

The following is a list of the experiences for the acute care program . It is important to note that the RLS goals and objectives differ between the two pharmacy practices, acute and ambulatory. It is also important to note that while these are the current rotations in existence as long as a resident has a desire and the site can conduct a new rotation while other rotations may be added after discussion with the residency program director.

Experience	Required or Elective	Block or Longitudinal	Length in weeks	Site	Preceptor
Academia	Required	Longitudinal	54	FMC,Hospital, Universities	Ed Battjes, Lisa Ribble
Administration	Required	Longitudinal	54	Hospital	Jason Jablonski
Advanced Adult General Medicine	Required	Block	3	Hospital	Lisa Ribble
Ambulatory Pharmacotherapy	Required	Block	4	FMC	Ed Sheridan, Ed Battjes
Critical Care- Introduction	Required	Block	2	Hospital	Tony Patterson
Critical Care- Focus	Required	Block	4	Hospital	Laura Gillespie
Longitudinal Patient Care (includes staffing and Nutrition Support)	Required	Longitudinal	26	Hospital	Lisa Ribble, Laura Gillespie, Tony Patterson, Brittany Spiller, Linda Lim
NICU/Pediatrics- Introduction	Required	Block	2	Hospital	Brian Heckman
Nutrition Support- Introduction	Required	Block	4	Hospital	Laura Gillespie
Pharmacokinetics- Introduction	Required	Block	4	Hospital	Laura Gillespie
Orientation	Required	Block	3	Hospital	Ed Sheridan, Ed Battjes, Jason Stabnik, Lisa Ribble
Practice Management	Required	Longitudinal	54	Hospital	Ed Sheridan, Lisa Ribble
Residency Project	Required	Longitudinal (broken into 4 dedicated weeks each quarter – evaluated midpoint and quarterly)	54	Hospital	Appropriate preceptor
Staffing- Introduction	Required	Block	5	Hospital	Jason Stabnik
Transitions of care	Required	Longitudinal	54	Hospital	Lauren McNace

Experience	Required or Elective	Block or Longitudinal	Length in weeks	Site	Preceptor
Cardiology	Elective	Block	4	TBD	Tony Patterson
Global Health	Elective	Block	3	TBD	Lisa Ribble/Ed Sheridan
Infectious Disease	Elective	Block	4	Hospital	Laura Gillespie
NICU/Pediatrics	Elective	Block	4	Hospital	Brian Heckman

REQUIRED EXPERIENCES:

Orientation

Orientation is a two week required learning experience that will give an overview of the operations within the hospital and ambulatory clinic areas, introduction to the organization and residency policy and procedures.

The pharmacists at these locations work in collaboration with the physicians to provide excellent care to the patient populations. While caring for the entire patients he pharmacists at the family medicine center, family medicine faculty physician, and Plymouth family medicine center are able to initiate, adjust the dosage of, and discontinue medications because they work under collaborative practice agreements. The ACO pharmacist conducts medication reviews and makes recommendations to the physicians in 26 individual practices.

Site(s)	FMC, Hospital
Preceptor Job Description	Preceptors are to provide experiences and expose pharmacy residents to learning opportunities, resources, and opportunities so that they can operate independently once the end of orientation is complete. Preceptors are to make new residents feel welcome and incorporate them into the pharmacy team. medications.

This experience will provide the pharmacy resident with a broad overview of the site while fulfilling human resource requirements. It will allow the pharmacy resident to gain technical skills and develop professional relationships. Where possible, the pharmacy residents' orientation integrates with the incoming first year family medicine resident physicians.

Adult Medicine

The adult medicine experience is a 3 week experience. The Adult Medicine Service provides direct patient care for patients who are seen in conjunction with the medical resident service. The PGY-1 pharmacy resident will join the general medicine team for daily rounds which generally begin at 7:00am. The team consists of a chief resident (usually a third year), four or five other residents, two attending physicians, and a pharmacist. The medicine team may have anywhere from two to twenty patients on the service. This multi-disciplinary team discussion provides more complete direct patient care. Activities include identifying patients' current acute problems, goals, monitoring parameters and making recommendations. The pharmacist will also research and present drug information questions and actively participate during his/her assigned time M-F of the week. It is expected that the pharmacy resident be able to operate independently by the end of the experience.

