



LOYOLA  
MEDICINE

A Member of Trinity Health

# **Pharmacy Residency Manual**

## **Loyola University Medical Center**

## Table of Contents

- [Letter of Welcome](#)
- [Introduction](#)
- [Diversity, Equity, and Inclusion](#)
- [Loyola University Medical Center General Information](#)
- [Loyola University Medical Center Mission Statement](#)
- [Department of Pharmacy Services](#)
- [Organizational Chart](#)
- [The Loyola University Medical Center Pharmacy Residency Programs](#)
  - [PGY1 Purpose](#)
  - [PGY2 Purpose](#)
  - [LUMC Pharmacy Residency Experience](#)
- [LUMC Residency Program Leadership](#)
- [LUMC Residency Program Preceptors](#)
- [All Programs Rotation List](#)
- [Longitudinal Experiences and Administrative Rotations](#)
  - [ED On Call](#)
  - [Code Blue Response](#)
  - [Code Stroke Response](#)
- [Pharmacy Residency Requirements](#)
  - [Research Project](#)
  - [CE presentation](#)
  - [MUE](#)
  - [Committee Responsibilities](#)
  - [Writing Project](#)
  - [Practice Management](#)
  - [Teaching and Learning Certificate](#)
  - [Additional projects/presentations](#)
  - [Chief Residents](#)
- [Staffing Responsibilities and Requirements](#)
  - [PGY1 Staffing](#)
  - [PGY2 Critical Care Staffing](#)
  - [PGY2 SOT Staffing](#)
- [Evaluation Procedures](#)
- [Pharmacy Residency Certificate](#)
- [Pharmacy Residency Position Descriptions](#)
- [PGY1 Resident Mentor](#)
- [Pharmacy Residency Committees](#)
- [General Employment Information and Pharmacy Resident Benefits](#)
  - [Benefits](#)
  - [Time Off](#)
  - [Attendance and Leave Policies](#)
  - [Illinois Licensure](#)
  - [Performance Improvement Plans \(PIP\)](#)
  - [Corrective Disciplinary Action](#)
  - [Moonlighting](#)
  - [Duty Hours](#)
  - [Travel Expenses Policy](#)

## Additional appendices

- Appendix 7: CE, Case, and Journal Club Guidance Documents and Evaluation Forms
- Appendix 8: Resident Recruitment and Hiring Process
- Appendix 9: Preceptor Development Policy
- Appendix 10: PGY1 Pharmacy Residency Program T/E Grid
- Appendix 11: PGY2 Critical Care Pharmacy Residency Program T/E Grid
- Appendix 12: PGY2 Solid Organ Transplant Pharmacy Residency Program T/E Grid
- Appendix 13: PGY2 Infectious Diseases Pharmacy Residency Program T/E Grid

Appendix 1: <a href="#">PGY1 Pharmacy Residency Program Overview</a>	
--	--

- Appendix 2: [PGY2 Critical Care Pharmacy Residency Program Overview](#)
- Appendix 3: [PGY2 Solid Organ Transplant Pharmacy Residency Program Overview](#)
- Appendix 4: [PGY2 Infectious Diseases Pharmacy Residency Program Overview](#)
- Appendix 5: [Duty Hour Requirements](#)
- Appendix 6: [Additional Pharmacy Resident Benefits and Services](#)



**LOYOLA  
MEDICINE**

*We also treat the human spirit.®*

Dear Resident,

On behalf of the Department of Pharmacy Services, welcome to Loyola University Medical Center! As you progress through your residency year, we ask you to be mindful of the mission and core values of Loyola University Medical Center. We use these values every day to guide us in all that we do, including residency training.

**Our Mission:**

The Pharmacy department is focused on excellent patient care experiences through collaboration with other healthcare professionals, safe and effective medication optimization and distribution, use of innovative technology, and evidence-based medicine. We foster a culture of teamwork, commitment to quality, courtesy, compassion, education and respecting the dignity and confidentiality of the patient. The Pharmacy department is committed to consistently delivering the highest quality patient care and services through best practices of both clinical and operational programs.

**Our Core Values:**

**Reverence:** We honor the sacredness and dignity of every person.

**Commitment to Those Who are Poor:** We stand with and serve those who are poor, especially those most vulnerable.

**Safety:** We embrace a culture that prevents harm and nurtures a healing, safe environment for all.

**Justice:** We foster relationships to promote the common good, including sustainability of Earth.

**Stewardship:** We honor our heritage and hold ourselves accountable for the human, financial and natural resources entrusted to our care.

**Integrity:** We are faithful to who we say we are.

We believe you've made a great career choice in choosing to do your residency at Loyola University Medical Center. We want you to be successful in all that you do. We want you to be an excellent representative of this residency program and department.

Please do not hesitate to ask for help from any member of our department.

Sincerely,

Travis Hunerdosse, PharmD, MBA  
Regional Director of Pharmacy Services

Lisa Peters, PharmD  
Regional Director of Clinical Pharmacy Services  
and Residency Programs

Kevin Chang, PharmD, BCCCP  
PGY1 Residency Program Director

Grace E. Benanti, PharmD, BCCCP  
PGY2 Critical Care Residency Program Director

Sabrina Sanchez, PharmD, BCTXP  
PGY2 Solid Organ Transplant Residency  
Program Director

Caleb Rux, PharmD, BCIDP  
PGY2 Infectious Diseases Residency Program  
Director

## **Introduction**

---

This manual is a guide and reference for all pharmacy residents and residency preceptors. The purpose of written policies is to establish guidelines regarding Loyola University Medical Center (sometimes referred to as Loyola or LUMC) and the responsibilities expected of a pharmacy resident. This policy manual, however, is not a contract of employment or a guarantee of future training or employment for a particular period. Contracts of employment are recognized only when they are in writing and signed by a designated official of Loyola University Medical Center.

Please read the contents of this manual carefully. This is one of the many channels of communication we maintain to create a productive learning environment. All pharmacy residents should use this manual as a reference to answer questions regarding all of our policies. We hope that the use of these policies will assist in working in a fair and equitable manner.

This manual is used as an ongoing document that will be amended and updated as needed. Pharmacy residents are expected to become familiar with and comply with all policies set forth in this manual, as well as those of Loyola Medicine and Trinity Health.

## **Diversity, Equity, and Inclusion**

---

The LUMC Pharmacy Residency Department values the power of human difference to foster innovation, remove barriers, and transform lives. We are dedicated to advancing health and racial equity and creating a culture of inclusion through continued education, training, and living our Core Values with the people and communities served.

Loyola abides by all applicable provisions of Federal, State and Local law. Loyola does not discriminate in its employment policies and practices on the basis of race, color, religion, (except where religion is a *bona fide* occupational qualification for the job), national origin or ancestry, gender, sexual orientation, age, marital status, veteran's status, or any other classification protected by law. Otherwise, qualified individuals are not discriminated against on the basis of physical or mental disabilities. Loyola will not tolerate racial, sexual or other forms of harassment of students, faculty, employees or patients and has established policies and procedures to promptly address any complaints.

## **Loyola Medicine – General information**

---

Loyola Medicine, which is a member of Trinity Health, is multi-campus organization that includes the Loyola University Medical Center campus in Maywood (574- inpatient beds plus the Cardinal Bernardin Cancer Center, the Ronald McDonald Children's Hospital of Loyola, the Burn/Trauma Center, and the Center for Heart & Vascular Medicine), MacNeal Hospital in Berwyn and Gottlieb Memorial Hospital in Melrose Park. Loyola offers a wide range of medical, surgical and obstetrical services including many specialty services. Loyola University Medical Center is the only academic teaching hospital in the western suburbs of Chicago and is also a large referral center for this area. Loyola is an accredited Level I Trauma Center, a Burn Center, a Comprehensive Stroke Center, and is served by an aeromedical program that transports patients from up to 150 miles away to Loyola. Specialty services include solid organ transplantation, burn care, cardiovascular surgery, oncology, women's health, primary care,

and pediatrics among many others. Loyola University Medical Center houses nine discrete critical care units (neurological, medical, cardiovascular, cardiac, surgical/trauma, bone marrow transplant, burn, pediatric, and neonatal). Also located on the Maywood campus is the Loyola University Chicago Stritch School of Medicine and the Loyola University Chicago Marcella Niehoff School of Nursing. In addition to the Maywood, Berwyn and Melrose Park campuses, Loyola has an extensive network of primary and specialty care centers in Chicago's western and southwestern suburbs.

The Loyola Medicine promise, "to be at our best when things are at their worst," encapsulates Loyola's Catholic-Jesuit, ethical and spiritual values. These Magis values of care, concern, cooperation, and respect for others suggest the spirit of generous excellence in which we believe our ministry should be carried forward. These key values form the heart of our Catholic identity and Jesuit mission and guide our employees including faculty members, residents, and fellows.

### **LUMC Mission Statement**

---

Loyola University Medical Center is committed to excellence in patient care and the education of health professionals. We believe that our Catholic heritage and Jesuit traditions of ethical behavior, academic distinction, and scientific research lead to new knowledge and advance our healing mission in the communities we serve. We believe that thoughtful stewardship, learning and constant reflection on experience improve all we do as we strive to provide the highest quality health care.

We believe in God's presence in all our work. Through our care, concern, respect and cooperation, we demonstrate this belief to our patients and families, our students, and each other. To fulfill our mission, we foster an environment that encourages innovation, embraces diversity, respects life, and values human dignity.

We are committed to going beyond the treatment of disease, to be at our best when things are at their worst.

## Loyola University Medical Center Department of Pharmacy Services

---

### **Regional Director of Pharmacy Services**

Travis Hunerdosse, PharmD, MBA  
[Travis.Hunerdosse@luhs.org](mailto:Travis.Hunerdosse@luhs.org)

### **Director, Pharmacy Operations**

Rachael Fleagle Miller, PharmD, MS  
[Rachael.fleagle@luhs.org](mailto:Rachael.fleagle@luhs.org)

### **Regional Director of Medication Safety, Compliance, and IT**

Sara Beyer, PharmD  
[sara.beyer@lumc.edu](mailto:sara.beyer@lumc.edu)

### **Clinical Pharmacy Coordinator**

Kevin Chang, PharmD, BCCCP  
[Kevin.Chang001@luhs.org](mailto:Kevin.Chang001@luhs.org)

### **Pharmacy Operations Manager, Central Pharmacy/OR/ASC**

Christopher J. Caracci, PharmD, MPA, DPLA  
[Chris.caracci@luhs.org](mailto:Chris.caracci@luhs.org)

### **Pharmacy Operations Manager, Pediatric Pharmacy/IV Room**

Darius Tumminello, PharmD  
[Darius.Tumminello@luhs.org](mailto:Darius.Tumminello@luhs.org)

### **Regional Director of Ambulatory Pharmacy Services, Loyola Medicine**

Joe Hegazin, PharmD  
[joseph.hegazin@luhs.org](mailto:joseph.hegazin@luhs.org)

### **Regional Director, Clinical Pharmacy Services and Residency Programs**

Lisa Peters, PharmD  
[Lisa.peters@luhs.org](mailto:Lisa.peters@luhs.org)

### **Manager, Pharmacy Informatics**

John Ilic, PharmD, MBA  
[jilic@lumc.edu](mailto:jilic@lumc.edu)

### **Pharmacy Manager, Clinical Services**

Lindsay Wittekindt, PharmD, BCPS, BCPPS  
[LWittekindt@lumc.edu](mailto:LWittekindt@lumc.edu)

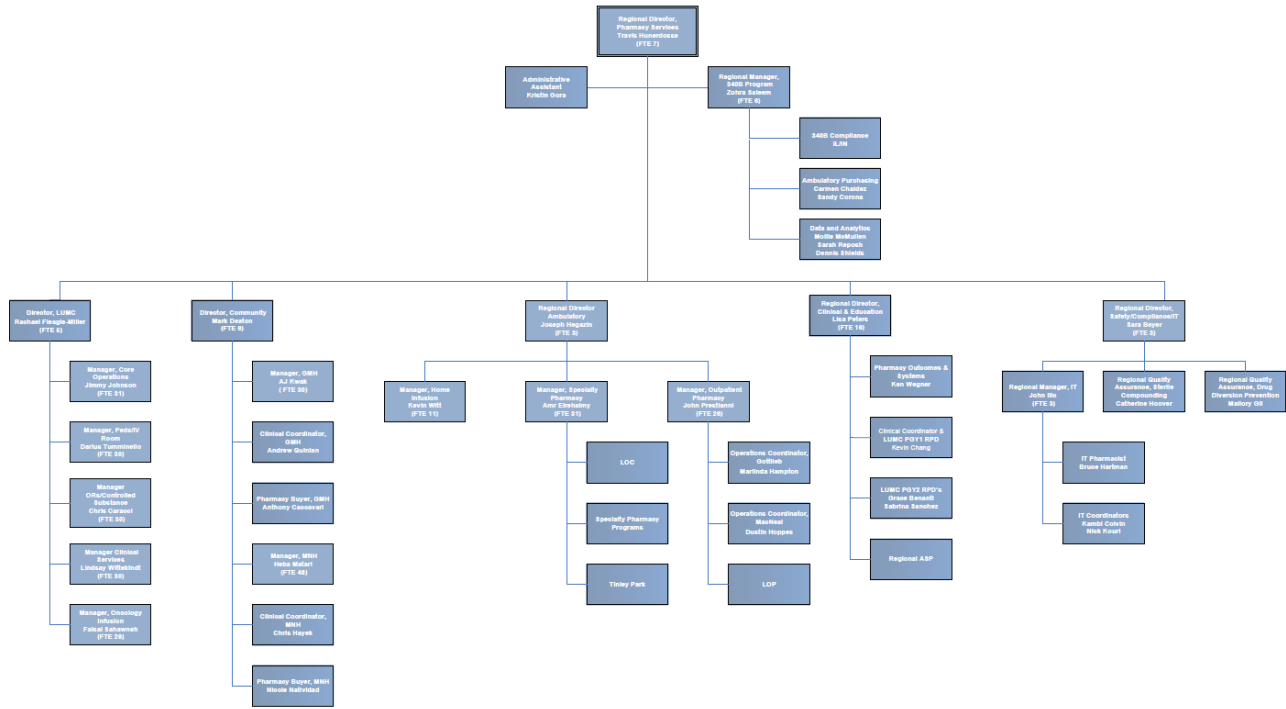
### **Pharmacy Operations Manager, Central Pharmacy**

Jimmy Johnson, PharmD  
[Jimmy.Johnson@luhs.org](mailto:Jimmy.Johnson@luhs.org)

---

## Organizational Chart

## Pharmacy Organizational Structure



## Loyola University Medical Center Pharmacy Residency Programs

### PGY1 Purpose



PGY1 residency programs build upon Doctor of Pharmacy (PharmD) education and outcomes to develop pharmacist practitioners with knowledge, skills, and abilities as defined in the educational competency areas, goals, and objectives. Residents who successfully complete PGY1 residency programs will be skilled in diverse patient care, practice management, leadership, and education and be prepared to provide patient care, seek board certification in pharmacotherapy (i.e., BCPS), and pursue advanced education and training opportunities including postgraduate year two (PGY2) residencies.

### **PGY2 Purpose**

---

PGY2 residency programs build upon Doctor of Pharmacy (PharmD) education and PGY1 pharmacy residency training to develop pharmacist practitioners with knowledge, skills, and abilities as defined in the educational competency areas, goals, and objectives for advanced practice areas. Residents who successfully complete PGY2 residency programs are prepared for advanced patient care or other specialized positions and board certification in the advanced practice area, if available.

### **LUMC Pharmacy Residency Experience**

---

Loyola University Medical Center offers a one-year post-graduate year one (PGY1) pharmacy residency, a one-year post-graduate year two (PGY2) Critical Care (CC) pharmacy residency, a one-year post-graduate year two (PGY2) Infectious Diseases pharmacy residency, and a one-year post-graduate year two (PGY2) Solid Organ Transplant (SOT) pharmacy residency. The number of positions for each residency program may vary and are subject to change year-to-year. The program is designed to offer a wide variety of clinical practice experiences in critical care medicine and surgery, general medicine, cardiology, pediatrics, transplantation, hematology/oncology and infectious diseases. Graduates of this program will be well-rounded practitioners with the skills to practice in a variety of care settings. Graduates will possess the knowledge and critical thinking skills to function as members of a multidisciplinary team to provide patient-centered care to patients with a wide variety of disease states.

Pharmacy residents are provided the opportunity to accelerate their growth beyond entry-level professional competence in patient-centered care and in pharmacy operational services, and to further the development of leadership skills that can be applied in any position and in any practice setting. Pharmacy residents acquire knowledge required for skillful problem-solving, refine their problem-solving strategies, strengthen their professional values and attitudes, and advance the growth of their clinical judgment.

