



Northeast Ohio

MEDICAL UNIVERSITY

**P4 - ADVANCED PHARMACY PRACTICE EXPERIENCE
(APPE)**

**PRECEPTOR MANUAL
2017-2018**

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INTRODUCTION

Welcome and thank you for your service as a preceptor for the Northeast Ohio Medical University (NEOMED) College of Pharmacy. As preceptor, your role is one of teacher, mentor, and advocate for our students' professional development. You are guiding our students through their final year of pharmacy school as they acquire the skills and knowledge necessary to become a practicing professional pharmacist.

APPEs are designed to enhance the knowledge base and skills students need in order to fulfill the competencies required for the professional pharmacy degree. Students should further develop their skills in patient care, critical thinking, decision making, ethical judgment and professionalism.

This preceptor manual is a guide for preceptors to utilize in one's development and throughout a student's APPE. We have included information on APPE policies, procedures, objectives, and assessments. You are making an enormous contribution to individual students, NEOMED and the profession of pharmacy. Please do not hesitate to contact the college if you have any questions; we are more than willing to assist you.

Best wishes for a rewarding experience!

Charles Cather R.Ph., MBA, FASCP
Director of Experiential Education

Updated 02/27/2017

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ADVANCED PHARMACY PRACTICE EXPERIENCE (APPE) COURSE DESCRIPTION

The Advanced Pharmacy Practice Experiences or APPEs consist of seven professional experiences that provide students the opportunity to develop their skills and knowledge base in pharmacy practice. This series of experiences follows the first three years of the Pharm.D. didactic curriculum as well as a series of Introductory Pharmacy Practice Experiences (IPPEs) students have completed. APPE rotations take place over 10 months, from June following through April of P4 year. There are no rotations scheduled for the months of December and May.

The rotations include:

- Inpatient/Acute Care Internal Medicine (2-month rotation)
- Underserved (1 month)
- Ambulatory Care (2-month rotation)
- Advanced Community Pharmacy Practice* (1 month)
- Advanced Hospital Pharmacy Practice* (1 month)
- Selective Leadership (1 month added to either of the above*)
- Clinical Patient Care Selective (1 month)
- Elective (1 month)

APPE rotations reinforce the ability to apply skills and knowledge students received during the previous three years in the curriculum. APPEs provide students the opportunity to serve various patient populations in a variety of settings and to collaborate with other healthcare professionals. These experiences offer exposure to disease states that pharmacists are likely to encounter in practice. Students complete these experiences under the general supervision of a licensed pharmacist or other college appointed preceptor.

APPE GENERAL DESCRIPTIONS

Clinical - (Acute Care Internal Medicine, Ambulatory Care, Clinical Selective)

These experiences take place primarily in hospital and ambulatory care practice settings.

Clinical Selective experiences focus on a particular patient population (e.g. pediatrics, geriatrics) or specific clinical specialty (e.g. Infectious disease, Psychiatry, Cardiology, Oncology, Palliative care). Students are exposed to diverse patient populations with a broad range of acute and chronic medical problems. Students will learn and demonstrate the ability to assess patients, identify medical- and drug-related problems, develop therapeutic care plans, make recommendations to health care practitioners, monitoring drug therapy, and counsel patients.

Advanced Community Pharmacy Practice

These experiences occur in retail settings such as chain store pharmacies, independent pharmacies or managed care pharmacies. In addition to medication dispensing, these experiences focus on the identification, resolution and prevention of drug related problems dealing with general medicine issues. Students may participate in patient care services such as administration of immunizations, medication therapy management (MTM), disease state management, counseling, blood pressure checks, and adherence monitoring.

Advanced Hospital/Health System Pharmacy Practice

These experiences take place in hospitals or other systems of integrated pharmaceutical services. These experiences focus on patient-specific care and medication use systems. Emphasis is placed on the drug-use decision-making process, monitoring of individual patient drug therapy, formulary management and the communication of information and analysis to other health professionals and patients. These experiences may include medication order processing, dispensing, sterile product preparation, clinical services, inventory management, and administration.

Underserved

These experiences take place primarily in ambulatory settings (e.g. Federally Qualified Health Centers, charitable pharmacies, hospital-based ambulatory clinics) which provide pharmaceutical care services to those who face barriers to timely access to health services. These experiences focus on identification, resolution and prevention of drug related problems in the underserved patient. Students may participate in activities such as dispensing, patient counseling, medication therapy management, disease state management, adherence monitoring, development of care plans, monitoring drug therapy, and making recommendations to health care practitioners.

Leadership

These experiences take place in a community or institutional setting in which the student focuses on the administrative and management aspects of the setting. These experiences occur as an additional one-month extension of a student's Advanced Community or Hospital Practice experience. Activities a student may perform on these experiences include spending time with a manager or director of pharmacy services, attend administrative related meetings, and develop policies and procedures, and human resource/financial/inventory/operational management.

Electives

Elective APPEs may be either patient-care or non-patient care experiences. These rotations provide students with an adequate breadth of knowledge in areas of interest and should complement the required APPEs to develop the student pharmacist into a competent and mature professional. Elective experiences give students the opportunity to gain insight in areas such as academia, research, drug information, compounding, and professional association management among others. Students may also take additional clinical selective rotations, community, or hospital rotations as elective experiences.

Goals, Objectives and Activities

The goals and objectives for each experience align with the ability statements needed to fulfill the requirements for the Doctor of Pharmacy degree. Students must demonstrate a minimum level of proficiency for all the abilities by the end of the experiential education. The goals and objectives for the APPEs are listed in the Appendix. Preceptors may include their own site-specific goals and objectives for their rotations. Students should also work with preceptors to incorporate his or her interests or areas of needed skill improvement into the goals and objectives of the rotation.

PRECEPTOR STANDARDS

The Preceptor shall:

1. Recognize that the relationship with the student is one of preceptor-student rather than employer-employee.
2. Recognize that learning requires mutual respect, courtesy and communication between him or herself and the student.
3. Take responsibility for the professional and legal supervision of the student during the experience.
4. Demonstrate the principles of professional ethics.
5. Plan and prepare for the student's rotation experience. This includes review of the rotation goals and objectives, review of assessment forms, develop a schedule of activities for the student, and notify staff of their responsibilities when working with a student.
6. Give the student a thorough orientation to the site and experience early in the rotation to facilitate a smooth transition and an optimal use of available resources.
7. Clearly outline expectations of the student regarding professional dress, conduct, scheduling of hours/activities, assignments, and performance.
8. Afford the student sufficient time, preparation and patience for the learning experience.
9. Do not assume the student's level of competence but determine this by discussing previous experiences the student had and observing performance of his/her basic skills.
10. Expose and involve the student in all aspects of practice consistent with the student's ability, needs and interest as determined by the goals and objectives as set forth by the College.

11. Establish a schedule of student's activities for the rotation in consultation with the student. If the schedule includes experiences with other practitioners, the preceptors should clearly communicate with these individuals and the student.
12. Provide the student with feedback and constructive criticism on a continuous basis and convey this information in a private manner.
13. Familiarize site personnel with the experiential program objectives to avoid misunderstanding about the student's role during the rotation.
14. Review with the student their performance at the midpoint and end of the rotation in a timely, accurate and objective manner.

STUDENT STANDARDS

The following are standards, which all students must meet before participating in APPE site visits:

- Be in good academic standing at NEOMED including successful completion of all didactic course work
- Up to date with all required immunizations including annual TB skin test and influenza vaccination
- Pass a criminal background check and urine toxicology screen
- Be a licensed pharmacy intern in Ohio (Note: for rotations occurring outside Ohio students will obtain an intern license in accordance with that state or site's requirements)
- Have successfully completed Basic Life Support and Immunization Provider certification
- Not have a family member, employer or previous employer as a preceptor or site
- Will not receive monetary compensation for site visits

Students on practice experiences represent the College of Pharmacy. Students are expected to conduct themselves in a professional manner in *all* interactions while on rotations.

During experiential rotations, the student shall:

1. Be **professional** in both appearance (dress) and conduct.
2. Work to master assigned activities quickly so more time can be devoted to gaining the widest experience possible.
3. Recognize that learning requires **mutual respect and courtesy** and an open line of communication between preceptor and student.

4. Not divulge any patient or business related information of a **confidential** nature.
5. Not make professional decisions without preceptor supervision and approval.
6. **Adhere to a specified schedule** predetermined with the preceptor.
7. Be **punctual** and be required to notify preceptor of lateness or absence.
8. Comply with all applicable **pharmacy laws and regulations**.
9. Comply with all **policies and procedures** of the College and training sites.
10. **Complete all assignments** from the preceptor in a timely manner
11. Complete a constructive evaluation of the preceptor.

PRECEPTOR GUIDELINES

E*Value

E*Value is a management software system used by NEOMED to track all experiential training rotations and associated information. Every student and preceptor will be able to use the system, via Internet, to check for rotations updates, maintain personal addresses, complete student evaluation forms and communicate with student. Detailed instructions for using this system can be found in the Appendix.

Preceptor Checklist: Before the Student Arrives

The following are several items which you may want to check off before the rotation begins. You may also wish to provide some of this information to your student when he or she contacts you prior to the start of the rotation.

1. Review goals and objectives for the APPE experiential site visits. (see Appendix)
2. Prepare a list of student tasks/activities/assignments in accordance with goals and objectives.
3. Inquire about additional orientation sessions and/or procedures student must attend and/or follow for your facility such as orientation sessions, additional ID badges, etc.
4. Have information available regarding parking location, permits, fees, etc.
5. Remind staff of arrival of student, what the student's roles and responsibilities will be and the role staff members will have in regard to the rotation.
6. Prepare a list of your facility's contact names and numbers for student use in case of emergency, absence, etc.

