Introduction

Cleveland Clinic is an integrated health care system, which includes a one thousand bed tertiary and primary care hospital, as well as an outpatient clinic, that manages over 3 million patient visits annually. It is a private, not for profit, academic medical center with an international reputation for the highest quality of care. Cleveland Clinic Department of Pharmacy has official university affiliations with the Cleveland Clinic Lerner College of Medicine, The Ohio State University, the University of Toledo, and Ohio Northern University.

The Department of Pharmacy provides services 24 hours a day. It incorporates a fully computerized pharmacy system, unit dose and intravenous admixture services. Staff pharmacists are involved in a variety of clinical activities. The 250 plus departmental personnel include pharmaceutical care specialists, patient care pharmacists, managers, technicians, and other supportive staff. The pharmaceutical care specialists represent a broad range of medical and surgical subspecialties. The residency programs are not only supported by the Department of Pharmacy but also by the medical, nursing, and allied health professionals. As an integrated group practice, many of the 1000 staff physicians are involved in the pharmacy residency programs.
Residency Overview

Our residency programs provide education and training with a primary emphasis on the development of practice skills in a number of specialized pharmacy practice areas. Throughout the year, the residents are involved in a variety of service, education, and research activities. During this training, the resident will learn to conduct patient care activities using a consistent approach that reflects the philosophy of pharmaceutical care. In addition to clinical activities, the resident will be involved in educational programs, which includes pharmacy case conferences, journal clubs, and a seminar presentation. Other teaching opportunities include medical and nursing in-services, as well as co-precepting students from colleges of pharmacy. Research skills will be developed through experience and enhanced by instruction during the year as residents complete a research project and drug use evaluation. Residents will also attend the ASHP Midyear Clinical Meeting and the Great Lakes Residency Conference. Attendance and participation in other state and local conferences are available.

Requirements for Admission

The Cleveland Clinic Pharmacy Residency Programs are available to Pharm.D. graduates of an accredited College of Pharmacy. Consideration for admission requires an application which consists of 1) brief letter of intent, 2) curriculum vitae, 3) three letters of reference, 4) official college transcripts, and 5) eligibility for Ohio licensure. The deadline for the receipt of these materials to be considered for an onsite interview is January 4.

* For the Infectious Diseases, Critical Care, Drug Information, Oncology, and Medication Safety residencies, a pharmacy practice residency or equivalent experience is required.
The one-year Pharmacy Practice Residency (PGY-1) provides a foundation of diverse experiences in pharmaceutical care as well as in hospital pharmacy practice. The program is designed to expose the resident to a variety of practice areas in an acute care environment in order to build and expand the knowledge and skills necessary for direct patient care. Residents who successfully complete this program are well prepared for specialized residencies, fellowships, or other career opportunities. Required rotations include cardiology, critical care, drug information, internal medicine, pediatrics, practice management, and a longitudinal experience in ambulatory care. Residents are able to individualize their residency through elective rotations (See Experiences Available). Inpatient staffing is required every third weekend throughout the year.

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The Pharmacotherapy Residency

The Pharmacotherapy Residency is a specialized two-year training program which enables the successful resident to develop an expert level of competence in pharmacotherapy. The program instructs the resident on the provision of safe, appropriate, and economical use of medication through the application of specialized knowledge, skills, and functions in patient care. The residency is also designed to prepare the resident to become a Board Certified Pharmacotherapy Specialist (BCPS). The rotations are arranged in clinical blocks that are 2 to 3 months in duration and focus on a particular area of pharmacotherapy (e.g., critical care, internal medicine, and pediatrics). In the second year, more specialized blocks of clinical rotations are offered to build and enhance competencies acquired during the first year of the residency. There is also the opportunity to concentrate on a particular area of pharmacotherapy in the second year. Furthermore, there is a longitudinal ambulatory care component of the program. In addition to presentations and projects, a manuscript for publication is required. Inpatient staffing is also a requirement.

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The Infectious Diseases Residency

The Infectious Diseases Residency (PGY-2) is a one-year training program that provides an opportunity for the resident to develop the necessary skills for specialized practice in infectious diseases. The program is designed to foster skilled clinical pharmacy practitioners who are proficient in a specific range of patient-oriented services and to promote a team approach to problem solving. The required rotations consist of infectious diseases consult services, infectious diseases outpatient clinic (including HIV), pediatric infectious diseases, and microbiology. Furthermore, the resident can choose from a number of elective rotations that are of particular interest to build and enhance competencies. The resident will also be involved in antimicrobial formulary management and administrative activities concerning antimicrobial drug use. In addition to projects and pharmacy presentations, the resident will participate in the Department of Infectious Diseases journal clubs/case conferences, HIV conferences, and Infectious Diseases grand rounds.

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The Critical Care Residency

The Critical Care Residency (PGY-2) is a one-year training program designed to prepare the resident to provide pharmaceutical care to critically ill patients. The program offers a variety of opportunities that will allow the resident to develop clinical skills necessary for complex intensive care issues and to optimize patient care outcomes. Required rotations include concentrated blocks in the medical, surgical, cardiac, and neurology/neurosurgical intensive care units. Elective opportunities in the heart failure, cardiothoracic, and pediatric intensive care units along with infectious diseases consult service, bone marrow and solid organ transplantation will enable the resident to integrate accumulated knowledge and skills in the care of critically ill patients. The residency fosters development into an independent practitioner who is able to effectively communicate and provide competent care to critically ill patients in a multidisciplinary setting. Completion of a research project and drug use evaluation will enhance these skills and also aide in familiarizing the resident with drug distribution systems in the critical care setting.

