Entry-level practice requirements of pharmacy technicians across the United States: A review

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Purpose. The results of a review of statutes and regulations to determine entry-level requirements for pharmacy technicians across the 50 states and the District of Columbia in terms of training and certification are reported.

Methods. Pharmacy practice acts in all 51 jurisdictions were reviewed to ascertain initial qualifications for training, certification, registration, and/or licensure of pharmacy technicians using the keywords *technician, registration, licensure, training, education,* and *certification.* One reviewer analyzed statutes and regulations in force as of March 2017.

Results. Among the 50 states and the District of Columbia, 86% (44 of 51) required pharmacy board registration and/or licensure in order to practice as a pharmacy technician; 55% (28 of 51) required no education/training or certification, 8% (4 of 51) required education/training only, 10% (5 of 51) required certification only, 14% (7 of 51) required education/training and certification, and 14% (7 of 51) required either education/training or certification.

Conclusion. There is no consensus among the 50 states and the District of Columbia regarding entry-level requirements for pharmacy technicians, which range from no oversight to mandatory training/education with or without certification requirements. Several national organizations have set recommendations for minimal education/training and certification; however, there is no uniform acceptance across the United States.

Keywords: education, entry-level requirements, national certification, pharmacy technician, training

Am J Health-Syst Pharm. 2018; 75:1057-63

In 1966, the American Association of Colleges of Pharmacy and the American Society of Hospital Pharmacists (now the American Society of Health-System Pharmacists [ASHP]) identified the need to delegate routine pharmacy tasks to trained pharmacy technicians to allow pharmacists to expand clinical services, thereby improving patient care.[1] Over 50 years later, conversation about that need continues. Several national pharmacy organizations, including the National Association of Boards of Pharmacy, the Council on Credentialing in Pharmacy, ASHP, and the American Pharmacists Association (APhA), have released statements advocating for the adoption of entry-level education and training requirements to ensure that technicians are adequately prepared to assume new roles; however, the implementation of these recommendations has yet to occur.[2-5]

These organizations have recommended a requirement that candidates for employment as pharmacy technicians be required to complete an accredited training program and obtain national certification by passing the Pharmacy Technician Certification Exam (PTCE) offered by the Pharmacy Technician Certification Board (PTCB).[2-5] In alliance with these recommendations, PTCB planned to

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DOI 10.2146/ajhp170682

implement, starting in 2020, new education requirements mandating that in order to qualify to sit for the PTCE, applicants must complete a training program jointly accredited by ASHP and the Accreditation Council for Pharmacy Education (ACPE).[6] These accrediting bodies have set standards for these training programs, which include a minimum of 600 hours of training, including at least 160 hours of didactic training, 80 hours of simulation, and 160 hours of experiential education.[7]

The implementation of those training requirements was suspended due to a lack of support from key stakeholders and the impact these changes could have on the availability of qualified technicians.[8] Even with this initiative put on hold, support exists, as evidenced by the recent Pharmacy Technician Stakeholder Consensus Conference held in February 2017.[9] At the conclusion of the conference, participants were surveyed to determine their level of agreement with various statements. When asked to indicate their level of support for posed questions regarding pharmacy technician training and certification, 95 of 100 surveyed participants either agreed or strongly agreed that national training standards should be developed and adopted, 84 out of 100 either agreed or strongly agreed that technicians should be required to complete a nationally accredited education program, and 89 of 99 either agreed or strongly agreed that technicians should be required to obtain national certification.[9]

Participants in the Pharmacy Technician Stakeholder Consensus Conference were also surveyed regarding the need to minimize variability of state regulations governing technician training and certification; 99 of 100 surveyed participants either agreed or strongly agreed that such efforts were needed.[9] However, with a lack of implementation of standardized minimum entry-level qualifications for technicians, the responsibility remains with each state board of pharmacy to define the standards and qualifications needed to practice as a pharmacy technician. The objective of the study described here was to determine the entry-level requirements for U.S. pharmacy technicians across the 50 states and the District of Columbia in terms of education, training, and certification.

KEY POINTS

- Several national organizations advocate for the standardization of entry-level requirements for pharmacy technicians.
- There is no uniform national standard for entry-level requirements for pharmacy technicians.
- The education/training and certification requirements for pharmacy technicians vary across the 50 states and the District of Columbia.

Methods

Search strategy. A Google (Google, Mountain View, CA) search was performed to locate the board of pharmacy website for each state and the District of Columbia; statutes and regulations were identified. Statutes were reviewed first, followed by regulations, using the key words *technician, registration, licensure, training, education,* and *certification*.

