



PEDIATRIC PHARMACY PRACTICE RESIDENCY

The Pediatric Pharmacy Practice Residency, established by the North Carolina Children's Hospital is an organized, directed, post-graduate training program leading to advanced knowledge and practice skills in pediatric pharmacotherapy. The Pediatric Pharmacy Practice Residency experience reflects the "ASHP Accreditation Standard for Specialized Pharmacy Residency Training" and the learning objectives of the "ASHP Supplemental Standard for Residency Training in Pediatric Pharmacy Practice."

The residency practice site is the 140 bed North Carolina Children's Hospital located in Chapel Hill, North Carolina. The NC Children's Hospital has comprehensive specialized care in pulmonology, intensive care, neonatology, nephrology, cardiology, surgery, gastroenterology, nutrition support, oncology, hematology, neurology, adolescent medicine, endocrinology, infant development, metabolism, and psychology. UNC is the largest Cystic Fibrosis Center in the United States and US News and World Report recently ranked our pediatric pulmonology services #9. And extensive pediatric ambulatory care services are also coordinated through the hospital.

Twenty-four hour unit-dose, centralized pharmacy services are provided at UNC. Services include IV admixture, total parenteral nutrition admixture, preparation of antineoplastic agents, compounding of pediatric dosage forms. Our pediatric pharmacy satellite provides drug consulting services, first doses of medications, and pediatric code coverage. Ambulatory clinic prescriptions for pediatric outpatients are available from the UNC Outpatient Pharmacy Department.

Goals

The residency program in Pediatric Pharmacy Practice is designed to develop practitioner expertise in pediatric pharmacotherapy and practice skills through provision of pediatric clinical pharmacy services to the seriously ill child in inpatient and ambulatory settings. The primary service aim of the residency is assurance of safe, efficacious, and cost-effective pediatric pharmacotherapy through patient-care, teaching, and project activities. The residency program is structured to provide opportunities for participation in the education of UNC Doctor of Pharmacy students and Pharmacotherapy Residents, as well as experience in on-going clinical research. Additionally, the residency program is designed to fulfill the learning objectives and address the areas of emphasis outlined in the "ASHP" Supplemental Standard for Residency Training in Pediatric Pharmacy Practice.

Structure

A minimum of 2,000 hours of contact time, extending over a period of 52 weeks, provides for the achievement of the residency goals. One-month rotations in areas of pediatric specialization offer experience in a multidisciplinary team approach to pediatric health care. These specialty areas include:

Required Rotations

	Rotation	Services
1	Green	General patients, Nephrology
2	Blue	Cardiology, Pulmonology
3	Red	Gastroenterology, Hospitalist, Endocrinology
4	Purple	Hematology/Oncology

5	Surgery	Pediatric General Surgery
6	NICU	Neonatal intensive Care*
7	PICU	Pediatric Intensive Care

*Additional months may be completed at Women’s Hospital of Greensboro or Duke University Medical Center

Nutrition Support – integrated throughout the year

Pharmacokinetics – integrated throughout the year

Electives

Bone Marrow Transplantation*	Infectious Disease
Emergency Medicine	Organ Transplantation
Endocrinology	Psychology

* Adult/pediatric at UNC Hospitals or Pediatric at Duke University Medical Center

Seven rotations comprise the required residency experiences. In addition, an initial training experience with our pediatric clinical specialists is required to provide administrative insight into the challenge of providing institutional pediatric pharmacy services, exposure to unique aspects of pediatric drug delivery, and begin clinical and/or administrative project activities. The remaining months of residency experience may be completed in a specialized elective area selected from the pediatric practice areas listed above or a practice area consistent with the goals of the residency program and the resident, approved by the residency preceptor.

Responsibilities

1. Active participation in daily patient care rounds, provision of drug information related to patient care, and prospective therapeutic drug monitoring to ensure provision of safe, efficacious, and cost-effective pediatric pharmacotherapy to patients at UNC.
2. Assistance with pediatric clinical pharmacy services and formulary management by the UNC Hospitals Department of Pharmacy Services.
3. Participation in on-going clinical research and project activities (to include protocol development, data collection and analysis, interpretation of results, and practical trouble-shooting experience).
4. Certification in Basic Life Support and pediatric code participation.
5. Presentation of at least one formal seminar in pediatric pharmacotherapy to the UNC Hospitals’ pharmacy staff and clinical faculty.
6. Provision of educational inservices to health care professionals addressing unique aspects of pediatric pharmacotherapy.
7. Active participation in monthly pediatric discussion group.
8. Preparation of a quarterly report summarizing residency activities and rotation experiences.
9. Development of demonstrated competence in the pathophysiology, treatment and effective therapeutic monitoring for these pediatric disease states (minimal requirements provided by ASHP accreditation standards in association with PPAG)

Ambulatory Care Experience

Ambulatory Care experience is traditionally through our nephrology clinic, but the resident is able to choose another clinic setting. The experience is a longitudinal experience, extending weekly throughout the year. In the Pediatric nephrology clinic, the resident is expected to provide services commensurate

with the ASHP accreditation standards: selecting appropriate treatment plans, counseling patients, and monitoring these plans for effectiveness, with the goal of disease control and wellness promotion.

