

9-27-2017

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Recommended Citation

Atkinson D, Adams A, Bright D. Should Pharmacy Technicians Administer Immunizations?. *Inov Pharm*. 2017;8(3): Article 16.
<http://pubs.lib.umn.edu/innovations/vol8/iss3/16>

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Should Pharmacy Technicians Administer Immunizations?

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Abstract

Purpose. To describe the potential role for pharmacy technicians in administering immunizations – limited for this discussion to specifically inserting the needle into the patient’s arm and pressing down on the plunger – at the discretion of a supervising pharmacist as a way to enhance patient care and workflow efficiency.

Summary. Pharmacy technicians currently play an important role in facilitating pharmacy-based immunization programs. Technicians routinely perform non-clinical tasks related to pharmacy-based immunizations, though nearly all states prohibit technicians from administering vaccines. Several studies demonstrate that untrained laypersons can safely administer intranasal or intradermal vaccines, and laypersons routinely administer medications through intramuscular or subcutaneous routes (e.g., patients with diabetes or rheumatic conditions). It stands to reason that a trained pharmacy technician could perform comparably on these techniques that laypersons have mastered. One state has adopted rules to allow pharmacy technicians to administer immunizations if the technician has completed specific training on administration techniques and on basic life support. This task is performed at the discretion of the supervising pharmacist, and the pharmacist would still be responsible for clinical aspects of immunizing such as prescribing the right vaccine to the right patient. Additional considerations factoring into the decision as to whether or not to involve pharmacy technicians in immunization administration are also summarized.

Conclusion. If safety can be reasonably assured through training and supervision, it may be appropriate to delegate vaccine administration to appropriately trained pharmacy technicians. Such delegation may enhance workflow efficiency, which may confer added value for patient care and potentially improve access to community pharmacy-based immunizations.

Conflicts of Interest: None

Disclaimers: The views expressed in this manuscript are those of the authors alone, and do not necessarily reflect those of their respective employers, nor do they necessarily represent official policies. David Bright is the current president of the Pharmacy Technician Certification Board Certification Council. The views and opinions expressed in this article are those of the authors and do not necessarily represent the views and opinions of the Pharmacy Technician Certification Board.

Key Words: Immunizations; Pharmacy Technicians; Pharmacy-Based Immunizations; Scope of Practice

Pharmacy-based immunizations have been one of the most significant public health achievements of the profession in recent years. The Centers for Disease Control and Prevention (CDC) has lauded the profession’s efforts to increase vaccination rates in the United States.¹ Various studies have demonstrated that pharmacists increase vaccination rates against influenza, pneumonia, and herpes zoster.²⁻⁴ Patients have demonstrated high acceptance of pharmacy-based immunizations, with 97% of vaccinated patients’ surveyed reporting satisfaction with their experience in the pharmacy.⁵ One third of all influenza vaccines given during the 2013-2014 flu season were provided in a community pharmacy.⁶ In addition, studies have demonstrated that pharmacy-based immunizations are more cost-effective than those provided in other settings, including physician offices.⁷⁻⁸

In order for pharmacists to provide immunizations, a series of activities must be accomplished. Pharmacists must assess current vaccination status and identify an appropriate candidate for a vaccine, discuss and recommend needed vaccinations with the patient/caregiver, prescribe (or order under protocol) the right vaccine, prepare the vaccine to be administered, administer it via the proper route, provide counseling and a vaccine information statement, and monitor for adverse events and report as appropriate. In addition, there are management activities related to vaccine ordering, storage, handling, documentation, and registry reporting. Each of these individual steps requires varying degree of professional judgment and clinical expertise.

Immunizations are one of the first successful clinical services to be integrated into the workflow of a community pharmacy, but it has not been without challenges to pharmacists. In a survey of immunizing pharmacists, pharmacists slightly agreed that “there is not enough time in a normal work day to immunize patients” and slightly agreed that they “felt overworked or overwhelmed when they have to immunize patients while filling prescriptions.”⁹

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Pharmacy technicians have demonstrated an ability to help with different aspects of clinical service provision in the community pharmacy setting.¹⁰⁻¹² Similarly, pharmacy technicians can play a critical role in facilitating pharmacy-based immunization programs by defraying some of the added workload placed on pharmacists. The role of technicians in non-discretionary activities related to immunizations has been well documented.¹³⁻¹⁶ Despite the benefits of technician involvement with immunizations across a number of activities, to date we have observed little advocacy to enable pharmacists to delegate the technical immunization workflow component of vaccine *administration* – specifically the technical aspects of inserting the needle into the patient’s arm and pressing down on the plunger -- to technicians. This is surprising given that physicians routinely delegate vaccine administration to support personnel.¹⁷

This discussion naturally leads to the question “Are pharmacy technicians trained to administer immunizations?” The answer to that question is quite simple: no. While we have encountered an occasional technician who previously administered immunizations while working as a medical assistant in a physician’s office, by and large most technicians are not currently trained to administer immunizations. But why would they be? Why would a technician – or their employer – invest time and money in a training program for a skill they are legally prohibited from providing in practice? In hopes that a benevolent regulator may soon permit them to exercise a previously acquired skill?