Staffing

OBJECTIVES:

The resident pharmacist will be expected to perform all of the duties of a staffing hospital pharmacist at Saint Joseph Regional Medical Center, Mishawaka Campus. The resident pharmacist will spend time in the main pharmacy getting acquainted with the pharmacy layout, setting up passwords, etc.

Nutrition Support Experience

The Nutritional Support Service provides assessment of need for parenteral nutrition (PN) in conjunction with the dietary team, patient's electrolyte needs and preparation of the PN prescription. Labs are ordered per clinical judgment and in keeping with established guidelines (see *Clinical Practice Guidelines*, Policy: *Parenteral Nutrition (PN) in Adults*, and Policy: *Adult Electrolyte Replacement Guidelines*). Changes are made to base components (PC, NPC), fluids (in conjunction with physician), electrolytes and micronutrients as well as drug dosing associated with the PN, including the addition or adjustment of insulin.

Infectious Disease/Pharmacokinetic Dosing Basic Training

OBJECTIVES:

To be competent in clinically assessing, dosing, and making recommendations for patients for whom pharmacy is consulted to dose antibiotics / anti-infectives, and in those patients who require renal dose adjustment and/or qualify for IV to PO conversion. Trainee will be evaluated as patients are reviewed.

The Pharmacokinetic Dosing Service provides assessment for the appropriateness of antibiotics / anti-infective and pharmacokinetic dosing, monitoring, and adjustment. Monitoring includes, but is not limited to, evaluation of renal function labs, microbiology reports, WBC, VS, temps, and drug levels in conjunction with the Pharmacokinetic Dosing Service Policy. Clinical assessment is also done in collaboration with the nursing staff and physicians to better assess each patient's complete clinical status. This total patient picture helps guide the pharmacist's clinical judgement in making dosage adjustments and/or recommendations for broadening, deescalating, or overall changing antibiotic therapy.

Two Week Introduction to Critical Care

Critical Care is a multi-professional healthcare specialty that cares for patients with acute, life threatening illness, or injury. **The Critical Care Keystone Team**, consist of diverse of highly trained healthcare professionals providing care and work towards best outcome possible for critically seriously Ill patients.

Team Members include: Intensivist, Clinical Leader, Critical Care RN, Pharmacist, Respiratory Therapist, Dietitian, Social Worker, Case Manager, Chaplain, Physical Therapist and Occupational Therapist.

Introductory Neonatal, and Pediatric Management Service Orientation

To be competent in the safe use of medications and pharmacologic therapy in the neonatal and pediatric populations. To be competent in the review of medications pertaining to these populations using the Powerchart and Pharmnet systems. To be competent in participating in interdisciplinary rounds in the NICU on a daily basis. To be familiar with the resources available for the pediatric and neonatal populations.

Trainee will be evaluated as patients are reviewed.

The Neonatal and Pediatric Management Service provides drug information and dosage recommendations in the neonatal and pediatric populations. Participates in daily weekday multidisciplinary NICU rounds. Reviews electronic medication orders in the Powerchart and Pharmnet systems. Participates in weekly Cystic Fibrosis rounds (when indicated). Provides pharmacokinetic dosing services in pediatric populations when consulted and assists with neonatal pharmacokinetic dosing when necessary.

4 Week Critical Care Rotation

OBJECTIVES:

- Recognize, understand, and explain procedural process and Pharmacist role during Rapid Sequence Intubation (RSI).
- Hemodynamic monitoring (advanced).
- Be able to identify and calculate the appropriate doses of all contents of RSI intubation box: pre-intubation medications (fentanyl and lidocaine), sedation agents (midazolam, lorazepam, propofol, dexmetatodine), and paralytic agent (succinylcholine and rocuronium) .
- Understand the basic principles of mechanical ventilation and device types used during mechanical ventilation.
- Based on SCCM Guidelines on Sedation and Analgesia, be able to identify, understand the pharmacology, and calculate the appropriate doses/interval of the preferred commonly used agents for analgesia and sedation in critical care.
- Understands basic principles and interpretation of blood gas and complete modules.
- Understands the principles behind Continuous Renal Replacement Therapy (CRRT) and effects on clearance of medications.

Ambulatory Pharmacotherapy

General Description

The ambulatory pharmacotherapy rotation is a four week, required learning experience in the clinics of the ambulatory care pharmacists. These pharmacists are located at the family medicine center, family medicine faculty physicians, SJRMC PCMH, and take care of the SJRMC ACO patient population.