Residency Research Project

The resident is expected to participate in a project that enhances the following learning objectives: developing criteria, seeking approval of the criteria from the medical staff and IRB approval if necessary, collecting and summarizing data, analyzing results and presenting the findings. To fulfill the residency requirement, each resident must complete a pharmacotherapy project. The results of this project must be summarized and submitted in a publishable form. It is strongly encouraged for the resident to present the results of the pharmacotherapy project at the PPAG Spring Meeting or a suitable alternative.

Seminars and Professional Meetings

Each resident is expected to attend the NCAP Annual Convention (fall), ASHP Midyear Clinical Meeting (December) and the Southeastern Resident's Conference or PPAG (spring). A travel stipend is provided by UNC Hospitals for these educational experiences.

Each resident will attend a weekly seminar where fellow residents and students will present current data on various topics to an audience consisting of faculty and clinical specialists. During the fall semester, all residents will present one 20-minute seminar on either a pharmacotherapy topic or a new medication. During the spring semester, each resident will present a 20-minute case presentation. Each resident will also develop an ACPE-approved presentation that is open for the public to attend.

Pharmacy Practice Responsibilities

Residents will receive training and orientation to the department's services during their first few weeks of the program. Pharmacy practice responsibilities include staffing in the pediatric pharmacy satellite. Activities include, but are not limited to, verifying patient-specific orders and medications, providing pharmacokinetic consults when requested, answering in-depth drug information questions, attending all pediatric codes as the pharmacy member of the code team, providing patient education and solving pharmacotherapy situations as they may arise. The Pediatric resident currently staff's every 3rd weekend, works 5 days during one of the major holiday blocks (Thanksgiving, Christmas, or New Year's). The remainder of the shifts will be determined monthly according to the needs of the Pediatric Pharmacy Satellite. The requirements may be changed based on the needs of the department annually.

Each resident will become a licensed pharmacist in the state of North Carolina. Reciprocity examinations are held on odd months (January, March, etc).

Teaching Responsibilities

Each resident will earn an appointment with the UNC Eshelman School of Pharmacy as a Clinical Instructor through participation as a teaching assistant within the Pharmaceutical Care Labs. This class is directed toward second or third professional year students. A core group of 10 students will be assigned to each resident to engage in therapeutic class discussions and to instruct in the basics of physical assessment, patient counseling and written and verbal communications. Five hours are to be committed per week, which encompasses teaching, preparation, and grading assignments.

A minimum of 2 lectures in the Pediatric Pharmacotherapy Elective is required. Additional opportunities exist to precept Doctor of Pharmacy students on clinical rotation, and to teach in additional courses at the UNC Eshelman School of Pharmacy.

Insurance

Individual Health insurance is provided through UNC Hospitals Graduate Medical office through a designated HMO. UNC Hospitals provides comprehensive malpractice insurance for all residents at no charge; however, that does not preclude any resident from obtaining individual professional liability insurance.

Vacation/Holidays

Each resident will be given 15 days of paid time off (PTO) for the entire year, none of which can be taken in the last 2 weeks of the program. These days include all vacation, sick leave, interview days, and meeting attendance beyond the two meetings per year that are built into the residency expectations. The resident will also work one of the holiday blocks (Thanksgiving, Christmas or New Year's).

Certification

Upon fulfillment of all residency program requirements, the North Carolina Children's Hospital will award the resident a certificate of completion for the Pediatric Pharmacy Practice Residency.

Qualifications for application

1. The candidate must possess a Doctor of Pharmacy degree awarded from an ACPE accredited College of Pharmacy.
2. The candidate must possess hospital pharmacy practice experience, preferably in provision of pediatric pharmacy services.
3. The candidate should have previously completed a pharmacy practice residency (PGY1) or other equivalent clinical hospital experience.
4. The candidate must be eligible for licensure as a pharmacist in North Carolina.
5. The candidate must submit all application materials to be considered for an on-site interview.
6. A 30-minute oral presentation will be required during the on-site interview.

Following review of all application materials, selected candidates will be invited for an on-site interview during February.

Qualifications of program director

After obtaining her PharmD degree at UNC School of Pharmacy, Dr. Stegall-Zanation completed a pharmacy practice residency (PGY1) and a pediatric specialty residency (PGY2) at UNC Hospitals and Clinics (2001-2003). She became a Board Certified Pharmacotherapy Specialist in October 2003. She joined the UNC Eshelman School of Pharmacy faculty in June 2004 and was a clinical assistant professor within Pharmacy Practice and Experiential Education until December 2009. She was co-adviser for the Lambda chapter of Kappa Epsilon from 2005-2009 and a member of Phi Lambda Sigma. After leaving the school of pharmacy, she returned to full-time clinical practice in the newborn critical care center (NCCC) at UNC Hospitals. She is a member of ACCP, ASHP, NCAP and PPAG.

Preceptors:

Shawna Beck, PharmD; Surgery Clinical Specialist

Kara Bozik, PharmD, BCPS; General/Nephrology Clinical Specialist

Amy Brown, PharmD; NCCC Clinical Specialist

Candace Kelly, PharmD; GI/Hospitalist/Endocrinology Clinical Specialist

Kathy Riley, PharmD; Hematology/Oncology Clinical Specialist

Megan Young, PharmD; Cardiology/Pulmonary Clinical Specialist