Orientation

Preceptors should provide students with a comprehensive orientation to the site and the experience within the first few days of the rotation. The orientation should clearly outline expectations of the student and what the student may expect from the experience. Students should be informed of their role and responsibilities at the site as well as the role of the preceptor. The orientation should include general information such as introductions to professional and office staff, a tour of the facility, location of drugs, materials and equipment, ID badges, parking and other relevant information. The orientation would also serve as an opportunity for preceptors to discuss the following with students:

1. The site's policies and procedures, as they apply to students including:
 - confidentiality
 - lines of authority
 - absence and tardiness procedures
 - safety and emergency procedures
2. Scheduling of student's hours.
3. The goals and objectives for the experience as set forth by the College and the preceptor. Preceptors should ask the student if he or she has any goals of their own or specific areas of interest which might be incorporated into the experience.
4. How the experience will be structured and how the preceptor plans to work with students. Preceptors should discuss when they plan to meet with the student and how that time would be spent, e.g. discussing patient cases, reviewing student activities or performance.
5. Activities the student can expect to do at the site, as well as written assignments and/or formal presentations, which he or she will be required to complete.
6. Expectations for the student to receive and request on-going informal feedback.
7. Grading and evaluation – What areas will be evaluated and what level of performance will garner favorable evaluation marks.

Scheduling and Workload

The following policies apply to student scheduling and workload. Preceptors are encouraged to work with students when determining a work schedule.

1. Rotations are scheduled to start on the first working day of the month and end on the last working date. The preceptor can modify start and stop dates (must be within the month) at their discretion. For example, if the first working date is a Friday, the preceptor may have the student start on Monday. Preceptors are not required or expected to accommodate any student requests to change start and stop dates.
2. A minimum of 160 hours per month of participation is required between the start date of the APPE and the ending date. These do not have to be contact hours and may include research and writing time away from the site.

3. Rotations are to be scheduled during the day Monday through Friday unless the learning needs of the student at the site are such that weekend or evening activities is necessary. Students should be informed in advance of the rotation if weekends or evening activities will be part of the experience. This allows time for the students to make appropriate arrangements with employment, childcare needs, or other personal issues.
4. Student outside employment should not interfere with APPE activities. The last professional year is not designed for additional student employment and preceptors **should not** expect to schedule around outside employment work hours.
5. Workload will not be considered excessive unless it exceeds 10 hours per day of contact time and an additional 4 hours of study/research time daily.
6. Students are not allowed to receive compensation under any circumstances for hours worked during APPEs.

P4 - APPE Academic Schedule

2017-2018
Class of 2018

June 1 – June 30

July 3 – July 31 (**Holiday – Independence Day – July 4**)

August 1 – August 31

September 1 – September 29 (**Holiday – Labor Day – September 4**)

October 2 – October 31 (Career Day Interviews October 6 *optional*)

November 1 – November 30 (**Holiday – Thanksgiving – November 23 & 24**)

December 1 – December 31 (no rotations scheduled)

January 2 – January 31 (**Holiday – New Year’s Day – January 1**)

February 1 – February 28

March 1 – March 30

April 2 – April 30

May 1 - 11 CAPSTONE (On-campus) Mandatory

May 19 **Graduation!**

Policy Regarding Time Off During P4 (APPE) Rotations

Due to the intensity of each rotation and the need to achieve the required objectives, it is advised that students avoid taking time away from their rotations. Students completing APPE rotations do not follow the P1 – P3 academic calendar for NEOMED. Students are not allowed to take vacation time during their rotation schedule. However, it is recognized that students may need time off from rotations for professional or personal reasons. The following are the approved guidelines regarding absence from rotations:

1. **Approvable absences** from rotations are those which the preceptor deems important to the professional development of the student (i.e. residency/job interviews, attendance to a professional meeting) or for a personal illness or a family related emergency. Absences related to on campus activities such college committees are approvable at the discretion of the preceptor. Time off for personal vacations, weddings, honeymoons, family reunions, etc. are not considered valid reasons for taking time off from the rotation.
2. Students will be allowed no more than **TEN (10) days** of approved absences including personal illness or emergencies from their assigned rotations over the entire APPE program (10 months). The ten days are not meant to be an entitlement and cannot be used or saved for an extended break from rotations including personal or family vacations. Each student is responsible for assuring that the maximum number of days away from the ten-month program is not exceeded. Exceeding the maximum number days can result in a student not successfully completing the requirements of the APPE program necessary for graduation.
3. Students will be allowed no more than **TWO (2) days** of approved absences during any one month. Exceptions to this requirement as in the case of residency interviews can be granted only if approved by the preceptor **prior to scheduling an interview**. If additional absences are allowed the preceptor may require the student to work extra time at the site or complete additional activities (e.g. projects, written assignments, presentations) to insure achievement of rotation objectives. Additional absences maybe denied if the preceptor believes the student will be unable to achieve the objectives of the rotation.
4. Students with approved absences are expected to complete all rotation objectives responsibilities as assessed by the preceptor. The preceptor may require the student to make-up any absence time from the rotation.
5. Time off is to be taken only with the **PRIOR** approval of the preceptor. The student is **required** to complete the “**Request for Approval of Absence from APPE Activities Form**” for your approval and signature **FIVE (5) business days** before a planned absence.

Students should not make any travel arrangements until they have received approval from their preceptor to be absent. The signed absence form should be forwarded to the Director of Experiential Education for review.

6. Students are authorized specific holidays off from rotation (refer to the P4 APPE Academic Schedule for a list of approved student holidays). Preceptors should allow students to be off for these approved holidays.
7. In the case of personal illness or emergency, the student is required to notify the preceptor or his /her designee as soon as possible prior to the scheduled arrival time to the site. The method of notification (i.e. email, phone call) shall be predetermined by the preceptor and communicated to the student at the start of the rotation. If the student is absent for more than **TWO (2) days** from the rotation due to illness or emergency, both the preceptor and the student must notify the Director of Experiential Education. The “Request for Approval of Absence from APPE Activities Form” must be completed upon the student’s return to the rotation.
8. Time off for religious reasons is allowed in accordance with NEOMED policy. Students requesting time for this reason are required to receive prior approval from the Director of Experiential Education **TWO (2) months** prior to the start of the time off. The student is required to inform the preceptor of these approved absences upon initial notification of the preceptor. Students may be required to make up any missed time resulting from these types of absences at the discretion of the preceptor.
9. Unexcused absences include any failure to be present on a scheduled rotation day(s), failure to notify the preceptor of an illness or emergency in a reasonable period of time, or any absence that was not approved by the preceptor. Unexcused absences will not be tolerated and jeopardize the student’s successful completion of the program. Any unexcused absence may result in failure of the rotation in which it occurred. Preceptors should immediately notify the Director of Experiential Education if such absences occur.
10. Time off requests for travel to or from a distant rotation is to be arranged only within that rotation at the discretion of the preceptor. Generally, no more than **ONE (1) business day** should be taken for travel.
11. Preceptors should consult with the Director of Experiential Education regarding any concerns surrounding a student’s absence from a rotation.

Evaluations and Grading

APPEs are required courses within the College of Pharmacy and students must treat them as they would any other course. Preceptors monitor student performance, identify strengths and weaknesses and provide necessary feedback to ensure student development in established competency areas. Preceptors must complete a student evaluation in E*Value for each student they precept (see Appendix). The evaluation consists of six sections:

- Section 1: Professionalism
- Section 2: Communication
- Section 3: Drug Disease Knowledge
- Section 4: Application
- Section 5: Interprofessional Collaboration
- Section 6: Medication Distribution/Dispensing
- Section 7: Administrative Skills

- **Midpoint Evaluation:** The preceptor is strongly encouraged, by the university and ACPE, to complete a student evaluation at the midpoint of the rotation. The midpoint evaluation is **required** if the student is not meeting rotation expectations or performing at an unsatisfactory level. The evaluation should be discussed with the student and submitted to the college via E*Value. If a student is not meeting performance expectations at the midpoint, the preceptor should contact the Director of Experiential Education to discuss the issues and discuss a plan for improvement.
- **Final Evaluation:** The preceptor is required to complete a final student evaluation during the **last week** of the rotation. The final evaluation will be used to determine the student's grade for the rotation. **Narrative comments are required to support "Unsatisfactory Performance", "Needs Improvement", and "Exceeds Expectations" ratings.**
- The final evaluation should include a summary of any presentations and/or projects the student completed. This information allows future preceptors to recognize what was accomplished during past rotations and build in activities during subsequent rotations to fulfill all the expectations of a student's APPE rotations.
- Preceptors are encouraged to comment on student needs to improve for subsequent rotations. (Note: Preceptors are able to view **Overall Comments** and **Areas for Improvement** sections of earlier APPE evaluations of the students they are precepting. Information on how to view these evaluations is in the E*Value instruction guide)
- The final evaluation should be reviewed and discussed directly with the student **at the end** of the rotation. It is important to complete the evaluation in a timely manner so the student's grade can be posted for the rotation.

Grading Scale

Final grades for rotations will be based on an average score of all the components of the evaluation using the following scale:

Less than 2.5 overall or less than 2.0 in an individual section = FAIL

2.5 to 3.5 overall = PASS

Greater than 3.5 overall = PASS with HONORS

Feedback

In addition to the guidelines above, preceptors should be aware that feedback is an integral part of the evaluative process and more importantly, integral to the development of the student. Effective feedback provides positive reinforcement for what the student is doing correctly and steps the student can take to improve those areas, which need improvement. Without appropriate feedback, students may miss crucial skills development and/or knowledge base enrichment. The following are some guidelines for preceptors reading feedback:

1. ***Students want to receive feedback on their performance*** - Students desire and expect preceptors to provide them feedback on their performance whether it is positive or negative. One can only improve or change if they are provided honest, specific, and timely feedback. It is suggested to tell the student “*I want to give you some feedback, ...*” before giving feedback.
2. ***Feedback should be specific and based on direct observation*** – Feedback should refer to actions that are specific and which the preceptor has observed first-hand.
3. ***Feedback should include positive aspects and areas for improvement*** – Ideally feedback should not just be all positive or all negative. Include both when you are discussing individual performance with a student. Some find it effective to “sandwich” negative feedback between positive feedback given at the beginning and the end.
4. ***Provide feedback in a consistent and timely manner*** – If possible, preceptors should provide feedback immediately after a task, patient-counseling session or other activity. As this is not always possible, a time should be determined for providing feedback to the student, once a week for example “*Feedback Friday*”. Preceptors should take notes as soon as possible after observing students and not rely on memory to ensure accurate and helpful feedback. Preceptors might find the *Journal Club Evaluation*, *Case Presentation Evaluation Form*, *Drug Information Evaluation Form* and *Pharmacist Observation Form* (see Appendix) helpful for recording observations.
5. ***Feedback should focus on remediable behavior and should offer suggestions for improvement*** – Feedback should focus on behaviors that can be corrected. Feedback should not deal with assumed intentions or preceptor interpretations. Preceptors should provide suggestions to correct or improve the behavior; judgment statements should be avoided. Discussing the potential negative outcome of a certain behavior can help to explain to the student why a change is needed
6. ***A record of feedback should be saved*** – Preceptors should keep copies of all written feedback and forms completed. The College of Pharmacy may request copies of this documentation on as needed basis.

