Which PGY1 Pharmacy Residency Is Right for Me? Advantages and Disadvantages of Pediatric-Focused and Traditional PGY1 Pharmacy Programs

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Students interested in pediatric pharmacy may face difficulty choosing a postgraduate year 1 (PGY1) Pharmacy residency program. These students can complete their PGY1 Pharmacy residency in a traditional PGY1 Pharmacy program, a program with less than 50% of pediatric rotation experiences, or a pediatric-focused PGY1 Pharmacy program, a program with at least 50% of pediatric rotation experiences. These programs differ in rotational experiences, types of projects available, service commitment, and preceptor backgrounds. This article provides potential advantages and disadvantages that students may consider when selecting between these 2 different PGY1 Pharmacy residency programs. In addition, the article includes advice for students to consider when evaluating the best fit for themselves, and many of the recommendations were developed following a presentation that was given to students at the Pediatric Pharmacy Association's Annual Meeting in April 2019. Ultimately, the best residency program fit for a student interested in pediatrics should be based on each student's priorities, preferences, and career goals.

ABBREVIATIONS ASHP, American Society of Health-System Pharmacists; PGY1, postgraduate year 1; PGY2, postgraduate year 2

KEYWORDS education; pediatric pharmacy; postgraduate training residency

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Exploring residency programs and preparing for the application cycle is an exciting yet equally daunting task for many students. Although they are so close to securing a position that will help them achieve their long-term career goals, navigating the residency match process can be challenging and overwhelming. Students often have many questions about how to identify which programs to apply to and how to make themselves competitive candidates. For students interested in pediatrics, they are often faced with another question: which type of postgraduate year 1 (PGY1) residency program should I choose? The American Society of Health-System Pharmacists (ASHP) recognizes 3 types of PGY1 residency programs: 1) PGY1 Pharmacy, 2) PGY1 Community-Based Pharmacy, and 3) PGY1 Managed Care Pharmacy.¹ Notably, PGY1 Pharmacy residencies that are conducted in a children's hospital fall under the category of a PGY1 Pharmacy residency and cannot be called a PGY1 pediatric pharmacy residency per the residency standards.¹

In 2019, there were 1281 PGY1 Pharmacy programs in the United States.² Forty-three (3.4%) of these were conducted in freestanding children's hospitals. ASHP provides competency areas that each ASHP-accredited residency program must achieve regardless of the practice setting. For PGY1 Pharmacy residencies, the ASHP standards include 4 required competency areas: 1) patient care; 2) advancing practice and improving patient

care; 3) leadership and management; and 4) teaching, education, and dissemination of knowledge.³ Within each competency area, specific goals and objectives must be achieved by the resident. This is designed to ensure that residents at different programs graduate with standard knowledge and skills. Although these competencies are specific, there is flexibility allowed to accomplish these goals and objectives through different program structures. Additionally, residents must have experiences with a variety of patients with diverse diseases and patient problems; however, there are no regulations on required rotations. The ASHP PGY1 Pharmacy standards state that no more than one-third of the residency should focus on a specific disease or patient population.⁴

For students interested in pediatric pharmacy, their PGY1 Pharmacy residency programs can be completed in children's hospitals or health systems with both pediatric and adult patients. These students must weigh the amount of pediatric experience available during their PGY1 Pharmacy residency and may struggle with the decision of whether to pursue a pediatric-focused or traditional PGY1 Pharmacy program. For the purposes of this manuscript, we define *pediatric-focused PGY1 Pharmacy program* as a residency with at least 50% of rotation experiences completed in a pediatric population. In contrast, we define *traditional PGY1 Pharmacy program* as a residency with less than 50% of rotational

Table. Comparison of Traditional and Pediatric-Focused PGY1 Pharmacy Residency Programs

Factors	Traditional PGY1	Pediatric-Focused PGY1
Pediatric rotations required/available	Varies	Yes
Adult rotations required/available	Yes	Varies
Ability to complete pediatric-focused projects (e.g., research, medication use evaluation, or presentations)	Varies	Yes
Option to complete service commitment in pediatric hospital	Varies	Yes
Pediatric clinical pharmacists as preceptors	Varies	Yes

PGY1, postgraduate year 1

experiences completed in a pediatric population. The purpose of this special article is to discuss the advantages and disadvantages of pediatric-focused and traditional PGY1 Pharmacy programs and to highlight key factors that should be considered by those interested in pediatrics when they are choosing residency programs.