Data extraction. A standard data extraction form was used to collect information on need for board of pharmacy registration, type of registration received, and need for education, training, and/or certification for initial technician registration. Education was defined as a program that required board of pharmacy approval or accreditation by a national accrediting agency or was offered by a branch of the federal armed services. Training was defined as participation in a program in which recognition as a technician is not awarded until the program is completed (i.e., until program completion, a participant is considered a technician-in-training, technician candidate, or pharmacy technician applicant); on-the-job training, as determined by a pharmacist-in-charge (PIC), was excluded. Certification was defined as national certification resulting in conferral of the CPhT credential and obtained by passing either the PTCE or the Exam for the Certification of Pharmacy Technicians (ExCPT); certification obtained through passing an employer-based examination was excluded.

Statutes and regulations and other search results were analyzed and entered into a spreadsheet (Microsoft Office Excel, Microsoft Corporation, Redmond, WA) by the author. Jurisdictions were initially categorized as either requiring or not requiring board of pharmacy registration or licensure; those that did not require board of pharmacy registration or licensure were excluded from further review, and the remaining jurisdictions were evaluated to determine the type of education/training and/or certification required in order to obtain initial registration or licensure as a pharmacy technician.

The study was determined not to be human research by the University of Maryland institutional review board. The statutes and regulations discussed were current as of March 22, 2017.

Results

Of the 50 states and the District of Columbia, 86% of jurisdictions (44 states) required board registration in order to practice as a pharmacy technician. Upon a pharmacy technician's registration, 70% of state boards (31 of 44) awarded a registration, 2% (1 of 44) a permit, 23% (10 of 44) a license, and 5% (2 of 44) a certificate.

Of the 44 states that required Board registration, 64% (28 of 44) required no education, training, or certification; 9% (4 of 44) required education/training, 11% (5 of 44) required certification, 16% (7 of 44) required

education/training and certification, and 16% (7 of 44) required either education/training or certification (Table 1 and Figure 1).

Eighteen states required completion of an education/training program as a route to obtaining registration and/or licensure. The majority of states granted the board of pharmacy the authority to determine what constituted acceptable education/training programs, with 44% (8 of 18) requiring completion of a board-approved program and 6% (1 of 18) requiring completion of a program that meets requirements set by the board. Of those 18 states, 1 (6%) required completion of an ASHP-accredited program, and 2 (11%) required on-the-job training as a technician-in-training. Thirty-three percent of the states (6 of 18) allowed the candidate to select an educational/training program from a combination of the ones listed above.

Nineteen states required national certification or offered national certification as a route to obtaining registration and/or licensure, of which only 16% (3 of 19) solely accepted the PTCE.

Discussion

As of March 2017, 86% of the surveyed jurisdictions (43 states and the District of Columbia) required, at a minimum, board of pharmacy registration or licensure of pharmacy technicians. This registration and/or licensure process is an important first step toward successfully implementing mandatory minimum training/education and certification requirements. Oversight by the board of pharmacy creates ownership of the process and serves as a mechanism to validate the qualifications of each candidate.

To the author's knowledge, this is the first review to characterize the entry-level requirements to work as a pharmacy technician. Previous studies[10,11] have reported the qualifications needed to become a pharmacy technician across the country; however, these studies did not differentiate

Table 1. Entry-Level Requirements for Pharmacy Technicians[a]

State or Jurisdiction	Board Oversight	License or Registration	Training	Type of Training	Certification	PTCB Exam Only	Training or Certification	Source
Alabama	Yes	Registration	No	. . .[b]	No	. . .	No	BOP Administrative Code, Chap. 680-X-2; Pharmacy Practice Act, Title 34, Chap. 23, Art. 6
Alaska	Yes	License	No	. . .	No	. . .	No	AS 08.80; 12 AAC 52
Arizona	Yes	License	Yes	Board sets requirements	Yes	No	No	BOP Administrative Code, Title 4, Chap. 23; ARS 32 Chap. 18
Arkansas	Yes	Registration	No	. . .	No	. . .	No	Pharmacy Practice Act, 17-902; BOP Regulations, Reg. 3
California	Yes	License	No	Candidate selection	No	No	Yes	Business and Professions Code 4000; Code of Regulations, Division 17, Title 16
Colorado	No	. . .	. . .	. . .	. . .	. . .	. . .	Revised Statutes, Title 12, Art. 42.5; BOP Regulations, 3 CCR 719-1
Connecticut	Yes	Registration	No	. . .	No	. . .	No	Pharmacy Practice Act 400j, The Practice of Pharmacy 20-576-1
Delaware	No	. . .	. . .	. . .	. . .	. . .	. . .	24 Del. C., Chap. 25; Regulations, Administrative Code Title 24
District of Columbia	Yes	Registration	No	Candidate selection	No	No	Yes	DCMR Title 22-19; DCMR 17-99; Code of DC, Title 3 Chap. 12. subchap. VII-E
Florida	Yes	Registration	Yes	Board approved	No	. . .	No	Statutes Chap. 465; Administrative Code 64b16
Georgia	Yes	Registration	No	. . .	No	. . .	No	Pharmacy Practice Act, Title 26; Rules and Regulations of State of GA, Chap. 480

