



APPE Rotation Description

ACUTE CARE – INTERNAL MEDICINE

GENERAL INTRODUCTION

Site Information

Long Beach Memorial Hospital
2801 Atlantic Ave
P.O. Box 1428
Long Beach, CA 90801-1428

Contact Information

Primary Preceptor

Jennifer Le, Pharm.D., MAS, FCCP, FCSHP, BCPS-ID
Professor of Clinical Pharmacy
UCSD Office: (858) 534-3692
Long Beach Memorial Office: (562) 933-0286
E-mail: jenle@ucsd.edu

Administrative Support

Marisol Guerra
Email: mguerra@memorialcare.org

INTRODUCTION TO THE ROTATION

In response to the evolving role of the pharmacist in the delivery of health care services, the University of California Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS) and the UC San Diego Health Sciences and affiliated health systems offer students the opportunity for a six-week internal medicine rotation intended for fourth-year pharmacy students to obtain experience and achieve competency as entry level practitioners.

LBMH's Internal Medicine rotation is a supervised clinical pharmacy experience in an inpatient setting. With the guidance of a pharmacist or pharmacist resident, students will participate and achieve entry-level competency in the pharmacotherapeutic management and health promotion of hospitalized patients to ensure safe and effective use of medications. The inpatient care services that students must participate to achieve the entry-level competency consists of: (1) pharmacy-regulated therapies (e.g., aminoglycosides, vancomycin, anticoagulation [heparin and warfarin], total parenteral nutrition); (2) pharmacist clinical interventions (e.g., consolidation of antimicrobial therapy, intravenous to oral transition), medication review; and (3) health promotion through medication review, monitoring, and discharge counseling.

Through observation and practice, students will develop and explore their roles in an interprofessional health care team. Students will provide direct patient care experiences that will allow them to learn how to obtain patient information from chart reviews, initiate and monitor

drug therapies, and provide drug information to other health care professionals and patients. Students will directly interact with physicians and nurses by attending daily morning Family Practice Medicine rounds and noon conferences, and with patients and/or caregivers through discharge medication counseling.

MemorialCare Health System (<http://www.memorialcare.org>) is a not-for-profit integrated delivery system which includes six top hospitals, including LBMH, Miller Children's and Women's Hospital of Long Beach, Community Hospital Long Beach, Orange Coast Memorial Medical Center, Saddleback Memorial Medical Center in Laguna Hills and San Clemente; medical groups; Independent Practice Associations; MemorialCare HealthExpress retail clinics; and numerous outpatient health centers throughout the Southland. An innovator in health care delivery, MemorialCare focuses on evidence-based, best practice medicine. Our physicians, pharmacists and other health care professionals study health care's best practices and work to implement them at all our medical centers. The results are outcomes that frequently exceed state and national averages.

LBMH encompasses a 462-licensed-bed, non-profit, level 11 trauma, teaching hospital where pharmacists attend codes and multi-disciplinary rounds. Patients admitted to LBMH have diverse socioeconomic background and race/ethnicity, including Black, White, Hispanic and Asian. Typical disease states encountered on the medicine floors include diabetes, respiratory diseases (e.g., chronic obstructive pulmonary disease), hypertension, and infections (e.g., pneumonia, urinary tract infection, skin/skin-structure infections). LBMH has been recognized as a major regional provider of medical/surgical services and consistently achieves national accolades for its quality care, including being named as one of the U.S. top 125 hospitals by Consumers' Checkbook; named Top 100 Hospitals Cardiovascular by Thomson Reuters; and named one of "America's Best Hospitals" for Orthopedics by U.S. News & World Report magazine. Our state-of-the-art electronic medical record and medical information systems ensure our patients receive the best, safest possible care. Students will have access to contemporary learning and information resources, including electronic medical record access (i.e., Epic and PharmacyOneSource) and electronic library access to medical and pharmaceutical information and technology (e.g., UptoDate, Micromedex)

For additional information on LBMH, please visit <http://memorialcare.org/long-beach-memorial>. Students are expected to adhere to all Policies and Guidelines at SSPPS, which can be obtained at <http://pharmacy.ucsd.edu/current/policies.shtml>.

GOALS AND OBJECTIVES

This Internal Medicine rotation emphasizes patient care responsibility and effective communication with the members of the health care community. Through this experience the student will be able to apply academic basic science and clinical didactic course work to the situations which daily challenge the pharmacist in the acute care settings.

