Recommendations for Aligning PGY2 Pharmacy Residency Training and Pharmacy Specialist Board Certification

American College of Clinical Pharmacy

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With the increased focus and anticipated growth in specialty training and certification within the profession of pharmacy, it is important for the profession to step back and evaluate the manner in which its adopted education and certification systems interface. As a result of specialty practice development, significant growth is occurring in both postgraduate year two (PGY2) pharmacy residency programs and individuals seeking certification by the Board of Pharmacy Specialties. As the profession continues to evolve its specialty training and credentialing systems, it is important to consider the inherent relationship between these systems. This paper considers the current landscape of specialty training and certification, including issues related to the quality of PGY2 training, consistent application of standards across and within PGY2 programs, credentialing of preceptors and program directors, and alignment of training with specialty certification examination content domains. We outline recommendations across three areas: (1) creating consistency between specialty training and certification, (2) aligning qualifications of PGY2 residency program directors and preceptors with the designated specialty area, and (3) assessing program quality in the context of the expectations of specialists established by the profession. The goal of this paper is to stimulate professional dialogue on these issues. Establishing both formal and informal connections between specialty training and certification can serve as the foundation for a rational approach to professional development and the credentialing that will be recognized by stakeholders outside the pharmacy profession. Establishing these connections will also support and advance the profession's mission of meeting the medication needs of patients.

Key Words board certification, clinical pharmacy, pharmacy residency training.

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The profession of pharmacy has increased its focus on specialty practice development. Consequently, significant growth is occurring in the number of postgraduate year one (PGY1) and postgraduate year two (PGY2) pharmacy residency programs as well as the number of individuals seeking certification by the Board of Pharmacy Specialties (BPS). As the profession continues to develop its specialty training and credentialing systems, it is important to consider the inherent relationships between these systems.

The annual number of PGY2 residency positions matched has increased significantly.[1–3] The number of available specialty training programs is also increasing. As of February 2016, there were 877 PGY2 programs in the United States, compared with 704 PGY2 programs in

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December 2013, reflecting a growth rate of 24.6%. Currently, the American Society of Health-System Pharmacists (ASHP) accredits 28 unique PGY2 program types. A 2014 American College of Clinical Pharmacy (ACCP) commentary endorses continued emphasis on enhancing and expanding residency training at the PGY2 level.[4]

Similarly, board certification is increasing across the profession. Almost 25,000 pharmacists are currently BPS board certified, and more than 4000 took a BPS examination in the fall of 2015.[5] BPS added new certifications in Ambulatory Care in 2010 and in Critical Care and Pediatrics in 2013. The 2013 BPS "Five-Year Vision for Pharmacy Specialties" states that the number of board-certified pharmacists will increase significantly and that BPS will recognize new pharmacy specialties and/or subspecialties in areas that are consistent with, but not limited to, the growth of accredited PGY2 residency programs.[6]

With the increased focus on specialty training and certification, as well as the anticipated growth likely to occur during the next several years, it is important for the profession to step back and evaluate the manner in which its adopted education and certification systems interface. To that end, this paper considers the current landscape of specialty training and certification, including issues of PGY2 training quality, consistent application of standards across and within PGY2 programs, credentialing of preceptors and program directors, and alignment with specialty certification examination domains. With these factors in mind, the paper addresses the importance of (1) creating consistency between specialty training and certification, (2) aligning qualifications of PGY2 faculty with the designated specialty area, and (3) assessing program quality in the context of the expectations of specialists established by the profession.

Create Consistency Between PGY2 Residency Program Training and Specialty Certification

> Recommendation 1: Align individual types of PGY2 residency outcomes, goals, and objectives with BPS specialties.