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The Drug Information Residency (PGY-2) is a one-year training program that provides an opportunity for the resident to develop the necessary skills for specialized practice in drug information. The program is designed to foster skilled pharmacy practitioners who are proficient in drug information practice. The required rotations consist of drug information practice, investigational drug service, medication safety, outcomes research, and practice management. Additionally, the residency consists of 2 to 3 months in medical reference publishing at Lexi-Comp, Inc. Furthermore, the resident can choose from a number of elective rotations to build and enhance competencies [e.g., poisoning/toxicology, internal medicine, and pharmacotherapy clinic]. The resident will also be involved in formulary management, adverse drug reaction reporting and monitoring, newsletter development and publishing, and education. Additionally, the resident will be participating in health system activities and projects. The resident will be attending and presenting at the Pharmacy and Therapeutics Committee and corresponding Specialty Panels, Medication Systems Subcommittee, Children's Hospital Pharmacy and Therapeutics Committee, and Health System Clinical Coordinator Meetings, as well as pharmacy case conference and journal clubs. The resident will conduct a drug use evaluation and research project and present one seminar.

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Oncology Pharmacy Residency

The Oncology Residency (PGY-2) is a one-year training program that provides an opportunity for the resident to develop the necessary skills for specialized practice in oncology pharmacy. This program provides the high-quality didactic and clinical experiences needed to create a well-rounded, fully competent oncology pharmacist. The resident will develop expertise, knowledge and skills in oncology therapeutics. This knowledge will enable the resident to contribute to an interdisciplinary health-care team offering patient-specific therapeutic interventions to treat, cure, rehabilitate and alleviate medical conditions and diseases unique to cancer patients. The program will enhance proficiency for conducting clinical research and strengthen communication skills. Required rotations include medical oncology, hematologic oncology, bone marrow transplant, palliative care, and oncology ambulatory care. The resident may choose an elective rotation in pediatric oncology, investigational drugs, nutrition, or infectious disease. Additionally the resident will be participating in pharmacy journal club, pharmacy case conference, cancer center core curriculum, and bone marrow transplant case conference. Finally, the resident will conduct both a drug use evaluation and research project and present one seminar.

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The Medication Safety Residency

Medication Safety Residency (PGY-2) is a one-year training program that provides an opportunity for the resident to develop necessary skills for specialized practice in medication safety. The program is designed to foster skilled practitioners who are proficient in medication safety practices. The residency will train individuals to: function as an effective leader for medication-use safety, serve as a resource for medication-use safety guidance, represent the medication safety perspective during the design of technology and automation systems, collect medication-use data and use appropriate data analysis techniques to identify and manage improvements in the medication-use system. Resident projects may include activities such as: involvement in adverse drug event reporting and monitoring and participation in the development of health system medication safety systems solutions. The resident will also attend and participate in meetings such as the Pharmacy and Therapeutics Committee, Medication Systems Subcommittee, Patient Safety Committee, and Quality and Patient Safety Council. The resident will be required to participate in pharmacy journal clubs and case conferences. In addition to these activities, the resident will complete a medication safety improvement or research project and present one seminar.

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Pharmaceutical Care Specialists

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Surgical Intensive Care Clinical Specialist

Carlota Andrews, Ph.D., Pharm.D.
Neurology Intensive Care Clinical Specialist

Julie Barnes, Pharm.D., BCPS
Anemia Management Clinical Specialist

Seth Bauer, Pharm.D., BCPS
Medical Intensive Care Clinical Specialist

Kim Begany, Pharm.D.
Ambulatory Care Clinical Specialist

Jessica Benson, Pharm.D.
Surgical Intensive Care Clinical Specialist

Rebecca Corey, Pharm.D., BCPS
Transplantation Clinical Specialist

Cari A. Cristiani, Pharm.D., BCPS
Ambulatory Care Clinical Specialist

Marc Earl, Pharm.D.
Hematology/Oncology Clinical Specialist

Jodie M. Fink, Pharm.D., BCPS
Transplantation Clinical Specialist

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Infectious Diseases Clinical Specialist

Rex Speerhas, RPh, BCNSP
Nutrition Support Clinical Specialist

Jun-Yen Yeh, Ph.D.
Outcomes Research Specialist

Residency Elective Opportunities

- Bone Marrow Transplant
- Cardiology Teaching Service
- Cardiac Intensive Care Unit
- Cardiac Intensive Care Unit
- Drug Information
- Heart Failure Service
- HIV/Outpatient Infectious Diseases
- Infectious Diseases Consult Service
- Internal Medicine
- Leukemia Service
- Medical Intensive Care Unit
- Medication Safety
- Neurology/Neurosurgical Intensive Care Unit
- Nutrition Support
- Outcomes Research
- Pediatric Infectious Diseases
- Pediatrics
- Pharmaceutical Care Clinic
- Practice Management
- Solid Organ Transplantation
- Solid Tumor Service
- Surgical Intensive Care Unit

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