## LUMC Residency Program Leadership

Lisa Peters, PharmD  
Regional Director of Clinical Pharmacy Services and  
Residency Programs

Kevin Chang, PharmD, BCCCP  
PGY1 Residency Program Director

Grace E. Benanti, PharmD, BCCCP  
PGY2 Critical Care  
Residency Program Director

Sabrina Sanchez, PharmD, BCTXP  
PGY2 Solid Organ Transplant  
Residency Program Director

Kelli Covington, PharmD, BCPS, BCPPS  
PGY1 Residency Program Coordinator

Shannon Kuhrau, PharmD, BCCCP  
PGY2 Critical Care  
Residency Program Coordinator

Kaley Deichstetter, PharmD, BCCCP  
PGY2 Critical Care  
Residency Program Coordinator

Meghan Walsh, PharmD, BCTXP  
PGY2 Solid Organ Transplant  
Residency Program Coordinator

<p>Caleb Rux, PharmD, BCIDP PGY2 Infectious Diseases Residency Program Director</p>	<p>Jordan Crew, PharmD PGY2 Infectious Diseases Residency Program Coordinator</p> <p>Jessica Ni, PharmD, BCIDP PGY2 Infectious Diseases Residency Program Coordinator</p>
---	---

## LUMC Residency Preceptors

---

### General Medicine and Cardiology

Jeffrey Wiczorkiewicz, PharmD, BCPS  
General Medicine  
Jeffery.wiczorkiewicz@luhs.org

Alaa Sulh, PharmD  
General Medicine  
alaa.sulh@luhs.org

Julie (Yuliya) Genkina, PharmD, BCPS  
General Medicine  
Yuliya.genkina@luhs.org

Anjali Lamba, PharmD, BCPS  
Cardiology  
alamba@lumc.edu

### Emergency Medicine

Neal Lyons, PharmD  
Emergency Medicine  
Neal.Lyons@luhs.org

Maria Hartwig, PharmD, BCCCP  
Emergency Medicine  
Maria.Hartwig@luhs.org

### Infectious Diseases

Caleb Rux, PharmD, BCIDP  
Transplant Infectious Diseases  
Caleb.Rux@luhs.org

Jessica Ni, PharmD, BCIDP  
Infectious Diseases  
Jessica.Ni@luhs.org

Jordan Crew, PharmD  
Infectious Diseases  
Jordan.Crew@luhs.org

### **Adult Critical Care**

Jordan Meckel, PharmD, BCCCP  
Neurosciences ICU  
Jordan.Meckel@luhs.org

Grace E. Benanti, PharmD, BCCCP  
Medical ICU  
Grace.Benanti@luhs.org

Erica Konopka, PharmD  
Surgical-Trauma ICU/Critical Care Float  
Erica.Konopka@luhs.org

Kaley Deichstetter, PharmD, BCCCP  
Critical Care Float  
Kaley.Deichstetter@luhs.org

Kevin Chang, PharmD, BCCCP  
Surgical-Trauma ICU  
Kevin.Chang001@luhs.org

RaeAnn Hirschy, PharmD, BCCCP  
Cardiovascular ICU  
RaeAnn.Hirschy@luhs.org

Shannon Kuhrau, PharmD, BCCCP  
Burn ICU  
Shannon.Kuhrau@luhs.org

Andrew DeSio, PharmD, BCCCP, BCIDP, BCCP, BCPS  
Critical Care Float  
Andrew.Desio@luhs.org

### **Pediatrics**

Kelli Covington, PharmD, BCPS, BCPPS  
General Pediatrics/Pediatric ICU  
Kelli.Covington@luhs.org

Pamela Nicoski, PharmD, BCPS, BCPPS  
Neonatal ICU  
pnicosk@lumc.edu

### **Solid Organ Transplant**

Sabrina Sanchez, PharmD, BCTXP  
Abdominal Transplant  
Sabrina.Sanchez@luhs.org

Claire Schmidt, PharmD, BCTXP  
Abdominal Transplant  
Claire.Schmidt@luhs.org

Meghan Walsh, PharmD, BCTXP  
Abdominal Transplant  
Meghan.Walsh001@luhs.org

Shelly Goyal, PharmD, BCTXP  
Abdominal Transplant  
Shelly.Goyal@luhs.org

Michelle Fine, PharmD, BCPS, BCACP  
Heart Transplant/Advanced Heart Failure  
Michelle.Fine@luhs.org

Jenny Novak, PharmD  
Thoracic Transplant  
Jenny.novak@luhs.org

Bhanupriya Sirandas, PharmD, BCPS  
Lung Transplant  
bhanupriya.sirandas@luhs.org

### **Oncology**

Sanja Zepcan, PharmD, BCPS  
Bone Marrow Transplant  
Sanja.Zepcan@luhs.org

Emily Rux, PharmD, BCOP  
Hematology/Oncology  
Emily.Viehl@luhs.org

### **Acute Care**

John Rubino, PharmD  
Clinical Float  
John.rubino001@luhs.org

Elise Brennan, PharmD  
Clinical Float  
Elise.brennan@luhs.org

## All Programs Rotation List

<b>Clinical Rotations Offered</b>					
<b>Unless otherwise specified, duration is 4-5 weeks</b>					
*Denotes different duration (R=Required; E=elective; N=Not offered)					
Rotation title	Description	PGY1	PGY2 CC	PGY2 SOT	PGY2 ID
Orientation* (duration is program specific)	Pharmacy residents will complete LUMC new employee orientation as new LUMC employees. Pharmacy residents will also complete an orientation period of 2-6 weeks focused on introducing pharmacy residents to the various components of the pharmacy residency program including pharmacy operations, the pharmacy resident research project, evaluation procedures, the seminar presentation, and additional required projects and presentations.	R	R	R	R
General Medicine	There are eight general medicine services at LUMC; four are teaching services comprised of 2 medical residents and an attending, and four are uncovered hospitalist services run by one attending hospitalist and no trainees. The patient population includes a wide variety of disease states including infectious diseases, pulmonary disease, cardiovascular disease, gastrointestinal disorders, among others.	R	N	N	N
Cardiology	LUMC has 3 discrete cardiology-based services: General Cardiology, Cardiac Care Unit (CCU), and Advanced Heart Failure/Heart Transplant. Pharmacy residents will be required to complete a rotation on the General Cardiology service and may complete an elective on the Advanced Heart Failure/Heart Transplant Service. LUMC is a major cardiovascular referral center and a transplant referral center with a 24-hour on-call interventional cardiologist in house available for code STEMI (ST-elevation myocardial infarction).	R or E	N	N	N
Hepatology	The hepatology service is both a primary and consult service providing care to patients with decompensated cirrhosis and acute liver injury as well as post-liver transplant recipients. This rotation provides exposure to the multiple phases of the liver transplant process.	R or E	N	R	N
Infectious Diseases (PGY1)	LUMC has 2 infectious diseases services that serve (1) general medicine/surgical patients and critical care patients (i.e., medical, surgical, and oncology) and (2) transplant patients. The ID team consists of an attending infectious diseases physician, an infectious diseases fellow, medical residents, medical students and an infectious diseases clinical pharmacist. Additionally, our ID pharmacy team offers a variety of antimicrobial stewardship services including restricted antimicrobial approvals, prospective audit and feedback, and blood culture review. Residents will have a hybrid experience participating in both ID consult rounds and antimicrobial stewardship.	R	N	N	N
General Infectious Diseases Consults (I and II)	LUMC has 2 infectious diseases services that serve (1) general medicine/surgical patients and critical care patients (i.e., medical, surgical, and oncology) and (2) transplant patients. ID clinical specialists also assist in monitoring home care antibiotic patients and attend HIV clinics. The general ID team consists of an attending infectious diseases physician, an infectious diseases fellow, medical residents, medical students and an infectious diseases clinical pharmacist.	N	E*	N	R (x2)
Transplant Infectious Diseases (I and II)	LUMC has 2 infectious diseases services that serve (1) general medicine/surgical patients and critical care patients (i.e., medical, surgical, and oncology) and (2) transplant patients. ID clinical specialists also assist in monitoring home care antibiotic patients and attend HIV clinics. The transplant ID team consists of an attending infectious diseases physician, an infectious diseases fellow, and an infectious diseases clinical pharmacist.	E	E*	R	R and E

Antimicrobial Stewardship (I and II)	In addition to rounding with the consult teams, the ID pharmacists perform a variety of functions supporting the antimicrobial stewardship program at LUMC including providing restricted antimicrobial approvals, prospective audit and feedback, and blood culture review.	N	N	N	R (x2)
Medical ICU	The MICU is a 16-bed unit. The patient population includes patients with severe sepsis and/or pneumonia, acute and/or chronic renal failure, diabetic ketoacidosis, severe asthma exacerbations, hepatic failure, GI bleeds, and other medically unstable patients. PGY1 pharmacy residents will be required to complete 1 four-week rotation in the MICU, SICU, CVICU, or Neuro ICU to satisfy the critical care rotation requirement.	R or E	R	E	E
Surgery/Trauma ICU	LUMC is a State of Illinois designated Level I Trauma Center for adults and pediatric patients, a status that has been verified by the American College of Surgeons. LUMC is the only hospital in Illinois to earn such a distinction. The Surgery/Trauma ICU consists of a 24-bed unit divided into 3 pods. The patient population includes blunt force trauma, penetrating trauma injuries, critically ill surgical patients, and post-operative abdominal transplant patients. PGY1 Pharmacy residents will be required to complete 1 four-week rotation in the MICU, SICU, CVICU, or Neuro ICU to satisfy the critical care rotation requirement.	R or E	R	E	E
Neurosciences ICU	LUMC is a designated Comprehensive Stroke Center serving patients with both ischemic and hemorrhagic stroke. The service consists of a 13-bed ICU serving stroke patients as well as patients with unstable intracranial aneurysms, spinal cord injuries, arteriovenous malformations, brain tumors, cranial trauma, and other unstable neurologic/neurosurgical patients. PGY1 Pharmacy residents will be required to complete 1 four-week rotation in the MICU, SICU, CVICU, or Neuro ICU to satisfy the critical care rotation requirement.	R or E	R	N	N
Cardiovascular ICU	The CV surgery ICU consists of a 16-bed unit housing patients with recent cardiothoracic surgeries including lung and heart transplants, LVAD implants, valve replacements, coronary artery bypass grafts (CABG), and thoracotomies, etc.	R or E	R	E	E
Burn ICU	The Burn center is a 10 bed ICU and a 22-bed step-down unit. The Loyola Burn Center is verified by the American Burn Association and the American College of Surgeons. The Burn Center also conducts research in association with The Burn & Shock Trauma Institute of Loyola University. Our patients include thermal injury, inhalation injury, necrotizing fasciitis, Stevens–Johnson syndrome (SJS), Toxic Epidermal Necrolysis Syndrome (TENS), and various other soft tissue injuries. We are the referral center for all soft tissue injuries in the area.	E	E	N	E
Nutrition* (2 weeks)	The nutrition rotation is a 2-week elective experience for the PGY-2 Critical Care Pharmacy Resident. The primary goal of this rotation is for the resident to develop an independent, systematic approach to problem-solving, evidence-based practices, and nutritional care for patients requiring nutrition support.	N	E	N	N
MacNeal ICU	MacNeal’s ICU is a 17-bed mixed medical and surgical critical care unit at a community teaching hospital. It has a varied patient population that consists of patients with the following conditions: acute and/or chronic renal failure, acute and/or chronic hepatic failure, diabetic ketoacidosis, severe alcohol withdrawal, severe sepsis, pneumonia, severe pulmonary illnesses, GI bleeds, and other medically unstable conditions, as well as critically ill surgical patients.	E	E	N	N
MacNeal ED	MacNeal’s ED is a 33-bed unit at a community teaching hospital. It is designated as a Level II Trauma Center and is approved for the care of pediatric patients by the State of Illinois. In addition to pediatric and lower severity trauma patients, MacNeal’s ED sees patients with complaints relating to cardiac, neurological, endocrine, hepatic, renal, musculoskeletal, and other organ systems.	E	E	N	N

ICU Float* (2-4 weeks)	The ICU float rotation is a mixture of AM ICU and PM ICU experiences. The float will practice as a pharmacist on a high-volume service or a service that does not normally have a dedicated rounding pharmacist (i.e. CCU, one of the MICU teams). The PM ICU experience will be working on the PM shift with a preceptor to cover all drug information, order verification, and emergency responses for the ICU patients on the evening shift.	E	E	N	N
Pediatric ICU	The Pediatric Department is divided into three units: the general pediatric floor, which has 20 beds; the intermediate care unit (IMC), which has 14 beds; and the pediatric intensive care unit (PICU), which has 14 beds. These units provide care for children requiring a range of support from close monitoring to advanced life support. Patients on these units can range from infants to adults. Common diagnoses seen are general pediatric illnesses, renal, hepatic, and gastrointestinal disorders, sepsis, shock, fluid and electrolyte disorders, respiratory disorders, malignancies, and neurologic disorders, among many others. There also is a Pediatric Pharmacy Satellite on the pediatric floor that services pediatric patients on the general pediatrics floor, IMC, PICU, NICU, and pediatric patients in the emergency department as well as the burn unit. PGY-1 residents will be scheduled in either Neonatal Intensive Care Unit (NICU) and Pediatrics/Pediatric Intensive Care Unit (PICU) for the required pediatric rotation.	R or E	E	N	N
Neonatal ICU	The NICU at LUMC is a 50-bed Level III facility that treats neonates with prematurity, congenital heart disease, infectious diseases, and chronic lung disease. PGY-1 residents will be scheduled in either Neonatal Intensive Care Unit (NICU) and Pediatrics/Pediatric Intensive Care Unit (PICU) for the required pediatric rotation.	R or E	E	N	N
Abdominal Transplant	Abdominal transplant is a surgical service providing immediate post-operative and continuity of care to kidney, liver and pancreas transplant recipients. LUMC offers both living and deceased donor kidney transplants and is a part of the National Kidney Registry (NKR). LUMC performs on average ~300 kidney transplants, 70 liver transplants, and ~10 pancreas transplants per year. An Advanced Abdominal Transplant rotation will be offered as an elective to the PGY2 Solid Organ Transplant resident.	R or E	E	R and E	E
Abdominal Transplant Ambulatory Care	The abdominal (kidney, liver, and pancreas) transplant ambulatory care rotation provides the opportunity to participate in the management of both acute and chronic complications post-transplant and other co-morbidities. There is also involvement in the evaluation and education of pre-transplant candidates undergoing workup. An Advanced Abdominal Transplant Ambulatory Care rotation will be offered as an elective to the PGY2 Solid Organ Transplant resident	N	N	R	N
Lung Transplant	LUMC is the largest lung transplant center in the Chicago area, performing about 40 lung transplants each year. Lung transplants may be performed for various indications including cystic fibrosis, pulmonary arterial hypertension, idiopathic pulmonary fibrosis, and severe chronic obstructive lung disease (COPD). An Advanced Lung Transplant rotation will be offered as an elective to the PGY2 Solid Organ Transplant resident.	R or E	E	R and E	E
Heart Transplant/ Advanced Heart Failure	LUMC is one of several heart transplant and LVAD centers in the Chicago area and performs an average of ~25-30 heart transplants and ~15-20 LVADs each year. The pre-transplant patient population includes patients with ischemic cardiomyopathy, peri-partum cardiomyopathy, viral myocarditis, and congenital heart disease, and drug-induced cardiomyopathy among others. An Advanced Heart Transplant/Advanced Heart Failure rotation will be offered as an elective to the PGY2 Solid Organ Transplant resident.	R or E	E	R and E	E

Emergency Department	The Emergency Department at LUMC sees about 45,000 patients every year. The 27-bed unit contains specialty areas for trauma, cardiac care and pediatrics. LUMC boasts the only 24-hour pediatric trauma program in the Chicago suburbs and accepts aeromedical transfers from facilities up to 150 miles away.	R or E	R	N	E
Bone Marrow Transplant	LUMC offers a wide variety of hematology and oncology services including bone marrow and stem cell transplants.	R or E	N	N	E
Hematology / Oncology Consults	LUMC offers a wide variety of hematology and oncology services, including two dedicated, pharmacist-supported consult services for hematology (including benign and oncology) and medical oncology.	E	N	N	E
Pediatric Transplant* (2-4 weeks)	An elective off-site rotation is available at Ann & Robert H. Lurie Children's Hospital of Chicago for experience in pediatric heart, intestine, kidney, and liver transplant.	N	N	E	N
Medication Safety	The medication safety rotation focuses on a review of the culture of safety at LUMC. Residents will participate in the patient safety and medication error report system. Residents will also review The Joint Commission, CMS, Health Resources and Services Administration (HRSA), Illinois Department of Public Health (IDPH), Drug Enforcement Agency (DEA) and other regulatory requirements relevant to accreditation and patient safety	E	E	E	E
Antimicrobial Stewardship	In addition to rounding with the consult teams, the ID pharmacists perform a variety of functions supporting the antimicrobial stewardship program at LUMC including providing restricted antimicrobial approvals, prospective audit and feedback, and blood culture review.	N	N	N	R (x2)
Infection Prevention and Control	The infection prevention and control program team consists of infectious diseases physicians and infection prevention practitioners to effectively identify and reduce transmission of healthcare-associated infections. Pharmacy residents will work collaboratively with the team to understand their processes and the role antimicrobial stewardship contributes to their goals.	N	N	N	R
Microbiology	LUMC has an on-site microbiology laboratory where the resident will gain experience understanding the various technologies in the lab and the process of organism identification and susceptibility testing.	N	N	N	R
Pediatric Infectious Diseases	LUMC has one pediatric infectious diseases consult team that also engages in antimicrobial stewardship rounds with the pediatrics clinical pharmacist	N	N	N	E
Community Hospital Infectious Diseases	MacNeal is a community teaching hospital that is a part of Loyola Medicine. The resident will round with the infectious diseases consult providers and perform antimicrobial stewardship in a setting unique from the primary LUMC campus.	N	N	N	E