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State or Jurisdiction	Board Oversight	License or Registration	Training	Type of Training	Certification	PTCB Exam Only	Training or Certification	Source
Hawaii	No	. . .	. . .	. . .	. . .	. . .	. . .	HAR Chap. 95; HRS Chap. 461
Idaho	Yes	Registration	No	. . .	Yes	No	No	IDAPA 27.01.040
Illinois	Yes	Registration	No	. . .	No	. . .	No	225 ILCS 85, Title 68, Chap. 7, Section 1330
Indiana	Yes	License	No	Board approved	No	No	Yes	IC 25-26-19; 856 IAC 1-35
Iowa	Yes	Registration	No	. . .	Yes	No	No	IA Code 155A; IAC 657
Kansas	Yes	Registration	No	. . .	No	. . .	No	KSA 65; KAR 68
Kentucky	Yes	Registration	No	. . .	No	. . .	No	KRS Chap. 315; KAR 201, Chap. 2
Louisiana	Yes	Certificate	Yes	Tech-in-training	Yes	Yes	No	La RS Title 37; LAC Title 46
Maine	Yes	License	No	. . .	No	. . .	No	Pharmacy Act Title 32, Chap. 117; 02 392 Board of Pharmacy Rules
Maryland	Yes	Registration	No	Board approved	No	No	Yes	COMAR 10.34; Annotated Code of MD, Title 12
Massachusetts	Yes	Registration	Yes	Candidate selection	No	. . .	No	247 CMR
Michigan	Yes	License	No	Board approved	No	No	Yes	MCL Section 333
Minnesota	Yes	Registration	No	. . .	No	. . .	No	151.102; Administrative Rules, Chap. 6800
Mississippi	Yes	Registration	No	. . .	No	. . .	No	Pharmacy Practice Regulations, Title 30, Part 3001
Missouri	Yes	Registration	No	. . .	No	. . .	No	Revised Statutes, Chap. 338; Code of State Regulations, Title 20, Division 2220
Montana	Yes	Registration	No	. . .	Yes	No	No	MCA Title 37, Chap. 7; Administrative Rules, Chap. 174
Nebraska	Yes	Registration	No	. . .	No	. . .	No	172 NAC 128; 38-2893
Nevada	Yes	Registration	Yes	Candidate selection	No	. . .	No	NRS 639
New Hampshire	Yes	Registration	No	. . .	No	. . .	No	Title XXX, Chap. 318
New Jersey	Yes	Registration	No	. . .	No	. . .	No	NJ Rev Stat. 45-14-80; NJAC 13:39-6.15
New Mexico	Yes	Registration	No	. . .	No	. . .	No	NMSA 61-11; NMAC 16.19.22
New York	No	. . .	. . .	. . .	. . .	. . .	. . .	N/A
North Carolina	Yes	Registration	No	. . .	No	. . .	No	Pharmacy Practice Act 90-85; 21 NCAC 46