General objectives can be found in the applicable syllabi located on the SSPPS website <http://pharmacy.ucsd.edu/faculty/experiential.shtml>.

Given a patient's medical history (symptoms, physical examination laboratory values, current medications and diagnosis), the site-specific objectives for this rotation are:

- 1) Obtain patient information from medical chart, complete monitoring forms, and write comprehensive progress notes.
- 2) Identify and prioritize the significant active and inactive medical problems.
- 3) Identify which of the above problems require drug therapy.

- 4) Make patient specific recommendations for the initiation and monitoring of pharmacist-regulated therapies including aminoglycosides, vancomycin, heparin, warfarin, total parenteral nutrition, and others depending on comfort/competency level.
- 5) Identify potential drug interactions.
- 6) Effectively communicate ideas and recommendations, both verbally and in writing, to other health care professionals.
- 7) Present patient case histories in a complete, organized, and succinct manner.
- 8) Students will demonstrate ethical and professional behavior in all practice activities.

APPE ACTIVITIES

Students will be expected to participate in activities as assigned by the preceptor and other healthcare professionals that are deemed appropriate and necessary for the care of patients on the unit. Activities may include, but not limited to, the following:

1) Direct Patient Care Activities

- a. Conduct comprehensive medication profile review of patients admitted to the medicine floors.
- b. Monitor and/or initiate pharmacist-regulated therapies. Students will be expected to be able to comprehensively and accurately monitor or initiate therapy in at least five patients daily. Therapies of focus include aminoglycosides, vancomycin, heparin, and warfarin.
- c. Review and present all patients on pharmacist-regulated therapies and/or patients requiring pharmacy clinical interventions to preceptor.
- d. Manage clinical interventions including dosing for renal insufficiency, encouraging the use of low-cost therapeutically-equivalent drugs, preventing food-drug interaction with quinolones, and switching some drugs from intravenous to oral therapy.
- e. Document all interventions in PharmacyOneSource.
- f. Provide discharge medication counseling to patients.

2) Non-Patient Care Activities

- a. Prepare, in writing, and present organized S.O.A.P formatted patient cases.
- b. Refer to "Professional Development" section for additional requirements.

3) Interprofessional Interaction and Practice

- a. Attend daily morning Family Practice Medicine rounds and noon conferences.
- b. Provide in-services to medical team.

4) Medication Dispensing, Distribution, Administration, and Systems Management

- a. Report medication errors in PharmacyOneSource.

5) Professional Development

- a. Research and provide drug information queries, as requested, from patients, providers or the preceptor.
- b. Present a journal club review on an approved article related to pharmacy practice in the acute care setting.
- c. Present a 30-minute lecture, in powerpoint format, on an approved disease state or topic article related to pharmacy practice in the acute care setting.
- d. Partake in comprehensive quizzes or take-home assignments for self-assessment purposes. The quizzes and assignments may count towards the student's final grade or evaluation.

- e. Appropriate references must be cited in all assigned work that are emailed to preceptors.
- f. Complete cases as provided by the preceptor and discuss with the preceptor daily.

EVALUATION

The student will complete three online evaluations throughout this experience: 1) a Midpoint/Formative Self-Evaluation, 2) a Preceptor Evaluation and 3) a Site Evaluation. The preceptor, in addition to commenting/signing off on the student Midpoint/Formative Self-Evaluation, will complete a Summative Evaluation at the end of the rotation. Students may be evaluated at any other time at the discretion of the preceptor. Preceptors may evaluate students more frequently, so that the student is informed of areas requiring improvement early in the rotation. The primary preceptor should obtain feedback from all team members as well as any patient comments. Students must complete and submit all evaluations of their site/preceptor in order to receive their final grade.

ORIENTATION TO THE ROTATION

At least one week before orientation, Ms. Guerra (mguerra@memorialcare.org) will send an email to the student about the first-day orientation, including campus direction, parking, and materials required for submission (including infection control and safety modules, immunization records). For the first-day orientation, students must report at 09:00 AM to meet Ms. Guerra at the pharmacy administration office located adjacent to the visitors' elevators on the ground floor of LBMH. Badging and a two-hour Epic training will occur prior to meeting the primary preceptor, usually around 1300 after lunch.

