American Society of Health-System Pharmacists®

ASHP Policy Analysis

Optometrist Licensure: Lessons for Pharmacy

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Introduction

As the American Society of Health-System Pharmacists (ASHP) and others advocate payment for pharmacists' drug therapy management services, a potential barrier to acceptance of this concept is the image of the profession. Because most pharmacists concentrate on dispensing or drug product handling functions, third-party payers may question if pharmacists are qualified to help patients manage drug regimens. It is conceivable that the public would be more accepting of pharmacists in advanced-practice roles if the profession had a **credible, well-understood mechanism** for verifying the qualifications of pharmacists engaged in these roles. This issue may be especially relevant during a period in which the pharmacy work force includes practitioners who have been prepared under different educational standards and who have had widely varying postgraduate educational experiences.

These thoughts led ASHP to examine the experience of optometry, which faced a similar situation as its scope of practice evolved to include the use of pharmaceuticals for diagnosis and treatment of eye disorders. That profession has used its licensure process to differentiate among practitioners who have met the standards to use pharmaceuticals. **Does the experience of optometry offer any lessons for pharmacy in this regard?**

Optometrists' Scope of Practice

States take various approaches to setting optometrists' scope of practice. Some states more recently have started to require all licensed optometrists to be trained to administer the highest level of pharmaceutical agents allowed in that state regardless of whether or not the optometrist intends to actually do so (Cooper S, American Optometric Association, personal communication 2007 Sept. 6). Other states have a tiered system that allows licensed optometrists the option of pursuing different levels of state licensure or different levels of state certification, in addition to the required state license, in order to administer different types of pharmaceutical agents.

Certification

A state board of optometry "certifies" an individual optometrist to practice at a particular level, based on the practitioner's compliance with the board's educational and/or experiential requirements, which sometimes explicitly requires an individual to pass a pharmacology course that includes an examination. For example, the New Mexico Board of Examiners in Optometry requires a currently licensed optometrist pursuing "oral pharmaceutical certification" to be certified by the state board to use topical ocular pharmaceuticals; provide proof of successfully completing and passing the examination of a state board-approved course of at least 20 hours in clinical pharmacology; and provide proof that the course was taught by an American Optometric Association (AOA)-accredited institution.[1] "Graduates from the 1994-1995 academic year and thereafter are deemed to have met these requirements during their optometric education" (Cooper S, AOA, personal communication, 2007 Dec. 4).

Additionally, this paper addresses the types of pharmaceutical agents an optometrist may use after earning a particular advanced license or certificate issued by a state. Some states take a more open-ended approach and do not specify the type of agents allowable within a state's licensure or certification category. A few states limit the types of pharmaceutical agents

an optometrist may use within a category, often specifying the exact type and quantity.

Education

As optometrists' scope of practice has broadened, the amount of education in pharmacology an optometry student receives has increased. Optometric schools and colleges in the United States have increased the number of pharmacology hours students must have by 16% in a 10-year period from an average of 95 hours for the 1991-1992 curriculum to an average of 110 hours for the 2001-2002 curriculum.[2] This increase is attributed by the authors of "A Curriculum Comparison of U.S. Optometry Schools: Looking Back Over the Decade" to political lobbying to broaden the scope of optometrists' prescribing.

National Board Examinations

The National Board of Examiners in Optometry (NBEO) tests optometrists' ability to appropriately use medications in the treatment and management of eye diseases through its Treatment and Management of Ocular Disease (TMOD) examination, which NBEO has administered since 1985 (Nystrom T A, National Board of Examiners in Optometry, personal communication 2007 Nov. 15).[3] NBEO also administers the three-part comprehensive examinations of an individual's competence to begin entry-level general practice of optometry (called the "National Boards"). In 1993, NBEO embedded into the "National Boards" Part II (Clinical Science) examination a subtest that provides an equivalent assessment to the TMOD examination. NBEO still offers the TMOD as a separate examination. The other two parts of the "National Boards" are Part I (Basic Science) and Part III (Patient Care).

