



Pharmacy Curriculum

Required Rotations

Internal Medicine I

Internal Medicine involves the provision of pharmaceutical care on internal medicine/telemetry units within the hospital. The resident will review medication profiles daily to ensure appropriate indications for use, appropriate dosing, monitor for adverse effects, prevent drug interactions, and ensure proper laboratory monitoring. Daily responsibilities will also include providing pharmacokinetic dosing and management, parenteral nutrition management, ensuring medication safety, properly documenting patient care activities, and effectively communicating with healthcare providers and patients. The resident will also provide drug information and education for healthcare providers, patients, and students. In addition, the resident will observe medical procedures as available to gain a better understanding and knowledge base.

Internal Medicine II

The resident will participate in rounds with the Medicine Team for the Family Medicine Residency Program. The resident will be responsible for identifying and resolving pharmacotherapy issues for the patients admitted to the hospital under the care of Family Medicine. This includes an appropriate review of outpatient and admission medications for indication, interactions, dose, and duration and providing therapeutic drug monitoring. The resident will serve as the drug information specialist to the team and will provide at least one in-service presentation. The resident will also assist the medical residents with the medication reconciliation process upon discharge of a patient from the service and will provide discharge counseling to the patients. The resident will follow-up with the patient two days after discharge to see if the patient is having any adverse effects or has any questions or concerns. In addition, the resident will develop a standing order set in order to assist the medical team with future admissions.

Critical Care

The critical care learning experience is intended to provide an opportunity for the resident to apply didactic learning with clinical experience, to further knowledge of critical care medicine, and to develop skills in providing pharmaceutical care to the critically ill. The resident will participate in pharmacokinetic dosing, parenteral nutrition consults, and respond to medical emergencies. The resident is expected to monitor patient labs and culture and sensitivity reports, review patient medical records, and participate in interdisciplinary morning rounds. The resident will participate in teaching sessions per-

taining to disease states or medications, education of medical and hospital personnel, and attend multidisciplinary team conferences.

Family Medicine

The Family Medicine rotation involves the provision of pharmaceutical care for patients in the Family Medicine outpatient clinics. The pharmacy resident will be responsible for identifying and resolving pharmacotherapy issues for patients including reviewing outpatient medications for appropriate indication, interactions, dose, duration, and appropriate monitoring accordingly to evidence based medicine. The resident will obtain medication histories, assess patient compliance, and provide counseling for inhalers, insulin administration, and all new medications. One patient home visit with an attending physician and medical resident will be required. The resident will work with Family Medicine personnel to identify Coumadin patients outside therapeutic range and provide counseling and recommendation for adjustments to their regimens. Finally, the resident will serve as a drug information resource for Family Medicine and will provide one formal presentation.

Longitudinal Experiences

Drug Information

Drug Information is a longitudinal rotation with a concentrated one month rotation involving gathering and organizing information in order to assist or directly identify ongoing drug related problems, root cause analyses, and formulary issues important to SVMC. This rotation entails evaluating and analyzing the medication-use system against current best practices to ensure optimal outcomes. The Drug Information learning experience is devised in a format to establish a working foundation for providing pharmaceutical care to patients and pharmaceutical information to healthcare professionals and the general public. The resident will participate in a drug class review, medication use evaluation, journal clubs, and will formulate a drug monograph. The resident will also be required to participate and interact with select medical professionals and hospital committees including Pharmacy and Therapeutic Committee.

Pharmacy Management

Pharmacy Management is a longitudinal rotation with a concentrated one month rotation involving the management of the pharmacy department services in the hospital environment. The longitudinal experience is for two quarters with each quarter focusing on either pharmacy operations or quality management. The resident participates with the pharmacy managers in all aspects of the department management. The resident will be introduced to basic principles of pharmacy financial management, human resource management, clinical performance measures, regulatory requirements, and professional strategic planning.

Pharmacy Practice

Pharmacy Practice is a longitudinal rotation intended to provide the resident the opportunity to develop necessary skills to function as an independent, confident practitioner while providing pharmaceutical care to patients. The resident will complete pharmacy practice shift assignments one evening a week and every third weekend. In addition, the resident will staff one major holiday (Thanksgiving, Christmas, or New Year's Day) and one minor holiday (the day after Thanksgiving, Christmas Eve, or New Year's Eve). Staffing assignments will be sufficient to provide the practice experience necessary to function as a competent practitioner. Responsibilities will include both distributive functions utilizing established systems and procedures and clinical pharmacy services for the physicians, nursing staff, and patients. The depth of the resident's level of responsibility will increase during the residency year as the resident develops further knowledge and competency with distributive and clinical services. Shifts requiring increasing professional independence will be assigned progressively to the resident during the course of the residency year.

Research

One of the outcomes of the residency program is the completion of a research project. It requires the resident to identify a pharmacy practice-related issue that needs to be investigated and design, execute, and report the results of the investigation. The project will be presented in poster format at the American Society of Health System Pharmacists (ASHP) Midyear meeting. The resident will present the research results at the Florida Residency Conference. The completed project should include a written paper suitable for publication. The objective of this activity is for the resident to gain skills in study design, IRB process, data collection, presentation of research data, and publication. The resident may choose the research project from a list of ideas from the pharmacy department or from an idea of their own. The Research Council will give final approval of the research project idea, oversee the progress of the research project, and will serve as a resource for the resident. The resident will work closely with a primary co-investigator and reviewer that will be assigned based on the research project.

