THE UNIVERSITY OF CHICAGO MEDICINE

Established in 1916, the University of Chicago Medicine (UCM) is a 618-bed academic medical center, which has long been committed to the mission of providing superior healthcare in a compassionate manner while respecting patient individuality and dignity. Ranked consistently by U.S. News and World Report, the UCM continues to be recognized as one of the elite “Honor Roll” hospitals. More recently, UCM has been honored with the 2011 and 2012 ASHP Best Practices Award in Health-System Pharmacy. The progressive facilities at UCM collaboratively provide innovative and cutting edge therapy to patients from all over the world.

Built in 1983, Bernard A. Mitchell Hospital is a tertiary care teaching hospital. This facility currently houses our adult acute care programs, including emergency department and general medicine service.

In February 2013, The Medical Center opened a brand new facility to serve as the core of the medical campus. The Center for Care and Discovery is a 240-bed futuristic, 10-story, 1.2 million-square-foot facility that fosters collaboration and interaction among clinicians and staff to actively engage patients and families in their care. The Center for Care and Discovery houses state of the art procedural and operating areas as well as the Hematology and Oncology programs. Additionally, intensive care units are located in the Center for Care and Discovery including the Neurosciences Unit, Surgical Unit, Cardiothoracic Unit, Medicine and Pulmonary Unit, Burn and Electrical Trauma Unit and the Cardiac Care Unit.
The University of Chicago Medicine offers a full range of specialty and primary care services for adults and children, including the following notable specialty programs in:

- Emergency Medicine
- Endocrinology
- Gastroenterology
- Nephrology
- Neurosciences
- Orthopedics

The University of Chicago Comer Children’s Hospital is a 155-bed tertiary care teaching hospital dedicated to preserving the health of children through patient care, education, and research into the causes and cures of childhood diseases. This state-of-the-art seven-story facility provides an ultra-modern yet child- and family-friendly setting for all inpatient children’s health services at the UCM. In addition, it includes one of the country’s largest and most advanced Newborn and Neonatal ICU (NICU) (47 Level-III beds, 24 Level-II beds) as well as a Pediatric Intensive Care Unit (PICU) and Pediatric Cardiac Care Unit (CICU).

THE DEPARTMENT OF PHARMACY

The Department is fully automated with medication robotics and automated dispensing cabinets. The Medical Center is equipped with an electronic medical record (EMR) including computerized physician order entry (CPOE), electronic medication administration record (EMAR) and bar code medication administration (BCMA). A Comprehensive Pharmacy Practice Model is utilized at UCM. Pharmacists, residents, and students provide safe, effective, and prompt medication therapy via direct patient-centered care and integrated pharmacy operational services. Pharmacists and residents actively participate in interdisciplinary team rounds, facilitate medical record review and medication history documentation, and implement individualized patient care plans. Pharmaceutical care programs include patient counseling, medication reconciliation, discharge education, drug information, and acute emergency response. Clinical consults are provided in medication therapy management programs including anticoagulation, pharmacokinetics, antimicrobial stewardship, nutrition support, smoking cessation, and pain management.

GRADUATE PHARMACY EDUCATION

All pharmacy residency programs at the UCM are unified together as Graduate Pharmacy Education. Collectively these criteria-based, post-graduate training experiences are designed to develop trainees into autonomous clinicians with the skills needed to lead patient-specific programs in acute care practice settings. The conscientious integration of senior residents (PGY2) with junior residents (PGY1) provides all programs a dynamic and collaborative training environment based on the principles of graduate medical education. While on clinical service, PGY1 and PGY2 residents collaborate and serve as the primary pharmacist for their assigned patients. As members of integrated healthcare teams, residents work cooperatively with other providers to deliver safe medication therapy and achieve optimal outcomes. Residents participate in interdisciplinary rounds, develop patient care plans, and optimize medication therapy.