Just as state optometry boards have incorporated successful completion of NBEO's "National Boards" into their licensure requirements, the state boards of pharmacy have incorporated the successful completion of the North American Pharmacist Licensure Examination (NAPLEX), developed by the National Association of Boards of Pharmacy, into their licensure requirements to determine whether a licensure candidate is qualified to practice pharmacy.[4]

Range of Authority: Five State Examples

This paper looks at how five states structure optometrist licensure and certification: Oklahoma, Illinois, New Mexico, Maine, and Maryland. These states were selected to show a range of state licensure and certification required of optometrists and to show a range of how restrictive states are in an optometrist's use of pharmaceuticals. The licenses and certificates discussed below are all issued by the state optometry boards.

Oklahoma

Beginning July 1, 2006, the Oklahoma Board of Examiners in Optometry has required all licensees to be certified by the board to administer therapeutic pharmaceutical agents.[5] Existing licensees who were not certified would not have their licenses renewed. State statute includes the use of all pharmaceutical agents under the definition of the practice of optometry, as well as the prescribing of certain dangerous drugs and controlled dangerous substances to diagnose and treat ocular abnormalities.[6] There are 770 licensed optometrists in the state.[7]

Oregon

Beginning January 1, 2009, the Oregon Board of Optometry will require active licensees seeking licensure renewal to be state certified to use "topical and nontopical therapeutic pharmaceutical agents."[8] As licensure renewal occurs throughout the year, full implementation of this requirement is expected by the end of 2009 (Plunkett D, Oregon Board of Optometry, personal communication, 2007 Oct. 23).

The board currently has three types of certification: topical therapeutic pharmaceutical agent certification (T), nontopical therapeutic pharmaceutical agent certification (AT), and nontopical therapeutic pharmaceutical agent certification with injections (ATI).[9] Students graduating from four colleges of optometry are automatically eligible for AT certification once they are licensed by the board (Pacific University College of Optometry in Oregon, Northeastern State University College of Optometry in Oklahoma, Southern College of Optometry in Tennessee, and the Univer-

sity of Alabama Birmingham College of Optometry).[10] Board rules specify the classes of topical and nontopical pharmaceutical agents optometrists may use, with few limitations.[11]

Optometrists with T certification may use, administer, and prescribe all drugs within specified classes of topical agents.[12] AT certified optometrists may use, administer, and prescribe all drugs within specified classes of topical and nontopical pharmaceutical agents with a few conditions on a small number of drugs. ATI certified optometrists may administer subcutaneous and subconjunctival injections, with certain exclusions, as well as all of the specified topical and nontopical pharmaceutical agents described above. When the board sought to establish an advanced practice certification, it created the ATI certification (Plunkett D). Some optometrists chose not to pursue ATI certification because they "did not want to use injections." In response, the board established the AT certification.

The practice of optometry in Oregon excludes "the prescription of Schedule I and II controlled drugs or pharmaceutical agents that are not on the optometric nontopical formulary."[13]

The board has 689 active licensees. Of these, 152 have T certification, 85 have AT certification, and 452 have ATI certification.

New Mexico

New Mexico has three types of pharmaceutical certification for licensed optometrists issued by the New Mexico Board of Examiners in Optometry: diagnostic, topical, and oral pharmaceutical agent certification.[14] A diagnostically certified optometrist can use topical pharmaceutical agents for diagnosing eye diseases but cannot treat those diseases. A topically certified optometrist can use topical pharmaceutical agents to diagnose and treat eye diseases, including glaucoma. An optometrist with oral pharmaceutical certification can use topical and oral pharmaceutical agents to treat eye diseases, including glaucoma. A few classes of oral drugs are excluded from this authority. Oral pharmaceutical certification also allows an individual to use and prescribe Schedule III through IV controlled narcotic drugs. All applicants for initial licensure beginning July 1, 1996, must meet the state's certification requirements for using diagnostic, topical therapeutic and oral pharmaceutical agents.[15] The board was not able to provide the number of licensees nor the number of licensees certified according to type of certificate.

