

Post Graduate Year1 Pediatric Pharmacy Residency

ASHP Program Code: 92039 PhORCAS Match Code: 190313



Pediatric Pharmacy Practice Residency Program – Post Graduate Year 1 (PGY1)

Valley Children's Hospital is committed to diversity, equity, and inclusion and to creating a thriving community of specialized pharmacists and technicians that is a true reflection of the diverse patients and communities that we serve. The hospital offers a one-year, postgraduate residency program in pharmacy practice with an emphasis in pediatrics. This program will teach the application of pharmacotherapy concepts using sound drug therapy and a hands-on approach. Throughout the year, resident activities will include, but not limited to: provision of patient specific clinical interventions in inpatient and outpatient settings, provision of medication education to medical residents and nurses, precepting of APPE students, and participation in administrative duties.

Period of Appointment: 12 months

Salary: Approximately \$64,000 annually, paid biweekly

Health Benefits: Full eligibility

Weekend Staffing: Residents will be required to staff the inpatient pharmacy every other weekend

Professional Leave: Residents are encouraged to participate in professional conferences including: The Pediatric Pharmacy Association Conference, CSHP Seminar and ASHP Midyear. Residents are required to present their research project at a regional or national conference at the end of the year.

Paid Time Off/Sick Days: Every pay-period, residents will earn hours of paid time off (PTO). PTO includes hours for vacation and sick days and vacation days must be pre-approved by the residency program director.

Examinations and Licensure: Residents are required to take the NAPLEX and California Pharmacy Jurisprudence Examination (CPJE) prior to the start of residency. Residents must have an active California intern pharmacist license if the California pharmacist licensure is not acquired before the start of the residency. Per

the 2014 ASHP residency standards, residents must be licensed for at least 2/3 of the residency year. To maintain compliance with the ASHP accreditation standards, licensure must be obtained within the first 1/3 of the residency program, otherwise residents may be dismissed from the program.

Application Requirements: All interested candidates must submit the standard online application materials in the Pharmacy Online Residency Centralized Application Service (PhORCAS) in addition to supplemental requirements. For details of the application process, please see our website: valleychildrens.org/pgy1

Rotations Offered

	Required Rotations	Elective Rotations**
Direct Patient Care Rotations (6 weeks each)	<ul style="list-style-type: none"> • General Medicine • Pediatric Intensive Care Unit (PICU) • Neonatal Intensive Care Unit (NICU) • Hematology/Oncology • Infectious Diseases • Emergency Department 	<ul style="list-style-type: none"> • Parenteral Nutrition • California Poison Control System
Operational Rotations (6 weeks each)	<ul style="list-style-type: none"> • Pharmacy Operations (staffing) • Pharmacy Administration • Medication Utilization Subcommittee/ Pharmacy & Therapeutics Utilization Committee (Approximately 24 hours total for 12 weeks) 	<ul style="list-style-type: none"> • Information Technology Service
Ambulatory Care Rotations (6 weeks each)		<ul style="list-style-type: none"> • Primary Care Clinic • Neurology Clinic
Longitudinal Experiences (year-long)	<ul style="list-style-type: none"> • Pharmacy Operations (one staffing day every other weekend) • Anticoagulation Clinic (4 hours/week) • Research Project (variable hours and project days every other weekend) • Teaching and Education (2 hours/week) 	

**Resident may choose two elective blocks. The elective may be a new rotation or a rotation already completed for a more advanced experience.

Presentations and Teaching

- Journal club, patient case and drug consult presentations every 5-6 weeks
- 10-minute PowerPoint presentations at pharmacy staff meetings
- A 1-hour didactic lecture for APPE pharmacy students from local schools of pharmacy
- Resident research project continuing education (CE) offered to local CSHP members
- Active role in precepting pharmacy students on rotation at Valley Children's
- Teaching Certificate*

Other Learning Opportunities

- Pediatric core topic lectures lead by full-time pharmacists throughout the year
- Biweekly lectures of patient cases and disease states lead by medical specialists and residents

Rotation Descriptions

REQUIRED

Pharmacy Operations – During this 6-week rotation, residents learn to be a part of the inpatient pharmacy workflow. Each resident will learn all the roles and responsibilities of pharmacists and pharmacy technicians to develop a better understanding of how all products are made, recorded and delivered. Throughout the day, residents will perform tasks such as checking/updating medication carts, reviewing medication orders and profiles, performing medication reconciliation and researching drug information questions. By the end of the rotation, the resident should have a strong understanding of the inpatient pharmacy operations and the entire medication use and distribution system. Residents will also be required to staff on weekends within the main pharmacy or the pharmacy satellites, utilizing the experience they obtain during this rotation. These staffing weekends will further be evaluated as a longitudinal experience.