The pharmacists at these locations work in collaboration with the physicians to provide excellent care to the patient populations. While caring for the entire patients he pharmacists at the family medicine center, family medicine faculty physician, and Plymouth family medicine center are able to initiate, adjust the dosage of, and discontinue medications because they work under collaborative practice agreements. The ACO pharmacist conducts medication reviews and makes recommendations to the physicians in 26 individual practices.

Clinics encountered

The resident's schedule will be divided amongst a few different clinics to provide a cross-section of ambulatory care:**Anticoagulation Clinic**

Anticoagulation Clinic	
Site(s)	FMC
Preceptor Job Description	The preceptor conducts anticoagulation patient care visits in the FMC three half days weekly, educating patients and managing medications.

The resident will manage patients both face to face and telephonically. Pharmacists conduct patient interviews, perform necessary labs, initiate medications as needed, and adjust medication dosages for approximately 25 – 50 patients. In addition to providing anticoagulation services, pharmacy residents are required to read literature, participate in discussions with the preceptor and educate the family medicine resident physicians. It is the expectation that residents can function independently by the end of the scheduled experience.

Annual Wellness	
Site(s)	FMC
Preceptor Job Description	Preceptor conducts annual wellness visits for medicare patients. This clinic occurs twice weekly.

The pharmacy resident will work with physicians to identify patients that meet the Medicare Wellness Visit requirements. Qualified and interested patients will be scheduled for a one hour appointment where the pharmacy resident will complete a health risk assessment, review list of current providers, establish medical and family history, review medications, screen for depression, assess functional ability and level of safety, gather vital signs, assess cognitive function and develop recommendations including a list of referrals and / or screenings.

Diabetes Clinic	
Site(s)	FMC
Preceptor Job Description	Create and maintain a diabetes education program. Achieve and maintain AADE (American Association of Diabetes Educators) accreditation and maintain board certification within a diabetes specialty. Serve as an advocate for local and state law regarding diabetes education. Maintain and expand services of diabetes education for ambulatory care services within SJRMC.

A diabetes clinic was initiated at the Family Medicine Center in 2011. Patients are initially scheduled for group sessions to learn more about diabetes; they then attend individual appointments with the pharmacist. Patients with diabetes are referred to the pharmacist for both education and management regarding their disease state. Clinics function in much the same way as the anticoagulation clinic. In addition to these clinics the ambulatory pharmacy services department works closely with specialty clinical services, including pediatric endocrinology. Physicians routinely welcome pharmacists to take part in their pediatric clinics.

Patient Centered Medical Home	
Site(s)	Plymouth PCMH
Preceptor Job Description	Preceptors engage work with the physicians to advance pharmacy services at the PCMH. The Purdue regional coordinator has students at the PCMH as an active rotation. The RPD compares the workflow of the FMC to PCMH standards.

SJRMC hosts a level 2 patient centered medical home in Plymouth. The resident will read the NCQA requirements for PCMH and watch the NCQA PCMH videos. The resident will travel to Plymouth once weekly to conduct synchronous patient care at the PCMH. In addition to individual patient visits the pharmacy resident will be exposed to the principles of patient population management.

Transitions of Care	
Site(s)	FMC, Hospital
Preceptor Job Description	Pharmacist is to provide Transitions of Care services to discharged patients of the hospital. Additionally, pharmacist is to work within an multidisciplinary team to promote medication adherence and to recommend appropriate changes to patients medication regimens upon follow up. Pharmacist is expected to either meet with patient in clinic, follow up through phone conversation, or both. Pharmacist is to be up-to-date on current billing codes and legal issues surrounding such a clinic.

In an effort to decrease hospital readmissions, the transition of care service was initiated as a pharmacy resident project in 2013. Residents will conduct patient discharge education, post discharge phone calls, and face to face MTM-type office visits if experience permits. The coordination or triaging of the patients will be conducted by the SJRMC health coach.

Inpatient Transitions of Care

OBJECTIVES:

To be competent in how to complete thorough patient medication histories and how to identify interventions that help with patients' transition of care.

Trainee will be evaluated as patients are reviewed

The Inpatient TOC Service provides transitions of care for certain patients (bundled payment/Anthem/Select) that have recently been admitted to the hospital. The goal of the service is to ensure that the right home medications have been restarted while the patient is in the hospital, as well as to prevent errors at discharge. Patients that are at a higher risk for readmission (bundled payment) are assessed first, following by Anthem and Select insurance patients.

