



## **SKAGGS SCHOOL OF PHARMACY AND PHARMACEUTICAL SCIENCES**

### **APPE Rotation Description**

#### **UC San Diego Hillcrest Medical Center Hospital Practice Rotation**

##### **GENERAL INTRODUCTION**

The UC San Diego Hillcrest Medical Center is a 350 bed clinical teaching hospital that provides opportunities for pharmacy students to apply their acquired knowledge and skills to the range of professional services and activities expected in a hospital of integrated pharmaceutical services.

##### **PRIMARY PRECEPTOR**

Nancy T. Yam, PharmD, MHA, BCPS

Inpatient Pharmacy Manager

Phone: Work (619) 543-3833 | Mobile (310) 562-2781

Email: [ntyam@ucsd.edu](mailto:ntyam@ucsd.edu)

##### **INTRODUCTION TO THE ROTATION – 6 Week Rotation**

The Acute Care Hospital Practice Rotation will take place within UC San Diego Health – Hillcrest Medical Center Department of Inpatient Pharmacy. The student will meet with preceptors in a variety of settings to gain a broad exposure to hospital pharmacy practice. Practice settings may include but are not limited to:

1. The central dispensing area (CDA)
2. IV room
3. Decentralized pharmacy services on patient units
4. Pharmacy Home Infusion Services (PHIS)
5. Operation Room Pharmacy

A majority of patients at Hillcrest are adult patients with various races, ethnic, socioeconomic differences. There is also a labor & delivery and neonatal intensive care unit catering to a neonatal/pediatric population.

From this rotation, students will learn the medication use process by gaining experience in the preparation of parenteral medications, drug distribution, practice management-related activities as well as decision-making and drug information activities. Through these activities and assigned projects, students will not only learn and grow professionally, but will also provide valuable information to the Inpatient Pharmacy operations.

The student is under the supervision of a variety of clinical pharmacists. The student will have an opportunity to work with an inter-professional environment with a team including, but not limited to the following disciplines:

- Pharmacist Preceptor (including pharmacy residents)
- Physicians
- Nurses
- Other healthcare providers

Through this hands-on experiential rotation, an individual will progress from the student pharmacist level to being accountable for pharmacist-associated responsibilities. This will require communication with pharmacists, patients and other caregivers. Responsibilities include, but are not limited to:

- Rounding on various inpatient units
- Therapeutic drug monitoring
- Performing admission/discharge medication reconciliations
- Assisting with projects that help the department evaluate its drug use system

Students will have access to EPIC, which is UC San Diego's electronic medical record (EMR). Students will have access to contemporary online information resources, including Micromedex, Up-To-Date, Clinical Pharmacology Online, and Natural Medicines Database.

### **INCLUSION STATEMENT**

Each rotation is a place to expand knowledge and experiences safely, while being respected and valued. We support the values of UC San Diego to "create a diverse, equitable, and inclusive campus in which students, faculty, and staff can thrive." It is our intent that students from all diverse backgrounds and perspectives be well served by this rotation, that students' learning needs be addressed, and that the diversity that students bring to this rotation be viewed as a resource, strength and benefit. It is our intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, religion, and culture. We ask that everyone engage in interactions with patients, caregivers and other members of the healthcare team with similar respect and courtesy.

All people have the right to be addressed and referred to in accordance with their personal identity. We encourage everyone to share the name that they prefer to be called and, if they choose, to identify pronouns with which they would like to be addressed. We will do our best to address and refer to all students accordingly and support colleagues in doing so as well. We hope you will join us in creating a learning experience that upholds these values to further enhance our learning as a community.

## ROTATION DOMAIN, OBJECTIVES, and LEARNING ACTIVITIES

	Specific Objectives	Example Learning Activities
<b>Domain 1: Dispensing System and Safety Management</b>		
Objective 1.1: Participate in the medication use process in a health-system.	1.1.1 Accurately verify new medication orders.	<ul style="list-style-type: none"> <li>For any given medication order, succinctly and accurately explain out loud all steps (e.g. legitimate prescription, appropriate dose, interactions, overlapping side effects, DUR) in the thought process needed for verification.</li> <li>Review physician orders and verify prescription orders under preceptor direction.</li> </ul>
	1.1.2 Ensure the accurate preparation of medication orders.	<ul style="list-style-type: none"> <li>Oversees the preparation of the order, product choice, and delivery.</li> <li>Review non-formulary requirements and approval process for individual orders as they are presented.</li> <li>Navigate drug selection based on formulary options.</li> </ul>
	1.1.3 Respond appropriately to basic drug procurement issues using site protocols.	<ul style="list-style-type: none"> <li>Appropriately respond to medication orders for which there are shortages.</li> <li>Follow the approval process for non-formulary medication orders, including what products are uniquely sourced, how a distributor is identified, and how to place an order for such a product.</li> <li>Participate in purchasing activities.</li> </ul>
	1.1.4 Utilize information technology and medication management systems.	<ul style="list-style-type: none"> <li>Use pharmacy computer systems.</li> <li>Use automated dispensing systems.</li> <li>Use controlled substances monitoring systems.</li> </ul>