Elective Rotations

Cardiology

Cardiology involves the provision of pharmaceutical care on interventional cardiology and telemetry units within the hospital. The resident will review medication profiles daily to ensure appropriate indications for use, appropriate dosing, monitor for adverse effects, prevent drug interactions, and ensure proper laboratory monitoring. Daily responsibilities will also include ensuring medication safety, properly documenting patient care activities, and effectively communicating with healthcare providers and patients. The resident will also provide drug information and education for healthcare providers, patients, and students. In addition, the resident will observe cardiac procedures to gain a better understanding and knowledge base.

Emergency Medicine

The resident will review admission and non-admission patient medication orders to ensure appropriate indications for use, appropriate dosing, and the avoidance of potential drug interactions in order to provide pharmaceutical care for patients in the Emergency Medicine Department. The resident will be responsible for identifying patients presenting with adverse drug events, including overdose, sub- or supra-therapeutic laboratory parameters, allergic, or other drug-related events. Daily responsibilities will include initiation of pharmacokinetic dosing consultations, response to medical emergencies, ensuring medication safety, properly documenting patient care activities, and effectively communicating with healthcare providers and patients. The resident will provide and document therapeutic drug monitoring according to evidence based medicine, best practice, and policy and procedure of SVMC. The resident will also provide drug information and education for healthcare providers, patients, and students.

Infectious Disease

The Infectious Disease rotation involves the provision of pharmaceutical care on pulmonary and infectious disease units within the hospital. The resident will gain experience and proficiency in clinical therapy for these patient populations. The resident will develop problem solving skills thru a variety of patient care experiences including pharmacokinetic monitoring and antibiotic surveillance. The resident will also participate in a variety of interdisciplinary activities in the inpatient setting such as lab rounds and Antibiotic Stewardship Program. The ultimate goal is to facilitate and increase the therapeutic knowledge and development of practice skills in the infectious disease setting.

Oncology

The resident will become part of the Oncology team which includes the Oncologist, patient care coordinator (PCC), Oncology Pharmacist, and Oncology nurse in order to provide direct patient care to patients on St. Vincent's two Oncology units. The resident will assume the responsibility for all aspects of patient drug therapy including advising physicians, nurses, and patients on appropriate drug use, participating in formal morning Oncology rounds, monitoring patient labs, monitoring culture and sensitivity reports, phar-

macokinetic and parenteral nutrition consulting, and medication-use assessment. Other responsibilities include patient education, drug information consults, contributing to the pharmacy Oncology monthly newsletter, review of chemotherapy medications and cancer disease states, attending conferences, and providing lectures on drug therapy to medical, nursing, and pharmacy staff.

Pharmacy Informatics

Pharmacy Informatics involves the management and development of pharmacy technology and informatics in the hospital environment. The resident will work on technology projects at St. Vincent's Medical Center and St. Luke's Hospital. The resident will contribute to meetings with the health system's Information Technology Department. In addition, the resident will participate in topic discussions including principles of process analysis and automation, clinical decision support, clinical documentation in the electronic medical record, evidence based protocols for CPOE, automated dispensing, workload statistics and clinical reporting, and medication integration in the electronic medical record.

Quality Management

Quality Management entails quality and patient safety issues that involve the pharmacy department services in the hospital environment. The resident will participate with the department manager in all aspects of quality management and patient safety issues such as adverse drug reaction investigating, medication error reporting, drug diversion cases, and root cause analyses. The resident will be given an opportunity to participate in projects that address Quality Improvement and Patient Safety.

Surgery

On the Surgery rotation, the resident will be responsible for identifying and resolving pharmacotherapy issues for patients in the Operating Suites, Holding, Recovery, Endoscopy, Labor and Delivery, and Orthopedic/Neurology/Cardiology units. The resident will work with anesthesiologists, surgeons, perfusionists, CRNA's, operating room nurses and staff, and students to ensure appropriate drug therapy, administration, and drug utilization. Daily responsibilities will include dispensing and reconciling controlled substances, providing drug information quickly to care providers, pain management consultations, and monitoring drug utilization in the OR and associated areas. The resident will provide and document therapeutic drug monitoring according to evidence based medicine of all pre-operative, peri-operative, and post-operative medications in selected cases. The resident may also be responsible for discharge teaching including warfarin therapy in the orthopedic units and Lap-Band consults. In addition, the resident will provide drug information and education for healthcare providers, patients, and students.

Other Electives

Pediatrics, Psychiatry, Toxicology, and Clinical Research are potential electives at other local healthcare facilities based on availability.

Curriculum Development

St. Vincent's Medical Center Department of Pharmacy Services is committed to developing and maintaining high quality learning experiences and opportunities. Changes may be made to the curriculum and other learning activities in order to ensure excellence in the training program.