Longitudinal Patient Care, Staffing, and Nutrition Support

Direct Patient Care, Staffing and Nutrition Support experiences will happen over a 26 week period- quarters 2 and 3. These experiences have the potential to take place in conjunction with pharmacists practicing in both the inpatient and outpatient setting. All objectives for these experiences are denoted below.

All documented resident progress will take place at the Monthly Resident Progress Meetings, Quarterly Midpoint in PharmAcademics and End Quarter PharmAcademics Assessment.

Direct Patient Care	
Site(s)	Hospital
Preceptor Job Description	The pharmacists will help facilitate, mentor and participate when discussing various methods of practice and utilization of management tools with the residents. The pharmacist will have a strategic time organizational method to maintain his/her practice.

The scope of practice and structure of pharmacy services is complex. There are many stakeholders and pharmacists must interact with a variety of health professionals on a daily basis. To be successful in this environment the pharmacist resident must gain expertise in managing his or her pharmacy practice. The pharmacy resident will be expected to explore generalities of practice management by reading books, reviewing articles and discussing these issues with preceptors. (Examples of topics include personal mission statement, time management, project management etc.) The pharmacy resident will have opportunities in all rotations to hone their ability to manage their practice and observe how the preceptor manages his or her practice. However, because some topics may not be experienced during the course of a specific rotation, practice management will have longitudinal components as weekly topics and as required projects as part of the longitudinal experience. The PGY-2 ambulatory care pharmacy resident assesses, revises, and maintains the longitudinal curriculum.

Staffing	
Site(s)	Hospital
Preceptor Job Description	<p>To provide exceptional patient care to referred and ordered patients to the respected pharmacy-managed specialty clinics. Pharmacists are expected to be multidisciplinary and provide expertise regardless of disease state. Pharmacists are also responsible for procurement and accurate dispensing of medications if the setting demands it.</p> <p>In the acute care setting the pharmacist independently receives, evaluates, analyze and process physician orders. The pharmacists understand and can operationally provide support in the staffing role including delegation of experiences and appropriately facilitate drug information questions. Preceptor is to be used as a resource to promote independent practice, and used only as a resource to ensure safe and sound medical/pharmacy practice.</p>

The pharmacy resident is expected to participate fully as a staff pharmacist in the working of the department, which includes the activities listed above. The pharmacy resident will be responsible for staffing approximately 3-4 days per month including 1 full weekend and other positions covered within the hospital pharmacy department as needed.

Nutrition Support	
Site(s)	Hospital
Preceptor Job Description	<p>Preceptor assesses all physician requests for parenteral nutrition (PN) and Pharmacy to dose (PTD) pharmacokinetic consults based on chart review of disease states, labs and indications. Goals are developed for each patient in consultation with nutritional services and the ordering physician as appropriate as per written policies. PN orders are written daily with the preceptor following labs, condition changes and fluid status while patient requires the continuation of PN and PK consults are assessed daily and adjusted as appropriate.</p>

The Nutritional Support service provides assessment of parenteral nutrition, patient's electrolyte needs and preparation of the Parenteral Nutrition (PN) prescription. Labs are ordered on clinical judgment with guidelines. In conjunction with the physician, the pharmacist can change electrolyte and base components as well as drug dosing associated with the TPN, including the addition or adjustment of insulin. Nutritional consults are assessed daily and adjusted based on individual patient parameters and policies.

Longitudinal Practice Management, Administration, Project, Academia/Teaching

The Practice Management, Administration, Project and Academia/Teaching experiences will happen over a 54 week period. These experiences have the potential to take place in conjunction with pharmacists practicing in both the inpatient and outpatient setting. All objectives for these experiences are denoted below.

All documented resident progress will take place at the Monthly Resident Progress Meetings, Quarterly Midpoint in PharmAcademics and End Quarter PharmAcademics Assessment.

