Orientation (July)

Orientation is intended to introduce the resident to Lawrence Memorial Hospital and the Department of Pharmacy. Each resident will participate in the hospital's new employee orientation program followed by an overview of the pharmacy's systems and processes to provide a solid base from which to develop. The orientation to the Department of Pharmacy includes, but is not limited to, computer-based order entry, bar-code scanning technology, electronic medical record, documentation, primary dispensing, IV admixtures, automated dispensing systems, ordering, packaging, and storage, distribution, and controlled substance processes. During orientation, each resident will be introduced to the pharmacist code response training that will involve code cart navigation, BLS, and ACLS. The remainder of orientation will expose the residents to the responsibilities of the each clinical pharmacist at Lawrence Memorial Hospital.

Internal Medicine

Internal Medicine is a required learning experience. The responsibilities for this rotation include providing all aspects of pharmaceutical care (taking medication histories, review of patient profiles, monitoring and managing medications, monitoring disease, coordinating care within the patient’s care team; physician, pharmacist, nurse, respiratory therapist, social worker and outside health care facilities, provision of consults, drug information requests, patient counseling and health care professional education). The patients that are served on this rotation are covered primarily by internal medicine disciplines with specialized providers as needed.

Medical-Surgical

Medical-Surgical is a required learning experience that is scheduled in the first few months of the residency. This learning experience establishes a foundation of clinical skills that the resident will build upon throughout the residency. In addition to post-operative pharmaceutical care, the resident will learn to optimize supportive care for oncology, pediatrics, obstetrical, and internal medicine patients. The resident’s responsibilities include, but are not limited to, admission medication histories, daily review of patient profiles, medication management, parenteral nutrition, comprehensive drug information responses to patients and healthcare providers, plus continuity of care coordination with the multidisciplinary team.

Critical Care

Critical Care is a required learning experience. This rotation will help the resident understand the pathophysiology, treatment, and prevention of disease states and complications encountered in critical care patients. Specific duties include: • Actively participate in ICU rounds • Monitor patients to ensure safety and efficacy of drug therapy • Participate in discussions of critical care topics with the preceptors • Provide drug information to medical and nursing staff • Prepare and present one nursing
in-service • Chart all clinical interventions in computerized charts and databases. The responsibilities for this rotation will include providing pharmaceutical care by taking medication histories, review of patient profiles, monitoring and managing medications, monitoring disease states, coordinating care within the patient’s care team; physician, pharmacist, nurse, respiratory therapist, social worker and outside health care facilities. In addition, pharmaceutical care is provided though provision of consults, drug information requests, patient counseling and health care professional education.

**Oncology**

Oncology is a required learning experience for PGY1 residents at Lawrence Memorial Hospital. The Oncology Center at Lawrence Memorial Hospital is an ambulatory clinic with five hematologists/oncologists (four full time), one ARNP, eighteen nurses, and fifteen treatment rooms. The Oncology Pharmacy is staffed each day by two pharmacists and two technicians. The Oncology Center Pharmacy primarily provides outpatient chemotherapy and supportive medications, but does provide limited inpatient chemotherapy medications as well. Additional responsibilities of Oncology Center pharmacists include drug information for patients and staff, patient education, and investigational drug inventory maintenance.

**Transitional Care Unit/Acute Rehabilitation Unit (Long-Term Care) – needs revised**

Long-Term Care is a required learning experience. The responsibilities for this rotation will include providing pharmaceutical care by taking medication histories, review of patient profiles, monitoring and managing medications, monitoring disease, coordinating care within the patient’s care team; physician, pharmacist, nurse, respiratory therapist, social worker and outside health care facilities. In addition, pharmaceutical care is provided though provision of consults, drug information requests, patient counseling and health care professional education.

**Medication Safety**

Medication safety is a required learning experience and is primarily longitudinal in processes covering experiences throughout the residency. Specific activities will be assigned as the need of the hospital requires. Those rotation specific activities will be formulary review, drug class evaluation, presentation to the Pharmacy and Therapeutics committee, protocol development and implementation, protocol evaluation, medication safety grand rounds, publication of a semi-annual medication safety newsletter, and active participation on the bimonthly Medication Use Team.

