

Xavier University - School of Pharmacy

PROFESSIONAL PROGRAM CLERKSHIP SYLLABUS AND SCHEDULE

CLERKSHIP TITLE: Advanced Clinical Community Clerkship – Causey’s Pharmacy – Natchitoches, LA

CREDIT HOURS: Four

PROGRAM (Check One/Appropriate Level):

- Early Practice Experience (EPE)
- Advanced Experiential Program (AEP)**

CLERKSHIP TYPE

- Community Pharmacy
- Acute Care
- Non-Direct Patient Care

PREREQUISITES: P-4 standing and registration as an intern with the Louisiana Board of Pharmacy.

DESCRIPTION: Introduction experiential training in Community Pharmacy with a main focus on disease state management and additional activities in Family Medicine.

PRECEPTOR(S): Steven T. Boyd, Pharm.D. BCPS, CDE, CDM
Office Telephone: 318-352-0063
Cellular: 402-212-3288

CLERKSHIP OBJECTIVES:

At the completion of the clerkships, students shall be able to:

1. Describe the components of the development and maintenance of a pharmacist-managed disease state management clinic.
2. Apply knowledge of current disease state management practices/guidelines that are encountered in the ambulatory and community pharmacy setting.
3. Recommend appropriate pharmacotherapy for various chronic disease states and acute primary care medical problems.
4. Recommend appropriate monitoring parameters for drug therapy and control of common disease states such as asthma, diabetes, hypertension, hormone replacement, arthritis, dyslipidemia, and depression.
5. Discuss and describe different classes of medications used in primary care with regard to chemical/pharmacologic classification, mechanisms of action (MOA), trade and generic names of drugs, available dosage forms, appropriate dosage regimen for particular disease state being discussed, adverse events, drug-drug interactions, drug-disease interactions, monitoring parameters, and cost effectiveness.
6. Identify possible drug effects, adverse effects, and drug-drug and drug-food interactions and recommend appropriate management.
7. Demonstrate the use of monitoring and drug administration devices that will be encountered in the primary care setting including:
 - a. Glucose meters
 - b. Peak flow meters
 - c. Metered dose inhalers/spacers
 - d. Dry powder dose inhalers
 - e. Blood pressure monitoring
 - f. Injection techniques
8. Utilize primary care literature to solve drug-related problems and evaluate therapeutic controversies.

PROGRAMMATIC OUTCOMES:

Thinking abilities:

- Critically thinks through simple and complex patient interviews.

- Systemically gather and generate relevant information (e.g., read, listen, observe, recall, and reflect)
- Use appropriate technology in the processing of information
- Synthesize information and create a solution, hypothesize, draw conclusions, conjecture alternatives, or decide a course of action.
- Provide support for arguments, solutions, results, and conclusions.
- Employ sophisticated methods for discovery and analysis of information, including statistical analysis, probability studies application and electronic information searching and processing.
- Develop interdisciplinary approaches to problem analysis.
- Identify realistic outcomes.
- Construct criteria for evaluation of chosen solutions.
- Identify and interpret problems and solutions within appropriate social, scientific, cultural intellectual and ethical contexts.
- Articulate specific criteria for determining success or failure of solutions
- When appropriate, identify approaches to modify implementation of solutions.
- Modify solutions when monitoring indicates a need.
- Prioritize problems based on identifiable criteria or standards.

Communication Abilities

- Write, speak and use data, media and computer technology accurately and clearly during communications with peers and professors, patients, and other health care practitioners.
- Interpret ideas, thoughts, and feelings communicated through reading, listening, aesthetic, and forms of communication, data, media and computer technology.
- Use writing, speaking, data and media creatively, store and retrieve information for use in solving problems.
- Choose communication methods that are appropriate for the purpose of the interaction.
- Choose communication methods that are appropriate to the needs/desires of the target audience.
- Use communication skills to effectively educate patients on medication use and chronic disease states and document appropriately.
- Become an active listener.

Responsible Use of Values and Ethical Principles:

- Possesses personal knowledge of and exhibits the values, principles and ethics associated with the profession and their personal beliefs.

Social Awareness and Social Responsibility:

- Explain how differences in approach to social, cultural, economic, political and scientific issues among people can affect both every day behavior and the delivery and acceptance of health care.
- Describe the impact of historic social, cultural, economic, political and scientific events on the evolution of contemporary pharmacy practice.
- Act with an informed awareness of contemporary issues and their historical contexts.

Self-Learning Abilities and Habits

- Maximize learning through the use of effective personal learning strategies.
- Interpret assessment feedback from others to identify performance strengths and areas in need of refinement or remediation.
- Formulate strategies to address performance areas in need of refinement of remediation.
- Self-initiate action of correct identified learning deficiencies.

Social Interaction and Citizenship

- Use appropriate interaction behaviors.
- Fosters an open and honest environment for communication.
- Employ feedback from other to enhance personal effectiveness.
- Contribute opinions, insights, information and leadership assertively and appropriately during group decision-making situations.