Student Performance during the Rotation

Students are expected to maintain a high level of professionalism and demonstrate an acceptable level of competence in the practice and clinical skills necessary to becoming a licensed pharmacist. Successful completion of the rotations goals and objectives is a reliable measure of one's performance during a rotation. Since a student's level of competence in any specific skill may vary from their peers it is important that preceptors identify and work with their student on those skills needing improvement. Identifying those areas for improvement and discussing with the student as early as possible into the rotation will allow opportunity for the student to show improvement. The preceptor and student developing a plan with specific, measurable, attainable, relevant, and timely (S.M.A.R.T) goals is an ideal approach to help one meet the expectations of the rotation. This may require the student spending additional time mastering a particular activity or task (e.g. counseling patients, dispensing, reviewing patients drug therapy, answering drug information questions, etc.) rather than activities one is comfortable doing. Providing effective feedback (see above) throughout this time is vital. Ideally the student should be allowed the time to demonstrate a progressive improvement in one's performance needed to successfully pass the rotation. The preceptor should consider the student's effort and degree of progression in mastering a skill when completing the midpoint or final evaluation.

Preceptors who are having difficulty with a student's performance, developing a plan for improvement, or believe improvement is not being achieved should contact the Director of Experiential Education for assistance as soon as possible.

In instances of unacceptable professional behavior or performance, the preceptor should contact the Director of Experiential Education to report the situation and determine the appropriate actions to be taken. Actions may include immediate dismissal from the rotation and the student being referred to the NEOMED Council on Academic Performance & Professionalism.

For students who are performing at or above the rotation expectations the preceptor is encouraged to allow the student to participate in higher-level activities. This may include but not limited to a greater amount of independence, mentoring/training other learners, and completion of special projects or research. In these situations, a preceptor should not feel limited by the established list of rotation objectives when working with high performing students. Providing feedback to the high-performers is also essential during this time.

Student Evaluation of Preceptor

- Following the completion of an APPE, the student is required to complete an assessment of their preceptor, the rotation, and the site (see appendix). The student will also provide a self-assessment following each rotation.
- Preceptors have access to the student assessment in the E*Value system. The information should be utilized as a tool to make potential enhancements to their program.
- Preceptors who have a concerns or questions about the evaluations submitted by their student can contact the college.

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ADVANCED PHARMACY PRACTICE EXPERIENCE OBJECTIVES

Advanced Community Pharmacy & Leadership

The goal of the Advanced Community Pharmacy Experience is to provide the opportunity for the student to build upon information acquired in his/her didactic and early experiential education and apply the knowledge and skills in direct patient care activities in a community pharmacy setting. The student will complete all activities in a professional manner under the facilitation of a preceptor.

Upon completion of the experience, the student will be able to:

I. Demonstrate the ability to appropriately process new and refill prescriptions.

- Utilize the patient profile to assess the prescription for allergies, drug interactions, therapeutic duplication, contraindications of use, dosage, and potential for adverse effects
- For each prescription assess appropriate:
 - Indication
 - Legality
 - Completeness
 - Dose
 - Dosage form
 - Route of administration
 - Directions of use
 - Duration of therapy
- Demonstrate the ability to communicate with prescribers and office staff when necessary regarding the processing of a prescription including the receipt and review (with preceptor) of a new prescription
- Demonstrate the ability to transfer a prescription to and from another pharmacy
- Demonstrate the ability to perform any necessary pharmaceutical calculations
- Demonstrate the ability to resolve issues regarding third party billing, prior authorizations, managed care formulary guidelines
- Develop a systematic approach to verifying the accuracy of one's own entry before final completion of the prescription

II. Demonstrate the ability to properly prepare a product for dispensing to a patient.

- Accurately select the appropriate medication to include strength, dosage form, and amount
- Using the concepts of pharmaceuticals, appropriately compound non-sterile products for patient use
- Gain an understanding of pharmacy automation and central fill procedures when applicable
- Develop a systematic approach to ensure the five principles of drug delivery: *Right drug, Right patient, Right dose, Right time, Right route*

III. Communicate health information (drug, disease, other) to the patient, which shall include, but not be limited to:

- Assessment of patient's health beliefs
- Assessment of patient's health literacy

- Effective verbal communication when advising, counseling, and educating patients about their medications

Prescription medications – The student shall demonstrate the ability to:

Establish a dialogue with patients concerning medications to:

- Clarify proper medication dosing
- Clarify the directions of use
- Clarify length of therapy and refill information
- Review potential medication side effects and action(s) to be taken by the patient if/when they occur
- Clarify storage instructions of the medication
 - Verify the patient knows who to contact with questions or if specific medication-related issues arise.
 - Handle difficult patients and/or difficult situations (i.e. misfilled prescriptions)
Counsel patients on sensitive issues

Non-prescription medications including natural products- The student shall demonstrate the ability to:

- Respond to patient's questions
- Determine if the patient is a self-care candidate using the QuEST/SCHOLAR process
- Recommend and counsel the patient on a self-care product if the patient is deemed to be a good self-care candidate
- Verify the patient knows who to contact with questions or if specific medication-related issues arise.

Non-pharmacologic:

- Develop and communicate an appropriate non-pharmacologic treatment plan (i.e. diet, exercise, sleep hygiene, home monitoring, etc.) based on patient specific factors (i.e. age, diet, work schedule, financial resources available, etc.)

IV. Participate when applicable in services provided by a pharmacist to include but not limited to:

- Medication Therapy Management Service (MTMS)
- Collaborative Practice Agreements
- Chronic Disease State Management
- Adherence Counseling
- Immunization services
- Disease Screening/Health and Wellness programs
- Community health fairs
- Patient home visits
- MD office visits
- Screening and Brown Bag programs
- Other community outreach programs such as presentations to nursing homes
- Marketing presentations to employer and payor groups

V. Demonstrate the ability to appropriately assess patients, which shall include, but not be limited to, obtaining or discussing the following information:

- Signs and symptoms of patient complaint or disease
- Demographics
- Allergies (to include description of the reaction)

- Medication history (including previous treatments and nonprescription products)
- Available past medical, family, social, and surgical history
- Immunization history
- Adherence to a medication regimen
- Physical assessment
 - Measure basic physical assessment data (i.e. blood pressure, lipid panel, glucose, weight, height, etc.) where available and when appropriate
 - Obtain physical assessment and lab data from patient health record when record is available
- Insurance/healthcare coverage

VI. Demonstrate the ability to analyze the appropriateness of treatment (both prescription and non-prescription) for each disease, incorporating:

- Pathophysiology
- Etiology (especially drug-related causes)
- Treatment guidelines and primary literature
- Cost
- Benefits versus risks
- Lifestyle factors unique to the patient

VII. Identify and prioritize a patient's problems including the following drug related problems:

- Indication
 - Unnecessary drug therapy (i.e. duplicate therapy, no indication)
 - Additional drug therapy needed (i.e. untreated indication)
- Effectiveness
 - Different product required (i.e. superior product available, therapy is not achieving goals, medication not effective for the condition being treated)
 - Dose too low [inadequate dosing frequency or duration, drug interaction (i.e. induction of metabolism), incorrect administration]
- Safety
 - Drug interaction (with another drug, natural product, disease, food, lab)
 - Contraindication (allergy, organ dysfunction, pregnant or breastfeeding, previous issue such as an adverse effect)
 - Inadequate or Inappropriate monitoring (efficacy, toxicity)
 - Dose too high [excessive dosing frequency or duration, drug interaction (i.e. inhibition of metabolism)]
- Compliance

Inadequate patient knowledge (i.e. directions or need for medication not understood)

 - Unavailable product (i.e. not on the market, supply problems, etc.)
 - Concern about adverse effects
 - Cost
 - Patient forgets to take
 - Patient cannot tolerate dosage form

- VIII. Exhibit a firm understanding of drug therapy. For each pharmacotherapeutic option the student should be familiar with the following:**
- Pharmacology
 - Pharmacokinetics
 - Dose and routes of administration
 - Contraindications and precautions
 - Adverse reactions
 - Interactions (drugs, dietary supplements, food, laboratory, disease)
 - Monitoring parameters for efficacy and toxicity
 - Key patient education talking points
 - Cost of therapy
- IX. Develop a pharmaceutical care plan to manage a patient's identified health/medical problems including drug related problems. The plan should:**
- State the desired and achievable pharmacotherapeutic goals for each identified problem
 - Provide appropriate pharmacologic and non-pharmacologic treatment recommendations supported by primary literature and or in accordance with known established clinical guidelines
 - Consider factors such as comparative efficacy, pharmacokinetics, toxicity, appropriate dosage form, adherence, formulary, and cost of therapy
 - Include a drug therapy monitoring plan that states the parameters to be measured and frequency of measurement, including measures of therapeutic response and toxicity
 - Be communicated to the patient and other members of the health care team in an accurate, concise and timely manner, and where appropriate, written in an audience-appropriate format
- X. Demonstrate the ability to measure and document patient outcomes.**
- Implement the pharmaceutical care monitoring plan to determine the outcome(s) of drug therapy
 - Measure, record, and appropriately track the therapeutic response and toxicity
 - Modify the pharmaceutical care plan appropriately based on data collected from patient monitoring or when other data becomes available
 - Identify, assess, and report identified adverse drug reactions and medication errors using the appropriate reporting system
- XI. Demonstrate the ability to use the most appropriate resources to respond to drug information questions from patients and health care professionals in an accurate and timely manner.**
- Identify the specific question using appropriate techniques.
 - Create an audience-appropriate response and communicate this in a timely manner.
 - Document the question, response, and resources/references used on an appropriate documentation form
- XII. Demonstrate the ability to effectively communicate, both in writing and verbally, with health care professionals, others involved in the healthcare continuum (payors, employers) and patients. Examples include but are not limited to:**
- Medication and disease education
 - Responses to drug information requests either verbally or in writing
 - Documentation of interventions
 - Communication to health care professionals regarding medication therapy plans and drug related problems