<b>Longitudinal Experiences and Administrative Rotations</b>					
(R=Required; E=elective; N=Not offered)					
<b>Rotation title</b> *denotes longitudinal	<b>Description</b>	<b>PGY1</b>	<b>PGY2 CC</b>	<b>PGY2 SOT</b>	<b>PGY2 ID</b>
ED On Call*	<p>Pharmacy residents will participate in Emergency Department (ED) Coverage on Monday through Friday evenings (1700-2200). The goal of this shift is to provide additional clinical coverage to the Emergency Department while allowing the resident to practice with an increased amount of autonomy.</p> <p><u>Responsibilities during evening ED clinical shifts</u></p> <ul style="list-style-type: none"> <li>• Respond to code and stroke pages throughout the hospital</li> <li>• Attend medical emergencies within the ED</li> <li>• Answer drug information questions and provide recommendations as needed</li> <li>• Complete new start warfarin and vancomycin consults</li> <li>• Perform medication reconciliation as time permits</li> <li>• Other duties as assigned by the evening clinical pharmacists (PM ICU or PM Gen Med)</li> <li>• Pick up code and stroke pagers from daytime resident at 4pm</li> <li>• Pharmacy residents are required to attend a weekly or twice weekly ED coverage on call meeting to discuss cases and receive feedback on case management</li> </ul>	R	R	N	N
Code Blue Response*	<p>Pharmacy residents are expected to attend all "Code Blue" emergencies throughout the hospital during regular working hours under the supervision of a preceptor when the resident is on a critical care rotation and/or when the resident is assigned to respond. The pharmacy resident will serve as the primary critical care pharmacist, with preceptor supervision, for adult medical emergencies. Pharmacy residents will be expected to complete BLS and ACLS certification within the first month of residency.</p> <p>Expectations: Assist Code Blue team in obtaining necessary medications from the crash cart, Pyxis, and/or central pharmacy Make intravenous drips from the crash cart when needed Assist Code Blue team with therapeutic interventions, including drug and dose recommendations</p>	R	R	N	N
Code Stroke Response*	Pharmacy residents are expected to attend and actively participate in code stroke responses when they are assigned stroke response pager. See the LED for more details on time and expectations	R	R	N	N
Left Ventricular Assist Device (LVAD) Longitudinal Clinic*	The resident will join the Advanced Heart Failure team for a longitudinal rotation experience during the Fall or Spring at Loyola University Medical Center (LUMC). The team cares for patients in the outpatient setting with advanced heart failure (HF), patients awaiting heart transplant or left ventricular assist device (LVAD), and those who are post-transplant or post-LVAD with associated medical issues. The Advanced Heart Failure team consists of attending cardiologists, cardiology fellows, LVAD nurse coordinators, transplant/heart failure nurse coordinators, social workers, dieticians, and clinical pharmacists. The rotation will take place one day every other week for half of a year in the Advanced Heart Failure clinic. The resident will assist with management of anticoagulation, HF GDMT, and antimicrobial therapy for LVAD patients. The average number of patients the resident may encounter during their clinic day may range from 10 to 20 patients.	E	N	N	N
Project Time	All residents will participate in the Project Rotation during designated weeks throughout the year and for an extended number of weeks during the month of December. Pharmacy residents will be given time off-service to work on MUE and research projects in preparation	R	R	R	R



	for presentation at Midyear, Residency Research Conference and/or other professional conferences. Residents may also use this time to prepare for additional residency projects including CE Seminar, case presentation, research manuscript, research presentation, writing project, practice management project (MUE, protocol/guideline), and/or other assigned projects.				
Administration	The Pharmacy Administration rotation is a supervised management experience in the hospital central pharmacy setting. The pharmacy resident will expand his/her pharmacy administration knowledge by attending various committee meetings and through the completion of various projects including drug use evaluations, drug class reviews, drug monographs, information technology and operational projects, medication safety projects, etc.	R	N	N	N
Pharmacy Informatics	The Pharmacy Informatics rotation is an elective rotation designed to expose residents and students to the role of an Informatics pharmacist within a regional hospital organization. The role of the Pharmacy Informatics specialist is to serve as the subject matter expert for our EMR system and associated technologies used within the healthcare setting, including Regional EMR support (Epic), ADC and Central Pharmacy automation support, Smart Pump technology, Medication Temperature monitoring and tracking, Barcoding technology, IV Room Automation, Pharmacy software and training, Integrated Testing - Interface troubleshooting	E	E	E	E
Pharmacy Operational Staffing*	The PGY1 pharmacy resident will participate in a regular central pharmacy staffing rotation every third weekend. Activities will include order verification, checking filled medications prior to dispensing, reviewing Pyxis medication fills, preparation of crash cart trays and stroke kits, etc. In addition, residents will respond to code strokes and code blues during their staffing shifts.	R	N	N	N
Pharmacy Clinical Staffing*	The PGY2 pharmacy resident will participate in a specialized clinical shift every third weekend. PGY2 CC will staff either AM PIC or a clinical shift and will serve as back up to the PGY1 attending medical emergencies within the hospital. PGY2 SOT will only staff clinical shifts. Refer to "Staffing responsibilities" for more detail. PGY2 ID will staff either AM PIC or a clinical shift.	N	R	R	R
Participation in Recruitment Activities	Pharmacy residents will be required to actively participate in recruitment efforts of the program because they are an excellent source of information and advice for potential candidates. Current pharmacy residents will be allotted time to meet with perspective pharmacy residents during the interview process. In addition, current pharmacy residents will be expected to provide information to interested parties during the ICHP Residency Showcase and the ASHP Midyear Clinical Meeting Residency Showcase and during other LUMC functions (i.e. job fairs, showcases, etc.).	R	R	R	R
Specialty Conference	Weekly meetings for PGY2 programs within their specialty. PGY2 residents will be expected to present topics, case presentations, journal clubs, or education in another format. See PGY2 specialty appendices or LEDs for additional information. PGY1s on either critical care, infectious diseases, or solid organ transplant rotations are also expected to attend the respective conference.	E	R	R	R
Outpatient Parenteral Antimicrobial Therapy (OPAT)	The resident will work the OPAT team consisting of a nurse, physician attending, ID fellow, home infusion pharmacist, and clinical ID pharmacist to evaluate antimicrobial regimens and laboratory values for patients enrolled in the LUMC OPAT program.	N	N	N	R

## Pharmacy Residency Requirements

<b>Required Residency Projects/responsibilities</b> (R=Required; E=elective; N=Not offered)					
<b>Project title</b> *denotes longitudinal	<b>Description</b>	<b>PGY1</b>	<b>PGY2 CC</b>	<b>PGY2 SOT</b>	<b>PGY2 ID</b>
Research Project	<p>All pharmacy residents are required to complete one project designed either to improve the services or function of the pharmacy department or to achieve a specific research objective prior to completion of the pharmacy residency. Each pharmacy resident will have a research advisor for the duration of their research project. Failure to meet deadlines may result in disciplinary action including but not limited to academic probation and/or additional project/presentation assignments as determined by the respective RAC and the RPD.</p> <p><u>Requirements for completion</u></p> <ul style="list-style-type: none"> <li>All deadlines and assignments as designated by the Resident Research Committee. See separate documents for recommended timelines.</li> <li>Attend Monthly Resident Research Committee Meetings</li> <li>Write and present one research pearl during the Research committee meeting</li> <li>Design and complete one research project</li> <li>Submit a manuscript suitable for publication</li> <li>Present project at Pharmacy Resident Research Conference (Spring)</li> <li>Submit project as a poster to a professional meeting upon completion (during or at the end of residency)</li> </ul>	R	R	R	R
CE Presentation	<p>Each pharmacy resident will be required to prepare and present one ACPE (American Council on Pharmacy Education)-accredited continuing education seminar during the pharmacy residency program. Pharmacy residents will select their seminar topic with the guidance of a seminar preceptor (chosen by the resident). Topics should include therapeutic or clinical practice controversies or updates. The goal of the seminar is to develop the pharmacy resident's communication skills, literature evaluation skills, and presentation techniques. The pharmacy resident will also be responsible for creating a self-assessment for audience ACPE-accredited CE credit.</p> <p>Objectives:</p> <ul style="list-style-type: none"> <li>Improvement of presentation and communication skills</li> <li>Enhancement of critical thinking skills, particularly involving literature evaluation and ability to respond to audience questions</li> <li>Provision of continuing education to pharmacists</li> <li>Development of ability to accept constructive criticism and/or comments</li> </ul> <p>See CE Presentation Appendix for additional details</p>	R	R	R	R
Medication Use Evaluation (MUE)	<p>All pharmacy residents are required to complete one project designed either to improve the services or function of the pharmacy department or to achieve a specific medication use evaluation (MUE) objective prior to completion of the pharmacy residency. Each pharmacy resident will have an MUE advisor for the duration of their MUE project. Failure to meet deadlines may result in disciplinary action including but not limited to academic probation and/or additional project/presentation assignments as determined by the respective RAC and the RPD.</p> <p><u>Requirements for completion</u></p>	R	R	R	R

	<ul style="list-style-type: none"> <li>All deadlines and assignments as designated by the Resident Research Committee. See separate documents for recommended timelines.</li> <li>Attend Monthly Research/MUE Committee Meetings</li> <li>Design and complete one MUE project</li> <li>Present project at Resident Poster Session at ASHP Midyear Clinical Meeting and/or Midyear Vizient poster session (Winter)</li> <li>Submit written report of MUE as determined by the MUE preceptor to be presented to Pharmacy and Therapeutics Committee and/or another appropriate LUMC committee (during or at the end of residency)</li> </ul> <p>Based on findings and conclusions from MUE, initiate and / or complete action items for process improvement as outlined</p>				
Committee Responsibilities	<p>Involvement in pharmacy and hospital committees is an important part of active clinical practice and is highly encouraged. Each pharmacy resident will be assigned to a committee for the duration of the residency year. Pharmacy residents are expected to attend pertinent committee meetings with preceptors whenever possible as a part of regular rotation activities. Required committee activities for a given rotation will be determined at the discretion of the individual preceptor. The PGY2 transplant resident will be given the opportunity to attend and participate in the multidisciplinary review board (MRB) meetings and Quality Assessment Process Improvement (QAPI) meetings for the respective transplant specialty while on rotation. Pharmacy residents may present one MUE and/or one drug monograph (PGY1 and PGY2 if applicable during their year) to the P&amp;T Committee. Available committees include Pharmacy Informatics Committee, Unit Quality Improvement Committees, Medication Safety Committee, Sepsis Committee, P&amp;T Subcommittees, etc. Pharmacy residents are required to attend monthly Pharmacy Department Research Committee meetings.</p>	R	R	R	R
Writing Project	<p>PGY2 residents will be required to complete a writing project, which may include a case report, review article, etc. Objectives:</p> <ul style="list-style-type: none"> <li>Improvement of writing skills and identification of appropriate journal selection and requirements</li> <li>Enhancement of critical thinking skills, particularly involving literature evaluation, clinical application, and ability to summarize clinical relevance</li> <li>Development of ability to accept constructive criticism and/or comments and collaborate with other team members</li> </ul> <p>PGY1 residents may pursue an additional writing project if they wish as long as this additional responsibility is communicated to and approved by the RPD.</p>	E	R	R	R
Practice Management/ Pharmacy Improvement	<p>The PGY1 and PGY2 resident will participate in many areas of pharmacy practice management and improvement including taking action on results from a medication utilization evaluation (MUE), regulatory compliance, hospital committee participation, medical staff education (i.e. physician, nursing, pharmacy in-services), and policy/guideline revision or development. Pharmacy residents will be required to have ongoing participation in a hospital committee. Additionally, PGY2 residents may be required to complete a drug monograph as applicable to the specialty practice. The practice management requirement is flexible to allow for projects to occur organically during the year, but this project will be in addition to the other required projects (i.e. completing an MUE does not complete the practice management requirement).</p>	R	R	R	R
Teaching and Learning	<p>See the Teaching and Learning Certificate Syllabus for details about the program. The Teaching and Learning Certificate program offered through LUMC for pharmacy residents is an application-based program</p>	R	R/N	R/N	R/N

<p>Certificate (TLC)</p>	<p>that prepares pharmacists to become effective teachers. Effective teaching extends beyond residency training and impacts numerous disciplines. Through an interactive environment, the participant will be introduced to the skills needed to grow as an educator and advance the profession of pharmacy.</p> <p>All PGY1 residents and any PGY2 residents who have not already completed a Teaching and Learning Certificate are required to participate in the LUMC Teaching and Learning Certificate Program. PGY2 residents who have completed a Teaching and Learning Certificate will be expected to participate as a preceptor in the Teaching and Learning Certificate curriculum.</p>				
<p>Additional Presentations and Projects</p>	<p>The pharmacy resident will gain experience by giving various types of presentations throughout the year to a variety of healthcare professionals, including pharmacists, physicians, and nurses. The goal of these presentations is to enhance the resident's presentation, communication, and teaching skills as both a clinician and an educator. Completion of required presentations will be monitored by the pharmacy resident and pharmacy resident presentation preceptor. Residents may be asked to repeat presentations or to complete additional projects/presentations. This will be determined at the discretion of the respective RAC and the RPD.</p>	<p>Required, as needed</p>			
<p>Chief Resident</p>	<p>Each resident will be required to serve as Chief Resident for 1 month during the residency year. PGY1 residents will be assigned as Chief Resident during their Pharmacy Administration Rotation. PGY2 residents will be assigned in the remaining months. Responsibilities of the Chief Resident include:</p> <ul style="list-style-type: none"> <li>• Planning Pharmacy Week activities</li> <li>• Coordinating Midyear activities and travel plans</li> <li>• Coordinating Research Conference activities and travel plans</li> <li>• Coordinating Grand Rounds meeting requirements, such as ensuring weekly presentations are sent out to the pharmacy department in conjunction with the presenter, printing evaluation forms to be available at Grand Rounds, assisting with virtual Teams meeting, etc.</li> <li>• Other duties as assigned/approved by the RPD</li> </ul> <p>Each Chief Resident will be responsible for coordinating a minimum of one social event to include residents and/or preceptors.</p>	<p>R</p>	<p>R</p>	<p>R</p>	<p>R</p>

## Staffing Responsibilities and Requirements

---

- I. Pharmacy residents will be exempt from staffing on the following weekends:
  - a. ASHP Midyear Clinical Meeting (December)
  - b. If other weekends are required for travel to a meeting or other residency related activity, finding coverage for the assigned shifts that weekend is the responsibility of the resident.
- II. PGY1 Residents
  - a. The goal of the longitudinal pharmacy operations experience is to ensure that the pharmacy resident is able to function independently as a pharmacist both from a clinical and operational perspective. As a PGY1 resident, staffing focuses primarily on the operational aspect.
  - b. The PGY1 pharmacy resident will be required to work two 8-hour shifts every 3<sup>rd</sup> weekend on the AM counter shift (0630-1500), mid counter shift (1030-1900), or counter PM shift (1230-2100).
  - c. PGY1 pharmacy residents will be required to work a minimum of three LUMC holidays each.
  - d. PGY1 residents may be required to staff up to an additional 10 shifts per year to support the operational needs of the pharmacy department. These shifts will be scheduled a minimum of 3-4 weeks in advance as part of the pharmacist schedule when possible and as indicated to meet the needs of the pharmacy department.
  - e. Responsibilities during staffing shifts (refer to training materials provided during orientation for a complete list)
    - i. Order verification for the whole hospital
    - ii. Medication checking and dispensing
    - iii. Antimicrobial stewardship of restricted antimicrobials
    - iv. Answering drug information questions
    - v. Emergency response to stroke codes in the hospital and ED
    - vi. Emergency response to code blues in the hospital
    - vii. Additional roles as needed
- III. PGY2 Critical Care Residents
  - a. The goal of the longitudinal pharmacy operations experience is to ensure that the pharmacy resident is able to function independently as a pharmacist both from a clinical and operational perspective.
  - b. The PGY2 pharmacy resident will be required to work two 8-hour shifts every 3<sup>rd</sup> weekend on the AM PIC shift (0630-1500), clinical shift (0730-1600), or another shift as departmental needs dictate.
  - c. Holidays: PGY2 pharmacy residents will be required to work a minimum of two LUMC holidays each.
  - d. PGY2 Residents may be required to staff up to an additional 10 shifts per year to support the operational needs of the pharmacy department. These shifts will be scheduled a minimum of 3-4 weeks in advance as part of the pharmacist schedule when possible and as indicated to meet the needs of the pharmacy department.
  - e. Responsibilities during AM PIC staffing shifts (refer to training materials provided during orientation for a complete list)
    - i. Order verification for the whole hospital
    - ii. Medication checking and dispensing
    - iii. Borrowing, lending medications if appropriate
    - iv. Additional roles as needed

- f. Responsibilities during clinical staffing shifts (refer to training materials provided during orientation for a complete list)
  - i. Pharmacokinetics consults – assigned units
  - ii. Anticoagulation consults – assigned units
  - iii. Review of renal dosing list – assigned units
  - iv. Double check of TPNs in CAPS and EPIC
  - v. Follow-up on all clinical sign outs from service clinicians
  - vi. Documentation of interventions in the I-Vent system
  - vii. Dispensing of parenteral prostacyclins as needed based on sign outs from service clinicians
  - viii. Order verification as needed for assigned inpatient units
  - ix. Additional roles as needed

#### IV. PGY2 SOT Residents

- a. The goal of the longitudinal pharmacy operations experience is to ensure that the pharmacy resident is able to function independently as a pharmacist both from a clinical and operational perspective.
- b. The PGY2 pharmacy resident will be required to work two 8-hour shifts every 3<sup>rd</sup> weekend on one of the clinical shifts (0730-1600).
- c. Holidays: PGY2 pharmacy residents will be required to work a minimum of two LUMC holidays each.
- d. PGY2 Residents may be required to staff up to an additional 10 shifts per year to support the operational needs of the pharmacy department. These shifts will be scheduled a minimum of 3-4 weeks in advance as part of the pharmacist schedule when possible and as indicated to meet the needs of the pharmacy department.
- e. Responsibilities during clinical staffing shifts (refer to training materials provided during orientation for a complete list)
  - i. Order verification as needed for assigned inpatient units
  - ii. Pharmacokinetics consults – assigned units
  - iii. Anticoagulation consults – assigned units
  - iv. Review of renal dosing lists – assigned units
  - v. Follow-up on all clinical sign outs from service clinicians
  - vi. Documentation of interventions in the I-Vent system
  - vii. Dispensing of parenteral prostacyclins as needed based on sign outs from service clinicians
  - viii. Follow-up on immunosuppression therapeutic drug monitoring for assigned services
  - ix. Additional roles as needed

#### V. PGY2 Infectious Diseases Residents

- a. The goal of the longitudinal pharmacy operations experience is to ensure that the pharmacy resident is able to function independently as a pharmacist both from a clinical and operational perspective.
- b. The PGY2 pharmacy resident will be required to work two 8-hour shifts every 3<sup>rd</sup> weekend on the AM PIC shift (0630-1500), clinical shift (0730-1600), or another shift as departmental needs dictate.
- c. Holidays: PGY2 pharmacy residents will be required to work a minimum of two LUMC holidays each.
- d. PGY2 Residents may be required to staff up to an additional 10 shifts per year to support the operational needs of the pharmacy department. These shifts will be

- scheduled a minimum of 3-4 weeks in advance as part of the pharmacist schedule when possible and as indicated to meet the needs of the pharmacy department.
- e. Responsibilities during AM PIC staffing shifts (refer to training materials provided during orientation for a complete list)
    - i. Order verification for the whole hospital
    - ii. Medication checking and dispensing
    - iii. Borrowing, lending medications if appropriate
    - iv. Additional roles as needed
  - f. Responsibilities during clinical staffing shifts (refer to training materials provided during orientation for a complete list)
    - i. Pharmacokinetics consults – assigned units
    - ii. Anticoagulation consults – assigned units
    - iii. Review of renal dosing list – assigned units
    - iv. Double check of TPNs in CAPS and EPIC
    - v. Follow-up on all clinical sign outs from service clinicians
    - vi. Documentation of interventions in the I-Vent system
    - vii. Dispensing of parenteral prostacyclins as needed based on sign outs from service clinicians
    - viii. Order verification as needed for assigned inpatient units
    - ix. Additional roles as needed

## Evaluation Procedures

---

**All evaluations for both residents and preceptors are due within 5 business days of completing the learning experience.**

During the first month of the pharmacy residency, each pharmacy resident will meet with the RPD to discuss Goals and Objectives and the pharmacy resident's individual goals. They will develop a customized curriculum of learning experiences and projects to help achieve these goals throughout the year.