In all programs, residents develop skills in clinical and didactic teaching, research methodology, critical thinking, and pharmacy practice leadership. This includes teaching pharmacy staff, pharmacy students and residents, nursing staff, and medical staff and students. Residents are encouraged to participate in the teaching certificate program which prepares residents to lead and facilitate teaching discussions, evaluate student progress, and develop independent mentoring skills. Residents are also provided opportunity to learn the four preceptor roles via formal interactions with doctor of pharmacy students as a Preceptor-in-Training (PIT). In addition, an extensive research program allows residents to experience all phases of clinical research. As a part of the resident research certificate program, the resident is expected to complete a research project, present the results at the regional Great Lakes Pharmacy Resident conference or other designated venue, and submit an article for publication. Residents partner with residency faculty or may explore their own research ideas with preceptor mentoring. Leadership is a core attribute of all programs and is integrated throughout the entire curriculum. Residents are exposed to the mentorship of a variety of experts who challenge the resident to mature as a complete professional.
PGY1 PHARMACY RESIDENCY
The PGY1 residency is a directed experience in hospital practice and general pharmacotherapy. The purpose of this program is to prepare an individual to practice as a Clinical Generalist or to pursue Clinical Specialist training via a variety of PGY2 residencies or fellowships. Throughout the year, the program reinforces the knowledge, thought processes, and confidence for residents to provide pharmaceutical care to an assortment of patient populations. Residents gain experience in all pharmacy programs and services by working as an autonomous pharmacist within the pharmacy operations and longitudinal oversight of medication order review, physician order verification, and sterile medication preparation. Through a range of experiences, the PGY1 resident develops independent practice skills and pharmacy leadership.

PGY1 Core Experiences
- Anticoagulation Management Service
- Antimicrobial Stewardship
- Internal Medicine
- Pharmacy Administration and Leadership

PGY1 Selective Experiences
- Critical Care (1)
  - Cardiac Critical Care (CCU)
  - Cardiothoracic Intensive Care (CTICU)
  - Medical Intensive Care (MICU)
  - Neurosciences Intensive Care (NSICU)
  - Surgical Intensive Care (SICU)
- Pediatrics (1)
  - General Pediatrics
  - Neonatal Intensive Care
  - Pediatric Intensive Care
- Specialty Medicine (1)
  - Cardiology
  - Cardiothoracic Surgery
  - Emergency Department
  - Hospitalist Medicine

Orientation
The initial two to four weeks of the program is designed to orient residents to the complex fast-paced environment at UCM and to introduce the responsibilities associated with independent pharmacy practice. Residents gain training and experience in core pharmacy function and operations – informatics systems, sterile preparation, medication order verification, ACLS and emergency response training, and introduction to clinical pharmacy services and pharmacist-initiated programs. To assure residents have optimal time for clinical rotations, PGY1 residents begin orientation in mid-June and move to clinical rotations in early July.

Anticoagulation Management Service
This rotation provides the resident with experience in a pharmacist-managed outpatient clinic. Residents work with clinical pharmacists to independently manage anticoagulant therapy of complicated patients and to assure appropriate patient education. This rotation goes beyond the basics of anticoagulant management and includes complex patients with the challenges of drug-drug interactions, treatment in pregnancy, transitions in care from inpatient to outpatient, and perioperative management. Residents become well-versed in anticoagulant pharmacotherapy and are able to confidently provide direct patient care with warfarin, enoxaparin, and fondaparinux. Residents may have the opportunity to participate in the Medication Therapy Management clinic as time and experience provides. Elective ambulatory opportunities are available in Investigational Drug Services, Emergency Department, and Chemotherapy Clinic.
Pediatrics
The pediatrics rotation is designed to allow the resident to develop skills to care for a wide variety of pediatric patients. Residents gain experience in a variety of pediatric related disease states including infectious diseases, pulmonology, GI/nutrition, and neurology. In addition, residents participate as an active member of the medical team. Pediatric practice focuses on the provision of pharmacotherapy services to patients in the pediatric hospital. Depending on baseline experience and interest, the rotation may be customized to provide the resident with practice experience in the Pediatric ICU and Neonatal ICU.

Antimicrobial Stewardship
Residents participate as an active member of the antimicrobial stewardship program and are responsible for reviewing/approving restricted antibiotic use. Weekly patient cases and didactic conferences afford residents additional opportunities to learn about rare and complicated diseases.