- Communication to patients summarizing their prescription coverage if applicable
- XIII. Prepare and present at least one patient case presentation and deliver this to the preceptor and/or pharmacy staff.**
- XIV. Complete at least one of the following:**
- Journal club
 - A formal presentation to a community group
 - Newsletter article
 - Patient education document or flip chart
 - Create a disease state management protocol or program
- XV. Conducts oneself in a professional and ethical manner when interacting with patients and health care professionals by:**
- Maintaining a professional manner in both appearance and behavior at all times
 - Demonstrating courtesy and respect towards others and exhibiting self-control in all interactions
 - Maintaining confidentiality regarding patient information and displaying honesty and integrity in all activities
 - Mentoring pharmacy students currently on an early experiential site visit if applicable
 - Arriving on time and prepared for all rotation activities
 - Demonstrating the ability to complete assignments in an accurate and timely manner
 - Developing the habits consistent with life-long learning

For an Advanced Community with Leadership Experience the following objectives should be included:

- I. Review the mission statement, strategic plans, and management plans for the pharmacy or corporation.**
- II. Identify the pharmacy or corporation organizational structure with respect to lines of authority, function, and responsibilities.**
- III. Review the pharmacy or company administrative and professional policies and procedures to include but not limited to:**
 - Detection, evaluation, and reporting of medication errors and adverse drug reactions
 - Quality control
 - Inventory control
 - Budgeting and financial management
 - Record keeping
 - Theft reporting
- IV. Review the process by which the pharmacy meets and maintains compliance with all federal and state laws and regulations that pertain to the practice of pharmacy.**
- V. Review key components of human resource management, including but not limited to:**
 - Hiring and interview process
 - Personnel evaluation process
 - Formal disciplinary procedures
 - Staff development and training

- Development of staff schedule
- VI. Identify methods of implementing, maintaining, and evaluating pharmacy services in the pharmacy or corporation.**
- VII. Discuss the methods for planning, implementation, and maintaining pharmacy related technology and informatics within the pharmacy or corporation.**
- VIII. Discuss the future trends that will impact community pharmacy services.**
- IX. Complete a management related or quality assurance project, for example:**
- Time study
 - Financial analysis
 - Review and analysis of medication errors or adverse drug reactions
 - Assessment of the medication use process
 - Patient satisfaction survey
 - Assessment of a new or existing pharmacy service

Advanced Hospital/Health System & Leadership

The goal of the Advanced Hospital/Health System Pharmacy Experience is to provide the opportunity for the student to build upon information acquired in his/her didactic and early experiential education and apply the knowledge and skills in direct patient care activities in Hospital Pharmacy. The student will complete all activities in a professional manner under the facilitation of a preceptor. Upon completion of the experience, the student will be able to:

I. Demonstrate the ability to appropriately analyze and process medication orders.

- Utilize the patient profile to assess the order for allergies, drug interactions, therapeutic duplication, and potential for adverse effects
- For each medication order assess appropriate:
 - Indication
 - Completeness
 - Dose and pharmacokinetics
 - Route of administration
 - Dosage form, if injectable consider:
 - IV compatibility
 - Stability
 - Administration rate
 - Reconstitution
 - Compliance with federal/state regulations, hospital policies and procedures, including formulary restrictions
 - Duration of therapy
 - Medication safety issues (i.e. look-alike/sound alike, legibility, unapproved abbreviations)
- Demonstrate the ability to prioritize medication orders considering work load and clinical status of patients (i.e. STAT vs routine orders)
- Demonstrate the ability to perform any necessary pharmaceutical and pharmacokinetic calculations
- Develop a systematic approach to verifying the accuracy of one's own entry before final completion of the order
- Know when to discontinue and or restart medications when situations warrant per hospital policies and procedures
- Demonstrate the understanding and ability to properly use on-site technology utilized in the medication dispensing process (i.e. Robotics, bar-coding, automated dispensing cabinets)

II. Demonstrate the ability to properly prepare a product for dispensing to a patient.

- Accurately select the appropriate medication to include strength, dosage form, and amount
- By following USP 797 guidelines and appropriate aseptic technique competently compound sterile products
- Using the concepts of pharmaceuticals, appropriately compound non-sterile products for patient use
- Develop a systematic approach to ensure the five principles of drug delivery: *Right drug, Right patient, Right dose, Right time, Right route*

- III. Demonstrate the ability to appropriately assess patients which shall include, but not be limited to, obtaining or discussing the following information:**
- Signs and symptoms of the patient complaint or disease
 - Medication history (including previous treatments)
 - Available past medical, family, social, and surgical history
 - Medication administration review
 - Data from the patient chart/medical record and/or the patient, i.e. including but not limited to vital signs, height/weight, and laboratory tests
- IV. Demonstrate the ability to appropriately assess patient information to identify the following drug related problems, and as a result be able to recommend medication therapy changes:**
- A problem or disease state of a patient not being treated or is not optimally treated
 - A medication that a patient is receiving that is not indicated or is contraindicated
 - Therapeutic duplication and/or polypharmacy
 - An adverse effect(s) that may be caused by a medication(s)
 - Inappropriate or missing medication monitoring parameters (efficacy, toxicity, pharmacokinetics)
 - A drug interaction or potential drug interaction including interactions with labs, food, and disease states
 - Inappropriate medication dose or duration of therapy (including consideration of hepatic/renal impairment, and age of the patient)
 - Inappropriate route or dosage form to include consideration of IV to oral therapy
 - The patient has a medication regimen that can potentially lead to non-compliance
 - A cost ineffective medication regimen
- V. Demonstrate a firm understanding of drug therapy. For each drug encountered the student should be familiar with the following:**
- Pharmacology
 - Pharmacokinetics
 - Dose and routes of administration
 - Contraindications and precautions
 - Adverse reactions
 - Interactions (drugs, dietary supplements, food, laboratory, disease)
 - Monitoring parameters for efficacy and toxicity
 - Cost of therapy
- VI. Demonstrate the ability to use the most appropriate resources to respond to drug information questions from patients and health care professionals in an accurate and timely manner.**
- Identify the specific question using appropriate techniques
 - Create an audience-appropriate response and communicate this in a timely manner
 - Where applicable document the question, response, and resources/references used
- VII. Demonstrate the ability to effectively communicate, both in writing and verbally, with health care professionals and patients. Examples include but are not limited to:**
- Patient disease and medication counseling
 - Responses to drug information requests either verbally or in writing
 - Documentation of interventions through the utilization of the standard SOAP note format
 - Communication to the health care professionals regarding medication therapy plans and drug related problems

- VIII. Prepare and present at least one formal presentation delivered to pharmacists or an interdisciplinary committee from the following list:**
- Monograph for formulary review
 - Journal club
 - Patient case presentation
 - Patient safety initiative
 - New formulary agent overview
- IX. Conducts oneself in a professional and ethical manner when interacting with patients and health care professionals by:**
- Maintaining a professional manner in both appearance and behavior at all times
 - Demonstrating courtesy and respect towards others and exhibits self-control in all interactions
 - Maintaining confidentiality regarding patient information and displays honesty and integrity in all activities
 - Arriving on time and prepared for all rotations activities
 - Mentoring pharmacy students currently on an early experiential site visit if applicable
 - Demonstrating the ability to complete assignments in an accurate and timely manner
 - Developing the habits consistent with life-long learning

For an Advanced Hospital with Leadership Experience the following objectives should be included:

- I. Review the mission statement, strategic plans, and management plans of the pharmacy department.**
- II. Identify the departmental organizational structure with respect to lines of authority, function, and responsibilities.**
- III. Review the department's administrative and professional policies and procedures to include but not limited to:**
 - Detection, evaluation, and reporting of medication errors and adverse drug reactions
 - Infection control
 - Formulary system
 - Emergency preparedness
 - Sterile and non-sterile compounding
 - Investigational drug handling
- IV. Review the process by which the department meets and maintains compliance with Joint Commission and USP 797 Standards.**
- V. Demonstrate a working knowledge of state and federal laws pertaining to hospital pharmacy practice and how these are met by the department.**
- VI. Compare and contrast various fiscal budgeting, inventory control, purchasing, reimbursement systems, and financial analyses used by the department.**
- VII. Discuss the function of the Pharmacy & Therapeutics committee and how institutional formulary decisions are made.**

- VIII. Review key components of human resource management, including but not limited to:**
- Hiring and interview process
 - Personnel evaluation process
 - Formal disciplinary procedures
 - Staff development
- IX. Identify methods of implementing, maintaining, and evaluating clinical pharmacy services in an institution.**
- X. Discuss the methods for planning, implementation, and maintaining pharmacy related technology and informatics within an institution.**
- XI. Attend any interdisciplinary committee meetings deemed appropriate by the preceptor.**
- XII. Participate in a management related or quality assurance project, for example:**
- DUE or MUE
 - Time study
 - Financial analysis
 - Review and analysis of medication errors or adverse drug reactions
 - Assessment of a new or existing pharmacy service
 - Patient safety initiative

Adult Acute Care/Internal Medicine

The goal of the Adult Acute Care/Internal Medicine Experience is to provide the student with experience in the pharmacotherapeutic management of adult patients with common acute and chronic medical illnesses. The activities of the experience are to build upon information acquired in a student's didactic education and develop skills related to assessment and drug therapy management of hospitalized patient in an internal medicine environment. The student will complete all activities in a professional manner under the facilitation of a preceptor. Upon completion of the experience, the student will be able to:

- I. **Demonstrate knowledge of the pathophysiology and pharmacotherapy of the common disease states seen in patients in an acute care/internal medicine setting. This includes but not limited to disorders of the following:**
 - Cardiovascular
 - Pulmonary
 - Endocrine
 - Renal
 - Gastrointestinal
 - Neurology/Psychiatry
 - Immunity/Infectious Disease

- II. **Develop and implement a systematic approach to gathering, organizing and prioritizing pertinent data of assigned patients by:**
 - Utilizing current and past health records, patient interviewing, and interaction with other health care professionals to obtain any or all of the following information:
 - Signs and symptoms of the patient complaint or disease
 - Physical assessment
 - Available past medical, family, social, and surgical history
 - Laboratory values
 - Tests and procedures
 - Medication history both past and current
 - Performing and relevant physical assessments not otherwise available