We contend a more appropriate starting point is “Can pharmacy technicians be trained to administer immunizations?” In that respect, administering a vaccine encompasses tasks that technicians already perform (e.g., selecting proper needle gauge and length, loading syringe, and safely disposing of needles and syringes) and tasks that would generally be considered new (e.g., identifying the proper site of injection and using the proper route of administration). We believe a technician can master these new tasks as other licensed and unlicensed health professionals with similar career experience and training have mastered them.

Vaccines are most commonly administered through intramuscular (IM), subcutaneous (SC), intranasal (albeit not currently recommended), intradermal and oral routes. Several studies have demonstrated that unlicensed laypersons can safely and effectively self-administer intranasal and intradermal vaccines while achieving statistically similar levels of immune response.¹⁸⁻²⁰ Thus, we would contend that if an unlicensed layperson can safely administer an intranasal or intradermal vaccine, it stands to reason that an appropriately trained pharmacy technician could perform comparably. In addition, as previously noted, medical assistants are able to perform

vaccine administration under the supervision of a physician in some states.²¹

While similar studies were not available for IM or SC vaccines, untrained laypersons have a long and rich history of successfully self-administering medication through these routes (e.g., patients with diabetes or rheumatic conditions, among others). In essence, this technique boils down to inserting a needle in the skin at either a 45- or 90-degree angle in the central portion of the deltoid muscle for IM vaccines, or the posterolateral aspect of the upper arm for SC vaccines.²¹

Appropriate technique is crucial in order to minimize the potential for injection site reactions or reduced vaccine efficacy if the wrong needle or route is used. Similarly, there are risks to the technician, such as the potential for a needle stick. While convenient charts and reference guides are available to remind which route of administration and which needle gauge is recommended for each vaccine, training will be critical to minimize the chance for error.²²

The Idaho Board of Pharmacy was the first to adopt rules on this concept.²³ Specifically, a registered and nationally certified technician must complete the following training in order to administer vaccines:

- 1) Successfully complete a course on appropriate vaccine administration techniques by an Accreditation Council for Pharmacy Education accredited provider or a comparable course; and
- 2) Hold a current certification in basic life support for healthcare providers offered by the American Heart Association or a comparable Board-recognized certification program that includes cardiopulmonary resuscitation and automated electronic defibrillator training and requires a hands-on skills assessment by an authorized instructor.²⁴

The requirement for basic life support is to ensure the technician is able to assist the supervising pharmacist in responding to the extremely rare reactions that vaccines may elicit.

Even with the training, the supervising pharmacist would still be able to use his or her discretion to delegate – or not delegate – the technical task of vaccine administration to a properly trained, registered, and nationally certified technician.²⁴ Pharmacists may have varying degrees of comfort with delegation of vaccines generally and to their technicians specifically, and preserving delegation as an individual choice is key. We feel that the training requirement and pharmacist discretion in delegation are critical elements to ensuring confidence that technicians can appropriately administer immunizations. Such a model of pharmacist delegation is

already employed for other advanced tasks performed by technicians, such as performing a point-of-care test or taking a medication history.²⁵⁻²⁶

In discussing technician immunization administration with multiple stakeholders, we have not encountered anyone to date who has openly argued that an appropriately trained technician would not be technically able to safely and effectively administer vaccines at the discretion of their supervising pharmacist. Instead, arguments to date have centered around “*Should* pharmacy technicians be able to administer immunizations?” We have heard several points to this effect which are reviewed in **Table 1**.

We believe that the sentiment encapsulated in each of the aforementioned points is well-intentioned and worthy of discussion. That said, we believe first and foremost that regulatory bodies should be chiefly concerned with the potential public safety impact. Safety should be the guidepost for deciding whether or not to allow greater pharmacy technician involvement in the immunization workflow by adding *administration* to the duties that may be delegated by a supervising pharmacist per the professional judgment of that supervising pharmacist. Similarly, the points are generally pharmacist-centric, and discount the value that engaged and motivated technicians can bring to the pharmacy team. A key way of recruiting and retaining top talent involves continuously providing new challenges and opportunities to motivated personnel.

