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Advancing technician practice: Deliberations of a regulatory board

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A B S T R A C T

In 2016, the Idaho State Board of Pharmacy (U.S.) undertook a major rulemaking initiative to advance pharmacy practice by broadening the ability of pharmacists to delegate tasks to pharmacy technicians. The new rules of the Board thus moved the locus of control in technician scope of practice from law to pharmacist delegation. Pharmacist delegation is individualistic and takes into account the individual technician's capabilities, the pharmacist's comfort level, facility policies, and the risk mitigation strategies present at the facility, among other factors. State law limits, by contrast, are rigid and can mean that pharmacists are unable to delegate tasks that are or could otherwise be within the abilities of their technicians.

The expanded technician duties are in two domains: 1) medication dispensing support (e.g., tech-check-tech, accepting verbal prescriptions, transferring prescriptions, and performing remote data entry); and 2) technical support for pharmacist clinical services (e.g., administering immunizations). This commentary reviews the evidence behind these expanded duties, as well as the key regulatory decision points for each task. The Board's rules and approach may prove useful to other states and even other governing bodies outside the U.S. as they consider similar issues.

In 2016, the Idaho State Board of Pharmacy undertook a major rulemaking initiative to advance pharmacy practice in the state.[1] Specifically, the new rules broaden the ability of pharmacists to delegate tasks to technicians under their supervision. The expanded technician duties are in two domains: 1) medication dispensing support (e.g., tech-check-tech, accepting verbal prescriptions, transferring prescriptions, and performing remote data entry); and 2) technical support for pharmacist clinical services (e.g., administering immunizations). This manuscript describes the Board's approach to its rulemaking in hopes that it will be helpful to other jurisdictions considering similar issues.

1. Regulating technician practice

The regulation of pharmacy technicians is broadly focused on promoting safe and effective pharmacy practice while protecting the public health. States typically regulate technicians in two ways: 1) entry barriers; and 2) scope of practice restrictions.

1.1. Entry barriers

Entry barriers are designed to ensure a minimum level of competency of individuals holding a license or registration. Currently, Idaho law requires pharmacy technicians to meet the following requirements as a condition of registration: minimum age (18 years), education (high school graduate or equivalent), and training (hold a national certification through one of two national certifying bodies). Some exceptions are made on a case-by-case basis, and a technician-in-training registration category offers individuals up to three years to obtain the requisite certification.

1.2. Scope of practice restrictions

In a traditional sense, “there are no functions unique to pharmacy technicians; ” rather, all technician roles are a subset of pharmacist roles and occur under the supervision of a pharmacist.[2] For a technician to perform a task, it must be legally permissible and delegated to him or her by a supervising pharmacist. In general, the legal scope of technician practice is defined in prohibitive terms in that pharmacists are prohibited from delegating – and thus technicians are prohibited from performing – certain roles and responsibilities that may be otherwise performed by pharmacists or interns. Idaho is consistent with most U.S. states in that technicians are prohibited from performing tasks that require professional judgment (drug utilization review, clinical conflict resolution, and patient counseling). States vary to the extent they restrict other activities.

Thus there are two levels of control on technician scope of practice: state law limits and pharmacist delegation decisions. Even if state law does not prohibit delegation of a specific task or function to a technician, a pharmacist may use his or her professional judgment to decide *not* to delegate a specific task to a specific technician.

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Table 1
Summary of evidence on expanded technician roles.

Task	Brief Summary of Evidence
Tech-Check-Tech	The literature base supporting tech-check-tech in *institutional* settings spans nearly four decades. Across 11 studies in a systematic review, pharmacy technicians performed as accurately as pharmacists in final verification duties (99.6% vs. 99.3%, respectively) while freeing pharmacists for advanced clinical services (10 hours per month to 1 hour per day).[4,5] Two additional studies on institutional TCT have been published since the systematic review, demonstrating similar safety-related outcomes while achieving even greater yields in terms of time available for pharmacist clinical services (50 hours more per month to 5.75 hours more per day).[6,7] Published evidence on TCT in *community* pharmacy settings spans 14 years and four studies.[8] In the two studies that reported explicit accuracy rates, pharmacy technicians performed on par with pharmacists in one, and statistically outperformed pharmacists in the other (99.445 vs. 99.73%, $p = 0.484$; 99.95 vs. 99.74, $p < 0.05$) while simultaneously increasing the amount of time pharmacists have available for providing clinical services (5.3%–19.18% of the pharmacists' workday).[9–11]
Accept Verbal Prescriptions	Wakefield and Wakefield found the topic of verbal orders has not been studied in depth and the current body of evidence is anecdotal.[12] The lone study connecting verbal orders to safety found that verbal orders actually decreased the risk of error compared to handwritten orders.[13] Given
Transfer Prescription Orders	that 17 states have allowed these activities (in some instances for up to 40 years), and apparently high uptake of this activity by technicians in practice (63% in one study), the lack of evidence on patient safety issues gave the Board comfort that these activities may be safely and appropriately delegated if paired with strong practice policies and procedures.[14,15]
Administer Immunizations	Given that no states currently allow technicians to administer vaccines, it should be of little surprise that we were unable to find any technician-specific immunizations studies.[16] Parallels can still be drawn from the literature however. Studies have demonstrated that untrained laypersons can safely and effectively self-administer intranasal and intradermal vaccines while achieving statistically similar levels of immune response.[17–19] Laypersons also successfully self-administer medication through intramuscular and subcutaneous routes (e.g., patients with diabetes).