- III. **Identify and prioritize the health /medical problems including the following drug related problems in the assigned patients:**
 - A problem or disease state of a patient not being treated or is not optimally treated
 - A medication that a patient is receiving that is not indicated or is contraindicated
 - Therapeutic duplication and/or polypharmacy
 - An adverse effect(s) that may be caused by a medication(s)
 - Inappropriate or missing medication monitoring parameters (efficacy, toxicity, pharmacokinetics)
 - A drug interaction or potential drug interaction including interactions with labs, food, and disease states
 - Inappropriate medication dose or duration of therapy (including consideration of hepatic/renal impairment, and age of the patient)
 - Inappropriate route or dosage form
 - Non-adherence to a prescribed medication(s)

- IV. Develop a pharmaceutical care plan to manage a patient's identified health/medical problems including drug related problems. The plan should:**
- State the desired and achievable pharmacotherapeutic goals for each identified problem
 - Provide appropriate pharmacologic and non-pharmacologic treatment recommendations supported by primary literature and or in accordance with known established clinical guidelines
 - Consider factors such as comparative efficacy, pharmacokinetics, toxicity, appropriate dosage form, adherence, formulary, and cost of therapy
 - Include a drug therapy monitoring plan that states the parameters to be measured and frequency of measurement, including measures of therapeutic response and toxicity
 - Be communicated to the patient and other members of the health care team in an accurate, concise and timely manner, and where appropriate, written in an audience-appropriate format
- V. Exhibit a firm understanding of drug therapy. For each pharmacotherapeutic option the student should be familiar with the following:**
- Pharmacology
 - Pharmacokinetics
 - Dose and routes of administration
 - Contraindications and precautions
 - Adverse reactions
 - Interactions (drugs, dietary supplements, food, laboratory, disease)
 - Monitoring parameters for efficacy and toxicity
 - Key patient education talking points
 - Cost of therapy
- VI. Demonstrate the ability to measure and document patient outcomes.**
- Implement the pharmaceutical care monitoring plan to determine the outcome(s) of drug therapy
 - Measure, record, and appropriately track the therapeutic response and toxicity
 - Modify the pharmaceutical care plan appropriately based on data collected from patient monitoring or when other data becomes available
 - Identify, assess, and report adverse drug reactions and medication errors using the appropriate reporting system
- VII. Educate patients, caregivers, and health care professionals regarding the appropriate use of drugs in common acute and chronic medical illnesses in adults.**
- Implement patient-specific education plans. These plans should include purpose, directions for use/administration, storage, potential adverse effects and potential interactions with other medications and food
 - Assist in facilitating patient transition from one care setting to another by communicating the pharmaceutical care plan to another pharmacist and or health care provider(s)
 - Educate professional colleagues, including pharmacists, physicians, and nurses regarding drug therapy using formal or informal methods.
- VIII. Demonstrate the ability to use the most appropriate resources to respond to drug information questions from patients and health care professionals in an accurate and timely manner.**
- Identify the specific question using appropriate techniques

- Create an audience-appropriate response and communicate this in a timely manner
 - Where applicable document the question, response, and resources/references used
- IX. Demonstrate the ability to effectively communicate, both in writing and verbally, with health care professionals and patients. Examples include but are not limited to:**
- Patient disease and medication counseling
 - Responses to drug information requests either verbally or in writing
 - Documentation of interventions through the utilization of the standard SOAP note format
 - Communication to the health care professionals regarding medication therapy plans and drug related problems
- X. Prepare and present at least one patient case presentation delivered to pharmacists or the health care team.**
- XI. Prepare and present at least one journal club article delivered to pharmacists or the health care team.**
- XII. Conducts oneself in a professional and ethical manner when interacting with patients and health care professionals by:**
- Maintaining a professional manner in both appearance and behavior at all times
 - Demonstrating courtesy and respect towards others and exhibiting self-control in all interactions
 - Maintaining confidentiality regarding patient information and displaying honesty and integrity in all activities
 - Arriving on time and prepared for all rotation activities
 - Demonstrating the ability to complete assignments in an accurate and timely manner
 - Developing the habits consistent with life-long learning

Ambulatory Care

The goal of the Ambulatory Care rotation is to provide the student with experience in the pharmacotherapeutic management of adult patients with common chronic medical illnesses. The activities of the experience are to build upon information acquired in a student's didactic education and develop skills related to assessment and drug therapy management of the patient in an ambulatory care setting. The student will complete all activities in a professional manner under the facilitation of a preceptor. Upon completion of the experience, the student will be able to:

- I. **Demonstrate knowledge of the pathophysiology and pharmacotherapy of the common disease states or medical conditions seen in patients in an ambulatory care setting. This includes the following:**
 - **Key conditions required for review:**
 - Hypertension, Diabetes, Dyslipidemia, Anticoagulation, COPD/Asthma
 - **Other conditions to review include but not limited to:**
 - Congestive heart failure
 - PUD/GERD
 - Depression
 - Pain management
 - Osteoporosis
 - Hematologic disorders
 - Rheumatoid arthritis
 - Thyroid disorders
 - Gout
 - Seizures

- II. **Demonstrate knowledge and participate when applicable in services provided by a pharmacist in an ambulatory care setting to include but not limited to:**
 - Medication counseling
 - Medication reconciliation
 - Medication therapy management service (MTMS)
 - Collaborative practice agreements
 - Chronic disease state management
 - Adherence counseling
 - Immunization services
 - Disease prevention/health wellness

- III. **Develop and implement a systematic approach to gathering, organizing and prioritizing pertinent data of assigned patients by:**
 - Utilizing current and past health records, patient interviewing, and interaction with other health care professionals to obtain any or all of the following information:
 - Signs and symptoms of the patient complaint or disease
 - Physical assessment
 - Available past medical, family, social, and surgical history
 - Laboratory values
 - Tests and procedures

- Medication history both past and current
- Performing relevant physical assessments not otherwise available

IV. Identify and prioritize the health /medical problems including the following drug related problems in the assigned patients:

- A problem or disease state of a patient not being treated or is not optimally treated
- A medication that a patient is receiving that is not indicated or is contraindicated
- Therapeutic duplication and/or polypharmacy
- An adverse effect(s) that may be caused by a medication(s)
- Inappropriate or missing medication monitoring parameters (efficacy, toxicity, pharmacokinetics)
- A drug interaction or potential drug interaction including labs, food, and disease states
- Inappropriate medication dose or duration of therapy (with consideration of hepatic/renal impairment, and age of the patient)
- Inappropriate route or dosage form
- Non-adherence to a prescribed medication(s)

V. Develop a pharmaceutical care plan to manage a patient's identified health/medical problems including drug related problems. The plan should:

- State the desired and achievable pharmacotherapeutic goals for each identified problem
- Provide appropriate pharmacologic and non-pharmacologic treatment recommendations supported by primary literature and or in accordance with known established clinical guidelines
- Consider factors such as comparative efficacy, pharmacokinetics, toxicity, appropriate dosage form, adherence, formulary, and cost of therapy
- Include a drug therapy monitoring plan that states the parameters to be measured and frequency of measurement, including measures of therapeutic response and toxicity
- Be communicated to the patient and other members of the health care team in an accurate, concise and timely manner, and where appropriate, written in an audience-appropriate format

VI. Exhibit a firm understanding of drug therapy. For each pharmacotherapeutic option the student should be familiar with the following:

- Pharmacology
- Pharmacokinetics
- Dose and routes of administration
- Contraindications and precautions
- Adverse reactions
- Interactions (drugs, dietary supplements, food, laboratory, disease)
- Monitoring parameters for efficacy and toxicity
- Key patient education talking points
- Cost of therapy

VII. Demonstrate the ability to measure and document patient outcomes.

- Implement the pharmaceutical care monitoring plan to determine the outcome(s) of drug therapy
- Measure, record, and appropriately track therapeutic response and toxicity
- Modify the pharmaceutical care plan appropriately based on data collected from patient monitoring or when other data becomes available

- Identify, assess, and report adverse drug reactions and medication errors using the appropriate reporting system
- VIII. Educate patients, caregivers, and health care professionals regarding the appropriate use of drugs in common acute and chronic medical illnesses in adults.**
- Describe the role of the pharmacist as an educator in the ambulatory care setting
 - Implement patient-specific education plans. These plans should include purpose, directions for use/administration, storage, potential adverse effects and potential interactions with other medications, natural products, and food
 - Educate professional colleagues, including pharmacists, physicians, and nurses regarding drug therapy using formal or informal methods.
- IX. Demonstrate the ability to use the most appropriate resources to respond to drug information questions from patients and health care professionals in an accurate and timely manner.**
- Identify the specific question using appropriate techniques
 - Create an audience-appropriate response and communicate this in a timely manner
 - Where applicable document the question, response, and resources/references used
- X. Demonstrate the ability to effectively communicate, both in writing and verbally, with health care professionals and patients. Examples include but are not limited to:**
- Patient disease and medication counseling
 - Responses to drug information requests either verbally or in writing
 - Documentation of interventions through the utilization of the standard SOAP note format
 - Communication to the health care professionals regarding medication therapy plans and drug related problems
- XI. Prepare and present at least one patient case presentation delivered to pharmacists and/or other health care professionals.**
- XII. Complete at least one of the following:**
- Journal club
 - Creation of guidelines of medication use within the practice
 - A drug utilization review for the practice
 - A formal presentation to a group of patients or health care professionals
 - Newsletter article
 - Peer reviewed article or patient case for potential publication
 - Patient education document
- XIII. Conducts oneself in a professional and ethical manner when interacting with patients and health care professionals by:**
- Maintaining a professional manner in both appearance and behavior at all times
 - Demonstrating courtesy and respect towards others and exhibiting self-control in all interactions
 - Maintaining confidentiality regarding patient information and displaying honesty and integrity in all activities
 - Arriving on time and prepared for all rotation activities
 - Demonstrating the ability to complete assignments in an accurate and timely manner
 - Developing the habits consistent with life-long learning

Underserved

The goal of the Underserved Rotation is for the student to develop experience in the provision of care to those who face barriers to timely access to health services which provide the best health outcomes. The activities of the experience are to build upon information acquired in a student's didactic education and develop skills related to assessment and drug therapy management of the patient in an underserved care setting. The student will complete all activities in a professional manner under the facilitation of a preceptor.