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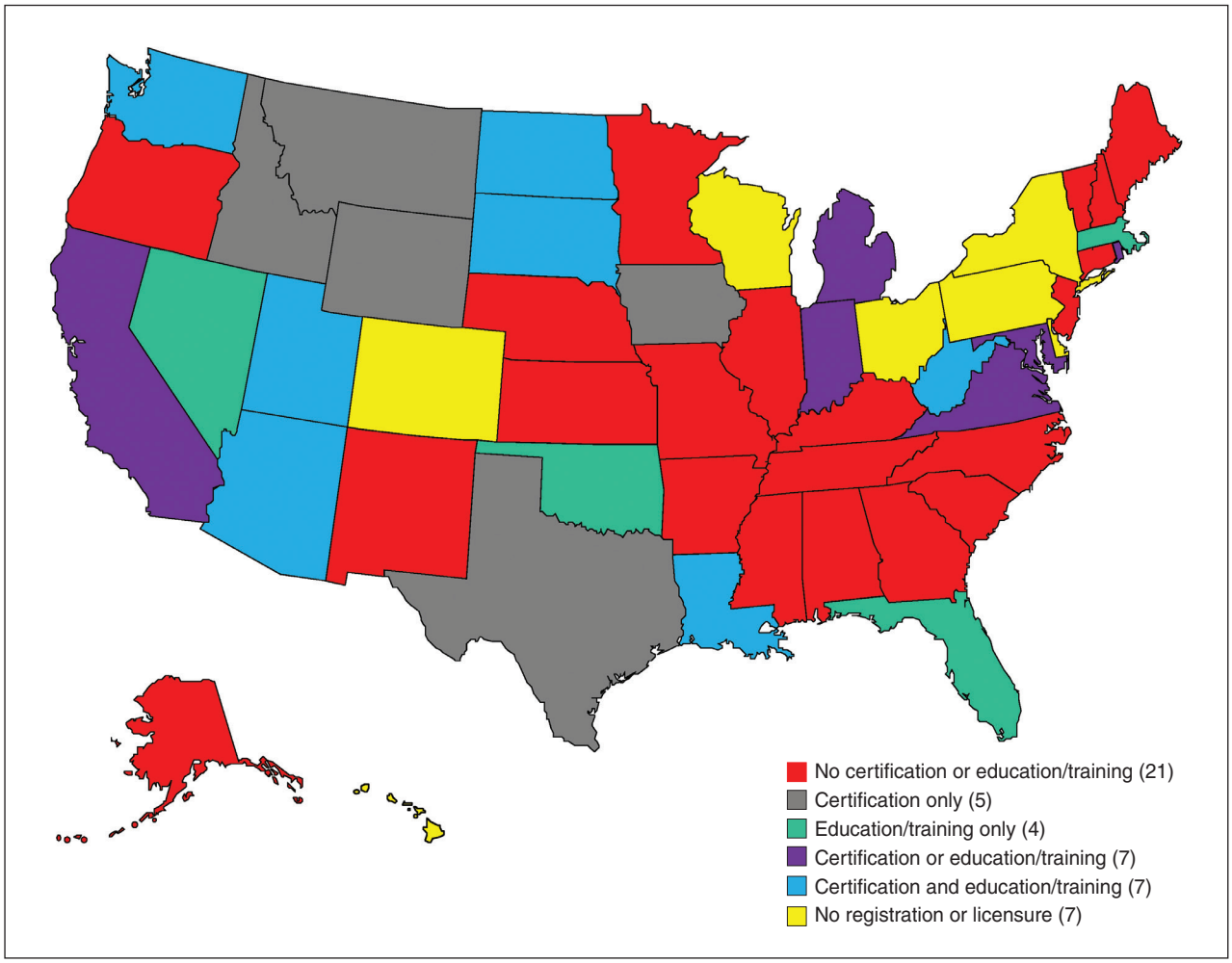
Table 1. Entry-Level Requirements for Pharmacy Technicians[a]

State or Jurisdiction	Board Oversight	License or Registration	Training	Type of Training	Certification	PTCB Exam Only	Training or Certification	Source
North Dakota	Yes	Registration	Yes	ASHP accredited	Yes	Yes	No	61-02-07.1-03
Ohio	No	. . .	. . .	. . .	. . .	. . .	. . .	OAC 4729-4; ORC 4729
Oklahoma	Yes	Permit	Yes	Tech-in-training	No	. . .	No	OK Statutes, Title 59, Chap. 8; OAC Title 535
Oregon	Yes	License	No	. . .	No	. . .	No	OR Pharmacy Statutes, Chap. 689; OAR 855
Pennsylvania	No	. . .	. . .	. . .	. . .	. . .	. . .	49 PA Code, Chap. 27; Pharmacy Practice Act
Rhode Island	Yes	License	No	Board approved	No	No	Yes	Chap. 5-19.1; R5-19.1-PHAR
South Carolina	Yes	Registration	No	. . .	No	. . .	No	SC Code of Laws, Title 40, Chap. 43; Pharmacy Policies and Procedures
South Dakota	Yes	Registration	Yes	Candidate selection	Yes	No	No	Chap. 36-11; Art. 20:51
Tennessee	Yes	Registration	No	. . .	No	. . .	No	Pharmacy Practice Act 63-10-20
Texas	Yes	Registration	No	. . .	Yes	No	No	Pharmacy Practice Act, Chap. 568; Administrative Code, Title 22, Pt. 15
Utah	Yes	License	Yes	Candidate selection	Yes	No	No	Pharmacy Practice Act 58-17b; Pharmacy Practice Act, Rule R156-17b
Vermont	Yes	Registration	No	. . .	No	. . .	No	26 VSA Chap. 36; Pt. 5, Administrative Rules of BOP
Virginia	Yes	Registration	No	Board approved	No	No	Yes	Code of VA, Chap. 33, Title 54.1; 18VAC110-20
Washington	Yes	Certificate	Yes	Board approved	Yes	No	No	RCW Chap. 18.64
West Virginia	Yes	Registration	Yes	Board approved	Yes	No	No	WV Code 30-5; Administrative Rule 15-7
Wisconsin	No	. . .	. . .	. . .	. . .	. . .	. . .	Pharmacy Examining Board, Chap. 450; Pharmacy Practice, Chap. 7
Wyoming	Yes	License	No	. . .	Yes	Yes	No	Pharmacy Practice Act, Title 33, Chap. 24; State of WY Pharmacy Act Rules and Regulations