2. Approach to advancing technician scope of practice

While Idaho law has increased the entry barriers for technicians over time, the scope of practice restrictions had remained generally unchained since the 1970's. To begin the process of modernization, Board staff performed an environmental scan to identify what activities technicians were performing in other states that were expressly prohibited in Idaho law. A series of eight listening sessions were then held throughout the state in March and April 2016 to gain public feedback early in the process. Board staff reviewed the expanded technician duties, described the existing literature and findings from other state boards of pharmacy, and asked attendees their feedback. Several key themes emerged across the listening sessions:

1. Pharmacists generally reflected support for expanding the role of *appropriately trained* technicians. Some pharmacists did note concerns for their own liability as technician roles expand. To sort out these concerns, the Board engaged a former executive of a national pharmacist liability insurer. The executive noted that liability insurance rates have not increased for either pharmacist or pharmacies in the states that have already expanded technician roles as Idaho is considering.[3]
2. Pharmacists reported variability in technician qualifications for expanded duties, and noted that it is critical to ensure assignment of function remains with the pharmacist. The Board agreed with this sentiment, and retained its existing rule that a technician must not perform and task or function connected with pharmacy operations "unless the technician is authorized by the assigning pharmacist." The Board occasionally would hear from a pharmacist who stated they would never trust their technicians to perform specific duties under consideration. The assignment of function rule offered them a simple solution: do not delegate the task. Similarly, an occasional technician would indicate they would not want to perform a specific task. In both instances, it did not seem reasonable to not allow *any* technician in the state to perform a specific task just because some pharmacists or technicians were uncomfortable with the thought. Such regulation to the lowest common denominator is rarely in the public interest.
3. Technicians reflected excitement about the prospects of new roles and career opportunities. Many saw new tasks as an opportunity to grow and develop. Some envisioned the development of a career ladder that would help recruit and retain top technician talent, and that technicians would be rewarded for taking on value-added skills. Of note, some technicians expressed frustration that they had maxed out in their current roles despite being willing to learn new tasks.

3. Core elements of new rules

The Board's new rules focus on two domains: 1) medication dispensing support and 2) technical support for pharmacist clinical services. To be clear, the tasks enumerated in the new rules for technicians are not designed to be exhaustive. The Board's focus was on loosening restrictions currently listed in rule. It is known that technicians can and do play more extensive tasks, particularly with regard to clinical service support (medication reconciliation, basic physical assessment, point-of-care testing). There were no restrictions on these activities in existing Idaho law, and thus the Board determined no changes were necessary to enable delegation of these tasks.

The Board was committed to letting evidence drive decision-making. A summary of the available evidence for each task is provided in Table 1.[4–19] The availability of published literature varied by task, though some states have successful track records with each task – in some instances for up to forty years. The Board rules enable each of the expanded duties to be delegated to *certified* technicians (not trainees) at the discretion of the supervising pharmacist. Key decision points regarding each task are reviewed in Table 2.[20–23]

1. Tech-Check-Tech (e.g., "Accuracy Checking")

Tech-check-tech (TCT) is a practice model in which an advanced pharmacy technician performs final verification on a product for floor and ward stock, or for products that have previously been reviewed for clinical appropriateness by a pharmacist.[4] Idaho's rules now allow tech-check-tech in *any* practice setting, not just acute care hospitals (as was previously the case).[1] Accuracy checking may only be conducted by a certified technician who has undergone site-specific training. Technicians may perform TCT on any drug except compound products. Pharmacies must adopt a quality assurance program that includes unannounced monitoring and evaluation of each accuracy checking technician at least quarterly for the first year and then annually thereafter. Pharmacies must remediate or remove from checking duty any technician who

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