General Medicine (Team A/B) – Residents will attend morning sign out, radiology rounds, rounds with the medical team and answer all pharmacy related questions that may arise. Residents will also manage aminoglycoside, vancomycin, heparin, warfarin and enoxaparin drug monitoring each morning and utilize basic kinetic calculations to adjust dosing if needed. Residents are expected to proactively assess medication therapies, review various disease state topics, educate medical residents and medical/pharmacy students as needed and document all clinical activities.

Pediatric Intensive Care Unit (PICU) – On the PICU rotation, the resident attends teaching rounds and identifies and resolves medication therapy issues that arise in the critical care population. The resident initiates and documents clinical interventions, provides therapeutic drug monitoring and participates in educating medical staff and patients. The resident will work closely with the PICU clinical pharmacist to address medical issues and develop therapeutic monitoring plans.

Neonatal Intensive Care Unit (NICU) – The NICU rotation will also require the pharmacy resident to round with the medical team. Residents are in charge of therapeutic drug monitoring for medications including: epoetin alfa, vancomycin and aminoglycosides. Residents are responsible for entering orders into electronic medical records based on established protocols. The resident and preceptor will have topic discussions and may also hold walking rounds throughout the rotation for various patients. With the flexibility of this rotation, it is easy to tailor to each resident's interest.

Hematology/Oncology – The pharmacy resident is responsible for providing pharmacy services to oncology patients both in the clinic and the inpatient setting. They will also round with the inpatient team. This includes, but is not limited to, participating in weekly rounds with the multi-disciplinary oncology service team, timely and accurate dispensing of chemotherapy agents, assisting with pharmacist order entry/verification, initiating and following pharmacy protocol patients including aminoglycosides, vancomycin and anticoagulation, and providing drug information for both nurses and physicians as needed.

Infectious Diseases – On this service, residents round with the infectious diseases (ID) team. The resident assists with patient services working alongside ID physicians, medical residents, medical students and the clinical pharmacist. The resident participates in antimicrobial stewardship and serves as a resource to optimize antimicrobial therapy by providing evidenced-based, patient-centered recommendations to the ID team.

Emergency Medicine – The emergency medicine rotation will teach residents to become familiar with the skills required to be a clinical pharmacist in the Emergency Department (ED). Residents will participate in essential roles of the pharmacist in the ED including, but not limited to; verifying prescription orders, providing dosing and therapy recommendations, reviewing culture and susceptibility reports, conducting medication evaluations, monitoring high-risk medications, and assisting in trauma and code responses. The goal of this rotation is to develop the residents' skills in the tasks listed so that the resident is able to optimize pharmacotherapeutic management in this highly acute patient setting.

Administration – The objectives of this rotation are to understand the principles of various approaches to departmental planning, evaluate current protocols, review regulatory agencies and effectively communicate verbally and in writing. Residents will work directly under the guidance of the pharmacy director, regulatory pharmacist, operations manager, clinical manager or other administrative leaders depending on the project at hand. Residents will attend meetings, develop, review and implement policy and procedures and assist in ensuring departmental compliance with regulatory requirements. Residents will develop knowledge of the organizational structure of the hospital, pharmacy department and medical staff/committees.

Medical Utilization (MU) and Pharmacy, Therapeutics and Utilization (PTU) – The PTU committee has representatives from each medical staff department to ensure continuous improvement of the quality of patient care and outcomes. MU is a subcommittee of the PTU committee and it is responsible for development and implementation of any changes to patient care guidelines, policies/procedures or protocols that are medication or pharmacy related. The resident will serve on both committees for this 12-week experience. Some of the activities the resident takes part in include formulary review, medication utilization evaluations, evaluation of Institute for Safe Medication Practices recommendations and alerts, reviewing quarterly reports of PRN indications, unapproved abbreviations review and drug recalls.

ELECTIVES

Parenteral Nutrition – Residents will work with pharmacist preceptors to prepare and dispense parenteral nutrition (PN). Residents will review patient labs, nutritional status and disease states, then work with providers to optimize the PN. Disease states covered include prematurity/low birth weight, inflammatory bowel disease, short bowel syndrome and malnutrition syndromes. Residents will gain an understanding of pediatric and neonatal nutritional needs, fluid and electrolyte balance, interpretation of blood gas values and laboratory values and sterile compounding including USP Chapter 797 guidelines.

California Poison Control System – Residents may choose to rotate through the Poison Control Center located on the Valley Children's Madera campus as an elective rotation. This center is one of only 61 poison centers operating in the United States and one of four in California. The resident learns to monitor telephones for various questions throughout the day and utilizes databases at hand to answer drug toxicology questions effectively and efficiently. Pharmacists staffing the Poison Control Center often call emergency departments (ED) when patients are en route to help ED staff prepare or even answer ED calls about a patient currently being seen. Pharmacists have also determined the need to send an ambulance to a patient's home if the situation was warranted. From this rotation, residents will learn to navigate through toxicology based questions and be confident in making decisions and providing education over the phone.