Practice Management	
Site(s)	FMC, Hospital

Preceptor Job Description	The pharmacists will help facilitate, mentor and participate when discussing various methods of practice and utilization of management tools with the residents. The pharmacist will have a strategic time organizational method to maintain his/her practice.
----------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

The scope of practice and structure of pharmacy services is complex. There are many stakeholders and pharmacists must interact with a variety of health professionals on a daily basis. To be successful in this environment the pharmacist resident must gain expertise in managing his or her pharmacy practice. The pharmacy resident will be expected to explore generalities of practice management by reading books, reviewing articles and discussing these issues with preceptors. (Examples of topics include personal mission statement, time management, project management etc.) The pharmacy resident will have opportunities in all rotations to hone their ability to manage their practice and observe how the preceptor manages his or her practice. However, because some topics may not be experienced during the course of a specific rotation, practice management will have longitudinal components as weekly topics and as required projects as part of the longitudinal experience. The PGY-2 ambulatory care pharmacy resident assesses, revises, and maintains the longitudinal curriculum.

Administration	
Site(s)	FMC, Hospital
Preceptor Job Description	The pharmacy director/manager is responsible for oversight of all pharmacy related operations of the hospital. They are accountable for both the clinical and financial performance of the department.

A working administrative skill set is as important to a pharmacist as a patient care skill set. In this rotation, the PGY-1 pharmacy resident will develop his/her own department budget, great a business plan based in his/her perceived next practice and conduct a SWOT analysis as the first step to prioritizing a new initiative.

Residency Project	
Site(s)	FMC, Hospital
Preceptor Job Description	Review IRB submissions, guide residents in creating a timeline, and being available for residents to check in for progress meetings of their projects. Preceptors are also to review Great Lakes Pharmacy Residency Conference Slides, as well as review material for posters submitted for ASHP Midyear or other local, state, or national meetings. Preceptor is also to help guide resident on the creation of their manuscript..

The pharmacy resident will complete a pharmacy residency project that is either research or performance improvement based. The project will be relevant and useful to the respective site. The pharmacy resident will present the final project at Great Lakes Residency Conference in April (required) and at ASHP Midyear in December (if interim data is available). The PGY-1 resident will take necessary steps during the course of the residency to publish the article in an appropriate journal. The PGY-2 resident is required to publish.

Past resident projects:

Pharmacy Medication Education Impact on Hospital Readmission Rates, Impact of Fair Balance Pharmacology Updates on Sources Family Medicine Residents Utilize to Obtain Information Regarding Medication, Continuous Quality Improvement Of Ambulatory Medication Safety: MIDAS Reporting, Opportunities To Serve The Underserved: A Hospital Based Medication Assistance Program, Prescription Methods Assessment Project (a multi-center, national, double dummy clinical trial), Evaluation Of A Pharmacist Managed Medication Review Clinic, Medication Reconciliation Failure Mode and Effect Analysis, Diabetes Group Visits, Antibiotic Stewardship, Team Based Learning in a family medicine residency program, increasing colorectal

cancer screening through an informational mailer, multisite preceptor development, pharmacist involvement in obtaining NCQA certification, Global health training postgraduate pharmacy, Renal effects of vancomycin and pip/tazo, and REMS.

Academia/Teaching	
Site(s)	FMC, Hospital, Manchester University, Purdue University
Preceptor Job Description	Teach didactic lectures and labs at Purdue and Manchester University Colleges of Pharmacy. Additionally, precept students from the respected colleges of pharmacy, in addition to precepting medical residents on rotation at the Family Medicine Center.

At the completion of this longitudinal experience, the pharmacy resident will be able to effectively and efficiently precept pharmacy students independently. The pharmacy resident will design, organize, and precept PharmD candidates for at least one complete APPE rotation. Additionally, the resident will evaluate the PharmD candidate and assist them in the self-evaluation process. By the end of this experience, the pharmacy resident will be able to effectively present didactic lectures to pharmacy students and family medicine resident physicians. The pharmacy resident will create, administer and grade examination questions for nursing or pharmacy students. The pharmacy resident will have met the requirements for the Indiana Pharmacy Resident Teaching Certification by completion of the residency program. (Patient education will be addressed on specific direct patient care rotations.)

ELECTIVE EXPERIENCES

Four Week Cardiology

Cardiology is a multi-professional healthcare specialty that cares for patients with underlying cardiac disease. **The Cardiology Team**, consist of diverse of highly trained healthcare professionals providing care and work towards best outcome possible for our patients.

Team Members include: Cardiologist, Clinical Leader, RN, Pharmacist, Case Manager, Chaplain, Physical Therapist and Occupational Therapist.