Upon completion of the experience, the student will be able to:

- I. **Demonstrate knowledge of the challenges and opportunities of providing pharmaceutical care to underserved patients.**
 - Demographic and economic characteristics of underserved patients in this setting
 - Common acute and chronic medical disorders seen in underserved patients in this setting
 - Social, medical, prescription assistance service available to the underserved patient in this setting

- II. **Demonstrate knowledge and participate when applicable in services provided by a pharmacist in an underserved care setting to include but not limited to:**
 - Medication counseling
 - Medication Therapy Management service
 - Chronic Disease State Management
 - Adherence counseling
 - Immunization services
 - Device teaching
 - Disease Prevention/Health Wellness
 - Medication dispensing
 - Assisting a patient in identifying and applying for a specific prescription assistance program

- III. **Develop and implement a systematic approach to gathering, organizing and prioritizing pertinent data of underserved patients by:**
 - Utilizing current and past health records, patient interviewing, and interaction with other health care professionals to obtain any or all of the following information:
 - Signs and symptoms of the patient complaint or disease
 - Physical assessment
 - Available past medical, family, social, and surgical history
 - Laboratory values
 - Tests and procedures
 - Medication history both past and current
 - Performing and relevant physical assessments not otherwise available

- IV. **Identify and prioritize the health /medical problems including the following drug related problems in the assigned patients:**
 - A problem or disease state of a patient not being treated or is not optimally treated
 - A medication that a patient is receiving that is not indicated or is contraindicated
 - Therapeutic duplication and/or polypharmacy
 - An adverse effect(s) that may be caused by a medication(s)

- Inappropriate or missing medication monitoring parameters (efficacy, toxicity, pharmacokinetics)
- A drug interaction or potential drug interaction including interactions with labs, food, and disease states
- Inappropriate medication dose or duration of therapy (including consideration of hepatic/renal impairment, and age of the patient)
- Inappropriate route or dosage form
- Non-adherence to a prescribed medication(s)

V. Develop a pharmaceutical care plan to manage a patient's identified health/medical problems including drug related problems. The plan should:

- State the desired and achievable pharmacotherapeutic goals for each identified problem
- Provide appropriate pharmacologic and non-pharmacologic treatment recommendations supported by primary literature and or in accordance with known established clinical guidelines
- Consider factors such as comparative efficacy, pharmacokinetics, toxicity, appropriate dosage form, adherence, formulary, and cost of therapy
- Include a drug therapy monitoring plan that states the parameters to be measured and frequency of measurement, including measures of therapeutic response and toxicity
- Be communicated to the patient and other members of the health care team in an accurate, concise and timely manner, and where appropriate, written in an audience-appropriate format

VI. Assess patient medication adherence and develop strategies for improving adherence in underserved patients.

VII. Exhibit a firm understanding of drug therapy. For each pharmacotherapeutic option the student should be familiar with the following:

- Pharmacology
- Pharmacokinetics
- Dose and routes of administration
- Contraindications and precautions
- Adverse reactions
- Interactions (drugs, dietary supplements, food, laboratory, disease)
- Monitoring parameters for efficacy and toxicity
- Key patient education talking points
- Cost of therapy

VIII. Demonstrate the ability to measure and document patient outcomes.

- Implement the pharmaceutical care monitoring plan to determine the outcome(s) of drug therapy
- Measure, record, and appropriately track the therapeutic response and toxicity
- Modify the pharmaceutical care plan appropriately based on data collected from patient monitoring or when other data becomes available
- Identify, assess, and report identified adverse drug reactions and medication errors using the appropriate reporting system
- Medication adherence

- IX. Educate patients, caregivers, and health care professionals regarding the appropriate use of drugs in common acute and chronic medical illnesses in underserved patients.**
- Implement patient-specific education plans. These plans should include purpose, directions for use/administration, storage, potential adverse effects and potential interactions with other medications and food
 - Educate professional colleagues, including pharmacists, physicians, and nurses regarding drug therapy using formal or informal methods.
- X. Demonstrate the ability to use the most appropriate resources to respond to drug information questions from patients and health care professionals in an accurate and timely manner.**
- Identify the specific question using appropriate techniques
 - Create an audience-appropriate response and communicate this in a timely manner
 - Where applicable document the question, response, and resources/references used
- XI. Demonstrate the ability to effectively communicate, both in writing and verbally, with health care professionals and patients. Examples include but are not limited to:**
- Patient disease and medication counseling
 - Responses to drug information requests either verbally or in writing
 - Documentation of interventions through the utilization of the standard SOAP note format
 - Communication to the health care professionals regarding medication therapy plans and drug related problems
- XII. Complete at least one of the following:**
- Patient case presentation
 - A formal presentation to a group of underserved patients
 - Journal club presentation
- XIII. Conducts oneself in a professional and ethical manner when interacting with patients and health care professionals by:**
- Maintaining a professional manner in both appearance and behavior at all times
 - Demonstrating courtesy and respect towards others and exhibiting self-control in all interactions
 - Maintaining confidentiality regarding patient information and displaying honesty and integrity in all activities
 - Arriving on time and prepared for all rotation activities
 - Demonstrating the ability to complete assignments in an accurate and timely manner
 - Developing the habits consistent with life-long learning

Geriatrics

The goal of the Geriatrics Experience is to provide the student with experience in the pharmacotherapeutic management of elderly patients with common acute and chronic medical illnesses. The activities of the experience are to build upon information acquired in a student's didactic education and develop skills related to assessment and drug therapy management of the patient in a geriatric setting. The student will complete all activities in a professional manner under the facilitation of a preceptor.

Upon completion of the experience, the student will be able to:

- I. **Describe the general principles of aging to include the following:**
 - Demographic and economic characteristics of seniors (i.e. gender, ethnicity, geographic, socioeconomic, and population)
 - Biology and theories of aging
 - Socioeconomics of aging including ethical issues, economic issues, elder abuse, and cultural competencies
 - Social and medical services available to seniors, including home health services and geriatric institutions

- II. **Describe the physiologic changes associated with aging and how they impact medication therapy to include:**
 - Pharmacokinetic alterations associated with aging including absorption, distribution, metabolism, and excretion of drugs
 - Pharmacologic alterations of aging in terms of altered receptor and organ sensitivities and homeostasis
 - Factors that predispose the geriatric patient to adverse drug reactions and identify those drugs to which seniors are particularly sensitive
 - Common drug interactions seen in the geriatric patient and factors which predispose them to these interactions
 - The medication adherence problems in the geriatric patient and modalities to promote proper use of drugs by the patient

- III. **Demonstrate knowledge of the pathophysiology and pharmacotherapy of the common disease states seen in the geriatric population. This includes but not limited to the following disorders:**
 - Cardiovascular
 - Pulmonary
 - Endocrine
 - Renal and Urologic
 - Gastrointestinal
 - Neurology/Psychiatry
 - Immunity/Infectious Disease
 - Musculoskeletal
 - Nutritional/Hydration
 - Ophthalmology

- IV. **Discuss the potential etiology, prevention and management of the common syndromes or problems seen in the geriatric patient to include but not limited to the following:**
 - Mobility Deficiencies and Falls

- Pain
- Anxiety
- Insomnia
- Depression
- Cognitive decline
- Delirium
- Behavioral and psychological symptoms of dementia
- Altered Elimination
- Altered nutrition and weight disorders
- End of Life Issues

V. Develop and implement a systematic approach to gathering, organizing and prioritizing pertinent data of assigned geriatric patients by:

- Utilizing current and past health records, patient/family interviewing, and interaction with other health care professionals to obtain any or all of the following information:
 - Signs and symptoms of the patient complaint or disease
 - Physical assessment
 - Available past medical, family, social, and surgical history
 - Laboratory values
 - Tests and procedures
 - Medication history both past and current
- Performing and relevant physical assessments not otherwise available

VI. Identify and prioritize the health /medical problems including the following drug related problems in the assigned patients:

- A problem or disease state of a patient not being treated or is not optimally treated
- A medication that a patient is receiving that is not indicated or is contraindicated
- Therapeutic duplication and/or polypharmacy
- An adverse effect(s) that may be caused by a medication(s)
- Inappropriate or missing medication monitoring parameters (efficacy, toxicity, pharmacokinetics)
- A drug interaction or potential drug interaction including interactions with labs, food, and disease states
- Inappropriate medication dose or duration of therapy (including consideration of hepatic/renal impairment, and age of the patient)
- Inappropriate route or dosage form
- Non-adherence to a prescribed medication(s)

VII. Develop a pharmaceutical care plan to manage a patient's identified health/medical problems including drug related problems. The plan should:

- State the desired and achievable pharmacotherapeutic goals for each identified problem
- Provide appropriate pharmacologic and non-pharmacologic treatment recommendations supported by primary literature and or in accordance with known established clinical guidelines
- Consider factors such as comparative efficacy, pharmacokinetics, toxicity, appropriate dosage form, adherence, formulary, and cost of therapy
- Include a drug therapy monitoring plan that states the parameters to be measured and frequency of measurement, including measures of therapeutic response and toxicity

- Be communicated to the patient and other members of the health care team in an accurate, concise and timely manner, and where appropriate, written in an audience-appropriate format

VIII. Exhibit a firm understanding of drug therapy. For each pharmacotherapeutic option the student should be familiar with the following:

- Pharmacology
- Pharmacokinetics
- Dose and routes of administration
- Contraindications and precautions
- Adverse reactions
- Interactions (drugs, dietary supplements, food, laboratory, disease)
- Monitoring parameters for efficacy and toxicity
- Key patient education talking points
- Cost of therapy

IX. Demonstrate the ability to measure and document patient outcomes.

- Implement the pharmaceutical care monitoring plan to determine the outcome(s) of drug therapy
- Measure, record, and appropriately track the therapeutic response and toxicity
- Modify the pharmaceutical care plan appropriately based on data collected from patient monitoring or when other data becomes available
- Identify, assess, and report identified adverse drug reactions and medication errors using the appropriate reporting system

X. Educate patients, caregivers, and health care professionals regarding the appropriate use of drugs in common acute and chronic medical illnesses in geriatrics.