### Evaluation Definitions

- **Achieved for the Residency (ACHR):** The resident has consistently demonstrated the ability to accomplish the educational goal or objective with little or no instruction. Resident requires facilitation but requires minimal coaching. No further evaluation is required.
- **Achieved (ACH):** The resident has consistently demonstrated the ability to accomplish the educational goal or objective with minimal instruction. The resident may require some coaching; however, they have progressed to the point that preceptor is able to largely facilitate the resident's learning experience with occasional coaching and no modeling.
- **Satisfactory progress (SP):** The resident has progressed at the required rate to attain full ability to perform the educational goal or objective by the end of the program. The resident demonstrates the ability to adjust performance based on feedback. The resident requires coaching and modeling but is able to work somewhat independently. The preceptor is required to provide specific, actionable feedback on what actions the resident must consistently do to reach "achieved".
- **Needs improvement (NI):** The resident's level of skill on the educational goal or objective does not meet the preceptors' standards of "achieved" or "satisfactory progress" due to failure to incorporate feedback and improve performance or inability to assess performance due to lack of rotation participation or attendance. The resident requires significant modeling and coaching and is not able to perform independently. The preceptor is required to provide specific, actionable feedback or a feedback action plan on what actions the resident must consistently do to reach "satisfactory progress".

### Preceptor and Rotation Evaluations

Each pharmacy resident will complete a summative evaluation of both the preceptor and the overall learning experience at the end of each learning experience. Evaluations will be completed via PharmAcademic. Residents are required to submit a minimum of one specific suggestion for improvement for each rotation. These suggestions will be used to develop a yearly preceptor development curriculum.

### Rotation Performance Evaluation

Each preceptor will complete a summative evaluation of each pharmacy resident at the end of each learning experience. Evaluations will be completed via PharmAcademic. Preceptors will also complete a less formal (verbal or written) mid-point evaluation of each pharmacy resident. See evaluation definitions above for required documentation according to the evaluation designation. Preceptors must comment on at least 6 objectives per evaluation. Preceptors will review their evaluation with the resident, all feedback provided in the PharmAcademic evaluation should be discussed or provided prior to PharmAcademic submission.



Residents who receive "needs improvement" on the same objective more than once (consecutive or non-consecutive) or who receive two or more "needs improvement" during any one rotation may prompt further review by the RPD to determine if a more structured or formal action plan needs to be put in place. Other performance-related concerns identified by the preceptor(s) and/or RPD may also prompt similar review by the RPD and will be discussed proactively with the resident.

### **Self-Evaluation**

Each pharmacy resident will complete a summative self-evaluation at the end of each learning experience commenting on at least two strengths and two areas for improvement for the rotation. Evaluations will be completed via PharmAcademic.

### **Quarterly Development Meetings**

Pharmacy residents will be evaluated by the RPD on a quarterly basis. Progress toward achieving the criteria-based residency program goals and objectives, individual goals established at the beginning of the residency, and overall residency performance will be evaluated.

The RPD takes into consideration the evaluations from preceptors, the pharmacy resident's self-evaluations, and other pertinent information to complete an assessment of the pharmacy resident's progress using the criteria-based goals and objectives and will then add his/her assessment of the pharmacy resident's progress to the customized plan in PharmAcademic. On completion, the RPD and resident will meet to discuss progress, plans for the next quarter and both will then sign off on the customized plan.

For PGY1 residents, their mentor will also attend quarterly development meetings. For PGY2 residents, the residency coordinator may attend quarterly development meetings as able.

## Pharmacy Residency Certificate

---

A pharmacy residency certificate will be awarded upon successful completion of all pharmacy residency requirements. Complete lists of requirements are in each program-specific appendix. All training requirements must be met prior to the end of the residency period.

- It is possible to obtain a limited extension for completion of the research project. If an extension is needed, the resident must request such an extension in writing a minimum of 60 days prior to the end of the pharmacy residency.
- Such requests will be evaluated on a case-by-case basis by the RPD.
- The RPD and the research preceptor must approve all such requests before an extension may be granted.
- Extensions will be limited to a six-month period after completion of the pharmacy residency; and the pharmacy residency certificate will be withheld until **ALL** requirements, including the research project, have been successfully completed.

### Criteria for Graduation\*

\*This list applies to all programs. Additional criteria for graduation that is program specific is in each of the program's appendices.

- ✓ Obtain licensure by the required date
- ✓ Complete all assigned PharmAcademic evaluations and customized plan updates
- ✓ Upload all final presentations and projects listed below to PharmAcademic Files
  - Final MUE Poster
  - Final MUE Write Up (if required by MUE preceptor) and presentation at P&T and/or other committees as determined by the project
  - Final Research Project Manuscript (deemed publishable by research preceptors) and Residency Research Conference presentation
  - Final CE Seminar Presentation
  - Final Teaching Certificate Portfolio
  - Final Journal Club, Professional Development, and Case Presentation PowerPoints
  - Additional projects as applicable (i.e. monographs, in-services, guideline/order set/protocol revisions, etc.)
- ✓ Receipt of  $\geq 75\%$  "Achieved for the Residency" for all program objectives on final residency evaluation
  - Receipt of a minimum of "Satisfactory Progress" on all objectives not marked as "Achieved for the Residency"
- ✓ The final program quarterly development plan is submitted by the RPD.
- ✓ All PharmAcademic evaluations are completed by the preceptors and residents.
- ✓ Satisfactory completion of all rotations as determined by the primary preceptor for each rotation
- ✓ Completion of the Teaching and Learning Certificate Program as applicable
- ✓ Completion of all assigned residency projects as determined by the RPD and described elsewhere in this manual.
- ✓ Return of identification badge, pager, keys, etc. is also required prior to receiving the certificate.

## **Residency Position Descriptions and Responsibilities**

---

### **I. All programs**

#### **A. Residency Program Director (RPD)**

- i. Each pharmacy residency training program has a qualified RPD according to the standards set by ASHP who is responsible for the overall quality of the pharmacy residency training program. The RPD is responsible not only for precepting pharmacy residents, but also for the evaluation and development of all other preceptors in the pharmacy residency program.
- ii. Activities of the RPD include recruitment of applicants, selection of applicants, maintaining and updating the pharmacy residency rotation standards, and monitoring of pharmacy resident progress.
- iii. The RPD is responsible for maintaining the pharmacy residents' and preceptors' permanent files.
- iv. The RPD is the Chair of the Pharmacy Residency Advisory Committee (PRAC) and leads that group at meetings and coordinates all the decisions made by the PRAC as pertains to the residency program.

#### **B. Residency Program Coordinator (RPC)**

- i. Each pharmacy residency program may have at least one residency program coordinator to assist the RPD with the development of both residents and other preceptors.

#### **C. Pharmacy Residency Preceptor**

- i. Preceptors will be qualified according to the standards set by ASHP for either PGY-1 or PGY-2 programs as appropriate.
- ii. Please see Preceptor appendix for additional information.

#### **D. Pharmacy Residents**

- i. Qualifications of the Pharmacy Residency Applicant
  1. Pharmacy residency applicant qualifications will be evaluated by the Pharmacy Residency Program Director through an established formal procedure.
  2. The applicant should be a graduate of an Accreditation Council for Pharmacy Education (ACPE)-accredited Doctor of Pharmacy degree program.
  3. Applicants who have graduated from an ACPE-accredited Bachelor of Science (B.S.) in pharmacy degree program may also be considered.
  4. The applicant must be licensed or eligible for licensure in the State of Illinois
  5. If licensure is not obtained prior to entering the residency program, it must be obtained within 120 days from the start of residency.
  6. Applicants must participate in and adhere to the rules of the Resident Matching Program (RMP) process.
- ii. PGY2 applicants must adhere to the above qualification and additionally should be a graduate of an ASHP-accredited or ASHP candidate accreditation status PGY1 Residency Program.
  1. A copy of the signed certificate demonstrating successful completion of the PGY1 Residency Program must be provided to the PGY2 RPD prior to the start of the PGY2 residency training.
- iii. Obligations of the Pharmacy Resident to the Pharmacy Residency Program

1. Pharmacy residents' primary professional commitment must be to the residency program.
2. Pharmacy Residents must manage external activities so as not to interfere with the program.
3. Pharmacy residents are responsible for making any changes necessary to meet the requirements for successful completion of the pharmacy residency.
4. Pharmacy residents must be committed to the values and mission of LUMC.
5. Pharmacy residents must be committed to completing the educational goals and objectives established.
6. Pharmacy residents must seek constructive verbal and documented feedback that directs their learning.
7. Pharmacy residents must be committed to making active use of the constructive feedback provided by Pharmacy Residency Preceptors.

## **II. PGY1 Only**

### **A. Resident Mentor**

- i. During the first month of the pharmacy residency program, each pharmacy resident will choose a mentor.
- ii. This person must be one of the Pharmacy Residency Preceptors and/or a member of the Pharmacy Residency Advisory Committee and will serve as the pharmacy resident's "go to" person for any issues or concerns that may arise during the residency year.
- iii. The mentor will serve as a resource and advocate for professional development.
- iv. The pharmacy resident will have a formal meeting with their mentor and RPD on a quarterly basis and may meet more frequently if warranted or desired.
- v. Prior to this quarterly meeting, the pharmacy resident should complete a quarterly self-evaluation that will be discussed with the mentor. See "Evaluation Procedures-Quarterly Progress Meeting" for details.
- vi. The mentor will report to the PRAC regarding the pharmacy resident's progress during PRAC meetings.
- vii. The goals of the relationship between the pharmacy resident and the Pharmacy Resident Mentor are:
  1. Give the pharmacy resident a contact person who will be available for questions and/or concerns, who can assist the pharmacy resident with overall planning for the year, help the pharmacy resident with problem-solving, support the overall wellbeing of the resident, and serve as a sounding board and advisor to the pharmacy resident as they prepare for their future career.
  2. Give all preceptors a contact person with whom they can discuss the pharmacy resident's progress, and who can then report to the RPD and track the overall progress of the pharmacy resident

### **III. Pharmacy Residency Committees**

#### **A. Residency Education Sub-Committee**

- i. Purpose:
  1. Establishes and oversees resident educational activities, namely the Grand Rounds curriculum and presentation expectations.
  2. Ensures all resident presentation instructions, evaluations, and requirements are provided to residents and are followed throughout the year.
  3. Tracks resident progress on presentations throughout the year, ensuring adherence to deadlines.
  4. Tracks preceptor evaluations of resident presentations and ensures residents receive timely feedback.
- ii. The Residency Education Sub-Committee is led by two co-chairs, whose responsibilities include, but are not limited to, leading committee meetings, creating meeting agenda and minutes, ensuring the committee performs its duties, and reporting activities to PRAC, PGY2 CC RAC, PGY2 SOT RAC, and/or PGY2 ID RAC as appropriate.
- iii. The Teaching Certificate Coordinator is a member of the Residency Education Sub-Committee
  1. The Teaching Certificate Coordinator is responsible for developing and maintaining a curriculum and a syllabus for the teaching certificate program.
  2. The coordinator is responsible for organizing seminars and lectures for the program as well as coordinating teaching opportunities for the residents including precepting and lecturing opportunities.

#### **B. Residency Professional Development and Wellness Sub-Committee**

- i. Purpose:
  1. Organize professional development and wellness sessions for residents and/or residency preceptors throughout the year.
  2. Assists in PGY-1 recruitment activities, including, and not limited to, organization of recruitment events, assistance with residency interviews, and helping the PGY-1 RPD in the management of the LUMC Pharmacy Residency X and Instagram account.
- ii. The Residency Professional Development and Wellness Sub-Committee is led by two co-chairs, whose responsibilities include, but are not limited to, leading committee meetings, creating meeting agenda and minutes, ensuring the committee performs its duties, and reporting activities to PRAC, PGY-2 CC RAC, PGY-2 SOT RAC, and/or PGY-2 ID RAC as appropriate.

#### **C. Residency Research & MUE Sub-Committee**

- i. Purpose:
  1. Organize monthly resident research meeting curriculum (i.e. resident led topic discussions such as REDCap, SPSS, poster development, manuscript writing, etc.)
  2. Tracks resident research and MUE projects monthly and ensures appropriate progress is being made throughout the year in conjunction with research project preceptors.

3. Oversees appropriate resident submissions to national conferences, such as ASHP Midyear Clinical Meeting, Vizient, and Residency Research Conference.
  4. Coordinates preceptor research and MUE project proposal list prior to the start of each new residency class and appropriately vets each project via criteria that the committee sets for a feasible resident project
- ii. The Residency Research and MUE Sub-Committee is led by two co-chairs, whose responsibilities include, but are not limited to, leading committee meetings, creating meeting agenda and minutes, ensuring the committee performs its duties, serving as mentors for both pharmacy residents and preceptors for the research project, working with the research committee and RPDs to determine the feasibility and relevance of proposed projects, developing a timeline for submission of project components (including IRB protocol, posters, presentations, and the manuscript), overseeing the IRB submission process and coordinating the submission of the residents' posters to the ASHP Midyear Clinical Meeting poster session and the Pharmacy Resident Research Conference, assisting the RPD with evaluations pertaining to the research project and related presentations and posters, and reporting activities to PRAC, PGY-2 CC RAC, PGY-2 SOT RAC, and/or PGY-2 ID RAC as appropriate.
- D. PGY-1 Pharmacy Residency Advisory Committee (PRAC)**
- i. The PRAC is comprised of the Pharmacy Residency Program Directors and Pharmacy Residency Preceptors from all rotation areas as well as the Pharmacy Residency Coordinators.
  - ii. The PGY1 PRAC meets on a monthly basis.
  - iii. Purpose of the PRAC:
    1. Monitoring the progress of all pharmacy residents and facilitating communication regarding their progress amongst all of the pharmacy Residency Preceptors
    2. Evaluating the pharmacy PGY1 program at LUMC and making decisions, through discussion and democratic process, regarding program changes and/or adjustments
    3. Facilitating preceptor education and training
    4. Selection of pharmacy residency program applicants and determination of rank order list
    5. Approval of pharmacy residency project and seminar topics
  - iv. All decisions regarding the structure, content, and pharmacy residency goals and objectives of the program are discussed and then recommendations for any changes made by the committee are ultimately approved or denied by the RPD.
- E. PGY-2 Critical Care Residency Advisory Committee (PGY-2 CC RAC)**
- i. PGY-2 CC RAC is comprised of all the critical care and emergency medicine preceptors. Other preceptors who are precepting a PGY-2 Critical Care Resident will be invited to RAC for the relevant months to discuss resident's progress. Other preceptors may be invited to attend if needed.
  - ii. Meets on a monthly basis to discuss progress of the resident(s).

**F. PGY-2 Solid Organ Transplant Residency Advisory Committee (PGY-2 SOT RAC)**

- i. PGY-2 SOT RAC is comprised of all solid organ transplant preceptors. Other preceptors who are precepting a PGY-2 Solid Organ Transplant Resident will be invited to RAC for the relevant months to discuss resident's progress. Other preceptors may be invited to attend if needed.
- ii. Meets on a monthly basis to discuss progress of the resident(s).

**G. PGY2 Infectious Diseases Residency Advisory Committee (PGY2 ID RAC)**

- i. PGY2 ID RAC is comprised of all infectious diseases preceptors. Other preceptors who are precepting the PGY-2 Infectious Diseases Resident will be invited to RAC for the relevant months to discuss resident's progress. Other preceptors may be invited to attend if needed.
- ii. Meets on a monthly basis to discuss progress of the resident(s).