More than 25 different types of PGY2 programs are currently available. ASHP describes these programs as focused on an "advanced area of pharmacy practice," although residency program directors (RPDs) and preceptors often call them "specialty areas." Only the PGY2 programs that are focused on Ambulatory Care Pharmacy, Critical Care Pharmacy, Nuclear Pharmacy, Nutrition Support Pharmacy, Oncology Pharmacy, Pediatric Pharmacy, Pharmacotherapy, and Psychiatric Pharmacy are recognized by BPS as pharmacy specialties. Although cardiology and infectious disease are not currently recognized as designated specialty areas, BPS also maintains a review process that grants an "Added Qualifications" designation in these areas, both under the Pharmacotherapy specialty. The current process for defining new PGY2 residency program designations is primarily based on emerging specialty or advanced areas of pharmacy practice that may or may not become BPS-recognized areas of specialty or subspecialty practice in the future. Aligning the PGY2 residency outcomes, goals, and objectives (the accreditation elements that define areas of advanced practice under the PGY2 Accreditation Standard) with the specialties recognized by BPS—the organization formally charged by the profession for defining and designating specialty areas—would provide important validation of PGY2 specialty designations. This process should engage stakeholders from across the profession, not solely the interests of one organization or a limited number of pharmacists practicing in specific areas of pharmacy practice. Aligning PGY2 residencies with the specialties recognized by BPS will help to establish consistency between PGY2 residency training and board certification.

Creating subspecialties or other areas of practice within a primary pharmacy specialty has been proposed by BPS in order to recognize smaller but important areas of practice, as well as to create an opportunity for pharmacists to possess a credential that is more focused on their daily practice.[6] For PGY2 residencies that are not yet recognized as a specialty area because of fewer practitioners (e.g., emergency medicine, HIV, pharmacogenomics), developing a subspecialty or other "focused" designation may be a reasonable approach, and PGY2 residencies in these practice areas should ensure that their outcomes, goals, and objectives align with BPS subspecialty criteria.[6]

Designing PGY2 programs with consideration given to the domains and content outlines of an associated BPS specialty certification exam will provide a consistent path for residency graduates to acquire the competencies needed to practice as a specialist. Board certification examinations are constructed according to a validated process for determining content consistently associated

with a defined specialty area. As a result, aligning residency program design with a specialty certification examination's content outline will assist in ensuring that residency program content is truly reflective of the profession's definition of the specialty. Types of practice experiences, practice responsibilities, projects, topic discussions, and other residency learning activities can all be informed by the scope of content included in the applicable BPS specialty content outline. As an extension of this alignment, it is recommended that the profession adopt policies encouraging PGY2 graduates to achieve board certification in a timely fashion on completing their training, consistent with the usual process followed by graduates of physician training programs.

Outcomes, goals, and objectives of current PGY2 program areas should be reviewed regularly to ensure that they align with corresponding BPS specialties. As new BPS specialty designations and revised examination domains become available, the associated PGY2 residency outcomes, goals, and objectives should be updated (as needed) to reflect the most current content covered within the specialty domains. To minimize the time between the recognition of a new BPS specialty (or revisions to content outlines of existing specialties) and the revision of PGY2 standards and competencies, BPS and ASHP are encouraged to align the timing of their respective review activities to the extent feasible.

> Recommendation 2: Evaluate new advanced areas of pharmacy practice not yet designated as a focus of PGY2 training through a formal process that works in tandem with the ASHP Commission on Credentialing (COC) to establish respective program outcomes, goals, and objectives.

At present, institutions wishing to establish a residency program in an area of practice not yet recognized among PGY2 programs can apply for accreditation as an advanced area of pharmacy practice. As more institutions offer experiences in an emerging practice area, the COC may choose to pursue development of a defined set of PGY2 outcomes, goals, and objectives for the practice area. To facilitate this decision, ASHP's Accreditation Services Division works informally with stakeholders from emerging practice areas to assess the viability and demand for training in each area to justify creating a new PGY2 program.

An advanced area of pharmacy practice may never achieve broad-enough adoption to justify recognition as a new PGY2 program area. When this occurs, programs may continue being accredited using a set of self-developed outcomes, goals, and objectives rather than being evaluated against a set of outcomes, goals, and objectives that have been vetted by the COC. For example, a program focused on pharmacogenomics-related practice could seek accreditation as a PGY2 advanced area of pharmacy practice using the outcomes, goals, and objectives developed by a small group of stakeholders. If this area of practice does not eventually achieve a level of adoption by the profession that justifies the development of outcomes, goals, and objectives through the formal COC processes, there is no mechanism to discontinue recognition of the program after its initial accreditation. Although it is not desirable to inhibit postgraduate training in emerging areas of practice, it is necessary to limit the number of programs remaining in this category over time.