Internal Medicine
This rotation involves the provision of pharmaceutical care by residents as an active member of a general medicine interdisciplinary team. Residents maintain responsibility for providing integrated pharmaceutical services to assigned patients and evaluating all medication related therapies for appropriateness, efficacy, and safety. The focus of this rotation is to enhance resident knowledge of general medicine and associated pharmacotherapy practice through detailed case presentations, literature review, and topic discussions. Residents learn evidence-based application of general pharmacotherapy in chronic and acute disease management. Core content areas include acute and chronic renal failure, anemia, anticoagulation, asthma/COPD, diabetes, GI bleeds, heart failure, hypertension, pneumonia, sickle cell disease, and venous thromboembolism.

Selective Experiences – Critical Care
To assure residents are able to apply general pharmaceutical care principles to the care of complex and critically ill patients, all PGY1 residents complete their choice of one critical care rotation. Selective critical care experiences in the CCU, CTICU, MICU, NSICU, or SICU involve the delivery of pharmaceutical care in fast-paced patient care environments. Through these experiences, residents act as valued members of multi-disciplinary teams and are responsible for the provision of pharmacological and non-pharmacological therapy. Consequently residents hone their perception of practice and ability to handle a wide range of complicated patient care scenarios.

Selective Experiences – Specialty Medicine
As part of their fundamental development as a clinical generalist, PGY1 residents also complete their choice of one adult specialty rotations. The specialty medicine rotations offer the resident the opportunity to explore the many opportunities for pharmaceutical care in the various specialty areas for which the University of Chicago Medicine is known. These options for specialty medicine practice allow residents to tailor their learning experience and facilitate development of individualized interests in advanced practice.

Non-Traditional PGY1 Program
The non-traditional PGY1 program provides a unique opportunity to complete the clinical learning experiences of a PGY1 program over the course of 24 months, by interspersing clinical learning experiences with operational responsibilities. Residents are exposed to a wide range of disease states and practice settings. The focus of this program is to build well-rounded general practitioners that can provide competent and confident care as a clinical pharmacist at the end of the curriculum or further explore specialty training in an area of their interest. The operational responsibilities and required learning experiences are complemented by elective learning experiences. Residents will also participate in an on-call program.

The non-traditional residents will be involved with training pharmacy students and will work closely with their PGY1 colleagues. Opportunities will be available to deliver formal lectures, including a Pharmacy Grand Rounds seminar. Completion of a formal research project is a program requirement.

The resident will be integrated into pharmacy-driven hospital services such as the on-call program, pharmacokinetics, and anticoagulation. Upon completion, this program will prepare the resident to practice evidence-based medicine and apply that knowledge to patient care in both clinical and operational settings.
Non-traditional PGY1 Core Experiences:
- Pharmacy Operations (12 months)
- Hospitalist
- Med/Surg
- Antimicrobial Stewardship
- Pharmacy Administration and Leadership
- Pediatrics
- Nutrition Support Services

Non-traditional PGY1 Selective Experiences:
- Critical Care
  - Medical Intensive Care
  - Surgical Intensive Care
  - Neurosciences Intensive Care
  - Cardiothoracic Intensive Care
  - Cardiac Critical Care
- Specialty Medicine
  - Neurology
  - Cardiology
  - Oncology
  - Transplant

Non-traditional PGY1 Elective Experiences:
- Emergency Department
- Investigational Drug Services
- Medication Safety

Additional Selective or Elective experiences may be available at the discretion of the Residency Program Director in order to customize the program to meet the residents’ individualized goals.

PGY1-2/M.S. HEALTH-SYSTEM PHARMACY ADMINISTRATION PROGRAM
The health system pharmacy administration program is an intensive two year experience preparing residents to optimize medication therapy in direct patient care, develop and lead pharmacy programs, and make sustained contributions to the profession at local, state, and national levels. This program provides unique administrative residency experience through training in a 2011 ASHP Best Practice Award winning Pharmacy Practice Model, inclusion in an On-call program providing clinical consults, drug information, and response to cardio-pulmonary arrests, rapid response team calls, and acute strokes, participation in the ASHP Foundation Pharmacy Leadership Academy, Master’s Degree offerings from a university within the GlobalHealth Education Alliance, and core administrative preceptors with diverse administrative training and wide-ranging professional networks. The robust organizational structure of the University of Chicago Medicine Department of Pharmacy Services will foster targeted and longitudinal exposure to patient safety, quality, patient satisfaction, cost reduction and revenue generating pharmacy initiatives.