**Ambulatory Care**

Ambulatory Care is a required longitudinal learning experience for PGY1 residents at Lawrence Memorial Hospital. The resident will participate in two longitudinal ambulatory care experiences throughout the residency training year. These experiences will take place at The Anticoagulation Clinic and Healthcare Access.

The Anticoagulation Clinic provides anticoagulation management and congestive heart failure consultation to patients in the Lawrence and regional area. Following the orientation period with a pharmacist and nurse practitioner, the resident will assist with the clinical oversight of patients for 4 hours once weekly for 6 months.
Health Care Access is an ambulatory clinic providing basic medical care to the indigent patient population of Douglas County. The resident will assist nurse practitioners with optimization of pharmaceutical care for 4 hours once weekly for 6 months.

The required longitudinal learning experience for residents will also involve snapshot learning experiences in the Treatment and Procedure Center and/or The Internal Medicine Group Infusion Clinic. There will be a review of various therapies standard in these ambulatory care areas.

Disease states that may be reviewed over the year include: Anemia, Crohn’s Disease, Rheumatoid arthritis, Immunodeficiency, Multiple Sclerosis, and various infectious diseases as applicable to the patient population at the time of resident observation.

Drug Information

The purpose of this required experience is to prepare the resident to be able to effectively and efficiently answer therapeutic and administrative questions, be able to analyze the literature and draw fair and useful conclusions and be able to summarize and extrapolate the meaning of the literature for use in patient care and pharmacy administration. This is a longitudinal rotation that is integrated into the other experiences at LMH.

Pharmacy Practice Management

Practice Management is a required longitudinal rotation. The resident will devote time to understanding pharmacy management and learn the importance of pharmacy leadership. Through a series of readings and interactions with the preceptor, the resident will learn about administrative issues including but not limited to pharmacy’s role in the health-system, personnel issues of recruiting, hiring, development, mentoring, evaluation, and discipline, and budget preparation. The resident will have opportunities to work on a variety of committees, both as a member and a leader. The resident will actively participate in safety and process improvement initiatives as the need arises within the organization.

Infectious Disease

Infectious Disease is an elective learning experience offered after successful completion of Internal Medicine and Medical-Surgical Learning Experiences. Pharmacy residents will be expected to provide progressively more independent pharmaceutical care to inpatients with infectious disease related ailments. The resident will attempt to optimize the use of evidence based medicine in the treatment of consulted patients, respond to drug information requests from the infectious disease specialist or preceptor, and deliver exceptional education to patients. The resident will gain an understanding and appreciation for the lab by consistently following up on all related microbiology results. When applicable, the resident will round with the infectious disease physician and shadow the infectious disease infusion nurse at the Internal Medicine Group Clinic.

Cardiology

Cardiology is an elective learning experience. Pharmacy residents will be expected to establish relationships and serve as a source of drug information for the clinic and cardiac rehabilitation staff involved in the continuum of cardiac care at LMH. The resident will learn to prioritize daily activities to
deliver appropriate patient-centered care to cardiac patients through the gathering and analysis of patient information, collaboration with other members of the cardiology team and the design of evidence-based therapeutic regimens for patients. Residents will develop pharmacist-patient relationships with cardiology patients as they move through the process of diagnosis, treatment, and follow-up management of various cardiac conditions as described in the residency learning system.

**Emergency Medicine**

Emergency medicine will provide the context for understanding patient assessment, differential diagnosis, and initial medical management of acutely ill patients. The resident shadows an emergency room physician through the duration of specified shift. Residents will have the opportunity to provide drug information to emergency room physicians, advanced nurse practitioners, physician assistants, and registered nurses. Similar to longitudinal requirements, the resident will respond to code blue, medication evaluation team events, code stroke, and code STEMI during this rotation. Additional hours will be spent in the emergency room assisting with medication reconciliation for patients to be admitted to the hospital and providing education to patients discharged from the emergency room with new medications.

**Medication Safety and Informatics Concentrated Rotation**

The Medication safety and informatics concentrated rotation will be a one-month elective rotation focusing on the resident's area of interest. Specific activities will be assigned as the need of the hospital requires. Rotation specific activities may include formulary review, drug class evaluation and presentation to the P&T committee, protocol development and implementation, protocol evaluation, and presentation to the medication use committee. The resident will also have opportunities to audit Alaris guardrails, be involved in Cerner updates, and ISMP self-assessments.