		<ul style="list-style-type: none"> <li>• Use medication administration and barcoding systems.</li> </ul>
	1.1.5 Perform IV admixture (where applicable/available, based on state and institutional requirements).	<ul style="list-style-type: none"> <li>• Demonstrate competency with USP (United States Pharmacopeia) Chapter 800, Pharmaceutical Compounding: Sterile Preparations, (USP).</li> <li>• Demonstrate competency in preparing a variety of intravenous medications using appropriate aseptic techniques.</li> <li>• Demonstrate the proper procedure for maintaining the sterility of materials being used for compounding a sterile product.</li> <li>• Demonstrate the proper use of equipment and devices used in compounding sterile products including horizontal and vertical laminar flow hoods.</li> <li>• Compound non-sterile products using the appropriate technique.</li> <li>• Given a medication order for a parenteral product, determine the correct compounding technique and related administration instructions.</li> <li>• Given a new or unfamiliar IV product for which there are no order sets or standard admixture, identify the correct mixing, technique/compounding, choice of diluent(s), packaging, labelling, infusion rate, concentration (central line versus peripheral), compatibility, expiration dating, and any requirements for safe administration.</li> </ul>
	1.1.6 Develop a general understanding of the medication use process	<ul style="list-style-type: none"> <li>• Review and comprehend key components of the medication use process which include:               <ol style="list-style-type: none"> <li>1) Selection and procurement</li> </ol> </li> </ul>

		2) Storage 3) Ordering & Transcribing 4) Preparing & Dispensing 5) Administration 6) Monitoring & Evaluation
<b>Domain 2: Practice Manager</b>		
<b>Objective 2.1:</b> Perform practice management in the health-system.	<b>2.1.1</b> Oversee the pharmacy operations for an assigned work shift.	<ul style="list-style-type: none"> <li>• For a reasonable amount of time, manage the workflow of the dispensing process, including answering phone calls, delegating tasks, checking batched and compounded medications, and other administrative tasks commonly performed by pharmacists in the central fill setting.</li> <li>• Implement pharmacy policies and procedures.</li> <li>• Supervise and coordinate the activities of pharmacy technicians and other support staff.</li> <li>• Assist in training pharmacy technicians and other support staff.</li> <li>• Assist in the evaluation of pharmacy technicians and other support staff.</li> <li>• Identify pharmacy service problems and/or medication safety issues.</li> <li>• Maintain the pharmacy inventory.</li> <li>• Assist in the management of a pharmacy budget.</li> <li>• Interpret pharmacy quality and productivity indicators using continuous improvement quality techniques.</li> <li>• Assist in the preparation for regulatory visits and inspections.</li> <li>• Demonstrate competency in the distribution of controlled substances in compliance with DEA regulations.</li> </ul>

	2.1.2 Participate in continuous quality improvement projects to assess and/or optimize the medication use process.	<ul style="list-style-type: none"> <li>• Participate in reporting pharmacist interventions or other activities in the electronic medical records.</li> <li>• Participate in an exercise that measures, improves, or clarifies some aspect of pharmacy services quality or patient safety.</li> <li>• Active engagement in formulary decision making activities (e.g., prepare monograph, prepare presentation, etc.).</li> <li>• Participate in discussions and assignments regarding compliance with accreditation, legal, regulatory, and safety requirements.</li> </ul>
	2.1.3 Participate in institutional systems and programs to assure appropriate drug use.	<ul style="list-style-type: none"> <li>• Conduct and document medication reconciliation.</li> <li>• Interview and document medication adherence.</li> <li>• Understand strategies that the department is using to monitor and evaluate the cost of drug therapy (Pharmacoeconomics) and attend various meetings (example: P&amp;T).</li> </ul>
<b>Domain 3: Population Health Promoter</b>		
Objective 3.1: Promote population health.	3.1.1 Minimize adverse drug events and medication errors.	<ul style="list-style-type: none"> <li>• Assist in the identification of underlying system-associated causes of errors.</li> <li>• Identify and report medication errors and adverse drug events.</li> </ul>
	3.1.2 Maximize the appropriate use of medications in populations.	<ul style="list-style-type: none"> <li>• Perform a medication use evaluation.</li> <li>• Apply cost-benefit, formulary, and/or epidemiology principles to medication-related decisions.</li> <li>• Conduct and document medication reconciliation in high-risk patients.</li> </ul>
<b>Domain 4: Interprofessional Team Member</b>		
Objective 4.1: Collaborate as a member of an	4.1.1 Actively contribute as a member of an	<ul style="list-style-type: none"> <li>• Contribute medication-related expertise to the team's work.</li> </ul>