## **General Employment Information and Pharmacy Resident Benefits**

---

- I. Benefits
  - a. Salary
    - i. Paid every two weeks on Friday
    - ii. If a holiday falls on a Friday on which a paycheck is due, employees are paid the business day prior to the holiday.
    - iii. PGY-1 Salary \$48,662
    - iv. PGY-2 Salary \$49,271
  - b. Health Insurance (Medical, Dental, and Vision)
    - i. All residents holding a valid graduate pharmacy education agreement with Loyola are eligible for health benefits and become covered on the first day of pharmacy residency provided that enrollment takes place within the first 30 days of pharmacy residency.
    - ii. Benefit options are summarized in the benefits package and are described in detail in the individual summary Plan Descriptions.
    - iii. Pharmacy residents must sign up for coverage and complete the necessary enrollment forms.
    - iv. Any change in health plans is permitted only during the open enrollment period or with a qualifying life event. Open enrollment typically occurs during the fall.
    - v. Newly eligible dependents may be added within 30 days of marriage, birth or adoption, or loss of current coverage. Otherwise, such additions may only be made during the open enrollment period. Rates are subject to change.
  - c. Time away from the program (ASHP standard limit 37 days):
    - i. Paid Time Off (PTO): 16 days
      1. PTO is to include vacation, personal, and sick days
    - ii. Educational Days: 10 days
      1. Up to 3-4 educational days for travel to the ASHP Midyear Clinical Meeting
      2. Up to 2 educational days for travel to the designated Pharmacy Residency Research Conference (PGY1, PGY2 CC, PGY2 ID)
      3. Up to 2 educational days for travel to the American Transplant Congress Meeting (PGY2 SOT)
      4. Additional requests for conference time will be addressed on a case-by-case basis
      5. Up to 3 educational days for PGY2 or job interviews. These may be allocated in half-day increments to accommodate half-day interviews at the program director's discretion. Any time off for interviews beyond 3 days will be counted as PTO days.

### **Attendance and Leave Policies**

---

See the Trinity Health and LUHS Policy Manual for further information on Leave Policies



- I. All requests for vacation, personal time, and professional leave must be submitted to the RPD and the preceptor for that month for approval.
  - a. Requests must be submitted via email a MINIMUM of 4 weeks in advance.
  - b. Upon approval of the request, the RPD will forward the request to the department's schedule coordinator and administrative assistant.
  - c. A maximum of 5 consecutive vacation days may be used at one time.
  - d. Paid time off is not cumulative from year-to-year. Payment in advance or payment for unused time will not be permitted.
  - e. For the last two weeks of the residency program, PTO will be approved by all RPDs in conjunction with the Regional Director of Clinical Pharmacy Services and Residency Programs. PTO may be limited during this time to ensure department needs are met.
- II. Absence due to illness
  - a. In the case of absence due to illness, the pharmacy resident must notify the preceptor for that month via email, phone, or pager a MINIMUM of 2 hours before the resident would be expected to report to rotation.
  - b. Missing a shift due to illness or injury is considered an "unscheduled absence" and will incur one "occurrence" for each instance. One "occurrence" encompasses all consecutive days in one absence period. For example, if the resident is absent for two consecutive days due to the same illness, this is considered one occurrence.
  - c. If an absence due to an illness or injury is 3 or more days or when a pattern of absences develops, the resident will be required to submit a physician's statement confirming the reason for the absence.
    - i. If illness is due to COVID-19, the need for a physician's documentation is usually waived due to the requirement for Employee Health to approve return to work after COVID-19 infection. This is subject to change according to current Employee Health guidance.
- III. Rotation Attendance
  - a. Pharmacy residents may be absent (planned or unplanned) from a rotation for a maximum of 25% of the available rotation days.
  - b. If a resident is absent from rotation for more than 25% of available rotation days on a given rotation, the pharmacy resident may be required to extend the rotation accordingly or repeat the rotation at the discretion of the RPD.
- IV. Unscheduled Absences/Tardiness: Unscheduled absences, patterns of absence, and tardiness will be managed according to Trinity Health Human Resources Ministry-Wide Policy No. 1035: Attendance.
- V. In the event that a resident must take an extended leave that will go beyond the allotted amount of PTO, they may be eligible to apply for an extended leave of absence. Refer to Trinity Health policy No. 1027 Elective and Other Leaves of Absence, No. 1025 FMLA Military Leave, and No. 1024 FMLA Non-Military Leave for additional details. Every effort will be made to allow the resident to complete the residency by extending the residency completion date in accordance with the amount of leave required. See Appendix 6 for further details.
- VI. In the event that a resident must take a leave greater than 12 weeks, the resident may be released from the program.

---

## **Illinois Pharmacist Licensure**

- I. ASHP Standard: A minimum of two-thirds of the residency must be completed as a pharmacist licensed to practice in the program's jurisdiction.
- II. Each pharmacy resident must provide the RPD with the registration number of licensure in all states and/or initiate as early as possible plans for obtaining pharmacist licensure in the State of Illinois.
- III. Each pharmacy resident must obtain and maintain, at their own expense, pharmacy technician licensure in the State of Illinois prior to the start of the residency program if they are not already licensed as a pharmacist in the state of Illinois.
- IV. Each pharmacy resident must obtain and maintain, at their own expense, pharmacy licensure in the State of Illinois prior to or within 120 days after the start of the residency.
  - a. Pharmacy residents must schedule their initial exams prior to July 1<sup>st</sup> of the residency start year and provide scheduled date(s) to the appropriate RPD as soon as exam dates are known.
  - b. If the pharmacy resident is unable to obtain licensure within 120 days from the start of the residency, the pharmacy resident may be dismissed from the pharmacy residency program.
  - c. The pharmacy resident is responsible for discussing the circumstances with the RPD, and an extension may be granted at the discretion of the RPD.
    - i. If an exception is granted, the residency will be extended to ensure 2/3 of the pharmacy training is completed as a licensed pharmacist.
    - ii. A copy of the Illinois License must be forwarded to the RPD as soon as it is available.

### **Performance Improvement Plans (PIP)**

---

Residents with ongoing educational and/or clinical deficiencies may be placed on a Performance Improvement Plan (PIP) at the discretion of the RPD and / or Director of Clinical Pharmacy Services and Residency Programs and in consultation with Human Resources. The RPD will provide the resident with the PIP in writing, outlining deficiencies that need to be corrected and the timeline for doing so. Failure to make such corrections may result in further action, up to and including termination from the pharmacy residency program and separation from the organization. Salary and benefits remain in full force during the period that the PIP is in place.

The RPD shall schedule a meeting with the pharmacy resident to discuss the reason(s) for placement on a PIP, the remedial action(s) required by the pharmacy resident, and the dates for review and/or completion of goal attainment. The RPD shall summarize this meeting in writing to the pharmacy resident. A copy of the written document will be placed in the pharmacy resident's file.

The RPD shall meet with the pharmacy resident weekly to review performance. Depending upon the resident's performance, they may be removed from the PIP, be given an extension of the PIP period, or be terminated from the pharmacy residency program.

Resident complaints related to placement on a PIP can be made by following the chain of command or by contacting the Human Resources Department.

### **Corrective Disciplinary Action**

---

Whenever the professional activities, conduct or demeanor of a pharmacy resident interferes with the discharge of assigned duties or the discharge of duties of other Loyola employees, or jeopardizes the well-being of patients or employees, Loyola, through its administration, reserves the right to institute appropriate corrective measures including disciplinary action up to and including termination.

The following is a list of pharmacy resident actions and behaviors, which may result in disciplinary action, up to, and including termination for the first offense. This list is not exhaustive and other actions or behaviors may lead to disciplinary action, up to and including termination.

- Behavior that threatens the well-being of patients, medical staff, employees, or the general public.
- Substantial or repetitive conduct that is considered by the pharmacy resident's supervisor to be professionally or ethically unacceptable or which is disruptive to the normal and orderly function of Loyola.
- Failure to conform to the principles outlined in the Graduate Pharmacy Education Agreement or to the policies and procedures of Loyola.
- Failure to comply with federal, state and local laws (directly or indirectly related to the pharmacy profession.) Convictions for offenses other than minor traffic violations may be cause for dismissal.
- Fraud by commission or omission in application for pharmacy residency position or in completing of other Loyola or patient care related documents.
- Conviction of a criminal offense related to healthcare fraud or exclusion, debarment, sanction or other declaration of ineligibility for participation in a federal or state healthcare program.
- Suspension, revocation or any other inactivation, voluntary or involuntary, of pharmacy licensure by the State of Illinois.
- Continued or unexcused absence from duty assignments.
- Harassment or abuse of patients, other residents or hospital staff.
- Failure to provide safe, effective and compassionate patient care commensurate with the resident's level of advancement and responsibility.
- Breach or violation of patient confidentiality
- Conduct or behavior which may cause embarrassment or bring disrepute to Loyola or its employees.

Initiation of disciplinary action shall be the province of the RPD in conjunction with the Regional Director of Clinical Pharmacy Services and Residency Programs when needed and in consultation with Human Resources. Pharmacy residents may be subject to coaching, written warning, suspension or termination. Discipline may be progressive in that it follows the order listed. However, depending upon the severity of an incident or extenuating circumstance, discipline may begin at any stage, including termination.

The RPD may issue a letter of warning (verbal or written) to a pharmacy resident in response to an identified problem. The letter will detail the situation, the action required to correct the problem, and the consequences of failing to correct the problem. A copy of the letter will be placed in the pharmacy resident's file.

Suspension is a corrective action where the pharmacy resident is temporarily removed from program duties. Suspensions are unpaid; however, benefits will remain in full force during the suspension. During the suspension, the pharmacy resident will not receive credit for the training time.

The RPD may initiate a suspension when he/she believes that a pharmacy resident's removal from duty is in the best interest of Loyola or its patients. If necessary, pharmacy residents may be suspended pending the investigation of an incident. Upon conclusion of the investigation, the pharmacy resident may be:

- Restored to full duty (Back pay will be awarded if the results of the investigation establish that suspension was unwarranted.); or
- Terminated.

The RPD shall provide the pharmacy resident with a letter detailing the reason(s) for suspension including the length of the suspension, the action required to correct the reason for the suspension and the consequences of failing to correct the problem. A copy of the correspondence shall be placed in the pharmacy resident's file.

If corrective disciplinary action does not improve a pharmacy resident's behavior or actions or if a major violation of Loyola policy or pharmacy residency policy occurs, the pharmacy resident may be terminated from participation in Loyola's pharmacy residency training program. Termination may occur even if the resident holds a current graduate pharmacy education agreement.

The RPD shall provide a letter to the resident detailing the reason(s) for termination and the effective date. A copy of the correspondence shall be placed in the pharmacy resident's file.

Resident complaints related to formal Corrective Actions may be made as outlined in Trinity Health Human Resources Ministry-Wide Policy No. 1003 – Employee Complaint / Appeal Procedures.

## **Duty Hours**

---

More detail provided in Duty Hour Appendix

Duty hours are defined as all scheduled clinical and academic activities related to the pharmacy residency program. This includes all inpatient and outpatient care, administrative duties, scheduled and assigned activities, including conferences, committee meetings, and health fairs that are required to meet the goals and objectives of the pharmacy residency program. Duty hours do not include reading, studying, and academic preparation time for presentations, journal clubs, etc. or travel time to and from conferences. Duty hours also do not include hours that are not scheduled by the RPD or preceptor.

Duty hours must be limited to 80 hours per week, averaged over a 4-week period, including all moonlighting. Residents must have a minimum of one day in seven days free of duty,

averaged over 4 weeks. Residents must have 8 hours free of duty between scheduled duty hours. Duty periods should not exceed 16 hours.

Residents will complete a monthly PharmAcademic evaluation to attest to his/her adherence to duty hour requirements.

Residents and preceptors will be educated on the signs of fatigue and sleep deprivation. If at any time a resident's ability to complete patient care responsibilities due to fatigue is in question, the resident and/or preceptor must immediately report the issue to the RPD. If the resident is determined to be unfit for service at that time, the resident will be dismissed for the remainder of the day and will be asked to sign out any pertinent patient care issues to their preceptor or another qualified clinical pharmacist.

## **Travel Expenses Policy**

---

Any changes to the below would be in accordance with the Trinity Health Travel and Other Business Expenses Finance Procedure No. F.1

Pharmacy residents will follow the general Trinity Health Travel Expenses Procedure. Each pharmacy resident will receive a \$1500 allotment to fund registration and travel to the ASHP Midyear Clinical Meeting. The pharmacy resident's allotment will be used to pay for registration, airfare, hotel room, and meals for the conference. Expenses will be reimbursed by the Pharmacy Department up to the maximum of \$1500.

Travel expenses to the designated Pharmacy Residency Research Conference (including registration, fuel, hotel, and meals) will be reimbursed by the Pharmacy Department (up to a maximum of \$800).

Travel expenses to the American Transplant Congress including registration, airfare, hotel room, and meals for the conference will be reimbursed by the Pharmacy Department up to the maximum of \$1500.

Travel expenses to the Society of Critical Care Medicine including registration, airfare, hotel room, and meals for the conference will be reimbursed by the Pharmacy Department up to the maximum of \$1500.

Travel expenses to the Society of Infectious Diseases Pharmacists (SIDP) Annual Meeting / IDWeek or the Making A Difference in Infectious Diseases (MAD-ID) Annual Meeting including registration, airfare, hotel room, and meals for the conference will be reimbursed by the Pharmacy Department up to the maximum of \$1500.

If a pharmacy resident wishes to attend an additional professional conference, additional funding may be provided in accordance with the Trinity Health Travel and Other Business Expenses Finance Procedure, Trinity Health policy, Loyola Medicine policy, or departmental policy or procedure but is not guaranteed.

## Appendix 1: PGY1 Pharmacy Residency Program Overview

### Program Overview

#### **Formal Journal Club (PGY1 only)**

Each pharmacy resident will be required to present one formal journal club during the 1<sup>st</sup> quarter of the residency. This journal club will be a platform presentation on an article chosen by the resident. Topics should include recently published trials (i.e. within the past 6 months). Pharmacy residents will select their journal club article with the guidance of a preceptor (chosen by the resident). The goal of the journal club is to develop the pharmacy resident's communication skills, literature evaluation skills, and presentation techniques in preparation for the seminar and case conference presentations later in the year.

➤ Objectives:

- Improvement of presentation and communication skills
- Enhancement of critical thinking skills, particularly involving literature evaluation and ability to respond to audience questions
- Development of ability to accept constructive criticism and/or comments

The formal journal club will be limited to 20-30 minutes with an additional 10-minute period reserved for questions and/or comments from the audience. The presentation should include PowerPoint slides.

Each pharmacy resident will receive a review of the presentation from a minimum of two preceptors, who will evaluate the content of the presentation, the presentation style and the overall performance. The pharmacy resident will receive this review within 3 business days of presenting the presentation. Audience members will be encouraged to provide written feedback to the pharmacy resident as well, using the presentation evaluation form.

#### **Case Conference (PGY1)**

Each pharmacy resident will be required to prepare and present one formal case presentation during the pharmacy residency program. Pharmacy residents will select their case conference topic with the option to receive guidance from a case conference preceptor (chosen by the resident). Residents must choose a case that they have seen and with which they have been directly involved for the case presentation. The goal of the case conference is to develop the pharmacy resident's communication skills, literature evaluation skills, clinical application abilities, and presentation techniques.

➤ Objectives:

- Improvement of presentation and communication skills
- Enhancement of critical thinking skills, particularly involving literature evaluation, clinical application, and ability to respond to audience questions
- Development of ability to accept constructive criticism and/or comments

The case conference will be limited to 25 to 30 minutes with an additional 10-minute period reserved for questions and/or comments from the audience.

Each pharmacy resident will receive a review of the presentation from a minimum of two preceptors, who will evaluate the content of the presentation, the presentation style and the overall content. The pharmacy resident will receive this review within 3 business days of presenting the presentation. In addition, the resident will complete a self-evaluation. Audience members will be encouraged to provide written feedback to the pharmacy resident as well, using the presentation evaluation form.

### **Additional Presentations and Projects**

The pharmacy resident will gain experience by giving various types of presentations throughout the year to a variety of healthcare professionals, including pharmacists, physicians, and nurses. The goal of these presentations is to enhance the resident's presentation, communication, and teaching skills as both a clinician and an educator. Completion of required presentations will be monitored by the pharmacy resident and pharmacy resident mentor. Residents may be asked to repeat presentations or to complete additional projects/presentations. This will be determined at the discretion of the PRAC and the RPD.