Traditional Versus Pediatric-Focused PGY1 Residency

Given the variability of PGY1 Pharmacy residencies, the differences among programs (even within traditional or pediatric-focused PGY1 Pharmacy programs) are numerous, which can make comparing programs challenging. There are several broad areas in which traditional and pediatric-focused PGY1 Pharmacy programs differ. These differences are summarized in the Table and include the availability of adult and pediatric rotations, ability to complete pediatric projects, location of service commitment, and access to pediatric preceptors/mentors. The advantages and disadvantages listed in the Table are generalizations; hence, many of these factors can vary from program to program. For example, because there are no required rotations per the residency standards, some traditional PGY1 Pharmacy programs may have multiple pediatric rotations and preceptors while others may have none. However, there are certain characteristics that are essentially guaranteed by pediatric-focused programs, including a greater variety of pediatric rotations, experience with a more diverse pediatric patient population, and likely a larger number of pediatric preceptors. Students must thoroughly review the residency structure and elective opportunities of PGY1 Pharmacy residencies to determine the best fit.

Pediatric-Focused PGY1 Programs. There are advantages and disadvantages to pediatric-focused PGY1 Pharmacy programs.

Advantages. One of the most intuitive advantages is that they can help residents focus their learning and increase their pediatric knowledge. Residents in a pediatric-focused PGY1 Pharmacy program can gain a deeper understanding of age-related changes, pharmacokinetics, and pediatric diseases because they are more immersed in pediatrics. Another main benefit is

that pediatric-focused PGY1 Pharmacy programs can potentially help residents “jump-start” their careers in pediatric pharmacy. For example, residents who complete a pediatric-focused PGY1 Pharmacy residency may have an advantage in obtaining a pediatric staff pharmacist position if they choose to forgo a PGY2 pediatric pharmacy residency. Additionally, because residents in a pediatric-focused PGY1 Pharmacy program are focused on pediatrics during their first year of residency, the transition from PGY1 to postgraduate year 2 (PGY2) pediatric pharmacy residency may be easier. With their previous pediatric knowledge and experience, residents who complete a pediatric-focused PGY1 Pharmacy program may be able to further advance their knowledge of pediatric diseases and application of medication safety in children as PGY2 pediatric pharmacy residents. Additionally the experience may allow them to more quickly identify a specific area of pediatrics to focus on earlier in their PGY2 pediatric pharmacy residency.

Disadvantages. The most notable disadvantage of pediatric-focused PGY1 Pharmacy programs is that residents may not be as familiar with pharmacotherapy in adults. Although select pediatric-focused PGY1 Pharmacy programs provide learning experiences in adult populations, others may not be connected to a health system with adult patients and cannot provide this experience. Because of the pediatrics focus, residents may have less flexibility when finding an initial position or in making a career change if needed. For pediatric clinical specialist positions, institutions may prefer candidates who complete a PGY2 pediatric pharmacy residency. For positions involving adult populations, candidates who complete a traditional PGY1 Pharmacy program or a PGY2 in that specialty may be preferred. In addition, residents completing only a pediatric-focused PGY1 Pharmacy residency must wait at least 2 additional years before they are eligible to take the Board of Pharmacy Specialties certification exam in Pediatric Pharmacy or serve as a preceptor of PGY2 pediatric pharmacy residents.^{5,6} Finally, because there are fewer pediatric-focused programs, there is greater competition for available spots. Because most children’s hospitals are located in larger metropolitan areas, a pediatric-focused PGY1 Pharmacy program

may not be geographically and financially feasible for all students.

Traditional PGY1 Pharmacy Residency. Completing a traditional PGY1 Pharmacy residency also has unique advantages and disadvantages.

Advantages. The main advantage of a traditional program is that it will likely provide a broad, well-rounded experience with opportunities in a variety of practice settings and with different populations. If traditional PGY1 Pharmacy residents choose to forgo the PGY2 residency, their educational exposure to both adult and pediatric patients may increase their flexibility in pursuing various job opportunities. Another benefit is that residents can transfer knowledge acquired from adult patients to the pediatric arena. For example, experience with adult patients can help practitioners more easily recognize when adult maximum doses are exceeded in older children and adolescents. Additionally, learning experiences involving the adult population can be beneficial in future pediatric experiences because many new medications are first used in adults before being used in children. Furthermore, this experience can be crucial when treating conditions more traditionally seen in adults, such as type 2 diabetes mellitus, that are becoming increasingly more common in children and adolescents.⁷ Lastly, although students may be interested in pediatrics, they may be undecided about a specialization in pediatrics when beginning their residencies. Depending on the availability of pediatric internships, elective courses, research projects, and introductory and advanced pharmacy practice experiences, not all students interested in pediatrics have the opportunity to gain pediatric experience during pharmacy school. Additionally, students may have other non-pediatric interests. Completing a traditional PGY1 Pharmacy program can allow more time to explore other interests and career goals before committing to a career in pediatrics.