Maine

There are five different levels of licensure for Maine optometrists, although attrition will narrow that down to two types of licensure. Licenses held by optometrists are basic, diagnostic, therapeutic, therapeutic advanced, and therapeutic advanced glaucoma (Giampetruzzi S, Maine State Board of Optometry, personal communication, 2007 Oct. 1). As of October 1, 1996, the default license for new applicants is the therapeutic advanced license. The board no longer allows individuals to apply for the basic, diagnostic, or therapeutic licenses.

An optometrist without a therapeutic or an advanced therapeutic license may use diagnostic pharmaceutical agents only.[16] A therapeutic license allows for the use of "topical therapeutic agents for any purpose associated with ocular conditions and diseases, except those for the treatment of glaucoma." An advanced therapeutic license allows for the use of topical therapeutic pharmaceutical agents, except those for the treatment of glaucoma, and oral antibiotics, antivirals, antihistamines, and nonsteroidal anti-inflammatories as well as certain controlled analgesics identified in Schedules III, IV, and V in limited amounts.

Therapeutic advanced glaucoma licenses allow for the same uses of pharmaceutical agents as the advanced therapeutic license as well as giving the licensee the authority to independently treat glaucoma after providing evidence that the optometrist referred to and consulted with physicians on 50 glaucoma-related cases: 20 of these cases which may be done through referrals to physicians and 30 of these cases which must be done through consultations with physicians. Of these cases, 20 may be "retrospective written referrals of patients suspected of having glaucoma to physicians, with written confirmation of each diagnosis by the physician." These referrals and confirmations

must have taken place between July 1, 1995, and when the individual received the advanced therapeutic license. If the optometrist cannot provide evidence of 20 glaucoma-related referrals and confirmations, the remainder of those 20 referrals must be met through consultations with a physician done in the same manner as those for the 30 mandatory glaucoma consultations. The optometrist must conduct 30 glaucoma consultations that take the following steps: the optometrist examines and diagnoses a new or existing glaucoma patient; develops a treatment plan and forwards the plan with exam documentation to a physician; the physician examines the patient and reviews the documents provided by the optometrist; and the physician, optometrist, and patient agree to and document a treatment plan.

However, under certain conditions, the glaucoma consultation requirement may be reduced or waived. "An advanced therapeutic licensee who was graduated from an accredited optometric institution within two years of applying for the advanced therapeutic license must provide evidence of a total of 30 glaucoma-related consultations with physicians" as described above. "Recent graduates who have completed a one-year residency program or its equivalent, as determined by the glaucoma consultation subcommittee, may petition the subcommittee to waive the consultation requirement.

The majority of Maine's optometrists, 183, hold the two most advanced licenses: 64 therapeutic advanced glaucoma licensees and 119 therapeutic advanced licensees (Giampetruzzi S). Thirty licensees hold licenses individuals can no longer apply for: 24 therapeutic licensees, five diagnostic licensees, and one basic licensee.

Maryland

In Maryland there are two types of state certification a licensed optometrist can pursue: diagnostic pharmaceutical agent (DPA) certification and therapeutic pharmaceutical agent (TPA) certification.

DPA certified optometrists may use medications to facilitate the eye examination.[17] State regulations specify the types and amounts of agents that can be used.

TPA certified optometrists may administer and prescribe limited topical therapeutic pharmaceutical agents, including the treatment of glaucoma, and may administer or prescribe topical steroids in accordance with a Maryland Board of Examiners in Optometry-established protocol. [18] However, a TPA certified optometrist may not administer or prescribe antiviral, antifungal, antimetabolite, or antiparasitic agents.

TPA certified optometrists also may administer and prescribe oral tetracycline and its derivatives only for diagnosing and treating meibomitis and seborrheic blepharitis and may administer or prescribe commercially available nonprescription drugs.

Maryland has the most restrictive scope of practice for optometrists in any U.S. jurisdiction (Cooper S, AOA, personal communication, 2007 Dec. 4).

The Maryland board advises that the majority of recent optometry licensees have taken the required coursework to receive TPA certification and so become certified when they are initially licensed (Dunham K, Maryland Board of Examiners in Optometry, personal communication, 2007 Sept. 13). Of a total of 799 licensed optometrists in Maryland, 685 are TPA certified, 98 are DPA certified, and 16 are not certified. Some of the older optometrists who did not receive the coursework required for TPA certification as part of their initial education did not choose to pursue TPA certification although some did choose to pursue DPA certification. Through attrition, the board anticipates that eventually all of its licensees will be TPA certified.