If safety can be reasonably assured, additional personnel capable of vaccine administration may even serve to improve access to community pharmacy-based immunizations. Some pharmacies may shy away from offering vaccinations if the pharmacist is exceptionally busy. Other duties of the pharmacist may also create lengthier waiting times for the administration portion of the immunization workflow. Delegating the administration component of the vaccination workflow could reduce the burden of time on the pharmacist, and if wait times are decreased, the patient experience may be further improved. If safety can be reasonably ensured in a workflow model that involves greater patient access and convenience, there could be tremendous value for both the patient and the pharmacy.

To be sure, pharmacists would still play a critical role with immunizations, namely the clinical duties of prescribing the right vaccine to the right patient at the right time according to their professional judgment. We believe that effective delegation is the essence of a healthcare provider, and that to truly seize provider status, pharmacists must have the permissive ability to delegate – at their discretion – any safe technical activity to an appropriately trained technician under their supervision. We believe vaccine administration represents

one such opportunity, and we anticipate innovator states will pursue this authority in the near future.

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Table 1. Review of Concerns Raised to Date

Point	Counterpoint
<p>Pharmacy associations have worked hard to attain pharmacist immunization authority and it is too early to “give this up.”</p>	<p>In the described model, pharmacists would remain in charge of the immunization process. Specifically pharmacists would assess the patient, prescribe the right vaccination, and monitor for adverse events. Thus the pharmacist is not “giving up” immunizations just as pharmacists have not “given up” dispensing by better leveraging technicians in the medication use process. Instead, the pharmacist’s time is better directed at the activities that require professional judgment in the immunization process. Technicians are already critically involved with immunizations; this would just add the technical, non-clinical task of vaccine administration to the roles that a pharmacist <i>could</i> delegate to a technician.</p>
<p>Pharmacists in some states are still working to increase the types of vaccines they may provide, and the patient populations they may provide them to. In other states, pharmacists are currently working to allow student pharmacists to administer vaccines. In addition, some interest groups are still increasing their acceptance of pharmacy-based immunizations, and delegation to pharmacy technicians could undermine growing support.</p>	<p>We believe that the value of pharmacy-based immunizations has been well documented over the past two decades and is broadly accepted in terms of safety, effectiveness, and cost-effectiveness. This is perhaps most clearly demonstrated by the fact that one in five vaccinated Americans has voluntarily sought a vaccine in a pharmacy when they could have chosen any other venue for care and the fact that one third of all influenza vaccines were provided in pharmacies during the 2013-2014 flu season.^{6,27} Thus, we believe we are beyond the point at which we need to gain additional support for pharmacist immunizations as consumers have clearly embraced pharmacy-based immunizations.</p>
<p>Immunizations are one of the few areas where pharmacists are able to demonstrate the expanded role of pharmacist. Technician delegation <i>may</i> forfeit this positive image.</p>	<p>While we believe pharmacy-based immunizations are a significant public health achievement, we do not believe it represents the edge of the clinical profession. Indeed, pharmacists have recently made significant strides with services such as point-of-care testing, prescriptive authority for select conditions, chronic disease state management, and Medication Therapy Management, among other advanced care services.²⁸⁻³¹ Immunizations have critically and importantly served as a gateway to patient acceptance of these advanced care services and have bolstered pharmacist confidence for the provision thereof, but we believe the time is ripe to move the needle (pun intended).</p>
<p>Pharmacist: “I would not trust my technician to administer vaccines” or “My technicians do not have any interest in administering vaccines”</p> <p>Technician: “I do not like shots and would not want to give one either.”</p>	<p>It would be up to each supervising pharmacist to decide whether or not to delegate vaccine administration to an appropriately trained technician once the pharmacist has prescribed it. If a pharmacist is not comfortable with a technician performing this task he or she may simply choose not to delegate it, but it does not seem reasonable to hold back every other pharmacist and technician just because <i>some</i> pharmacists are uncomfortable with their own support staff. Such regulation to the “lowest common denominator” is rarely in the best interest of patient care.</p> <p>Similarly, some technicians would embrace this activity, others would not be excited about the prospects of vaccine administration, just as some pharmacists refused to become immunizers. Just because <i>some</i> technicians would not want to administer vaccines is not a reasonable reason to not allow <i>any</i> technician to do so.</p>
<p>The salary for pharmacy technicians is such that additional training and risk of liability may be difficult to take on.</p>	<p>A broad discussion of appropriate salaries for pharmacy technicians is beyond the scope of the single issue of immunizations and represents more of a business discussion than a regulatory discussion. However, it may be reasonable to assume that salary is in part influenced by value to the employer from a business operations standpoint and by supply and demand. Therefore, if there is a smaller subset of pharmacy technicians adequately trained to administer immunizations, and if the ability for pharmacy technicians to provide immunizations brings additional value to the employer, it would be reasonable to expect market forces to drive up salaries for such appropriately trained pharmacy technicians.</p>