Thus, we believe that a program developed as an advanced area of pharmacy practice should not receive full accreditation. Full accreditation should be reserved for areas in which an adequate number of active programs are identified nationally, together with the development of outcomes, goals, and objectives for the new PGY2 program. To support emerging areas of practice before seeking formal accreditation, programs recognized under the advanced area of pharmacy practice category could be listed in the ASHP Resident Directory and participate in the ASHP Resident Matching Program as "emerging programs." However, they should not undergo formal review until the outcomes, goals, and objectives are developed and approved by the COC.

We also believe that institutions requesting recognition of a residency program as an advanced area of pharmacy practice should participate in a formal process that engages a broad base of stakeholders. Engaging members of professional organizations focused in an advanced practice area—such as ACCP's Practice and Research Networks or ASHP's section advisory groups—to evaluate and monitor the environment of the emerging area of practice will help validate the initial recognition of programs in the emerging practice area. This early validation could then be used to determine the need for training in the practice area and, ultimately, a formal request that the COC establish outcomes, goals, and objectives for the advanced area of practice. This process would model, on a smaller scale, the process currently used to initiate the

development of new BPS specialties, where a role delineation study is requested by practitioners. This collaborative evaluation process, which includes the COC working in tandem with practitioners and professional organizations that have a stake in an advanced practice area, could also be applied to the review of existing PGY2 programs for continuation or discontinuation.

Enhance the Alignment of Qualifications of PGY2 Program Directors and Preceptors with Specialty Area Designations

> Recommendation 3: Expect preceptors of a PGY2 residency to be certified in their specialty area, when applicable. When a specialty certification exam is not available, residency preceptors should maintain a portfolio to demonstrate their competency in the practice area.

To ensure alignment between professional training and certification, it is important to link the accreditation standards for programs and preceptors with the criteria established by the profession for specialty certification. Of note, most participants at the 2011 Pharmacy Residency Capacity Stakeholders' Conference identified this alignment as being "highly feasible," with "high impact" on the future of residency training in the United States.[7]

The specific qualifications of the RPD currently include successful completion of an ASHP-accredited PGY2 residency in the advanced practice area, followed by a minimum of 3 years of practice experience or equivalent training; board certification in the specialty area if it is offered (see further comment on this requirement below), and maintenance of an active practice in the respective practice area.[8] This differs from the qualifications of residency preceptors, which include completion of an ASHP-accredited PGY2 residency in the advanced practice area and a minimum of 1 year of practice experience, or the equivalent training/practice experience in the area.[8]

The difference in qualifications between RPDs and preceptors includes the lack of required specialty certification and the number of years' experience in the advanced pharmacy practice area. Requiring the board certification of PGY2 preceptors in their specialty area would further link the profession's education and credentialing systems while establishing a consistent, validated measure of a preceptor's expertise in the area in which he or she provides education and training. When an RPD or preceptor lacks the residency credential required, ASHP requires that the individual have 3 years or more of practice in the advanced area.[8] This is 1 year less than what is required to take the BPS specialty exam. This demonstrates the misalignment of qualifications for advanced pharmacy practice specialists, one defined by PGY2 preceptor expectations and the other by BPS specialty exam eligibility.

If BPS does not offer a board certification exam in the advanced area of practice, it is recommended that preceptors maintain a portfolio that can be reviewed by the COC, in addition to noting the relevant professional activities and accomplishments on the their curriculum vitae. Items to include in the portfolio would be those that demonstrate the "sustained record of contribution and commitment to pharmacy practice" in the advanced practice area, as delineated by ASHP.[9]

It is recommended that PGY2 RPDs and preceptors develop and maintain a portfolio to guide professional development and review. Portfolios may also be used by residency accreditation surveyors to assess compliance with standards related to RPD and preceptor professional development.

Requiring all preceptors to obtain board certification can pose time- and resource-related barriers. However, it is reasonable for programs to require all preceptors in a PGY2 residency program to be board-eligible immediately and to obtain board certification within 3 years after board certification exams are nationally available.

> Recommendation 4: Expect PGY2 residency programs to demonstrate that most program preceptors possess skills and credentials consistent with the specialty area, as defined by the profession. The scope of skills and credentials should not be expected to rest primarily with the individual designated as the RPD. The RPD should meet this requirement as well if he or she serves as a preceptor.