interprofessional team.	interprofessional healthcare team.	<ul style="list-style-type: none"> <li>• Use setting appropriate communication skills when interacting with others.</li> <li>• Use consensus building strategies to develop a shared plan of action.</li> <li>• Work collaboratively with pharmacists, technicians and other support staff in the operations of the pharmacy.</li> <li>• Ensuring continuity of pharmaceutical care among health care settings (ie. utilize transitions of care activities).</li> <li>• Round with multidisciplinary inpatient teams when appropriate.</li> </ul>
<b>Domain 5: Ethics and Professional Behavior</b>		
Objective 5.1: Apply ethical and professional behavior.	5.1.1 Demonstrate ethical and professional behavior in all practice activities.	<ul style="list-style-type: none"> <li>• Adhere to patient privacy standards in verbal and written communications.</li> <li>• Demonstrate an attitude that is respectful of diverse individuals, groups, cultures and communities.</li> <li>• Demonstrate appropriate attire, demeanor, and conduct.</li> <li>• Adhere to attendance requirements, including punctuality.</li> </ul>
	5.1.2 Demonstrate knowledge of and comply with all federal, state, and local laws related to pharmacy practice.	<ul style="list-style-type: none"> <li>• Review and complete California State Board of Pharmacy hospital pharmacy self-assessment form</li> <li>• Review and prepare report on Title 22 Pharmaceutical Service Requirements</li> </ul>
<b>Domain 6: Communication and Education</b>		
Objective 6.1: Utilize appropriate education and communication strategies for a diverse patient population.	6.1.1. Perform patient-centered medication education	<ul style="list-style-type: none"> <li>• Provide appropriate medication education regarding prescription, OTC/self-care products, and supplements to patients (ie. anticoagulation counseling, discharge education)</li> </ul>

## EVALUATION

The student will complete three evaluations throughout this experience:

- 1) A Midpoint/Formative Self-Evaluation
- 2) A Preceptor Evaluation
- 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. Grading will be Satisfactory/Unsatisfactory.

### **ORIENTATION TO THE ROTATION**

During the first day of the rotation the student will be oriented to the pharmacy services and pertinent policies and procedures will be reviewed. On the first day, the following will take place:

- A brief tour and overview of the pharmacy
- Meet with pharmacy staff and understand each person's role in the pharmacy and how they integrate within the system
- Discuss rotation's expectations and the student's schedule
- Review department specific policies and procedures, including:
  - Medication Use Process
    - Inpatient Drug Distribution and Control
    - Compounded Sterile Products
    - Controlled Substances
- Review available drug information resources
- Review training materials: CD on sterile compounding and USP 797 Facts
- Attendance: primarily Monday-Friday, times and locations will vary. One week will include overnight shifts.
  - Preceptor will communicate in advance any changes to the schedule. Student needs to contact preceptor by texting preceptor on their listed cell phone above for any sick calls. Other professional requests must be discussed and approved by preceptor in advance.
- Dress Code: Business casual attire or scrubs as appropriate closed toes, white coat and badge required.
- Parking: Students may park in the Bachman parking structure and purchase a parking permit: <http://blink.ucsd.edu/facilities/transportation/permits/buy.html>

### **SUPPLEMENTARY MATERIALS AND ASSIGNMENTS**

*Specific reading assignments will be given upon the start of the rotation and subject to change.*

- Board of Pharmacy Self-assessments
  - Hospital Pharmacy self-assessment:  
[http://www.pharmacy.ca.gov/forms/17m\\_14.pdf](http://www.pharmacy.ca.gov/forms/17m_14.pdf)



- Compounding self-assessment: [http://www.pharmacy.ca.gov/laws\\_regs/17m-39\\_rev2011\\_adopted.pdf](http://www.pharmacy.ca.gov/laws_regs/17m-39_rev2011_adopted.pdf)
- California Title 22: [https://govt.westlaw.com/calregs/Document/I8AD1D2C0941F11E29091E6B951DDF6CE?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=\(sc.Default\)](https://govt.westlaw.com/calregs/Document/I8AD1D2C0941F11E29091E6B951DDF6CE?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=(sc.Default))
- DEA Pharmacist Manual: <http://www.deadiversion.usdoj.gov/pubs/manuals/pharm2/index.html>
- Online Clinical Library Review: <http://libraries.ucsd.edu/clinlib/>
- USP Compounding Standards & Resources: <http://www.usp.org/usp-healthcare-professionals/compounding>
  - ASHP's compounding sterile prep: <https://vimeo.com/64917527>
- UC San Diego Health Medical Center Policies (MCPs): <http://mcpolicy.ucsd.edu/>
  - Specific policies will be specified
- Other Supplementary Materials to be given on first day of rotation