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Should States Institute A “Wet Lab” Examination as Part of the Pharmacist Licensing Process?

The profession of pharmacy has evolved significantly since it first began. For centuries, pharmacists have been responsible for the procurement, compounding, dispensing, and recommendation of medications¹. Compounding was one of the main tasks of pharmacists in the 1930s with up to 60% of all medications being compounded². After the advent of manufacturing and legalization of the Durham Humphrey Amendment in the 1950s, the role of pharmacists became limited. A decline in compounding was seen and the profession changed direction into more of a dispensing role. During the 1980s, the paradigm of the pharmacist’s role in healthcare shifted again with the advent of clinical pharmacy. This brought the focus of the profession to a patient centered approach of care. As pharmacists focused more on addressing and meeting the needs of the patient, there was recognition that certain patient populations require more individualized medications not available through conventional manufacturing methods. It is not surprising that because of this, compounding pharmacies have begun to grow again.

Compounding remains an important part of the pharmacy profession. Studies show that 1% of all prescriptions filled each year are compounded products². Although community pharmacy is the largest field with about 61% of pharmacists working in retail, a survey done by NCPA in 2012 shows that 85.5% of community pharmacy provide compounding services³. In that percentage, 38.2% of community pharmacies compound greater than 5% of their annual prescriptions³. This shows the current prevalence of compounding in pharmacy.

¹ Buerki RA, and Vottero LD. The Profession of Pharmacy and Pharmaceutical Care. *Pharmaceutical Care*. Maryland: American Society of Health-System Pharmacists, 2003. ASHP Web. 20 February 2015.

² Terrie, Yvette C. "Pharmacy Compounding Is Flourishing Once Again." *Pharmacy times*. 1 Nov. 2005. Web. 12 February 2015.

³ Community Pharmacy Compounding Survey November 2012. *Survey*. NCPA Net. November 2012. Web. 15 February 2015.

Compounding is done when a patient is unable or unwilling to take a medication; therefore the main goal is to increase adherence. One example in which compounding is paramount is when patients have allergies to an excipient in a manufactured product. Pharmacists can then make a product that excludes the excipient or substitute it with an alternative. Another reason is when patients cannot swallow available oral dosage forms which can be a common occurrence among the elderly and pediatric patients. In addition, pharmacists can also add flavoring to certain medications to increase adherence in the pediatric population. Compounding also becomes vital during drug shortages. Pharmacists can then take bulk ingredients and compound medications in order to ascertain that patients can have access to medications thus preventing interruptions in therapy. This and many more examples illustrate how beneficial compounding is to patient care.

With the increasing prevalence and importance of compounding pharmacy, this begs the question: should states institute a “wet lab” examination as part of the licensure examination process for pharmacists? Currently, the pharmacy licensure examination process includes the North American Pharmacy Licensure Examination (NAPLEX) and the Multistate Pharmacy Jurisprudence Examination (MPJE) for most states. The NAPLEX and MPJE provide a standard to assess a candidate’s knowledge of pharmacy practice and law but they lack a component that can evaluate the practical skills a pharmacist would perform on the job, such as compounding. As previously mentioned, compounding plays an important role in helping patients become adherent by making medications available and remains a large part of community and hospital pharmacy. Therefore, it is necessary to test this practical skill because it is one of the main tasks of pharmacists and is prevalent in the different fields of the profession. The addition of a wet lab

component in the licensure examination process can serve as that component which tests this practical skill.

The purpose of a licensing examination is to ensure that candidates possess the minimum knowledge and experience necessary to perform tasks on the job safely and competently⁴. The lack of a standard way to test potential pharmacy candidates' ability to compound leaves no objective way of proving that pharmacists who pass the licensure exam have the minimum skills necessary for compounding. The inclusion of compounding in the licensing process makes certain that pharmacy candidates will have a basic competency for compounding. Having this skill assessed creates a higher standard for pharmacists because this would require candidates to receive more training.

The inclusion of a compounding portion to the licensure process would result in more well-rounded pharmacists. A probable consequence to the addition of a wet lab to the licensure process would be that institutions would be required to incorporate more practical training in compounding. Compounding is taught differently in each state. Currently, only New York and Georgia have a compounding component to their licensure process for pharmacists⁵. As such, their institutions have a more rigorous compounding training for its students. For other states, training is variable. While it is uncertain whether a push to add compounding to the NAPLEX will standardize the amount of training in compounding to the pharmacy curriculum, it is likely that institutions will have to accommodate more training in order to better prepare students. This additional training would produce students that are more experienced and accomplished with this skill.

⁴ "Purpose of Standardized Tests." *Education Testing Services*. Web. 8 Mar. 2015.

⁵ "Additional State Pharmacy Exams." *Professional Development Path*. 28 May 2014. Web. 5 Mar. 2015.

In conclusion, the inclusion of a wet lab component to the pharmacy licensure process is beneficial due to several reasons. Firstly, it serves as a standard in which the practical skill of compounding can be tested objectively. In addition, it raises the standards for compounding. And furthermore, it can lead to more rigorous training to be incorporated in institutions and thus lead to more well-rounded pharmacists.