- Implement patient-specific education plans. These plans should include purpose, directions for use/administration, storage, potential adverse effects and potential interactions with other medications and food
- Assist in facilitating patient transition from one care setting to another by communicating the pharmaceutical care plan to another pharmacist and or health care provider(s)
- Educate professional colleagues, including pharmacists, physicians, and nurses regarding drug therapy using formal or informal methods.

XI. Demonstrate the ability to use the most appropriate resources to respond to drug information questions from patients and health care professionals in an accurate and timely manner.

- Identify the specific question using appropriate techniques
- Create an audience-appropriate response and communicate this in a timely manner
- Where applicable document the question, response, and resources/references used

XII. Demonstrate the ability to effectively communicate, both in writing and verbally, with health care professionals and patients. Examples include but are not limited to:

- Patient disease and medication counseling
- Responses to drug information requests either verbally or in writing
- Documentation of interventions through the utilization of the standard SOAP note format
- Communication to the health care professionals regarding medication therapy plans and drug related problems

XIII. Complete at least one of the following:

- Patient case presentation
- Journal club
- Medication or guideline review

XIV. Conducts oneself in a professional and ethical manner when interacting with patients and health care professionals by:

- Maintaining a professional manner in both appearance and behavior at all times
- Demonstrating courtesy and respect towards others and exhibiting self-control in all interactions
- Maintaining confidentiality regarding patient information and displaying honesty and integrity in all activities
- Arriving on time and prepared for all rotation activities
- Demonstrating the ability to complete assignments in an accurate and timely manner
- Developing the habits consistent with life-long learning

Pediatrics

The goal of the Pediatrics Experience is to provide the student with experience in the pharmacotherapeutic management of pediatric patients with common acute and chronic medical illnesses. The activities of the experience are to build upon information acquired in a student's didactic education and develop skills related to assessment and drug therapy management of the patient in a pediatric setting. The student will complete all activities in a professional manner under the facilitation of a preceptor.

Upon completion of the experience, the student will be able to:

- I. Describe the anatomical and physiological differences between the pediatric and adult patient and how these impact medication therapy to include:**
 - Growth and development changes of the child at various ages (i.e. premature, neonate, infant children, adolescents) and how this influences drug therapy
 - Pharmacokinetic alterations associated with pediatrics including absorption, distribution, metabolism, and excretion of drugs
 - Factors that predispose the pediatric patient to adverse drug reactions and identify those drugs to which pediatrics are particularly sensitive too.
 - Common drug interactions seen in the pediatric patient and factors which predispose them to these interactions
 - The medication adherence problems in the pediatric patient and modalities to promote proper use of drugs by the patient.

- II. Demonstrate knowledge of pathophysiology and pharmacotherapy of the common disorders seen in the pediatric population. This includes but not limited to disorders of the following:**
 - Cystic fibrosis
 - Asthma
 - Infectious diseases (otitis media, meningitis, sepsis, HIV)
 - Seizures
 - Fluid & Electrolyte disorders
 - Hematological disorders
 - Nutritional disorders
 - Pain
 - Toxicology /Poisonings

- III. Describe the appropriate immunization schedules required in specific pediatric patient populations.**

- IV. Develop and implement a systematic approach to gathering, organizing and prioritizing pertinent data of assigned pediatric patients by:**
 - Utilizing current and past health records, patient/family interviewing, and interaction with other health care professionals to obtain any or all of the following information:
 - Signs and symptoms of the patient complaint or disease
 - Physical assessment
 - Available past medical, family, social, and surgical history
 - Laboratory values
 - Tests and procedures
 - Medication history both past and current
 - Performing and relevant physical assessments not otherwise available

- V. Identify and prioritize the health /medical problems including the following drug related problems in the assigned patients:**
- A problem or disease state of a patient not being treated or is not optimally treated
 - A medication that a patient is receiving that is not indicated or is contraindicated
 - Therapeutic duplication and/or polypharmacy
 - An adverse effect(s) that may be caused by a medication(s)
 - Inappropriate or missing medication monitoring parameters (efficacy, toxicity, pharmacokinetics)
 - A drug interaction or potential drug interaction including interactions with labs, food, and disease states
 - Inappropriate medication dose or duration of therapy
 - Inappropriate route or dosage form
 - Non-adherence to a prescribed medication(s)
- VI. Develop a pharmaceutical care plan to manage a patient's identified health/medical problems including drug related problems. The plan should:**
- State the desired and achievable pharmacotherapeutic goals for each identified problem
 - Provide appropriate pharmacologic and non-pharmacologic treatment recommendations supported by primary literature and or in accordance with known established clinical guidelines
 - Consider factors such as comparative efficacy, pharmacokinetics, toxicity, appropriate dosage form, adherence, formulary, and cost of therapy
 - Include a drug therapy monitoring plan that states the parameters to be measured and frequency of measurement, including measures of therapeutic response and toxicity
 - Be communicated to the patient and other members of the health care team in an accurate, concise and timely manner, and where appropriate, written in an audience-appropriate format
- VII. Exhibit a firm understanding of drug therapy. For each pharmacotherapeutic option the student should be familiar with the following:**
- Pharmacology
 - Pharmacokinetics
 - Dose and routes of administration
 - Contraindications and precautions
 - Adverse reactions
 - Interactions (drugs, dietary supplements, food, laboratory, disease)
 - Monitoring parameters for efficacy and toxicity
 - Key patient education talking points
 - Cost of therapy
- VIII. Demonstrate the ability to properly determine the correct dose of a medication for a pediatric patient.**
- Utilization of appropriate pediatric drug references to determine the dose of a particular medication (including over the counter medications)
 - Accurately calculate appropriate medication doses for pediatric patients to include surface pharmacokinetic and body surface area calculations
 - Determine appropriate route of administration for various medications used in pediatric patients
 - Recommend dosage forms or special compounds for medications not available in a form for pediatric use

- IX. Demonstrate the ability to measure and document patient outcomes.**
- Implement the pharmaceutical care monitoring plan to determine the outcome(s) of drug therapy
 - Measure, record, and appropriately track the therapeutic response and toxicity
 - Modify the pharmaceutical care plan appropriately based on data collected from patient monitoring or when other data becomes available
 - Identify, assess, and report identified adverse drug reactions and medication errors using the appropriate reporting system
- X. Educate patients, caregivers, and health care professionals regarding the appropriate use of drugs in common acute and chronic medical illnesses in pediatrics.**
- Implement patient-specific education plans. These plans should include purpose, directions for use/administration, storage, potential adverse effects and potential interactions with other medications and food
 - Assist in facilitating patient transition from one care setting to another by communicating the pharmaceutical care plan to another pharmacist and or health care provider(s)
 - Educate professional colleagues, including pharmacists, physicians, and nurses regarding drug therapy using formal or informal methods.
- XI. Demonstrate the ability to use the most appropriate resources to respond to drug information questions from patients and health care professionals in an accurate and timely manner.**
- Identify the specific question using appropriate techniques
 - Create an audience-appropriate response and communicate this in a timely manner
 - Where applicable document the question, response, and resources/references used
- XII. Demonstrate the ability to effectively communicate, both in writing and verbally, with health care professionals and patients. Examples include but are not limited to:**
- Patient disease and medication counseling
 - Responses to drug information requests either verbally or in writing
 - Documentation of interventions through the utilization of the standard SOAP note format
 - Communication to the health care professionals regarding medication therapy plans and drug related problems
- XIII. Complete at least one of the following:**
- Patient case presentation
 - Journal club
 - Medication or guideline review
- XIV. Conducts oneself in a professional and ethical manner when interacting with patients and health care professionals by:**
- Maintaining a professional manner in both appearance and behavior at all times
 - Demonstrating courtesy and respect towards others and exhibiting self-control in all interactions
 - Maintaining confidentiality regarding patient information and displaying honesty and integrity in all activities
 - Arriving on time and prepared for all rotation activities
 - Demonstrating the ability to complete assignments in an accurate and timely manner
 - Developing the habits consistent with life-long learning.

Clinical Patient Care Selective

The goal of a clinical patient care selective is to provide the student with experience in the pharmacotherapeutic management of patients in a specialized clinical setting/service (i.e. infectious disease, critical care, psychiatry). The activities of the experience are to build upon information acquired in a student's didactic education and develop skills related to assessment and drug therapy management of patients in these types of settings. The student will complete all activities in a professional manner under the facilitation of a preceptor.

Including elective specific objectives determined by the preceptor, the student should upon completion of the experience be able to:

- a. **Demonstrate knowledge of the pathophysiology and pharmacotherapy of the common disease states or disorders seen in patients in the elective setting. These disorders are to be determined by the preceptor.**
- b. **Develop and implement a systematic approach to gathering, organizing and prioritizing pertinent data of assigned patients by:**
 - a. Utilizing current and past health records, patient interviewing, and interaction with other health care professionals to obtain any or all of the following information:
 - Signs and symptoms of the patient complaint or disease
 - Physical assessment
 - Available past medical, family, social, and surgical history
 - Laboratory values
 - Tests and procedures
 - Medication history both past and current
 - b. Performing and relevant physical assessments not otherwise available
- c. **Identify and prioritize the health /medical problems including the following drug related problems in the assigned patients:**
 - a. A problem or disease state of a patient not being treated or is not optimally treated
 - b. A medication that a patient is receiving that is not indicated or is contraindicated
 - c. Therapeutic duplication and/or polypharmacy
 - d. An adverse effect(s) that may be caused by a medication(s)
 - e. Inappropriate or missing medication monitoring parameters (efficacy, toxicity, pharmacokinetics)
 - f. A drug interaction or potential drug interaction including interactions with labs, food, and disease states
 - g. Inappropriate medication dose or duration of therapy (including consideration of hepatic/renal impairment, and age of the patient)
 - h. Inappropriate route or dosage form
 - i. Non-adherence to a prescribed medication(s)
- d. **Develop a pharmaceutical care plan to manage a patient's identified health/medical problems including drug related problems. The plan should:**
 - a. State the desired and achievable pharmacotherapeutic goals for each identified problem
 - b. Provide appropriate pharmacologic and non-pharmacologic treatment recommendations supported by primary literature and or in accordance with known established clinical guidelines
 - c. Consider factors such as comparative efficacy, pharmacokinetics, toxicity, appropriate dosage form, adherence, formulary, and cost of therapy