#### **➤ Required Presentations:**

- 1 Formal journal club presentation (25-30 minutes) (August/September)
  - Topic and preceptor chosen by August 1
- 1 ACPE-approved CE seminar (November to January)
  - Topic and preceptor chosen by August 15
- Case conference (May/June)
  - Topic and preceptor chosen by February 1
- Medication Use Evaluation (MUE) (presented as a poster at ASHP Midyear Clinical Meeting and/or Vizient poster session, as well as to the P&T Committee or other appropriate medical staff or quality committee, if requested)
  - Topic and preceptor chosen by August 1
- Platform presentation of Research Project at designated Pharmacy Resident Research Conference in the Spring
  - Topic and preceptor chosen by August 1
  - Required practice session for preceptors and co-residents prior to conference

<b><u>Important Dates</u></b>	<b><u>Deliverable</u></b>
July 1	NAPLEX and MPJE exams must be scheduled and taken prior to July 1.
August 1	Mentor selection due Committee Preferences ranking due Research Project and MUE topics due (PGY1 and PGY2 CC only) Formal Journal Club topic due (PGY1 only) Society of Critical Care Medicine (SCCM) Congress abstract deadline (PGY2 CC resident)
August 15	Seminar topic due
September 1	IRB deadline, research project 120 days after start date: Licensure deadline
October 1	ASHP Midyear Residency poster submission deadline
October 14-15	Fellows Symposium in Transplantation (PGY2 SOT)
November 25	ASHP Midyear Poster due to printer (PGY1 and PGY2 CC only)
November (date TBD)	American Transplant Congress abstract due (PGY2 SOT only)
December 8-12, 2024	ASHP Midyear Clinical Meeting
December 1	MUE topic due (PGY2 SOT)
December	TLC portfolio complete
January-February (date TBD)	SCCM Congress
February 1	Case Conference topic due (PGY1 and PGY2 CC only) Writing project topic due (PGY2 SOT) Pharmacy Residency Research Conference abstracts due (PGY1 and PGY2 CC only)
April 10	Pharmacy Residency Research Conference presentation due (PGY1 and PGY2 CC only)
April	Pharmacy Residency Research Conference (PGY1 and PGY2 CC only)
June 1	First draft Research Project Manuscript due
June 4-8	American Transplant Congress
Third Monday in June	Research Project Manuscript due (or prior to graduation ceremony, whichever is earlier)
June 15	Writing Assignment Manuscript due (PGY2 only)



### PGY 1 Required and Elective Learning Experiences

<b>Learning Experience</b>	<b>Type</b>	<b>Duration</b>	<b>Required/Elective</b>	<b>Quarter(s) Offered*</b>
Orientation	Rotation	4 weeks	Required	1 <sup>st</sup>
Adult Acute Care (General Medicine, Cardiology, General Medicine/Surgery, or Hepatology)	Rotation	4 weeks	Required	All
Infectious Diseases (PGY1)	Rotation	4 weeks	Required	All
Adult Critical Care (MICU, SICU, CVICU or Neuro ICU)	Rotation	4 weeks	Required	All
Adult Transplant (Abdominal, Lung, or Heart Transplant)	Rotation	4 weeks	Required	All
Pharmacy Administration	Rotation	4 weeks	Required	All
Pharmacy Operations	Longitudinal	12 months	Required	All
Research Project	Longitudinal	12 months	Required	All
Pediatrics (General Pediatrics, PICU or NICU)	Rotation	4 weeks	Elective	All
Cardiology	Rotation	4 weeks	Elective**	All
General Medicine	Rotation	4 weeks	Elective**	All
General Medicine/Surgery	Rotation	4 weeks	Elective**	All
Hepatology	Rotation	4 weeks	Elective**	All
Medical Intensive Care Unit	Rotation	4 weeks	Elective**	All
Surgery/Trauma Critical Care	Rotation	4 weeks	Elective**	All
Neurological Critical Care	Rotation	4 weeks	Elective**	All
Cardiovascular Surgery Critical Care	Rotation	4 weeks	Elective**	All
Abdominal Transplant	Rotation	4 weeks	Elective	All
Lung Transplant	Rotation	4 weeks	Elective	All
Heart Transplant / Advanced Heart Failure	Rotation	4 weeks	Elective	All
Emergency Department	Rotation	4 weeks	Elective**	All
Hematology/Oncology	Rotation	4 weeks	Elective	All
Pediatrics/Pediatric Intensive Care Unit	Rotation	4 weeks	Elective	All
Neonatal Intensive Care Unit	Rotation	4 weeks	Elective	All
Transplant Infectious Diseases	Rotation	4 weeks	Elective	All

\*Availability dependent on preceptor's schedule and/or additional clinical commitments

\*\*Residents must complete a minimum of one adult acute care and adult acute care specialty rotation (general medicine, cardiology, general medicine/surgery, or hepatology) and a minimum of one adult critical care and



adult critical care specialty or ED rotation (MICU, SICU, CVICU or Neuro ICU), but may complete additional acute care or critical care rotations as electives.

## **Appendix 2: PGY2 Critical Care Pharmacy Residency Program Overview**

### **Program Description:**

Loyola University Medical Center (LUMC) offers a one-year specialty residency in critical care pharmacy practice beginning the first Monday in July. The LUMC PGY2 critical care pharmacy residency program prepares its graduates to assume positions in critical care areas as a clinical specialist employed by an institution or as a clinical faculty member employed by college of pharmacy. Graduates will be prepared to sit for the Board Certification exam in critical care. LUMC is a university teaching hospital providing the unique capability to engage each of our residents in direct patient care activities, research, administration and project management, and teaching skills.

PGY2 residents will gain the skills to function as the primary ICU pharmacist during their required core ICU rotations, with the expectation that the resident will handle all aspects of the medication process from ordering to administration. Primary responsibilities include rounding with the ICU team(s), designing, recommending, monitoring, and evaluating patient-specific therapeutic regimens that incorporate the principles of evidence-based medicine, addressing all pharmacokinetic-monitored medications, being an active member of the Code Blue team, validating pharmacy orders for ICU patients, and overseeing and directing PGY1 resident and pharmacy student activities. This integration of staffing and clinical services prepares residents for any type of practice environment they may encounter in their future jobs by emphasizing the development of essential skills required for an advanced pharmacy practitioner: independent practice skills, multi-tasking and prioritization.

Teaching activities include regular didactic presentations, preceptorship of PGY1 pharmacy practice residents and fourth-year pharmacy students. The ability to work independently and to supervise pharmacy students and residents will be emphasized. The resident will also be involved in a research project. Scientific writing is strongly emphasized and the preparation and submission of a manuscript suitable for publication will be expected.

### **PGY2 Critical Care Competency Areas, Goals and Objectives (2016 Standard):**

- I. Educational Outcome: broad categories of the residency graduates' capabilities.
  - a. Outcome R1: Patient Care
  - b. Outcome R2: Advancing Practice and Improving Patient Care
  - c. Outcome R3: Leadership and Management
  - d. Outcome R4: Teaching, Education, and Dissemination of Knowledge
- II. Educational Goals: Goals listed under each outcome are broad sweeping statements of abilities.
- III. Educational Objectives: Resident achievement of educational goals is determined by assessment of the resident's ability to perform the associated educational objective below each educational goal.
- IV. The resident is encouraged to read detailed information about each goal at the ASHP website (click on Critical Care Pharmacy [PGY2], 2016)
  - a. <https://www.ashp.org/Professional-Development/Residency-Information/Residency-Program-Directors/Residency-Accreditation/PGY2-Competency-Areas>

### **Obligations of the Pharmacy Residency Program to the PGY2 Critical Care Pharmacy Resident**

- I. This program is a twelve-month, full-time position
- II. The PGY2 Critical Care RPD will ensure that neither the educational outcomes of the program nor the welfare of the resident or the welfare of patients are compromised by excessive reliance on residents to fulfill service obligations.
- III. This program will comply with the current duty hour standards of the Pharmacy Specific Duty Hours Requirements for the ASHP Accreditation Standard for Pharmacy Residencies
- IV. This residency program will participate in and adhere to the rules of the RMP
- V. The RPD will provide PGY2 critical care residents who are accepted into the program with a letter outlining their acceptance to the program.
  - a. Letter will contain terms and conditions of the appointment consistent with that provided to pharmacists within the organization conducting the residency
  - b. Will be signed and documented prior to the beginning of the residency
- VI. Loyola will provide a sufficient complement of professional and technical pharmacy staff to ensure appropriate supervision and preceptor guidance to all residents.
- VII. PGY2 critical care residents will have a desk and computer where they can work, access to extramural educational opportunities (e.g., Midyear Clinical Meeting, the Society of Critical Care Medicine Congress), and sufficient financial support to fulfill the responsibilities of the program.

- VIII. The RPD will award a certificate of residency to PGY2 critical care residents who successfully complete the program (see PGY2 Critical Care Pharmacy Residency Certificate section)
  - a. Will contain ASHP accreditation status
  - b. Will be signed by the RPD and the Loyola Chief Executive Officer
- IX. The RPD will ensure compliance with the provisions of the current version of the ASHP Regulations on Accreditation of Pharmacy Residencies

<b>Important Dates</b>	<b>Deliverable</b>
July 1	Recommended deadline for taking MPJE
August 1	Committee Preferences ranking due Establish schedule for Code blue/code stroke pager coverage Research Project and MUE topics due Society of Critical Care Medicine (SCCM) Congress abstract deadline
August 15	CE Seminar topic due
September	See Research Committee Deadlines 120 days after start date: Licensure deadline
November 20	ASHP Midyear Poster due to printer (approximate, 2 weeks prior to leave for Midyear)
First week of December	ASHP Midyear Clinical Meeting
December	TLC portfolio complete (if completing TLC at Loyola)
January-February	SCCM Congress
February 1	Case Conference topic due Pharmacy Residency Research Conference abstracts due
April 10	Pharmacy Residency Research Conference presentation due
May 2024	Pharmacy Residency Research Conference
June 1	First draft Research Project Manuscript due
Third Monday in June	Research Project Manuscript due (or prior to graduation ceremony, whichever is earlier) Writing Assignment Manuscript due

### PGY-2 Critical Care Residency Requirements Checklist

Task	Date Completed	Preceptor Initial
Pharmacist licensure		
Research Defense Presentation		
SCCM Abstract (~August deadline) optional		
Committee Choice		
Formal Patient Case Presentations (2)		
Inservice presentations (2)		
Formal Journal Clubs (2)		
Seminar/CE Presentation		
Critical Care Conference Presentations as assigned		
Medication Use Evaluation		
Presentation of Research or MUE at Midyear, SCCM, or other national meeting		
If presenting at Midyear, Vizient poster presentation		
Residency Research Presentation (present research project)		
Order set, guideline, protocol or initiative implemented		
Teaching and Learning Certificate awarded (PGY1 or complete at Loyola)		
Teaching Certificate Presentation (if TC completed in PGY1)		
Research project		
Manuscript for research project submitted		
PharmAcademic evaluations completed		
Submit ALL final projects to Pharmacademic (virtual binder)		
PGY-2 CC topic list complete, signed, turned in to RPD		
ID badge, pager, keys, etc. returned to RPD		
≥ 75% of objectives ACHR		
Any objectives not ACHR must be SP		

**Signature upon receipt**

**Signature upon completion**

Resident:

Resident:

RPD:

RPD:

### Checklist for LUMC Critical Care PGY2 Pharmacy Resident

The resident will demonstrate an understanding of the mechanism of action, pharmacokinetics, pharmacodynamics, pharmacogenomics, pharmacoeconomics, usual regimen (dose, schedule, form, route, and method of administration), indications, contraindications, interactions, adverse reactions, and therapeutics of medications and non-traditional therapies, where relevant, that are applicable to the diseases and conditions and have the ability to design appropriate treatment regimens and treat and assess outcomes. For some diseases and conditions, direct patient care is required. For other diseases and conditions, a case-based, didactic approach may be substituted. In these cases, the resident will demonstrate understanding of the diseases and condition via didactic instruction, case-based application, simulation, or other appropriate approach. For these diseases and conditions, the resident will demonstrate an understanding of signs and symptoms, epidemiology, risk factors and etiology, pathogenesis, pathophysiology, clinical course, and a comprehensive pharmacotherapy treatment plan. **In the list, an asterisk (\*) indicates that direct patient care is required.** The other items are required but may be covered in the case-based, didactic approach described above.

	Date/Learning experience completed	Format Completed	Initials of preceptor
<b>Pulmonary</b>			
1. *Acute respiratory distress syndrome			
2. *Severe asthma exacerbation			
3. *Acute COPD exacerbation			
4. *Acute pulmonary embolism			
5. *Acute pulmonary hypertension			
6. *Drug-induced pulmonary disease			
7. *Mechanical ventilation			
8. Chronic severe pulmonary hypertension			
9. Pneumothorax and hemothorax			
10. Chest tubes			
11. Cystic fibrosis			
12. Inhaled medication administration			
<b>Cardiovascular</b>			
1. *Advanced cardiac life support			
2. *Arrhythmias (atrial and ventricular)			
3. *Acute decompensated heart failure			
4. *Acute coronary syndromes			
5. *Hypertensive emergencies and urgencies			
6. *Shock syndromes			
7. Acute aortic dissection			
8. Pericardial tamponade			
9. Mechanical devices (e.g., intra-arterial balloon pumps, ECLS, ECMO)			
10. Invasive and non-invasive hemodynamic monitoring			
11. PALS			
<b>Renal</b>			
1. *Acute kidney injury			
2. *Acid-base imbalance			
3. *Fluid and electrolyte disorders			
4. *Contrast-induced nephropathy			

5. *Drug-induced nephropathy			
6. Rhabdomyolysis			
7. Syndrome of inappropriate antidiuretic hormone			
8. Continuous renal replacement therapies/hemodialysis			
<b>Neurology</b>			
1. *Status epilepticus			
2. *Ischemic stroke			
3. *Subarachnoid hemorrhage			
4. *Intracerebral hemorrhage			
5. *Critical illness polyneuropathy			
6. Intracranial pressure management			
7. Traumatic brain injury			
8. Spinal cord injury			
9. Central diabetes insipidus			
10. Cerebral salt wasting			
11. Encephalopathy in coma			
12. EEG or bispectral monitoring for level of sedation			
13. Ventriculostomies			
14. Targeted temperature management/induced hypothermia			
<b>Gastrointestinal</b>			
1. *Acute upper and lower GI bleeding			
2. *Acute pancreatitis			
3. Fistulas			
4. Ileus			
5. Abdominal compartment syndrome			
<b>Hepatic</b>			
1. *Acute liver failure			
2. *Complications of cirrhosis			
3. *Drug-induced liver toxicity			
<b>Dermatology</b>			
1. Burns			
2. Stevens-Johnson Syndrome			
3. Toxic epidermal necrolysis			
4. Erythema multiforme			
5. Drug Reaction (or Rash) with Eosinophilia and Systemic Symptoms (DRESS)			
<b>Immunology</b>			
1. Acute transplant rejection			
2. Graft-versus-host disease			
3. Management of the immunocompromised patient			
4. Acute management of a solid organ or bone marrow transplant patient			
5. Medication allergies/desensitization			
<b>Endocrine</b>			



1. *Relative adrenal insufficiency			
2. *Hyperglycemic crisis			
3. *Glycemic control			
4. Thyroid storm/ICU hypothyroid states			
<b>Hematology</b>			
1. *Acute venothromboembolism			
2. *Coagulopathies			
3. *Drug-induced thrombocytopenia			
4. *Blood loss and blood component replacement			
5. Anemia of critical illness			
6. Drug-induced hematologic disorders			
7. Sickle cell crisis			
8. Methemoglobinemia			
<b>Toxicology</b>			
1. *Toxidromes			
2. *Withdrawal syndromes			
3. Drug overdose			
4. Antidotes/decontamination strategies			
<b>Infectious Diseases</b>			
1. *CNS infections			
2. *Complicated intra-abdominal infections			
3. *Pneumonia			
4. *Endocarditis			
5. *Sepsis			
6. *Fever			
7. *Antimicrobial stewardship			
8. *Clostridium difficile associated diarrhea			
9. Skin and soft-tissue infection			
10. Urinary tract infections			
11. Wound infections			
12. Catheter-related infections			
13. Infections in the immunocompromised host			
14. Pandemic diseases			
15. Febrile neutropenia			
16. Acute osteomyelitis			
<b>Supportive Care</b>			
1. *Pharmacokinetic and pharmacodynamic alterations in critically ill			
2. *Nutrition (enteral, parenteral nutrition, considerations in special populations)			
3. *Analgesia			
4. *Sedation			
5. *Delirium			
6. *Sleep disturbances			
7. *Rapid sequence intubations			

8. *Venous thromboembolism prophylaxis			
9. *Stress ulcer prophylaxis			
10. Pharmacogenomic implications			
11. Oncologic emergencies			
12. Other devices			
1. Intravascular devices			
2. Peripheral nerve stimulators			
3. IV pumps related topics			

The resident will be able to describe key landmark events in the evolution of critical care pharmacy as a specialty and summarize the findings from key studies documenting the association of critical care pharmacy services with favorable health care outcomes.

\_\_\_\_\_  
**Resident Signature**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Program Director Signature**

\_\_\_\_\_  
**Date**

## Appendix 3: PGY2 Solid Organ Transplant Pharmacy Residency Program Overview

Loyola University Medical Center (LUMC) offers a one-year specialty residency in solid organ transplant pharmacy practice beginning the first Monday in July.

### **Program Description:**

The LUMC PGY2 Solid Organ Transplant pharmacy residency program prepares its graduates to assume positions in solid organ transplant areas as a clinical specialist employed by an institution or as a clinical faculty member employed by college of pharmacy. LUMC is a university teaching hospital providing the unique capability to engage each of our residents in direct patient care activities, research, administration and project management, and teaching skills.

PGY2 residents will gain the skills to function as the primary transplant pharmacist during their required core rotations, with the expectation that the resident will handle all aspects of the medication process from ordering to administration. Primary responsibilities include rounding with the transplant team(s), designing, recommending, monitoring, and evaluating patient-specific therapeutic regimens that incorporate the principles of evidence-based medicine, addressing all pharmacokinetic-monitored medications, being an active member of the Multidisciplinary Review Boards (MRBs) and Quality Assessment/Process Improvement (QAPI) meetings, validating pharmacy orders for transplant patients, and overseeing and directing PGY1 resident and pharmacy student activities. This integration of staffing and clinical services prepares residents for any type of practice environment they may encounter in their future jobs by emphasizing the development of essential skills required for an advanced pharmacy practitioner: independent practice skills, multi-tasking and prioritization.

Teaching activities include regular didactic presentations, lung transplant immunosuppression presentation to patients, hepatology/nephrology fellows conference presentation, leading noon report for PGY1 pharmacy residents and students (as warranted), and clerkship preceptorship of PGY1 pharmacy practice residents and third/fourth-year pharmacy students. The ability to work independently and to supervise pharmacy students and residents will be emphasized. The resident will also be involved in a research and writing project. Scientific writing is strongly emphasized and the preparation and submission of a manuscript suitable for publication will be expected.