- Use appropriate behaviors during professional interactions with patients, other health care providers and the public.
- Adapt behaviors to differing professional environments.
- Contribute opinions, insights, information and leadership assertively and appropriately during the health care team decision-making process.

Accepts personal responsibility and accountability for one's actions

- Displays an attitude consistent with responsible behavior
- Uses self-learning skills to fulfill responsibilities.
- Fulfills commitments.

Demonstrates personal responsibility and accountability for one's actions.

- Takes appropriate risks associated with challenges

PROFESSIONAL COMPETENCIES

Provide Pharmaceutical Care to individual Patients

- Give the well-being of the patient highest consideration in provision of pharmaceutical care.
- Conduct patient interviews and interpret results of the interview.
- Facilitate the resolution of ethical dilemmas in the provision of optimal pharmaceutical care.
- Respect the dignity, autonomy and confidentiality of individual patients.
- Dress and speak in ways that convey a professional image.
- Maintain personal self-control and professional decorum.
- Collaborate with patients and/or their care givers, physicians, and/or other health professional.
- Use patient profiles, medical records and/or electronic records to gather relevant information.
- Collect information to be used in monitoring therapeutic outcomes.
- Demonstrate knowledge of the pathogenesis, natural history and etiology, pathophysiology, epidemiology, risk factors, signs and symptoms, and clinical course of specific diseases.
- Demonstrate knowledge of the value of drug treatment approaches in relationship to all other available approaches for the management of specific diseases.
- Demonstrate knowledge of the mechanisms of drug action.
- Demonstrate knowledge of the effects of comorbidities on drug therapy.
- Demonstrate knowledge of drug-drug interactions.
- Assess physical and chemical properties and clinical data.
- Evaluate laboratory test results and pharmacokinetic data.
- Evaluate information obtained from the patient's history.
- Evaluate research studies.
- Assess the patient's pharmaceutical care needs.
- Select appropriate drug therapy, medical goods and/ or devices for patients based upon pharmaceutical care needs.
- Recommend medication dosing, schedules, and drug delivery systems based upon relevant patient factors, such as biochemical, pharmacodynamics, physiologic, a pharmacokinetic, parameters, patient beliefs, needs, and abilities, and pharmacoeconomic, considerations.
- Eliminate unnecessary drug therapy.
- Communicate pertinent information from the various sources of patient information used in the formulation of the care plan to appropriate individuals.
- Assess individual patient's clinical outcome outcomes data and how to interpret such in patient specific situations.
- If goals(s) is/are not met, redesign the patients care plan following the comprehensive pharmaceutical care process.
- Provide advocacy for the patient, when necessary, to achieve optimal care plan change.

Participate in and Manage Medication Distribution and Control Systems

- Select high quality drug products for use in medication distribution and control systems.
- Describe regulations relevant to product selection from among multi-source drug products.
- Utilize appropriate references for the evaluation of drug product quality.
- Perform simple analysis or observations to evaluate physical and chemical stability.

- Communicate an evaluation of drug product quality. Identify and select alternative actions if product quality is compromised.

Manage Medication Use Systems

- Identify and report medication errors and adverse drug events to appropriate individuals and organizations.

Promote Public Health

- Demonstrate knowledge of how care is provided in the U.S. health care system’s organizational settings (e.g. ambulatory, integrated health care systems, hospitals)
- Describe the optimal role of the pharmacist and other health professionals in different health care organizational settings.
- Assess needs of target populations with respect to disease prevention/education.
- Explain how patients’ lifestyle can affect their health and illness behavior, such as patient compliance and how pharmacists are involved in drug use processes.
- Provided recommendations for follow-up and/or refer patients for further medical evaluation.

Provide Drug Information

- Obtain appropriate background information
- Identify the specific aspects(s) of the request.
- Establish urgency of the response.
- Recognize available print and electronic or on-line reference in general, secondary and primary information sources.
- Apply information available in general, secondary, and primary information sources to specific questions.
- Use abstracting and indexing services to access information
- Use electronic databases for monitoring and identifying adverse drug events and drug interactions.
- Use/consults personal and organizational sources of information, including resources available on the Internet.
- Evaluate information obtained, recognized strengths and limitations of the information.
- Provide information applicable to requests using effective written and oral communication techniques.
- Document responses to information requests.

Outcomes Management

- Explain clinical outcome data how to interpret such information in patient specific situation.
- Select appropriate outcome data needed to make individual patient drug therapy decisions.
- Explain relevant economic data for specific patients’ drug therapy management needs.
- Select valid economic outcome data from appropriate resources to apply to patient specific situations.

Provide Education on Pharmacy and Health-Related Topics.

- Choose appropriate media (written, electronic, and audio-visual) to communicate effectively.
- Use speaking skills that are appropriate for the background and informational needs have given audiences.

INSTRUCTIONAL METHODS:

Instructional methods include self-study, observation, monitoring all assigned patients and participation, problem solving, small group discussion with instructors, student case presentations, discussions of diseases and pharmacotherapy based on preceptor-assigned readings (referred to as drug power hour), disease state management meetings, teaching and interaction with assigned patient care teams during inpatient rounds and in the clinic setting.