PGY1-2 Core Experiences
- Pharmacy Administration
- Anticoagulation Management Service

PGY1-2 Selective Experiences
- Adult Medicine/ Surgery
- Critical Care
- Pediatrics
- Medication Safety
- Finance, Purchasing and Reimbursement
- Senior Pharmacy Leadership
- Clinical Management
- Ambulatory Care Management
- Pharmacy Operations

PGY1-2 Elective Experiences
- PGY-1 Clinical Electives
- Pharmacy Enterprise
- Pharmacy Informatics
- Drug Information
- Policy and Compliance
- Community Pharmacy
- Specialty Pharmacy
- Investigational Drug Services
- Academia
- Residency Program Management
- Advanced Core Rotations

PGY2 OPPORTUNITIES
The University of Chicago Medicine has PGY2 pharmacy residency programs in six specialty areas – PGY2 Cardiology, PGY2 Critical Care, PGY2 Infectious Disease, PGY2 Internal Medicine, PGY2 Oncology, and PGY2 Pediatrics. Other programs may be available in the 2017-2018 year and applicants are encouraged to inquire based on their interest.

PGY2 CARDIOLOGY PROGRAM
The cardiology specialty residency provides interdisciplinary experiences for a wide range of disease states and practice settings. The foundation is built around general cardiology, cardiovascular intensive care, heart transplant, cardiothoracic surgery (ICU and step-down), anticoagulation clinic, and specialty cardiology clinic experiences. An elective rotation is also available.
The cardiology specialty resident will be involved with training pharmacy students as a PIT and mentor to PGY1 colleagues. Opportunities are available to deliver formal lectures at an affiliated school of pharmacy in the cardiovascular lecture series. Completion of a formal research project is a program requirement as well.

The resident will be integrated into pharmacy-driven hospital services such as the on-call program, pharmacokinetics, and anticoagulation. Upon completion, this program will prepare a cardiology specialty pharmacist to practice evidence-based medicine and apply that knowledge to patient care, experiential and didactic teaching, as well as research.

**PGY2 Cardiology Core Experiences:**
- Cardiology (General)
- Cardiac Critical Care (CCU)
- Cardiothoracic Intensive Care (CTICU)
- Cardiothoracic Surgery
- Heart Transplant
- Medical Intensive Care (MICU)
- Advanced General Cardiology

**PGY2 Cardiology Elective Experiences:**
- Any core rotation may be repeated

**PGY2 Cardiology Longitudinal Experiences:**
- General Cardiology Clinic
- Heart Transplant

**PGY2 Critical Care Program**
This specialty residency in critical care pharmacotherapy provides an in-depth experience in a variety of critical care settings. The CCU, CTICU, MICU, NSICU, and SICU provide the primary practice areas for the critical care residents. Areas of additional practice include the BICU, trauma, PICU, and infectious diseases. Residents have opportunities to present formal lectures at affiliated schools of pharmacy and may also serve as preceptors for pharmacy clerkship students. Completion of a formal clinical research project is required. The resident is integrated with comprehensive clinical pharmacy services and is involved in teaching and research activities. The critical care specialized residency program offers exceptional opportunities for patient care, teaching, and research, as well as the unique opportunity to serve as a PIT and mentor to PGY1 colleagues.

**PGY2 Critical Care Core Experiences:**
- Cardiac Critical Care (CCU)
- Cardiothoracic Critical Care (CTICU)
- Medical Intensive Care (MICU)
- Neurosciences Intensive Care (NSICU)
- Surgical Intensive Care (SICU)

**PGY2 Critical Care Elective Experiences:**
- Infectious Diseases

**PGY2 Infectious Diseases Program**
The infectious diseases (ID) specialty program prepares residents for a career as an ID specialist through focused training on the management of complex and rare infections seen in a diverse patient population. Residents practice evidence-based medicine while rounding with interdisciplinary teams to optimize antimicrobial therapy and patient outcomes.