### **PGY2 Solid Organ Transplant Competency Areas, Goals and Objectives (2018 Standard):**

- Educational Outcome: broad categories of the residency graduates' capabilities.
  - Outcome R1: Patient Care
  - Outcome R2: Advancing Practice and Improving Patient Care
  - Outcome R3: Leadership and Management
  - Outcome R4: Teaching, Education, and Dissemination of Knowledge
- Educational Goals: Goals listed under each outcome are broad sweeping statements of abilities.
- Educational Objectives: Resident achievement of educational goals is determined by assessment of the resident's ability to perform the associated educational objective below each educational goal.
- The resident is encouraged to read detailed information about each goal at the ASHP website (click on Solid Organ Transplant Pharmacy [PGY2], 2018)

- <https://www.ashp.org/Professional-Development/Residency-Information/Residency-Program-Directors/Residency-Accreditation/PGY2-Competency-Areas>

## **Obligations of the Pharmacy Residency Program to the PGY2 Solid Organ Transplant Pharmacy Resident**

- This program is a twelve-month, full time position
- The PGY2 Solid Organ Transplant RPD will ensure that neither the educational outcomes of the program nor the welfare of the resident or the welfare of patients are compromised by excessive reliance on residents to fulfill service obligations.
- This program will comply with the current duty hour standards of the Pharmacy Specific Duty Hours Requirements for the ASHP Accreditation Standard for Pharmacy Residencies.
- This residency program will participate in and adhere to the rules of the RMP.
- The RPD will provide PGY2 solid organ transplant residents who are accepted into the program with a letter outlining their acceptance to the program.
  - Letter will contain terms and conditions of the appointment consistent with that provided to pharmacists within the organization conducting the residency.
  - Letter will be signed and documented prior to the beginning of the residency.
- Loyola will provide a sufficient complement of professional and technical pharmacy staff to ensure appropriate supervision and preceptor guidance to all residents.
- PGY2 solid organ transplant residents will have a desk and computer where they can work, access to extramural educational opportunities (e.g., Transplant Fellows Symposium, Midyear Clinical Meeting, the American Transplant Congress), and sufficient financial support to fulfill the responsibilities of the program.
- The RPD will award a certificate of residency to PGY2 solid organ transplant residents who successfully complete the program (see PGY2 Solid Organ Transplant Pharmacy Residency Certificate section).
  - The residency certificate will be signed by the RPD and the Loyola chief executive officer.
- The RPD will ensure compliance with the provisions of the current version of the ASHP Regulations on Accreditation of Pharmacy Residencies

## **Weekly Meetings**

The PGY2 transplant pharmacy resident will participate in a weekly resident-driven meeting where the resident will have the opportunity to learn from preceptors and teach students, pharmacy/medical residents and transplant colleagues. The meeting may be in the format of a topic discussion, journal club, or case review. A tentative calendar will be provided; however, the resident will have input based on their perceived educational needs.

➤ **Required Presentations (PGY1 and PGY2 unless otherwise noted):**

- 1 Formal journal club presentation (25-30 minutes) (August/September) (PGY1 only)
  - Topic and preceptor chosen by August 1
- 1 ACPE-approved CE seminar (October/November)
  - Topic and preceptor chosen by August 15
- Case conference (May/June) (PGY1)
  - Topic and preceptor chosen by February 1
- Case presentation at Illinois Transplant Pharmacists Association (October/November) (PGY2 SOT only)
- Medication Use Evaluation (MUE) (presented as a poster at ASHP Midyear Clinical Meeting and to the P&T Committee -
  - Topic and preceptor chosen by August 1
  - Poster presentation required for PGY1, PGY2 CC
- Drug monograph (presented to the P&T Committee) (PGY1 and PGY2 residents may complete as applicable)
  - Assigned by the RPD (timing variable)
- Platform presentation of Research Project at Pharmacy Resident Research Conference in April (PGY1 and PGY2 CC)
  - Topic and preceptor chosen by August 1
  - Required practice session for preceptors and co-residents prior to conference
- Platform presentation of research project at Illinois Transplant Pharmacists Association PGY2 Resident Research Showcase (PGY2 SOT only)
- 2-4 Journal clubs (PGY1 and PGY2)
- 2 In-service presentations to medical staff (i.e. nurses, physicians, etc.) (PGY1 and PGY2)
- 1 new or revised policy, order set, or guideline (presented to Clinical Pharmacy Committee, P&T, or Order Set Committee)

### PGY2 Solid Organ Transplant Pharmacy Residency Required and Elective Learning Experiences

Learning Experience	Type*	Duration	Quarter(s) Offered**
Orientation	Required	4 weeks	1 <sup>st</sup>
Abdominal Transplant (inpatient)	Required	4 weeks	1 <sup>st</sup>
Hepatology	Required	4 weeks	All
Abdominal Transplant Clinic	Required	4 weeks	All
Lung Transplant	Required	4 weeks	All
Heart Transplant/Advanced Heart Failure	Required	4 weeks	All
Transplant Infectious Diseases	Required	4 weeks	All
Project Rotation	Required	4 weeks	December
Pharmacy Operations	Required, Longitudinal	12 months	All
Research Project	Required, Longitudinal	12 months	ALL
Pharmacy Improvement	Required, Longitudinal	12 months	All
Advanced Abdominal Transplant	Elective	4 weeks	3 <sup>rd</sup> , 4 <sup>th</sup>
Advanced Lung Transplant	Elective	4 weeks	All
Advanced Heart Transplant/Advanced Heart Failure	Elective	4 weeks	3 <sup>rd</sup> , 4 <sup>th</sup>
Advanced Abdominal Transplant Clinic	Elective	4 weeks	3 <sup>rd</sup> , 4 <sup>th</sup>
Surgery/Trauma Critical Care	Elective	4 weeks	3 <sup>rd</sup> , 4 <sup>th</sup>
Cardiovascular Surgery Critical Care	Elective	4 weeks	3 <sup>rd</sup> , 4 <sup>th</sup>
Medical Intensive Care Unit	Elective	4 weeks	3 <sup>rd</sup> , 4 <sup>th</sup>
Pediatric Transplant	Elective	4 weeks	3 <sup>rd</sup> , 4 <sup>th</sup>
Teaching Certificate Program (as needed)	Longitudinal	12 months	All

\* At least two required direct patient care rotations must be repeated

\*\*Availability dependent on preceptor's schedule and/or additional clinical commitments

### Checklist for LUMC PGY2 Solid Organ Transplant Pharmacy Resident

The resident will demonstrate an understanding of the mechanism of action, pharmacokinetics, pharmacodynamics, pharmacogenomics, pharmacoeconomics, usual regimen (dose, schedule, form, route, and method of administration), indications, contraindications, interactions, adverse reactions, and therapeutics of medications and non-traditional therapies, where relevant, that are applicable to the diseases and conditions and have the ability to design appropriate treatment regimens and treat and assess outcomes. For some diseases and conditions, direct patient care is required. For other diseases and conditions, a case-based, didactic approach may be substituted. In these cases, the resident will demonstrate understanding of the diseases and condition via didactic instruction, case-based application, simulation, or other appropriate approach. For these diseases and conditions, the resident will demonstrate an understanding of signs and symptoms, epidemiology, risk factors and etiology, pathogenesis, pathophysiology, clinical course, and a comprehensive pharmacotherapy treatment plan. **In the list, an asterisk (\*) indicates that direct patient care is required.** The other items are required but may be covered in the case-based, didactic approach described above.

	Date/Learning experience completed	Format Completed	Initials of preceptor
<b>Transplant Overview</b>			
1. History of solid organ transplant and associated outcomes			
2. Basics of transplant immunology			
<b>Diseases or conditions that are an indication for transplantation</b>			
1. *Kidney transplantation			
2. *Pancreas and/or islet cell transplantation			
3. *Liver transplantation			
4. Intestinal transplantation			
5. *Heart transplantation			
6. *Lung transplantation			
<b>Pre-transplant phase</b>			
1. *Pre-transplant evaluation review (in person or chart review)			
2. Contraindications to transplant (relative and absolute)			
3. Sensitizing factors			
4. Considerations for induction and maintenance immunosuppression			
5. Immunizations			
6. Care of patients with end-stage organ disease (e.g. cystic fibrosis, complications of cirrhosis, mechanical circulatory devices)			
<b>Peri-operative phase</b>			
1. Basics of transplant surgical procedure			
2. Organ procurement			
3. Preservation process			
<b>Pre- and intra-operative transplant pharmacologic considerations</b>			
1. *Induction considerations			
2. Desensitization strategies			
3. ABO-incompatible transplant strategies			
4. Induction types: <ul style="list-style-type: none"> <li>• Lymphocyte depleting</li> <li>• Non-lymphocyte depleting</li> </ul>			

Post-transplant pharmacologic considerations			
1. *Maintenance immunosuppression/immunomodulation considerations			
2. Maintenance immunosuppression strategies <ul style="list-style-type: none"> <li>• Antimetabolites</li> <li>• Calcineurin inhibitors and minimization</li> <li>• Corticosteroids and avoidance/withdrawal/minimization</li> <li>• Costimulation inhibitors</li> <li>• mTOR inhibitors</li> </ul>			
Rejection and treatment strategies			
1. *Acute cellular rejection			
2. *Acute antibody mediated rejection			
3. Chronic rejection			
Infection considerations			
1. *Infection prophylaxis, monitoring and treatment strategies			
2. *Surgical infectious prophylaxis			
3. Adenovirus			
4. BK polyomavirus nephropathy and screening and treatment			
5. Central venous catheter infections and treatment options			
6. CMV and EBV			
7. Fungus (e.g <i>Candida sp.</i> , <i>Aspergillus sp.</i> , <i>Endemic fungi</i> )			
8. Hepatitis B virus prophylaxis and treatment			
9. Hepatitis C virus treatment			
10. Herpes simplex and zoster			
11. Human immunodeficiency virus			
12. Immunizations post-transplant			
13. Infectious exposure management <ul style="list-style-type: none"> <li>• Measles</li> <li>• Varicella</li> </ul>			
14. Mycobacteria			
15. Nocardia			
16. Parasites			
17. Parvovirus B19			
18. Pneumocystis pneumonia			
19. Sepsis			
20. Tuberculosis			
21. Urinary tract infections/pyelonephritis			
Post-transplant malignancy considerations			
1. Post-transplant lymphoproliferative disease (PTLD)			
2. Risk of new malignancy or recurrent malignancy			
Other post-transplant medical considerations			
1. Management of pregnancy in transplantation			
2. Cardiovascular (e.g. cardiovascular risk management, congestive heart failure (CHF),			



coronary artery disease (CAD), hemodynamic conditions, hyperlipidemia, hypertension)			
3. Endocrine (e.g. Post-transplant diabetes mellitus (PTDM), metabolic diseases (metabolic syndrome), hyperparathyroidism, osteoporosis/bone disease, gout, pancreatitis, pediatric growth impairment)			
4. Gastrointestinal (e.g. malnutrition/anorexia/nausea/vomiting/diarrhea, eosinophilic esophagitis)			
5. Hematologic (e.g. bone marrow suppression (leukopenia, anemia, thrombocytopenia), post-transplant erythrocytosis (PTE))			
6. Hepatic (e.g. biliary complications and management, hepatotoxicity)			
7. Neurological (e.g. Calcineurin inhibitor neurotoxicity, depression, headache, neurogenic bladder)			
8. Pulmonary (e.g. Bronchiolitis obliterans organizing pneumonia (BOOP), interstitial pneumonitis, pulmonary edema)			
9. Renal (e.g. acute tubular necrosis (ATN), calcineurin inhibitor nephrotoxicity, dehydration, electrolyte imbalances, hemolytic uremic syndrome/thrombotic thrombocytopenic purpura, proteinuria, renal tubular acidosis)			
10. Surgical/technical complications (e.g. bleeding, hydronephrosis, ischemia/reperfusion injury, lymphocele, obstruction/leak, pain, primary graft non-function, technical graft loss, thrombosis prophylaxis and treatment)			
<b>Psychosocial concerns</b>			
1. Nonadherence <ul style="list-style-type: none"> <li>• Consequences of nonadherence</li> <li>• Factors impacting nonadherence</li> <li>• Strategies to improve nonadherence</li> </ul>			
2. Pediatric to adult transition of care			
3. Medication and medical access <ul style="list-style-type: none"> <li>• Private vs. public</li> <li>• Patient assistance programs</li> </ul>			
<b>Transplant regulations and quality</b>			
1. UNOS/Organ Procurement and Transplantation Network regulations			
2. Centers for Medicare and Medicaid Services regulations			
3. Risk Evaluation and Mitigation Strategies			
4. Organ allocation			
5. Medication distribution programs			

The resident will be able to describe key landmark events in the evolution of solid organ transplant pharmacy as a specialty and summarize the findings from key studies documenting the association of transplant pharmacy services with favorable health care outcomes.

---

**Resident Signature**

---

**Date**

---

**Program Director Signature**

---

**Date**

## **Appendix 4: PGY2 Infectious Diseases Pharmacy Residency Program Overview**

### **Program Description:**

Loyola University Medical Center (LUMC) offers a one-year specialty residency in infectious diseases pharmacy practice beginning the first Monday in July. The LUMC PGY2 infectious diseases pharmacy residency program prepares its graduates to assume positions in infectious diseases and antimicrobial stewardship as a clinical specialist employed by an institution or as a clinical faculty member employed by a college of pharmacy. Graduates will be prepared to sit for the Board Certification exam in infectious diseases (BCIDP). LUMC is a university teaching hospital providing the unique capability to engage each of our residents in direct patient care activities, research, administration and project management, and teaching skills.

The PGY2 ID resident will gain the skills to function as an independent infectious diseases and antimicrobial stewardship pharmacist during their required core rotations. The resident will manage ID pharmacotherapy for a variety of medical and surgical inpatients, including critically ill and immunocompromised populations. Antimicrobial stewardship training will allow an opportunity for the resident to develop leadership skills and collaborate with multiple disciplines on quality improvement initiatives, guideline development, and education, while also promoting safe and effective use of antimicrobials. LUMC is designated as an Antimicrobial Stewardship Center of Excellence, which the PGY2 ID resident will make meaningful contributions towards the continued success of the program. As a member of the infectious diseases consult service, the resident will develop communication skills to effectively convey recommendations and facilitate the implementation of said recommendations in conjunction with bedside pharmacists throughout the hospital. Additional rotations will broaden the residents' perspective on clinically complex patients and provide foundational experiences in microbiology and infection control.

Teaching activities include didactic presentations for the infectious diseases medical fellows, preceptorship of PGY1 pharmacy residents and fourth year pharmacy students. The ability to work independently and to supervise pharmacy residents and students will be emphasized, particularly in the latter half of the residency year. The resident will also complete a research project and formal medication use evaluation. Scientific writing is strongly emphasized and the preparation and submission of a manuscript suitable for publication will be expected.

### **PGY2 Infectious Diseases Competency Areas, Goals, and Objectives (2017 standards)**

- Educational Outcome: broad categories of the residency graduates' capabilities.
  - Outcome R1: Patient Care
  - Outcome R2: Advancing Practice and Improving Patient Care
  - Outcome R3: Leadership and Management
  - Outcome R4: Teaching, Education, and Dissemination of Knowledge
- Educational Goals: Goals listed under each outcome are broad sweeping statements of abilities.
- Educational Objectives: Resident achievement of educational goals is determined by assessment of the resident's ability to perform the associated educational objective below each educational goal.

### **Obligations of the Pharmacy Residency Program to the PGY2 Infectious Diseases Pharmacy Resident**

- I. The program is a twelve-month, full-time position
- II. The PGY2 Infectious Diseases RPD will ensure that neither the educational outcomes of the program nor the welfare of the resident or the welfare of patients are compromised by excessive reliance on residents to fulfill service obligations
- III. This program will comply with the current duty hour standards of the Pharmacy Specific Duty Hours Requirements for the ASHP Accreditation Standard for Pharmacy Residencies
- IV. This residency program will participate in and adhere to the rules of the RMP
- V. The RPD will provide PGY2 infectious diseases pharmacy residents who are accepted into the program with a letter outlining their acceptance to the program
  - a. Letter will contain terms and conditions of the appointment consistent with that provided to pharmacists within the organization conducting the residency
  - b. Will be signed and documented prior to the beginning of the residency
- VI. Loyola will provide a sufficient complement of professional and technical pharmacy staff to ensure appropriate supervision and preceptor guidance to all residents
- VII. PGY2 infectious diseases residents will have a desk and computer where they can work, access to extramural educational opportunities (e.g., Midyear Clinical Meeting, IDWeek / SIDP Annual Meeting or MAD-ID), and sufficient financial support to fulfill the responsibilities of the program

- VIII. The RPD will award a certificate of residency to PGY2 infectious diseases residents who successfully complete the program (see PGY2 Infectious Diseases Pharmacy Residency Certificate section)
- a. Will contain ASHP accreditation status
  - b. Will be signed by the RPD and the Loyola Chief Executive Officer
- IX. The RPD will ensure compliance with the provisions of the current version of the ASHP Regulations on Accreditation of Pharmacy Residencies

<b>Important Dates</b>	<b>Deliverable</b>
July 1	Recommended deadline for taking MPJE
August 1	Research project and MUE topic selection due
August 15	CE seminar topic due
September	See Research Committee Deadlines 120 days after start date: licensure deadline
October	SIDP Annual Meeting / IDWeek (if applicable)
November 20	ASHP Midyear Poster due to printer (approximate, 2 weeks prior to date of departure for Midyear)
December	ASHP Midyear Clinical Meeting TLC portfolio complete (if completing TLC at Loyola)
February 1	Case Conference topic due Pharmacy Residency Research Conference abstracts due
April	MAD-ID abstract due (if applicable) Pharmacy Residency Research Conference presentation due
May	Pharmacy Residency Research Conference MAD-ID Annual Meeting (if applicable)
June 1	First draft of research manuscript due
3 <sup>rd</sup> Monday in June	Research manuscript due (or prior to graduation ceremony, whichever is earlier) Writing project manuscript due