OBJECTIVES:

- Recognize, understand, and explain procedural process and Pharmacist role during Cardiology Rounds.
- Demonstrate proficiency in cardiovascular hemodynamic monitoring and use of inotropes in post op heart patients (SICU)..
- Be able to formulate evidence based pharmaceutical plan to those patients in our cardiology rotation
- Understand the basic principles of clotting cascade and identify appropriate use of anticoagulation for PE/DVT and AF, prior to and during cardioversion with parenteral and new Direct Oral Anticoagulants .
- Collect and analyze necessary information from patient EMAR and determine any medication therapy problems and address appropriately.
- Develop collaborative relationship with Interact with the Midwest Group; to optimize drug therapy outcomes in heart failure patients and prevent medication related problems
- Differentiate between Acute Coronary Syndrome and Unstable Angina; STEMI vs NSTEMI; Acute vs Chronic Heart Failure, Hypertensive Crises vs Urgency
- Identify various arrhythmias (atrial fibrillation, ventricular tachycardia, ventricular fibrillation, torsade's, 1st and 2nd degree block, SVT, brady/tachy etc.).

Global Health

Site(s)	2-3 weeks off-site determined by the resident
Preceptor Job Description	Assist learners in acquiring experiences that enhance their knowledge of the global health concept. Participate in international medical service trips as permitted by preceptor interest and position.

The Global Health Track is a unique feature of the Saint Joseph Pharmacy Residency Program. Residents have gone to Kenya, Haiti, Ecuador, Mexico, and Cameroon. Residents participate in the longitudinal GHT lecture series and are able to schedule 2-3 weeks stateside or abroad. The rotation gives residents a chance to help the underserved while gaining knowledge in the diagnoses and treatment of common tropical diseases and conditions. It also allows residents the opportunity to expand their clinical management skills in a setting of limited resources, and acquire knowledge in the areas of travel medicine and public health. Fostering respect and compassion for the medically underserved and those from a different culture are important aspects. Residents learn the skill of seeking out and setting up pharmacy mission trips. Throughout the experience, residents will be challenged to work on flexibility, creativity, and adaptability. Please See GHT Policy and Procedure for further detailed information

Advanced Infectious Disease/Pharmacokinetic Dosing

OBJECTIVES:

To be competent in clinically assessing, dosing, and making recommendations for patients for whom pharmacy is consulted to dose antibiotics / anti-infectives, and in those patients who have been found to benefit from modification or de-escalation of antibiotics per chart review / MedMined surveillance / ID rounding. The trainee will also be expected to help develop / participate in Antimicrobial Stewardship Program (ASP) initiatives, and will help run a minimum of 1 ASP meeting (may be outside this elective 4 week time period, pending when the meeting falls in relation to this rotation).

Trainee will be evaluated as patients are reviewed.

The Pharmacokinetic Dosing Service provides assessment for the appropriateness of antibiotics / anti-infectives and pharmacokinetic dosing, monitoring, and adjustment. Monitoring includes, but is not limited to, evaluation of renal function labs, microbiology reports, WBC, VS, temps, and drug levels in conjunction with the Pharmacokinetic Dosing Service Policy. Clinical assessment is also done in collaboration with the nursing staff and physicians to better assess each patient's complete clinical status. This total patient picture helps guide the pharmacist's clinical judgement in making dosage adjustments and/or recommendations for broadening, deescalating, or overall changing antibiotic therapy.

Advanced Neonatal and Pediatric Management Service

OBJECTIVES (in addition to the objectives completed during the introductory rotation):

To enhance knowledge base regarding the most commonly encountered neonatal and pediatric conditions and disease states.

To refine clinical skill set and apply them in the neonatal and pediatric populations.

To develop autonomy and independence providing neonatal and pediatric clinical services.

To display efficiency in the safe verification of electronic orders in the neonatal and pediatric populations.

Trainee will be evaluated as patients, topic discussions, and patient cases are reviewed.

The Neonatal and Pediatric Management Service provides drug information and dosage recommendations in the neonatal and pediatric populations. Participates in daily weekday multidisciplinary NICU rounds. Reviews electronic medication orders in the Powerchart and Pharmnet systems. Participates in weekly Cystic Fibrosis rounds (when indicated). Provides pharmacokinetic dosing services in pediatric populations when consulted and assists with neonatal pharmacokinetic dosing when necessary.