**PGY2 Infectious Diseases Core Experiences:**
- Core Experiences
  - Adult General ID Consult Service
  - Adult Immunocompromised ID Consult Service
  - Antimicrobial Stewardship
- Pediatric ID Consult Service
- Clinical Microbiology
- Outpatient ID clinic (longitudinal)
- Antimicrobial Approval Pager Coverage (longitudinal)

**PGY2 Infectious Diseases Elective Experiences:**
- Hematopoietic Stem Cell Transplant
- Leukemia Service
- Medical Intensive Care (MICU)
- Surgical Intensive Care (SICU)
- Medical Writing/Research
- Solid Organ Transplantation
**PGY2 Internal Medicine Program**

Beyond the adult general medicine service, this specialty program is designed to prepare residents to function autonomously in the various roles of an internal medicine specialist. The resident is challenged to balance practice with significant student teaching as a PIT and mentor to PGY1 peers. One of the most diverse and flexible specialty programs, significant opportunity is available to customize the program to fit individual goals.

*PGY2 Resident on rounds*

**PGY2 Internal Medicine Core Experiences:**
- Cardiology
- Cardiothoracic Surgery
- Hematology/Oncology
- Infectious Diseases
- Internal Medicine (18 weeks)
- Medical Intensive Care (MICU)
- Neurology

**PGY2 Internal Medicine Longitudinal Experiences:**
- Medication Therapy Management (MTM) Clinic

**PGY2 Internal Medicine Elective Experiences:**
- Clinical Administration
- Emergency Department
- Hospitalist
- Leukemia
- Med/Surgery
- Medical Writing/Research
- Solid Organ Transplant

Special emphasis is placed on providing evidence based patient centered care to individuals with bone marrow transplant, high risk genetics, neurological disorders, gastrointestinal malignancies, genitourinary malignancies, breast cancer, chest oncology, and head/neck diseases.

*PGY2 Resident providing a CE for technicians*

Longitudinal experiences include research, chemotherapy pharmacy practice, on-call, and interdisciplinary clinics. Residents develop confidence and maturity in precepting through their involvement as a PIT for pharmacy students and mentor to PGY1 residents.

**PGY2 Oncology Core Experiences:**
- Gynecologic Oncology
- Hematology
- Hematopoietic Stem Cell Transplant
- Introduction to Oncology Pharmacy Practice
- Medical Oncology
- Neurologic Oncology
- Pediatric Oncology

**PGY2 Oncology Elective Experiences:**
- Benign Hematology
- Immunocompromised Infectious Diseases
- Palliative Care
- Writing and Research

**PGY2 Oncology Longitudinal Experiences:**
- Clinic I (Breast)
- Clinic II (Lung)
- Clinic III (GI)
- Leadership and Oncology Informatics
- Oncology Pharmacy Practice Experience
- Oral Chemotherapy Clinic

**PGY2 Pediatrics Program**

Providing broad experience in a variety of complex patient care scenarios, this specialty residency prepares residents to function autonomously as a hematology/oncology pharmacist specialist. Core content areas include inpatient and ambulatory patient care with therapeutic emphasis in adult and pediatric malignant hematology and medical oncology. Residents actively participate in interdisciplinary teams to gain experience in medical oncology, malignant hematology, and benign hematology.

**PGY2 Oncology Core Experiences:**
- Cardiology
- Cardiothoracic Surgery
- Hematology/Oncology
- Infectious Diseases
- Internal Medicine (18 weeks)
- Medical Intensive Care (MICU)
- Neurology

**PGY2 Oncology Longitudinal Experiences:**
- Clinic I (Breast)
- Clinic II (Lung)
- Clinic III (GI)
- Leadership and Oncology Informatics
- Oncology Pharmacy Practice Experience
- Oral Chemotherapy Clinic

This specialty residency in pediatric pharmacotherapy provides independent practice development in a number of acute care pediatric patient care settings. The primary emphasis is in the provision of patient centered care in general pediatrics and pediatric critical care. Areas of additional emphasis include pediatric infectious diseases,
pharmacokinetics, and nutrition support. The residency is integrated with comprehensive clinical pharmacy services, clinical teaching, and practice-based research activities. Pediatric specialty residents enjoy an innovative practice model with advanced pediatric therapeutics and the support of impassioned preceptor faculty. As with the other specialty programs at UCM, the PGY2 Pediatrics residency provides the opportunity to develop as a PIT and mentor to PGY1 colleagues while completing their General Pediatrics learning experience.