STUDENT RESPONSIBILITIES/CLERKSHIP EXPECTATIONS:

1. Students will assist the clinical pharmacist in providing recommendations for local physicians and local hospitals, monitor patients in the outpatient community pharmacy clinic, and actively monitor patient pharmacotherapy utilizing patient information systems, providing pharmacotherapeutic consultation and patient/family education as needed.
2. Students will be responsible for reading guidelines (4 diseases of choosing):

a) Diabetes-American Diabetes Association	d) Anticoagulation-Chest
b) Asthma-National Institute of Health	e) Arthritis
c) Dyslipidemia-NCEP ATP-III	f) Depression

- g) HIV
- h) Hypertension—JNC VII

- i) Women’s Health: Oral Contraceptives, Hormone Replacement Therapy, and Osteoporosis
- j) Heart failure

3. Students will actively participate in “Drug Power Hour”, weekly discussion periods focusing on drug classes and pharmacotherapy based upon assigned required readings.
4. Journal club- Review publish evidence based on medicine articles
5. Students will meet with the preceptor on daily basis to discuss patient pharmacotherapeutic issues and scheduled disease state management discussion and other assigned topics throughout the clerkship.
6. Students develop and orally present one patient case.
7. Student may be involved in several projects throughout rotation
8. The student is expected to progress during the clerkship to able to readily retrieve clinical data and to utilize that data in the development and implementation of a pharmaceutical care plan for each patient at a basic level of understanding and application, as evidenced in clinical activities, submitted reports, presentations and in discussions with the preceptor and clinical pharmacists.

ASSESSMENT MEASURES:

All students will be assessed in the following manner:

1. Orientation and interview to address the students’ expectations for the clerkship and to review the learning objectives.
2. Mid-clerkship evaluation will be administered at the end of the second clerkship week. The prime areas of evaluation will include extent of active participation, timeliness of follow-up on drug information questions, and extent of interaction with patients, and basic knowledge and increase in knowledge base. The students will have the opportunity to discuss how the clerkship has gone and how he/she would like to proceed with learning objectives.
3. Final exam will be given to the student over the disease state management and journal club.
4. Final evaluation and grade will be administered on the last day of the clerkship.

GRADING METHODS:

The following will be the point scale used to assign the final course grades.

- Disease state management 40% (4 x 10%)
 - Integrate didactic concepts in pathophysiology, pharmacology, pharmacokinetics and pharmacotherapeutics with clinical
 - Discuss and describe different classes of medications used in primary care with regard to chemical /pharmacologic classification MOA...
 - Presentation
 - Practice and guideline
 - Basic knowledge base
- Diabetes Clinic 20 % (4 x 5%)
 - Interaction with patients
 - Drug review, discuss and describe different classes of medications used in primary care with regard to chemical /pharmacologic classification MOA...
 - Recommend appropriate monitoring parameters for various chronic disease states and acute primary medical problems
 - Educate and counsel patient
 - Patient case report (SOAP note...)
- Employer Group 20 % (4 x 5%)
 - Interaction with patients
 - Drug review, discuss and describe different classes of medications used in primary care with regard to chemical /pharmacologic classification MOA...
 - Recommend appropriate monitoring parameters for various chronic disease states and acute primary medical problems
 - Educate and counsel patient
 - Patient case report (SOAP note...)
- Insulin Pump 10%
 - Interaction with health care professionals
 - Interaction with patients

- Drug review
- Recommend appropriate monitoring parameters
- Educate and counsel patient
- Professional 10%
 - Maintains legal standards
 - Follows policies and procedures
 - Maintains patient confidentiality
 - Acts with honesty, integrity, and trustworthiness

Grading for the ambulatory clerkship will utilize the point breakdown, as outlined above, which totals 100 total points. The grading scale for this clerkship is:

A ≥ 90 % B⁺ = 85 – 89 % B = 80 – 84 % C⁺ = 75 – 79 % C = 70 – 74 % D = 60 – 69 % F < 60 %

CLERKSHIP OUTLINE:

WEEK DAY	WEEK 1	WEEK 2	WEEK 3	WEEK 4
Monday	Orientation Diabetes Clinic	Diabetes Clinic	Diabetes Clinic	Diabetes Clinic
Tuesday	Xavier – Office Day Journal Club	Xavier – Office Day Journal Club	Xavier – Office Day Journal Club	Xavier – Office Day Journal Club
Wednesday	Disease state Management Prepare for Employee Group Patients	Disease state Management Prepare for Employee Group Patients	Disease state Management Prepare for Employee Group Patients	Disease state Management Prepare for Employee Group Patients
Thursday	Employer Group	Employer Group	Employer Group	Employer Group
Friday	Insulin Pump Clinic	Insulin Pump Clinic Mid-term Evaluation	Insulin Pump Clinic	Final Exam Final Evaluation