Direction and Parking

LBMH is conveniently located south of the 405 Freeway and east of the 710 Freeway at:

2801 Atlantic Ave.
Long Beach, CA 90806-1731
Main Telephone: (562) 933-2000

Employee parking is located on the corner of Long Beach Blvd. and Spring Street (see Site Specific Info in your orientation materials). Use the Pasadena Ave. entrance off of Spring Street. Turn right at the first gate to enter the parking area. The access code for the gate is XXXX* (which will be provided at orientation). The * (star) key must be punched in after the access number. This number is confidential and must not be given out.

From the parking lot you will walk south toward the hospital. Follow the trail of sidewalk. Come in through the "Birth Care/Outpatient" entrance which will be towards your right. If you head towards the left you will encounter the Emergency Room and you will not be allowed to come in through there. From Birth Care, take the elevators to the ground floor and make a left when you exit and follow the road which will lead you to the cafeteria. Continue to go through the cafeteria and you will come out to the main hall way. Make a right at that hallway and an immediate left at the next hallway. The Pharmacy administration office will be on your left hand side as soon as you pass the main elevators.

Topics Discussed During Orientation with Primary Preceptor

- 1) Review of rotation expectation, description, and experiences.
- 2) Attendance requirements: Usually Mondays-Fridays for minimum of eight hours. For preceptor consistency, some Saturdays or Sundays may be necessary on occasions. In case of illness or anticipated tardiness, preceptor should be informed promptly. A maximum of three days of absence during the 6-week rotation may be excused for illness or

professional leave. Unexcused absence or tardiness may result in failure of the rotation. Hours missed may be made up at the discretion of the preceptor.

- 3) Dress code: Professional dress code is mandatory.
- 4) Name badge: A Photo identification badge will be provided on the first day of rotation. The badge must be worn at all times while at clerkship and returned to the preceptor on the last day of rotation.
- 5) Patient Confidentiality: All patient data reviewed or discussed during rotation must be kept confidential.
- 6) Schedule: Students will be provided with a tentative calendar for the six-week clerkship based on the primary preceptor's schedule. Participation in daily rounds with Family Practice Medicine is mandatory for the entire rotation. Rounds generally start at 0730 in the Doctor's Dining room (located on the first floor behind the main information desk). Daily preceptor rounds or discussion sessions will occur around 1500. Students are expected to be punctual, present, and actively participating at all times.

SUPPLEMENTARY MATERIALS AND ASSIGNMENTS

Additional information that may be helpful for students to prepare for rotation are:

Pre-rotation reading assignments

While not required, reviewing the following topics may be helpful: clinical pharmacokinetics, aminoglycoside/vancomycin pharmacokinetics, diabetes, hypertension, pneumonia, urinary tract infection, skin and skin-structure infection, phenytoin pharmacokinetics, warfarin, heparin, fluids and electrolytes, and total parenteral nutrition.

References and resources

- A. SSPPS References (<http://pharmacy.ucsd.edu/faculty/experiential.shtml>)
 1. Goals and Essential Elements for Monitoring Drug Therapy.
 2. How to Present A Patient for Pharmacy Rounds.
- B. Textbooks
 1. Mager R. Preparing Instructional Objectives, 3rd Edition. Belmont, CA: Fearon Publishers, 1984. *[Updated version may be available]*
 2. Alldredge, BK, Corelli RL, Ernst ME, Guglielmo BJ, Jacobson PA, Kradjan WA, Williams BR. *Koda-Kimble & Young's Applied Therapeutics: The Clinical Use of Drugs*, 10th ed., Lippincott Williams & Wilkins, 2012. *[Updated version may be available]*
 3. Medical dictionary. Examples: Stedman's Medical Dictionary, Dorland's Medical Dictionary.
 4. DiPiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey LM, eds. *Pharmacotherapy: A Pathophysiologic Approach*, 8th edition. McGraw-Hill, New York, 2011. *[Updated version may be available]*
 5. Kasper DL, Braunwald E, Fauci AS, Hauser SL, Longo DL, Jameson JL, Isselbacher KJ, eds. *Harrison's Principles of Internal Medicine*, 18th edition. McGraw-Hill, New York, 2012. Available on-line (free-of-charge) through the UCSD Biomedical Library at <http://www.accessmedicine.com/resourceTOC.aspx?resourceID=4>
 6. Pharmacology textbook. Example: Goodman & Gilman's *The Pharmacological Basis of Therapeutics*, 12th edition. McGraw-Hill, New York, 2010. Available on-line (free-of-charge) through the UCSD Biomedical Library Online Clinical Library at <http://www.accessmedicine.com/resourceTOC.aspx?resourceID=28>