**On-Call Program**

One of the core components for PGY1 and PGY2 residencies, the on-call program provides a critical element of resident maturation and independent problem-solving. The on-call program is an overnight in-hospital learning experience that blends skills and knowledge gained from rotations and applies them to integrated acute care scenarios. Responsibilities of the on-call resident include drug information, adult and pediatric emergency response (cardiopulmonary arrests, anesthesia calls, acute stroke alerts, and sepsis alerts,) pharmacokinetic consults, anticoagulation, and general medication therapy management for adult and pediatric patients. Together, these experiences allow the resident to provide comprehensive pharmaceutical care and improve the medication use process.

**Resident Research Project**

Residents (PGY1 and PGY2) complete a longitudinal practice related project, which is led, facilitated, and managed by the resident as a formal component of the program. This experience hones resident skills in research design, methodology, data analysis, and statistics. Resident projects may be clinical, translational, or outcomes based, provided they are of direct benefit to the department, institution, and clinical literature. All residents must complete projects within the residency year, present a poster at ASHP/UHC, present results at the regional Great Lakes Pharmacy Resident conference, and submit a manuscript for publication. Resident education is supplemented with a longitudinal lecture series culminating in a Research Certificate. Structured mentorship is provided throughout the year by preceptors via structured research steering committees.

**Pharmacy Practice Experience**

As members of integrated healthcare teams, residents are heavily relied upon as the primary pharmacists for their assigned teams, patients, and care areas. Consequently all residents are proficient and actively engaged in all aspects of the medication-use system throughout the Medical Center. To achieve this, comprehensive pharmacy practice is integrated into all residency programs and residents rotate through central pharmacy systems, IV admixture services, and decentralized operations as part of their pharmacy practice commitment. All residents provide an average of eight hours weekly of Pharmacy Practice Experience (PPE) coverage throughout the year after orientation and training. Application of these skills to individual clinical rotations advances the resident’s autonomous practice and value to their patients.
WHAT THE RESIDENT CAN EXPECT

- Environment that facilitates resident development, growth, and maturation
- Strong medical, administrative, and peer support
- Variety of clinical practice experiences providing a broad range of expertise throughout the entire medication use process
- Committed group of residency faculty and preceptors dedicated to providing optimal training experiences founded on the principles of the ASHP Residency Learning System (RLS)
- Teaching opportunities in a variety of settings, at the departmental, institutional, and college level
- Research opportunities with expectations of regional presentations and published manuscripts
- Opportunities to network and develop relationships with colleagues on a local, regional, and national level
- Career counseling, mentorship, and development as a complete pharmacy professional/leader
- Individualized relationships with residency preceptor faculty and the program director
- Significant program individualization and customization provided by the program director and dedicated residency advisor

APPLICATION REQUIREMENTS

Applicants must possess a PharmD degree and be eligible for immediate licensure by the Illinois Board of Pharmacy. Previous experience in pharmacy practice, a sound academic record, and other scholarly activities are also important considerations.

Applications must be submitted to PhORCAS. The deadline for receipt of an application, supplemental application materials (for PGY1 program ONLY), curriculum vitae, transcript, and three letters of reference through PhORCAS is January 6th, 2017 for PGY1 and PGY2 programs. After applications are reviewed, qualified candidates will be contacted to schedule an onsite interview in Chicago.

Supplemental application for PGY1 Program can be found at: http://www.uchospitals.edu/professionals/pharmacy-residency.html

CONTACT INFORMATION

For general questions regarding the application process or our residency programs please email: Pharmacy.GraduateEducation@uchospitals.edu