**International Experience – Africa**

This rotation is in preparation for and participation in the Medical Mission “Kansas to Kenya” with additional opportunities at the University Of Nairobi Pharmacy School. The intent is to help provide an ethical framework for understanding the U.S. medical system and provide opportunity to learn to work in close interdisciplinary teams under somewhat stressful conditions. The resident will work with a team of physicians, nurses, pharmacists, and support staff to plan a ~10 day trip with 5 clinic days. Professional roles and responsibilities will be negotiated and agreed upon in advance of the trip. Education processes for team members and patients will be planned. Medication will be obtained taking into account storage, transportation, costs, and patient sustainability. Residents may observe various Sub-Sahara tropical diseases including malaria, cholera, AIDS, tuberculosis, helminthes, pulmonary diseases, and irritant eye diseases including trachoma. This is also a good opportunity to review medical travel requirements and where these may be found.

**International Experience – Thailand**

The Department of Pharmacy at LMH has a formal educational agreement with the Faculty of Pharmaceutical Sciences at Khon Kaen University (KKU), Khon Kaen, Thailand. Pharmacy residents have the opportunity to complete a 4-week rotation, primarily in the area of oncology, with a board-certified oncology pharmacy faculty member/practitioner. The Pharmacy Practice department has an active residency program of its own, and affords the resident a unique perspective on how pharmacy is practiced abroad while interacting with his/her peers. In addition, pharmacy students from KKU
travel to LMH as well, and the resident will have the opportunity for precepting these students while they are here.

**Research Project**

Completion of a Residency Research Project is a required, longitudinal experience at Lawrence Memorial Hospital. During the year, each resident must develop and complete at least one major research project on some element of pharmacy practice, utilizing the support and guidance of experienced project advisors. Residents will be provided direction through each step of their projects, including the Institutional Review Board (IRB) approval process and completion of project manuscripts. The primary purpose of the learning experience is to provide each resident with experience in development, coordination, implementation, research, analysis, and presentation of a major project. Residents are encouraged to select projects focused toward clinical pharmacy practice. The projects should be manageable and based on potential outcomes that would benefit patients as well as the organization. All research projects must have a pharmacist preceptor as the primary co-investigator. Other pharmacist and non-pharmacist mentors will be added to the research team as needed to provide the appropriate expertise for successful completion of the project. Research projects must follow the prescribed timeline designated by the project preceptor and research team. The preliminary project proposal should be presented to the LMH Pharmacy staff in August and at the GKCSHP Research Day in September. The completed or near completed project will be formally presented to the LMH Staff as a dress rehearsal in late April and at the Midwest Residency Conference in May. The residents may be requested to present the project to other interested organizational or community groups. Prior to the last day of the residency program, each resident is encouraged to submit a project manuscript of publishable form to the project preceptors and residency program director. If the manuscript is not complete, then the resident and research team shall set goals and a timeline for publication.

**Teaching**

Residents have the opportunity to complete a Residency Teaching Certificate Program.

A variety of teaching opportunities will be available to each resident throughout the residency. The resident may participate in the minimum requirements of the Teaching Certificate Program or may expand involvement depending on the resident’s career goals. Teaching opportunities include, but are not limited to:

- Didactic lectures at UMKC SOP or KU SOP
- Group based learning at either SOP
- Mentoring of KU SOP APPE and IPPE students
- Experience may be expanded to primary preceptor for an APPE or IPPE student rotation at LMH
- Mentoring of pharmacy clinical interns at LMH
- Educational presentations to various disciplines at LMH
- Community service

**Customized Residency Learning Experience**

“The ASHP PGY1 residency accreditation standard defines residency customization as the essential process by which the “generic plan” for resident training is restructured to optimize resident experiences based on specific “strengths, weaknesses, and interests”.” -AM J Health-Syst Pharm – Vol 70 Jun 15, 2013.
Other customized-elective learning experiences may be designed upon the request of the resident with approval of the residency program director.