It is recommended that accreditation standards evolve to ensure that preceptor expertise is consistently documented across the entire residency program. Current PGY2 accreditation standards require that the RPD maintain an active practice in the respective advanced practice area. However, to support the growth of programs, it is expected that programmatic standards will evolve such that the designated RPD may serve primarily in an administrative role, with other qualified residency faculty providing the majority of teaching and mentoring of residents. Certainly, a program director must be

able to demonstrate knowledge of the specialty area to the degree necessary to be responsible for quality program design. However, the credentials of the program director alone will not adequately ensure that a program's instructional team possesses the core knowledge, skills, and experience of the specialty area. As a result, programs should be expected to establish criteria that document the program preceptors' mastery of knowledge and skills in the specialty area.

Assess Program Quality

> Recommendation 5: Adopt strategies that ensure the continuing professional development (CPD) of PGY2 residency program preceptors.

Continuing professional development of program preceptors, consistent with the ASHP accreditation expectations for continuous residency program improvement (principle 3.5),[8] is vital to maintaining the quality of a training program. Strategies to develop preceptor portfolios and ensure board certification processes as outlined in recommendations 3 and 4 should be adopted to help program faculty continually improve as preceptors and educators. Examples may include an internally managed curriculum for developing clinical knowledge, practice management, and teaching skills of preceptors; resources to assist preceptors in preparing for board certification exams within the specialty field; and financial support for preceptors to attend professional development conferences and workshops.

Furthermore, procedures should be in place for assessing and improving the quality of preceptor teaching abilities, including, but not limited to, analysis of resident evaluations of preceptor performance. Preceptors should also reflect on their own needs for professional growth and provide feedback to the program director regarding the resources they believe would benefit their individual professional development. At least annually, the program director and preceptors should consider overall program changes on the basis of resident evaluations, collective preceptor and director observations, and other information obtained throughout the year. This will ensure that program preceptors maintain the necessary level of competence to assist in delivering the required content and experiences of the specialty residency program.

> Recommendation 6: Track and evaluate evidence that PGY2 program graduates contribute to the profession within the program's specialty area.

PGY2 residency programs should be expected to assess a resident's accomplishments not only during his or her tenure as a resident, but also after completion of the residency. In doing so, PGY2 RPDs can ensure that the program outcomes and expectations of residents align with the outcomes and expectations of the profession. For example, PGY2 infectious disease programs might track the number of graduates who are formally contributing to antibiotic stewardship programs. Or PGY2 cardiology programs might determine the frequency with which their graduates achieve leadership roles within professional societies focused on cardiovascular pharmacotherapy. The ASHP PGY2 Program Accreditation Standard currently includes an expectation for the tracking of graduates (principle 3.5.c(1)),[8] and programs should consider the significance and relevance of the resident's contributions to the profession as one approach to addressing this standard.

An important marker of program quality is the percentage of graduates who successfully achieve board certification in their specialty area. As mentioned previously, board certification validates the attainment of the knowledge and skills necessary to practice within the specialty area. Another potential marker of program quality should be the graduate's contributions to scholarship within the specialty area. Examples of such scholarly activity include publication of abstracts, presentations to professional audiences, and publication of research papers, review articles, and/or commentaries.

Program graduates' contributions to teaching and learning within the specialty area represent a final example of measurable markers of program quality. Programs should demonstrate that residents are transitioning from the role of trainee to that of educator/trainer within their specialty. Examples should include, but are not limited to, completing teaching certificate programs, providing didactic lectures or workshops, precepting pharmacy students and/or residents, facilitating clinical simulation sessions and case discussions, delivering in-services to other health professionals, and preparing and presenting continuing education or staff development programs.

Conclusion

The intersection between the profession's educational system for preparing specialized clinical practitioners and its process for specialty board certification is expected to continue for the foreseeable future. As the profession matures in developing specialty practice, it is critical that postgraduate clinical training and certification work in tandem. The goal of this report is to stimulate dialogue on this subject by presenting recommendations for debate and refinement. It is our hope that establishing both formal and informal connections between postgraduate specialty training and certification will provide the foundation for a rational approach to credentialing that is recognized by stakeholders external to the profession. This will also help the pharmacy profession better meet the growing medication needs of patients.

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