[a]BOP = board of pharmacy, PTCB = Pharmacy Technician Certification Board.

Figure 1. Entry-level education/training and/or certification requirements for pharmacy technicians in the United States (as of March 2017).



between initial and renewal requirements. Initial requirements limit the pool of potential applicants through an additional education/training or certification component, while renewal requirements ensure the continued competence of the workforce. For this reason, the definition used for education/training did not include on-the-job training as determined by a PIC. Employers may have some form of an onboarding and orientation process to train new employees with regard to the work environment, their responsibilities, and expectations, but this does not prevent a candidate from becoming registered and/or licensed as a pharmacy technician and obtaining a position in a pharmacy. For example, in Oregon, a candidate can apply for a nonrenewable pharmacy technician license with no prior education/training or certification, work for 2 years under this license, and then decide to no longer practice as a pharmacy technician; certification is only required to renew the license.[12]

The aforementioned ASHP and APhA statements specifically support the PTCE and technician training programs jointly accredited by ASHP and ACPE as the sole certification and training programs that should be accepted nationwide.[4,5] The PTCE, established in 1995 and accredited by the National Commission for Certifying Agencies (NCCA) in 2006, is not the only national certification exam. The ExCPT, offered by the National Healthcareer Association (NHA), is a newer examination; it was released in 2005, with NCCA accreditation obtained in 2008. Both examinations lead to the CPhT credential; however, the PTCE continues to be the preferred examination in the view of national pharmacy organizations. NHA reported that as of January 2017, only 6 states did not accept or lacked pending regulations to accept the ExCPT.[13]

Additionally, out of the states that included education/training requirements as a condition for registration

and/or licensure, only 1 state required that the education/training component be achieved through an ASHP-accredited program. The majority of states required completion of a board of pharmacy–approved training program, which could include programs jointly accredited by ASHP and ACPE, but the board had the authority to approve programs that lacked such accreditation. Some states allowed a candidate to determine the best avenue to meeting this requirement, which could include completion of a program jointly accredited by ASHP and ACPE, completion of a minimum number of on-the-job hours as a technician-in-training, and attending a board-approved program that is not jointly accredited by ASHP and ACPE.

The primary limitation of the study was that the results did not take into account the interpretation from the state boards of pharmacy. The Pharmacy Practice Act and the state board of pharmacy practice regulations and/or rules were reviewed, and information was extracted as it appeared in the text of the law. The board of pharmacy has the ability to interpret the laws to determine how they will be enforced. In addition, the requirements set by employers was not determined or evaluated. While the legal description of the qualifications may appear lax, individual employers reserve the right to mandate requirements that are more stringent as a condition for employment. For example, while the board of pharmacy did not require certification, some states have regulations allowing certified technicians to have expanded responsibilities or increase the technician:pharmacist ratio; this may incentivize employers to require certification as a condition for employment. Additionally, review and categorization of state laws and regulations were conducted by the author and not validated by a second reviewer; this created the potential for misclassification of 1 or more jurisdictions, particularly where any subjective interpretation may have been necessary. To minimize that potential bias, the definitions used for categorization were straightforward and prespecified to conform to explicitly stated language in laws and regulations.

Conclusion

There is no consensus among the 50 states and the District of Columbia regarding entry-level requirements for pharmacy technicians, which range from no oversight to mandatory training/education and/or certification requirements. Several national organizations have set recommendations for minimal education/training and certification; however, there is no uniform acceptance across the United States.

Disclosures

The author has declared no potential conflicts of interest.

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