Neurology – The resident works closely with neurologists, nurse practitioners and the clinical pharmacist in the neurology outpatient clinic. The resident is responsible for identifying and resolving medication therapy

issues for patients and optimizing outcomes by providing evidence-based, patient-centered medication therapy. Residents help triage phone calls, evaluate charts for medication refills, perform pharmacokinetics for anticonvulsant medications and research drug information requests. Disease states covered during this rotation will include seizure disorders, headaches/migraines, chronic pain, movement disorders and behavioral disorders.

Primary Care Clinic –Residents will work alongside the clinical pharmacist at the Charlie Mitchell Children's Clinic (CMCC). CMCC is known for its care of children with multiple or complex chronic disease states and their well siblings. Residents will become familiar with general medicine disease states (otitis media, asthma, etc.) and outpatient treatments, as well as assessing chronic medication regimens for complex disease states. Residents will conduct patient consultations, provide drug information, act as a liaison between physician and retail pharmacy, assist with medication school forms and review medications for RN home health visits.

Information Technology – The resident will work on projects that involve information systems relating to automated medication dispensing, robot systems, computerized physician order entry, and medication bedside scanning. The resident will learn how information systems are managed, maintained, upgraded, implemented and how pharmacotherapy information is processed in the hospital setting. Residents will learn computer programming skills and shadow the IT pharmacists as they attend meetings and perform their daily duties.

REQUIRED LONGITUDINAL ROTATIONS

Anticoagulation Clinic – Each resident will be trained on the pharmacist run anticoagulation protocol and assigned to care for six patients throughout the year. While working in conjunction with preceptors, residents take on the responsibility of monitoring and adjusting anticoagulation medication doses and schedules based on patient's specific INR/PT levels and information obtained from patient/parent interview. Residents will follow up on lab tests, write new/refill prescriptions and update chart documentation. Residents will follow their assigned patients through both inpatient (if the patient gets admitted) and outpatient settings. This year-long rotation allows residents to develop relationships with their patients and understand how transitions of care management are vital to successful anticoagulation treatments.

Research – The resident will complete a research project by the end of the residency year. This project can be either administrative or clinical and must benefit the individual, pharmacy department and hospital. Throughout the year, progress will be tracked and evaluated in this longitudinal rotation by reviewing the project design, method of data gathering, statistical evaluations, results and project conclusions. Final discussion of limitations and future follow up will also be required prior to presentation at an institutional, local, national and/or regional conference in the spring. Final manuscript preparation and submission will be due in June.

Teaching and Education – Throughout the year, residents will be involved in various teaching activities, including but not limited to: in-services for the medical, nursing and/or pharmacy staff, patient case presentations, precepting students on rotations, leading topic discussion sessions, providing continuing education lectures, participating in student presentations and providing feedback for student evaluations. The purpose of such activities is to develop and refine residents' communication skills, to build confidence, and to promote the effectiveness of the resident as a teacher. All resident performances in these various activities will be evaluated in this longitudinal rotation.

Pharmacy Operations and Dispensing – In this year long experience, residents will build upon their knowledge of the medication dispensing and use system for the hospital. Operations and dispensing training will occur on staffing weekends and often during acute care rotations.

Application Processes and Requirements

Final deadline for submission of all application materials is January 2nd, 2024. Candidates must complete both standard application requirements in PhORCAS **and** meet/submit the program supplemental requirements listed below:

- Doctor of pharmacy degree from an ACPE accredited school of pharmacy or a M.S. or B.S. in Pharmacy with equivalent clinical experience
- Be eligible for pharmacist licensure in the state of California
- Apply for ASHP Residency Matching Program (VCH Match #190313)
- Three professional recommendations in PhORCAS (completion of standard reference form in PhORCAS) Example: Two references from preceptors who can speak of your clinical abilities and one reference from your pharmacy employer. If you have completed a pediatric rotation, it is recommended that one reference should be from that pediatric preceptor
- Your letter of intent uploaded to PhORCAS should answer two questions:
 1. Why you want to complete a pediatric residency?
 2. Why you want to complete a pediatric residency at Valley Children's Healthcare?
- Your transcripts must include the most recent rotation grades (**or** have your site coordinator/preceptor email your grade directly at the completion of the last rotation of the calendar year to pharmacy@valleychildrens.org)
- Be available for an interview in late January or February
- A short PowerPoint presentation on a pediatric topic is required during the interview – check website for list of topics (will be available in October)

It is recommended that candidates complete a pediatric rotation prior to application submission or interview. If candidates are unable to obtain a pediatric rotation, there must be pediatric experience documented in the extracurricular information portion on PhORCAS and on your curriculum vitae.

If there are additional questions about the residency program or application requirements, email inquiries to pharmacy@valleychildrens.org.

For more information, visit our website: valleychildrens.org/pgy1

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