasks that may be assigned to a technician in an expanded scope of practice from the Pharmacy Practice Model Summit.^[6] One task is the initiation of the medication reconciliation process, which was the focus of the study published in this journal. Previous studies have demonstrated trained pharmacy technicians are capable of obtaining equally complete and accurate medication histories compared with pharmacists.^[8] For that reason, institutions have adopted the pharmacy technician in obtaining the preliminary medication history for review by the pharmacist prior to submission to the prescriber, which did not appear to happen in the current study. Complete and thorough medication reconciliation may involve interviewing the patient or caregiver in person or via the telephone, contacting a community pharmacy to obtain details of the medications prescribed, or contacting another health-care facility. A technician can be asked to perform these tasks to ensure the most precise medication history; however, the clinical pharmacist has the unique training skills to review the medication history and identify any medication-related problems including, but not limited to inappropriate doses, drug-drug or drug-disease interactions, adverse drug reactions and duplication of therapy. The study reported a low acceptance rate of interventions by the physicians, but

it did not detail the significance of the interventions. A clinical pharmacist has the ability to “triage” the urgency of the intervention and determine which require an immediate phone call, a discussion on rounds, or an electronic note in the health record. The pharmacy technician may not be adequately trained to assess the urgency. Although it is worthwhile expanding the role of the pharmacy technician to optimize the medication-use process, direct oversight by the pharmacist is necessary.

In addition to technicians performing medication reconciliation for pharmacists’ review, the role of the technician may be expanded to include reviewing patient charts to identify medication allergies and screen medical records to identify patients who may require pharmacist follow-up or intervention. The study in this journal reported findings related to pharmacy technician conducted “focused medication reviews.” These reviews identified inappropriate doses, dosing intervals, formulation and strength and on average, took 4 min per patient review. Although the authors do not detail the level of review the technician performed, they did state the technicians were given the authority to change 94% of all the errors identified. The authors did detail the types of interventions, but once again did not document the severity of

Table 1: Recommendations from the pharmacy practice model summit

Necessary changes to current pharmacy technician practice required to expand roles
American Society of Health-Systems Pharmacists should define a scope of practice, including core competencies, for hospital and health-system pharmacy technicians
Uniform national standards should apply to the education and training of pharmacy technicians
To support optimal pharmacy practice models, technicians must be certified by the Pharmacy Technician Certification Board
By 2015, the Pharmacy Technician Certification Board should require completion of an accredited training program before an individual may take the certification examination
To support optimal pharmacy practice models, technicians must be licensed by state boards of pharmacy
All distributive functions that do not require clinical judgment should be assigned to technicians
Opportunities for technician specialization should be developed

Table 2: Expanded scope of practice for pharmacy technicians

Examples of expanded roles for pharmacy technicians
Initiation of medication reconciliation, including obtaining and documenting patients’ medication information for pharmacists review
Reviewing patient charts to identify medication allergies that require pharmacists follow-up
Checking dispensing by other technicians (i.e., “tech-check-tech”)
Compounding routine sterile preparations in conformance with well-documented procedures
Dispensing medications with remote video supervision by pharmacists
Scheduling outpatient clinic drug therapy management visits
Criteria-based screening of medical records to identify patients who may require pharmacist intervention
Preparing clinical monitoring information (e.g., international normalized ratios) for pharmacist review
Inspecting and replenishing medication storage devices
Management controlled substances systems
Managing medication assistance programs
Managing pharmacy department information technology systems, including routine management of database and billing systems
Supervising other pharmacy technicians

the error. The expansion of the role of the pharmacy technician, while necessary, must be limited to those activities that do not require the clinical judgment of a pharmacist.^[6] The explanation of the focused review was sparse, but given that technicians were reviewing the appropriateness of dosing leads one to believe the technician was acting within the scope of a pharmacist. A medicines information database may clearly state the recommended dose or frequency for a patient, but given the geriatric population in the study, various factors may result in altered dosing and frequency. In fact, the geriatric population is considered a special population in which clinical pharmacist often obtains additional specialized training and certification.

The authors of the study are to be applauded for disseminating the results of their pilot study. The pharmacy profession requires well-designed robust studies detailing the expanded roles of the technician. For example, one review of studies evaluating “tech-check-tech” concluded that technicians can perform verification of unit dose orders as accurately as pharmacists and the time saved by pharmacists averaged 10 h per pharmacist per month which allowed them to provide additional services to the medical team such as medication dosing and drug information.^[9] The individual studies and review of such studies are necessary to maximize the skills of the technician and pharmacist to ensure an optimal and safe medication use process.

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