## **PGY2 Infectious Diseases Pharmacy Residency Requirements Checklist**

Task	Date Completed	Preceptor Initial
Sign this checklist to confirm receipt		
Signed offer letter		
Initial self assessment (Pharmacademic)		
Copy provided of PGY1 certificate		
Pharmacist Licensure		
Research Defense Presentation		
Committee designation (Local ASP or Regional ASP)		
Formal Patient Case Presentations (2)		
Formal Journal Clubs (2)		
CE Seminar Presentation		
ID Conference Presentations as assigned		
Medication use evaluation		
MUE Poster Presentation (Midyear/Vizient)		
Research Poster Presentation (MAD-ID) (if not presenting PGY1 research at IDWeek)		
GLPRC / ILPRC Research Presentation		
Order set, guideline, protocol, or other initiative implemented		
Teaching and Learning Certificate (if not completed during PGY1)		
Research Project		
Research Manuscript (appropriate for submission to journal)		
Writing Project (appropriate for submission to journal)		
PharmAcademic Evaluations Completed		
PGY2 ID Topic List and Experience List Completed, Signed, Submitted to RPD		
Updated curriculum vitae		
Submit ALL final projects to Pharmacadaemic		
ID Badge, Pager, Keys, etc Returned to RPD		
≥ 75% of objectives achieved for residency and receipt of a minimum of "satisfactory progress" on all objective not marked as "achieved for residency"		
Final program summative evaluation completed based on previous summative evaluations (quarterly evaluations, rotation summative evaluations, etc.) by the RPD		
Satisfactory completion of all rotations as determined by the primary preceptor for each rotation		
Any objectives not ACHR must be 'satisfactory progress'		

Signature Upon Receipt:

Signature Upon Completion:

Resident: \_\_\_\_\_

Resident: \_\_\_\_\_

RPD: \_\_\_\_\_

RPD: \_\_\_\_\_

## PGY2 ID Topic Discussion List

Task	Date Completed	Preceptor Initial
Bone and joint infections*		
Cardiovascular infections / Endocarditis*		
Central nervous system infections*		
Fever of unknown origin		
Fungal infections*		
• Invasive candidiasis		
• Dimorphic fungi		
• Aspergillosis		
• Mucormycosis		
Gastrointestinal infections, including <i>C. difficile</i> infections*		
Hepatitis B		
Hepatitis C		
HIV infections and AIDS		
Intra-abdominal infections*		
Neutropenic fever*		
Ophthalmologic infections		
Opportunistic infections in immunocompromised hosts*		
• PJP		
• Toxoplasmosis		
• Nocardia		
Parasitic infections		
Reproductive organ infections		
Respiratory infections: upper and lower*		
Rickettsial infections		
Sepsis*		
Sexually transmitted diseases		
Skin and soft tissue infections*		
Tuberculosis and other mycobacterial infections		
Travel medicine		
Urologic infections*		
Viral infections*		
• HSV		
• VZV		
• CMV		
• Adenovirus		
• EBV		
• BK virus		
• Parvovirus		

For learning experiences requiring direct patient care, the resident will document estimated number of encounters in the Patient Care Experience tracker.

## PGY2 Infectious Diseases Pharmacy Residency Required and Elective Learning Experiences

Learning Experience	Duration
<b>Required Rotations</b>	
• Orientation	4 weeks
• Antimicrobial Stewardship I	4 weeks
• Antimicrobial Stewardship II	4 weeks
• General Infectious Diseases Consults I	4 weeks
• General Infectious Diseases Consults II	4 weeks
• Transplant Infectious Diseases I	4 weeks
• Microbiology	4 weeks
• Infection Prevention and Control	2 weeks
• Research / Projects	4 weeks
<b>Elective Rotations</b>	
• Pediatric Infectious Diseases	4 weeks
• HIV Clinic (offsite)	4 weeks
• Community Hospital Antimicrobial Stewardship	4 weeks
• Transplant Infectious Diseases II	4 weeks
• Abdominal Transplant	4 weeks
• Lung Transplant	4 weeks
• Heart Transplant / Advanced Heart Failure	4 weeks
• Hematology / Oncology Consults	4 weeks
• Bone Marrow Transplant	4 weeks
• Medical ICU	4 weeks
• Surgery/Trauma ICU	4 weeks
• Neurosciences ICU	4 weeks
• Burn ICU	4 weeks
• Cardiovascular ICU	4 weeks
• Emergency Department	4 weeks
• Informatics	4 weeks
• Medication Safety	4 weeks
<b>Longitudinal Experiences</b>	
• Outpatient Parenteral Antimicrobial Therapy (OPAT)	Longitudinal
• Research Project	Longitudinal
• Medication Use Evaluation	Longitudinal
• Order set, guideline, or protocol development	Longitudinal
• Teaching Certificate (if not completed during PGY1)	Longitudinal
• Clinical and Central Operations Weekend Staffing	Longitudinal, every 3 <sup>rd</sup> weekend
• Longitudinal Clinic / Outpatient Parenteral Antimicrobial Therapy	Longitudinal
• Antimicrobial Stewardship Committee Co-Chair	Longitudinal
• CE Seminar Presentation	Longitudinal
• Writing Project	Longitudinal

## Appendix 5: Duty Hour Requirements

### **Definitions:**

**Duty Hours:** Duty hours are defined as all scheduled clinical and academic activities related to the pharmacy residency program. This includes inpatient and outpatient care; in-house call; administrative duties; and scheduled and assigned activities, such as conferences, committee meetings, and health fairs that are required to meet the goals and objectives of the residency program. Duty hours must be addressed by a well-documented, structured process. Duty hours do not include reading, studying, and academic preparation time for presentations and journal clubs; travel time to and from conferences; and hours that are not scheduled by the residency program director or a preceptor.

**Scheduled duty periods:** Assigned duties, regardless of setting, that are required to meet the educational goals and objectives of the residency program. These duty periods are usually assigned by the residency program director or preceptor and may encompass hours which may be within the normal workday, beyond the normal workday, or a combination of both.

### **Duty-Hour Requirements:**

Residents, program directors, and preceptors have the professional responsibility to ensure they are fit to provide services that promote patient safety. The residency program director (RPD) must ensure that there is not excessive reliance on residents to fulfill service obligations that do not contribute to the educational value of the residency program or that may compromise their fitness for duty and endanger patient safety. Providing residents with a sound training program must be planned, scheduled and balanced with concerns for patients' safety and residents' well-being. Therefore, programs must comply with the following duty-hour requirements:

- I. Personal and Professional Responsibility for Patient Safety
  - a. Residency program directors must educate residents and preceptors about their professional responsibilities to be appropriately rested and fit for duty to provide services required by patients.
  - b. Residency program directors must educate residents and preceptors to recognize signs of fatigue and sleep deprivation and adopt processes to manage negative effects of fatigue and sleep deprivation to ensure safe patient care and successful learning.
  - c. Residents and preceptors must accept personal and professional responsibility for patient care that supersedes self-interest. At times, it may be in the best interest of patients to transition care to another qualified, rested provider.
  - d. The residency program director must ensure that residents participate in structured handoff processes when they complete their duty hours to facilitate information exchange to maintain continuity-of-care and patient safety.
- II. Maximum Hours of Work per Week and Duty-Free Times
  - a. Duty hours must be limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities and all moonlighting.
  - b. Moonlighting is defined as voluntary, compensated, pharmacy-related work performed outside the organization (external) or within the organization (internal) or at any of the residency's related participating sites. These are compensated hours beyond the residents' salary and are not part of the scheduled duty periods of the residency program.
    - i. External moonlighting outside of LUMC (including but not limited to community pharmacies such as Walgreen's or CVS or other hospital pharmacies) will not be



permitted during the residency period. Internal moonlighting will be permitted as outlined in this section.

- ii. Moonlighting must not interfere with the ability of the resident to achieve the educational goals and objectives of the residency program.
- iii. Pharmacy residents may be allowed to moonlight internally within LUMC by staffing shifts in the LUMC inpatient pharmacy or the outpatient pharmacy provided that this does not interfere with regularly scheduled residency activities including rotation commitments and project commitments. Any unscheduled staffing shifts (e.g. sick call coverage) will be considered moonlighting and will be compensated accordingly. Any internal moonlighting must be approved by the RPD. In addition, the resident must adhere to the following rules regarding “moonlighting”:
  1. The resident must notify the RPD of any planned staffing shifts in writing for approval via email.
  2. Moonlighting may not exceed 8 hours in a given 7-day period.
  3. Moonlighting hours will be counted toward the 80 hour per week maximum (see below).
  4. Moonlighting must not interfere with resident job performance.
  5. If a resident is suspected or found to be impaired due to moonlighting while on scheduled duty hours, the resident will be dismissed for the remainder of the workday and will be required to cease moonlighting activities.
- iv. Mandatory time free of duty: residents must have a minimum of one day in seven days free of duty (when averaged over four weeks). At-home call cannot be assigned on these free days.
- v. Residents should have 10 hours free of duty between scheduled duty and must have at a minimum 8 hours between scheduled duty periods.
- vi. If a program has a 24-hour in-house call program, residents must have at least 14 hours free of duty after the 24 hours of in-house duty.

### III. Maximum Duty-Period Length

- a. Continuous duty periods of residents should not exceed 16 hours. The maximum allowable duty assignment must not exceed 24 hours even with built in strategic napping or other strategies to reduce fatigue and sleep deprivation, with an additional period of up to two hours permitted for transitions of care or educational activities.

## **Appendix 6: Additional Pharmacy Resident Benefits and Services**

### **Miscellaneous Benefits**

---

Loyola provides several benefits to the pharmacy resident other than medical, dental, and vision insurance. Examples include long- and short-term disability, life insurance, retirement savings options, flexible spending accounts, and others. Detailed information on these benefits can be found on HR4U.

### **Family Medical Leave Act**

---

It is the policy of Loyola to grant pharmacy residents family leave in accordance with the Family and Medical Leave Act ("FMLA") of 1993. The intent is to provide pharmacy residents with up to twelve (12) weeks of job protected leave during any twelve (12) month period. To be eligible for leave, a pharmacy resident must have been employed by Loyola for at least twelve months and worked for at least 1250 hours in the twelve months preceding the leave. A pharmacy resident may request FMLA leave to care for an immediate family member (spouse, child, or parent) who has a serious health condition; the birth, adoption, or foster care placement of a child; for his/her own serious health condition; to care for a spouse, child or next of kin with illness or injury incurred in the line of duty while in the Armed Forces, National Guard or Reserves; or due to any qualifying exigency arising out of the fact that a spouse, child or parent is on active duty or has been notified of an impending call or order to active duty in the Armed Forces in support of a contingency operation. Eligibility for and execution of leaves of absence as requested by the resident under FMLA will be as outlined in Trinity Health Human Resources Ministry-Wide Policy No. 1024: Family Medical Leave Act (FMLA) for Non-Military Leave, Policy No. 1027 Elective and Other Leaves of Absence, or Policy No. 1025 FMLA Military Leave, FMLA is unpaid leave, and the resident's standard salary / stipend will be paused while on leave. However, the resident will be required to use available paid time off as outlined in policy while on leave. Salary / stipend will resume upon return to work and will then continue until completion of the program, including any extension needed to fulfill the requirements for graduation from the program.

Pharmacy residents must submit requests for FMLA leave in writing as soon as possible prior to the beginning of leave. The pharmacy resident shall provide the RPD with a copy of the request and contact the FMLA administrator as outlined in policy. Additional information on the FMLA process can be found on the HR4U website. Where applicable, the pharmacy resident must also complete appropriate forms with the Department of Human Resources to continue medical, dental, life insurance and long-term disability coverage during the FMLA leave. If any portion of the resident's leave is unpaid or salary is insufficient to cover the cost of continued benefits, the cost will be collected in arrears upon return to work in accordance with payroll standard procedures. If the FMLA leave exceeds the allowable absence by specific board requirements or causes the resident to miss a key rotation, the pharmacy resident must extend his/her training to complete the requirements and/or rotation.

### **Maternity/Paternity Leave of Absence**

---

It is the policy of Loyola to grant pharmacy residents maternity/paternity leave for the birth, adoption, or foster care placement of a child. In granting maternity/paternity leaves, Loyola will follow the requirements of the Family Medical Leave Act of 1993, as outlined above.

### **Personal Leave of Absence**

---

A pharmacy resident may request a personal leave of absence from the RPD. Requests for leave of absence in the first twelve (12) months of training are limited to situations that would not otherwise be covered by the Family Medical Leave Act (FMLA). Leave of absences for reasons other than this during the first twelve months of training are not allowed. Eligibility for and execution of personal leaves of absence will be as outlined in Trinity Health Human Resources Ministry-Wide Policy No. 1027: Elective and Other Leaves of Absence (Non-FMLA and Non-Military).

To begin the process, the pharmacy resident must submit a written request to the program director at least 30 days prior to the beginning of the leave (except in case of emergency) that contains the reason(s) for the leave and anticipated beginning and return dates. Confidentiality as to the reason for the leave shall be respected when requested and as outlined in policy. The resident shall then contact the FMLA leave administrator and complete any required steps as outlined in policy and by the administrator.

A leave of absence should not exceed eight weeks. Benefits coverage is continued during leave under the conditions specified in policy. A pharmacy resident must first use available paid time off. Once available paid time off is exhausted, subsequent leave will be unpaid. The cost to continue benefits during this time will be collected in arrears, as applicable and in accordance with payroll standard procedures.

A pharmacy resident may be required to extend the training period for any dates of absence in excess of allowable paid time off. During the extension, the pharmacy resident will receive regular salary and benefits except for paid time off allowance.

### **Bereavement**

---

The pharmacy resident may take up to three workdays off with pay as a bereavement leave benefit, in the event of the death of an immediate family member, parent's loss of a pregnancy, or as otherwise outlined in policy. Days do not need to be taken consecutively. Implementation of this benefit is as outlined in the current Trinity Health Human Resources Ministry-Wide Policy No. 1015: Bereavement Leave Benefit.

### **Jury Duty**

---

Loyola supports a pharmacy resident's civic duty and responsibility to serve on a jury and will follow Trinity Health Human Resources Ministry-Wide Policy No. 1018: Jury Duty Benefit. When a pharmacy resident is selected for jury duty, they should notify the RPD immediately. Jury duty does not affect continuous stipends or benefits.

### **Parking**

---

Loyola pharmacy residents are required to park their vehicles in designated parking areas. Pharmacy residents are not permitted to park in areas designated for patient and visitor use (unless authorization is first granted by the Parking Office).

All parking lot assignments are made by the Parking Office. Parking fees are the responsibility of the pharmacy resident. Fees will be assessed in accordance with the Parking Department's standard fee schedule.

All penalties for violation of parking assignments will be the responsibility of the pharmacy resident.

Pharmacy residents reporting after hours for emergency call-in/special assignment may request that an officer accompany them to their parking space and escort them back to the hospital.

### **Employee Assistance Program**

---

Loyola provides the Employee Assistance Program (EAP) as a confidential way to aid individuals experiencing personal problems that may benefit from professional help. EAP is one of the ways that Loyola demonstrates its commitment to and investment in its colleagues, and there is no charge for the services provided directly by EAP.

Some of the mental well-being issues the EAP handles include marital concerns, family conflict, alcohol/drug abuse, emotional difficulties, and job stress. The service provides free assessment and short-term counseling when appropriate. In addition, every effort is made to locate local referral resources that will provide affordable services to Loyola employees and residents. In addition to mental well-being support, resources are available for emotional, spiritual, physical, financial, social, and vocational needs. Detailed information on available services and how to access them is available through HR4U and on SharePoint.

### **Loyola University Center for Health and Fitness**

---

Membership for the Loyola athletic/recreational facilities is an annual fee for all LUC and LUMC faculty and staff. These fees may be paid through payroll deductions. For further information, contact the Center for Health and Fitness at 327.2348.

### **Workers' Compensation**

---

Pharmacy residents are covered by Workers' Compensation for any work-related injury, illness, or exposure incurred on the job while performing regular duties. Occupational injuries, illnesses, and exposures are defined as those that arise out of and in the course and scope of your employment. Workers Compensation covers hospital expenses, medical expenses and provides Temporary Total Disability income for occupational injuries, illnesses, and exposures. All pharmacy residents are eligible for this coverage from the first day of residency.

Injuries or accidents that occur while traveling to and from work or when moonlighting are not covered.

***If a pharmacy resident is injured at work, he/she MUST get medical help immediately at the current facility.*** During the day, he/she must go to Employee Health. When Employee Health is closed, injured pharmacy residents should be seen in the emergency room. The pharmacy resident must report the injury to Loyola University Medical Center Employee Health Office within 24 hours. If off-hours, contact Employee Health by leaving a message including resident's name and pager number.

If a pharmacy resident receives medical attention for an occupational injury, illness, or exposure and receives a bill for those services, it is the pharmacy resident's responsibility to send the bill to the Workers' Compensation Coordinator in Human Resources. Any follow-up medical care **MUST** be coordinated through Employee Health and be provided through the Worker's Compensation program. Although the resident is not obligated to receive continued treatment at this institution, benefits may be delayed or denied if his/her physician does not furnish information on a timely basis to Loyola's Employee Health Office.

Failure to follow the above procedures may result in rejection of Workers' Compensation claim and denial of any future claims for that particular incident.

Any injury, illness, or exposure incurred as a result of activities directly related to assignment should be reported by completing an incident report online and promptly contacting the Employee Health Office. If you have any questions, call Employee Health at 708-216-3400.

### **Education Assistance Benefit**

---

Loyola pharmacy residents who meet eligibility requirements in accordance with policy may qualify for tuition assistance. Pharmacy residents interested in such benefits can refer to Trinity Health Human Resources Operating Policy No. 480: Tuition Reimbursement for additional information.

Loyola is required to report the amount of tuition credited on behalf of employees and their dependents as taxable earnings to the employee in accordance with Internal Revenue Service (IRS) requirements and tax regulations.