Benefits and Problems with Tiered Systems in Optometry

The tiered licensure/certification currently in place has evolved over decades to address the profession's expanding scope of practice while allowing optometrists options in how they practice. "During the 1970s, most state statutes that were changed allowed optometrists to use DPAs to perform additional diagnostic testing such as dilation of the pupils and anesthetizing the cornea (Terry J E, National Board of Examiners in Optometry, personal communication, 2007 Dec. 6). "By the 1980s, the optometric scope of

practice had transitioned also to include TPAs for the management of eye disease. However this had the effect in some jurisdictions of creating a tiered DPA/TPA licensure/certification system in which existing licensees who did not meet the additional requirements to administer diagnostic and/or therapeutic pharmaceutical agents were given different levels of licensure (e.g., non-DPA, DPA, TPA)."

However, problems with a tiered system can arise. In a tiered system, what it means to be an optometrist is not consistent within the state, nor is it consistent nationally (Cooper S, AOA, personal communication, 2007 Sept. 6). This state and national variability can confuse patients, other health care professionals, and third-party payers. Also, once a multi-tier system is in place, AOA advises that it is difficult to change and require all licensees to meet the state's highest standard. This is because of the promises made earlier to pass legislation that established the tiered system as a compromise between those optometrists who wanted to prescribe pharmaceuticals and those optometrists who did not want to do so and did not want to be required to meet additional educational and training requirements for this expanded scope of practice. "The problem with that original promise is that 40 years later, the standard of care has moved forward; making that promise difficult to adhere to while serving to protect the health and safety of the public" (Cooper S, AOA, personal communication, 2007 Dec. 4).

Lessons for Pharmacy

Because the mix of forces buffeting the professional aspirations of optometry and pharmacy are different, it is not certain to what extent the experience of the former is applicable to the latter. Nevertheless, optometry's experience does suggest that if pharmacy were to pursue some type of advanced-practice licensure, there would be strong reasons to do so on a uniform national basis with minimal state-to-state variation. Optometry's experience also suggests the need for a marketing or communications campaign to enable the public to understand the distinctions between different legally recognized scopes of practice. Pharmacy would also be well advised to think through how it would continue to evolve the issue as older practitioners retire from the profession and as the variability in qualifications among active practitioners decreases over time.

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References

1. New Mexico Admin. Code 16.16.7.11.
2. Maier, Heavin, Alex Smith, and Bradley Coffee. A curricular comparison of U.S. optometric schools: looking back over the decade, *J Optom Educ*. 2005, 30 (2):39-55.
3. National Board of Examiners in Optometry. TMOD – Treatment and Management of Ocular Disease. www.optometry.org/part_tmod.cfm (accessed 2007 Nov 15).
4. National Association of Boards of Pharmacy. Examinations. North American Pharmacist Licensure Examination (NAPLEX). www.nabp.net/competency/intro.asp (accessed 2007 Nov 30).
5. Oklahoma Rules and Regulations 505.10.5.16.
6. Oklahoma State Stat. 59.581.
7. Oklahoma Board of Examiners in Optometry. Doctor Search. www.optometry.state.ok.us/search.htm (accessed 2007 Oct 23).
8. Oregon Admin. Rules 852.20.70.
9. Oregon Admin. Rules 852.80.40.
10. Nontopical TPA Update. *Oregon Board of Optometry*. 2006; 7-1 (April): 3.
11. Oregon Admin. Rules 852.80.20, .25.
12. Oregon Admin. Rules 852.80.30.
13. Oregon Rev. Stat. 683.010 (2005).
14. New Mexico Admin. Code 16.16.7.
15. New Mexico Stat. 61.2.10.2(c)
16. Maine Stat. 32.34A.2430, 2430-A.
17. Md. Code 10.28.11.02 (2007).
18. Md. Health-Occupations Article 11.404.2(b)-(d).