Disadvantages. The major disadvantage of a traditional PGY1 program for students interested in pediatrics is the availability of fewer pediatric rotations and thereby less exposure to this population. As a result, they may feel they are not able to begin specializing within pediatrics as quickly as those who are completing pediatric-focused PGY1 Pharmacy programs. Additionally, individuals committed to pediatrics may find that a traditional PGY1 Pharmacy program does not align with their interests and career goals.

Additional Factors to Consider When Choosing a Residency Program

There are additional factors that must be considered when choosing between residency programs. Given the variability among programs, finding the right fit can be difficult. What individuals are looking for in a program and what is most important to them will vary

among applicants. Seeking advice from mentors and role models about various programs may help ensure that a program aligns with long-term career goals. Input of others also allows one to set realistic expectations about a residency program. Ultimately, each applicant must weigh a variety of factors and decide individually what programs fit his or her interests and learning style.

Although the desired attributes in a residency will vary from person to person, we feel there are certain key factors that all potential applicants should consider when applying to and ranking residency programs. The Figure highlights key factors that should be considered by students interested in pediatrics as they chose a residency. Although this is certainly not an all-inclusive list of items to consider or questions to ask, these examples can be helpful in determining which program would be the best fit. Thorough research would also include reviewing the online information about the program (e.g., ASHP Residency Directory² or the residency program website), interacting with representatives of the program at various residency showcases or onsite interviews, communicating with preceptors and residents from the program, and discussing each program with a mentor to obtain insights.

Advice for Those Interested in Pediatric Pharmacy

Given the advantages and disadvantages of both pediatric-focused and traditional PGY1 Pharmacy programs as well as additional factors one must consider when choosing a residency, students may be left asking, "Which type of residency is right for me?" Unfortunately, the answer is generally, "It depends," and others cannot answer that question for most students. For students who have experience in pediatrics or who are certain about a career in pediatrics, then pursuing a pediatric-focused PGY1 Pharmacy program may be the right choice. For students who have doubts about a long-term career in pediatrics, desire a broader experience that includes pediatrics, or have limited pediatric experience, a traditional PGY1 Pharmacy program may be a better choice. Ultimately, students must evaluate their own interests and long-term career goals to determine what type of residency program is the best choice to meet their career goals.

In conclusion, there are many different paths to a career in pediatric pharmacy. Traditional and pediatric-focused PGY1 Pharmacy programs differ in rotation experiences, types of projects available, service commitment, and preceptor background. Both types of programs have advantages and disadvantages. When selecting a PGY1 Pharmacy program, it is important to find the best fit by weighing different factors of each program. Most importantly, students must consider their own priorities, preferences, and career goals when selecting a residency program.

Figure. Factors that should be considered by students who are interested in pediatrics when they apply to and rank residency programs.

PGY2, postgraduate year 2; RPD, residency program director

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REFERENCES

1. American Society of Health-System Pharmacists. Accreditation standards for PGY1 Pharmacy residencies. <https://www.ashp.org/Professional-Development/Residency-Information/Residency-Program-Directors/Residency-Accreditation/Accreditation-Standards-for-PGY1-Pharmacy-Residencies>. Accessed December 11, 2019.
2. American Society of Health-System Pharmacists. Residency directory. <https://accreditation.ashp.org/directory/#/program/residency>. Accessed December 12, 2019.
3. American Society of Health-System Pharmacists. Required competency areas, goals, and objectives for postgraduate year one (PGY1) pharmacy residencies. <https://www.ashp.org/-/media/assets/professional-development/residencies/docs/required-competency-areas-goals-objectives>. Accessed December 11, 2019.
4. American Society of Health-System Pharmacists. ASHP accreditation standard for postgraduate year one (PGY1) pharmacy residency programs. <https://www.ashp.org/-/media/assets/professional-development/residencies/docs/pgy1-residency-accreditation-standard-2016.ashx?la=en&hash=9FF7C76962C10562D567F73184FAA45BA7E186CB>. Accessed December 11, 2019.
5. Board of Pharmacy Specialties. Pediatric pharmacy. <https://www.bpsweb.org/bps-specialties/pediatric-pharmacy/#1517746745397-c50604ba-9a311517780015777151785407768915178583338251517863453680>. Accessed December 12, 2019.
6. American Society of Health-System Pharmacists. ASHP accreditation standard for postgraduate year one (PGY2) pharmacy residency programs. <https://www.ashp.org/-/media/assets/professional-development/residencies/docs/pgy2-residency-accreditation-standard-June2017.ashx?la=en&hash=6AB9A9CCAC47929779FB5B9240D4490B2250FCD6>. Accessed February 12, 2020.
7. Dabelea D, Mayer-Davis EJ, Sayhad S, et al. Prevalence of type 1 and type 2 diabetes among children and adolescents from 2001 to 2009. *JAMA*. 2014;311(17):1778–1786.