

## **EMERGENCY MEDICINE / CRITICAL CARE PHARMACY RESIDENCY**

In addition to the general goals of the pharmacy residency programs of the University of Southern California, the goal of the Emergency Medicine / Critical Care Pharmacy Residency offered through the School of Pharmacy and its major training site, the LAC+USC Medical Center, is intended to provide clinical practice, teaching, and practice management experience for the emergency medicine / critical care pharmacy resident. The residency training program meets the goals and objectives of an ASHP-accredited specialty residency. The areas of resident training include development of clinical practice skills and the provision of pharmaceutical care in acute care (emergency medicine and critical care), teaching skills, drug use and policy development, and practice management.

### **RESIDENT ASSESSMENT AND PROGRAM PLANNING**

To accomplish the goals and objectives of the residency training program, an individualized training program will be designed for each resident while maintaining a focus in the ASHP accreditation standards. By April 18, residents will have mailed a description of their clinical experiences and the desired training they would like to have in the coming year. Essential components of the residency training program will include the following components.

### **ACUTE PATIENT CARE**

#### **EMERGENCY MEDICINE**

The resident will have extensive clinical experience in Emergency Medicine at the LAC+USC Medical Center (Department of Emergency Medicine). They will actively participate in the provision of pharmaceutical care. All activities will require integration into the Pharmacy Department and Emergency Department of the institution. The residents will provide drug information, consults and monitoring of patients in the Emergency Department. Once licensed and trained the resident will be capable of acting as an independent pharmacy practitioner representing the pharmacy department in the Emergency Department. A significant component of

proficiency in emergency medicine is the ability to handle toxicologic exposures. To this end, the pharmacy resident will have experience in toxicology through the California Poison Control System (CPCS) at either the UCSF Poison Control Center in San Francisco or at the UCSD Poison Control Center in San Diego.

### **CRITICAL CARE MEDICINE**

The resident will have extensive clinical experience in Critical Care Medicine at the LAC+USC Medical Center (e.g. Burn Ward, Coronary Care Unit, Medical Intensive Care Unit, Neurosurgical Intensive Care Unit, Surgical Intensive Care Unit), Women's and Children's Hospital (e.g. Neonatal Intensive Care Unit, Pediatric Intensive Care Unit) and the USC University Hospital (e.g. Hepatic Disorders / Transplantation Intensive Care Unit, Medical / Surgical Intensive Care Unit, or Cardio-Thoracic Intensive Care). They will actively participate in the provision of pharmaceutical care. All activities will require integration into the Pharmacy Departments of the institution. The residents will provide drug information, consults and monitoring of patients in the clinical areas. Once licensed and trained the resident will be capable of acting as an independent pharmacy practitioner representing the pharmacy department in the clinical areas.

### **AMBULATORY CARE**

A significant portion of Emergency Medicine consists of patients requiring ambulatory care. As such the resident will be providing not only acute care but also ambulatory care at the same time in the Emergency Department. The resident will provide ambulatory care to ED patients in the following areas: minor medical / minor trauma (Rm 1060), walk-in (Rm 1050) and the Fast Track Clinic (Rm 1055). The resident will be oriented to the operations and treatment philosophies of these areas. The resident will interview patients; evaluate previously anticipated outcomes; assess current drug therapy needs; discuss plan with preceptor and instruct the patients. The resident will provide drug information to the patients, physicians and nurses. The resident will become familiar with policies and procedures of the clinic and be involved with appropriate management decisions.

## **DRUG USE POLICY, OUTCOMES AND PRACTICE MANAGEMENT**

The resident will have Drug Information and Drug Use Policy Development experiences. Each resident is required to perform at least one drug use policy project. This project may be performed at LAC+USC under the supervision of Dr. Maria Rudis or other LAC+USC faculty preceptor or at USC-UH under the direction of Dr. Kevin Forrester. Project topics will be evaluated for clinical significance, financial impact and time required for completion. These projects will include some or all of the following depending upon the strategy for achievement of desired goals: 1) Decision Analysis; 2) literature review and meta-analysis when necessary; 3) DUR data evaluation; 4) Cost-effectiveness Analysis; 5) interviews with department heads, physicians, nurses, pharmacists, laboratory supervisors responsible for prescribing, administration, dispensing, and monitoring of the studied drugs; 6) summary report of the Decision Analysis, Literature Evaluation and Cost-Effectiveness Analysis; 7) development of Disease State Management Protocols; 8) when necessary, prospective data collection; 9) organization, tabulation, statistical evaluation and presentation of data to pharmacists and physicians; 10) preparation and revision of consensus report from the involved departments; 11) presentation of consensus report to the P&T Committee or other appropriate committee.

These projects will necessitate a close working relationship with the resident and the pharmacy department. The resident will gain understanding of the policies and procedures and organization structure of the pharmacy department and other hospital departments; philosophies and goals of the pharmacy director; input into the evolving formulary issues of the department. Residents may request waivers if he/she has completed a student clerkship in a formal DI service or completed a formal DUE. The DUE report must accompany the waiver request.

### **PROJECT FOR PUBLICATION:**

Each resident will be required to complete a residency project and submit it for publication by June 15 of the residency year. The resident must be working with a faculty preceptor throughout the entire process. Progress reports will be documented on a quarterly basis with the final manuscript to be submitted for publication by June 15.

Time-table for publication project:

July	Interview faculty for potential projects
August - September	Identify project and literature review
October - December	Present project to pharmacy faculty, submit protocol to IRB as necessary, collect data
Jan - March	Collect and analyze data
April - May	Present data at Western States, or at other appropriate Medical or Pharmacy meeting
May	Complete first draft or manuscript
June 15	Submit manuscript for publication

### **COMPUTER SERVICES**

The residents will use computer services throughout the year. They will be instructed in the proper techniques for searching "OVID". They will use OVID for searches of the medical literature. They will develop skills in the development of a database. They will be instructed in the development of database forms, patient confidentiality, quality control, querying a database, evaluation of data and generation of reports.

### **PROGRESS REPORTS**

The resident will meet with the Emergency Medicine / Critical Care Pharmacy Residency program director on a quarterly basis to review completion of goals and objectives of the Emergency Medicine / Critical Care Pharmacy Residency program. The attached self assessment form will be the basis for this meeting. The resident and program director will complete quarterly reports and assessments individually. Following the completion of the quarterly progress report, the resident and the program director will meet to discuss the resident's progress. This is in addition to the resident evaluations that are to be completed at the end of each rotation.