- d. Include a drug therapy monitoring plan that states the parameters to be measured and frequency of measurement, including measures of therapeutic response and toxicity
 - e. Be communicated to the patient and other members of the health care team in an accurate, concise and timely manner, and where appropriate, written in an audience-appropriate format
- e. Exhibit a firm understanding of drug therapy. For each pharmacotherapeutic option the student should be familiar with the following:**
- a. Pharmacology
 - b. Pharmacokinetics
 - c. Dose and routes of administration
 - d. Contraindications and precautions
 - e. Adverse reactions
 - f. Interactions (drugs, dietary supplements, food, laboratory, disease)
 - g. Monitoring parameters for efficacy and toxicity
 - h. Key patient education talking points
 - i. Cost of therapy
- f. Demonstrate the ability to measure and document patient outcomes.**
- a. Implement the pharmaceutical care monitoring plan to determine the outcome(s) of drug therapy
 - b. Measure, record, and appropriately track the therapeutic response and toxicity
 - c. Modify the pharmaceutical care plan appropriately based on data collected from patient monitoring or when other data becomes available
 - d. Identify, assess, and report identified adverse drug reactions and medication errors using the appropriate reporting system
- g. Educate patients, caregivers, and health care professionals regarding the appropriate use of drugs in common acute and chronic medical illnesses in adults.**
- a. Implement patient-specific education plans. These plans should include purpose, directions for use/administration, storage, potential adverse effects and potential interactions with other medications and food
 - b. Assist in facilitating patient transition from one care setting to another by communicating the pharmaceutical care plan to another pharmacist and or health care provider(s)
 - c. Educate professional colleagues, including pharmacists, physicians, and nurses regarding drug therapy using formal or informal methods.
- h. Demonstrate the ability to use the most appropriate resources to respond to drug information questions from patients and health care professionals in an accurate and timely manner.**
- a. Identify the specific question using appropriate techniques
 - b. Create an audience-appropriate response and communicate this in a timely manner
 - c. Where applicable document the question, response, and resources/references used
- i. Demonstrate the ability to effectively communicate, both in writing and verbally, with health care professionals and patients. Examples include but are not limited to:**
- a. Patient disease and medication counseling
 - b. Responses to drug information requests either verbally or in writing
 - c. Documentation of interventions through the utilization of the standard SOAP note format

- d. Communication to the health care professionals regarding medication therapy plans and drug related problems
- j. **Complete at least one of the following:**
 - a. Patient case presentation
 - b. Journal club
 - c. Medication or guideline review
- k. **Conducts oneself in a professional and ethical manner when interacting with patients and health care professionals by:**
 - a. Maintaining a professional manner in both appearance and behavior at all times
 - b. Demonstrating courtesy and respect towards others and exhibiting self-control in all interactions
 - c. Maintaining confidentiality regarding patient information and displaying honesty and integrity in all activities
 - d. Arriving on time and prepared for all rotation activities
 - e. Demonstrating the ability to complete assignments in an accurate and timely manner
 - f. Developing the habits consistent with life-long learning

E*VALUE INSTRUCTION GUIDE FOR COLLEGE OF PHARMACY PRECEPTORS

- You will receive an e-mail with your login and password information. E*Value's website address is: <https://www.e-value.net>.
- Using the information in the e-mail, log into E*Value: (Ignore the institution code field).

E*VALUE™
a medhub product

Username

Password

Institutional Code*

Login

* Not required unless provided by your program

< VISIT THE MEDHUB SITE FORGOT YOUR PASSWORD?

- If you have **forgotten your password**, click on the 'Forgot Your Password' link and follow the directions to have your password e-mailed to you.

Forget your E*Value Login or Password? No problem.
Type the characters you see in the picture below. This is a security measure.



(letters are not case-sensitive)

Next, enter in your *Institution* email address and click Request Login.
This email address must be the one we have on record for you.
Enter your email address.

Request Login

Once you receive the email, click on the URL in the email which will take you to a screen where you can create a new login and/or password.

Don't delay, the URL will expire at 12 AM EST/EDT on 06/28/2017.

Once you are logged in, you will see the welcome page.

The screenshot shows the top of the E*VALUE interface. On the left is the logo for E*VALUE, a medhub product, associated with Northeast Ohio Medical University College of Pharmacy, Program ID:4968. On the right, the user is identified as Jane TESTPRECEPTOR, Pharm.D., with a profile icon, a Help button, and a Favorites button. Below this is a navigation bar with buttons for Home (highlighted in green), Evaluations, Learning Modules, and Reports. A secondary bar below contains 'Home Page' and 'Other Tasks'.

Welcome to E*Value

The main dashboard area is divided into three columns. The left column, titled 'My Information', contains a lock icon and a message: 'If this or any other biographic information is incorrect or missing, you can [update this information](#).' Below this are fields for Email (dfrank@neomed.edu), Rank (Preceptor), Roles (Advisor, Site Coordinator by People Group, Preceptor), and Advisees (NEOMED-P1 TEST STUDENT, NEOMED-P2 TEST STUDENT, NEOMED-P3 TEST STUDENT, NEOMED-P4 TEST STUDENT). The middle column, 'Urgent Tasks', shows a red warning icon and the text 'No Urgent Tasks'. Below it is a 'Tasks' section with a link for 'Initiate Ad hoc Evaluations'. The right column, 'P4 APPE Preceptor Resources', lists 'Important Documents' (APPE Preceptor Manual 2017-2018, E-Value Instruction Guide for Preceptors, Template for Journal Club Presentation (5/30/2012), Care Plan Template, SOAP Note Template, P4 Absence Request Form) and 'Assessment Tools' (P4 Student Pharmacist Observation Form (updated 2011), P4 Verbal Patient Counseling Form (updated 2011), Written Clinical Question Eval Form (5/30/2012), Oral Clinical Question Consult Evaluation (5/30/2012), P4 Journal Club Evaluation Form (5/30/2012), P4 Case Presentation Evaluation Form (updated 2011), Care Plan Evaluation form, SOAP Note Evaluation form, Activities for P1s, P1-P3 Antibiotic Callback Program, P1-P3 OTC Scavenger Hunt Worksheet).

- To **change your password and/or your login**, click the 'Home' icon, then click 'Other Tasks.' Click 'Change Password.' You do not have to change your login if you are satisfied with it, but you may want to change it for consistency. To change it, type in a New Login or New Password and re-type it. Then click 'Update.'

This screenshot shows the navigation bar from the previous image. The 'Home' button is highlighted with a red box, and the 'Other Tasks' link in the secondary bar is also highlighted with a red box.

Other Tasks

Tasks

- [Calendar](#)
- [Change Password](#)
- [Forums](#)
- [Search Documents](#)
- [Supervise User Portfolios](#)

PRECEPTOR RESOURCES (Announcements)

- On the Welcome page, you will be able to access important documents and tools for APPE and IPPE student rotations (i.e. Preceptor Manuals, Evaluation forms, Assessment tools).

E*VALUE™ a medhub product Northeast Ohio Medical University College of Pharmacy Program ID: 4968 Jane TESTPRECEPTOR, Pharm.D. Help Favor

Home Evaluations Learning Modules Reports

Home Page | Other Tasks

Welcome to E*Value

My Information

If this or any other biographic information is incorrect or missing, you can [update this information](#).

Email: dfrank@neomed.edu
Rank: Preceptor
Roles: Advisor
Site Coordinator by People Group
Preceptor
Advisees: NEOMED-P1 TEST STUDENT
NEOMED-P2 TEST STUDENT
NEOMED-P3 TEST STUDENT
NEOMED-P4 TEST STUDENT

Urgent Tasks

No Urgent Tasks

Tasks

[Initiate Ad hoc Evaluations](#)

P4 APPE Preceptor Resources

Important Documents

- [APPE Preceptor Manual 2017-2018](#)
- [E-Value Instruction Guide for Preceptors](#)
- [Template for Journal Club Presentation \(5/30/2012\)](#)
- [Care Plan Template](#)
- [SOAP Note Template](#)
- [P4 Absence Request Form](#)

Assessment Tools

- [P4 Student Pharmacist Observation Form \(updated 2011\)](#)
- [P4 Verbal Patient Counseling Form \(updated 2011\)](#)
- [Written Clinical Question Eval Form \(5/30/2012\)](#)
- [Oral Clinical Question Consult Evaluation \(5/30/2012\)](#)
- [P4 Journal Club Evaluation Form \(5/30/2012\)](#)
- [P4 Case Presentation Evaluation Form \(updated 2011\)](#)
- [Care Plan Evaluation form](#)
- [SOAP Note Evaluation form](#)
- [Activities for P1s](#)
- [P1-P3 Antibiotic Callback Program](#)
- [P1-P3 OTC Scavenger Hunt Worksheet](#)
- [P1-P3 QuEST SCHOLAR -MAC](#)
- [P2-P3 Drug Info Question Documentation Form](#)
- [P2-P3 Morning & Afternoon Rounds activity](#)
- [P2-P3 MTM Cases for students](#)
- [P2-P3 DUR exercise student version](#)
- [P3-P4 Case study format](#)
- [P4 Management/Leadership Activity](#)

Personal Calendar

Sunday Jun 25	
Monday Jun 26	

- **Evaluations:** These are here for your reference only! You will receive an email from E-Value with a link to the actual evaluation form you will need to complete for your students.
- **Preceptor Manuals:** These manuals provide helpful information on the experiential programs including important policies and rotation objectives.
- **Assessment Tools:** These are to assist you in assessing a student while on rotation. You are not required to return these to the college unless requested!

STUDENT SCHEDULES

- E*Value will have a schedule of students assigned to you which you will be able to see by clicking the 'Reports' icon | Reports | Schedule Report.

The screenshot shows the E*Value user interface. At the top left is the E*VALUE logo, a medhub product, and the user's affiliation: Northeast Ohio Medical University College of Pharmacy, Program ID:4968. The user's name, Jane TESTPRECEPTOR, Pharm.D., is displayed next to a profile icon, along with 'Help' and 'Favorites' buttons. A navigation bar contains buttons for 'Home', 'Evaluations', 'Learning Modules', and 'Reports'. The 'Reports' button is highlighted with a red box. Below the navigation bar, a blue header bar contains 'Reports' and 'Recently Viewed Reports', with 'Reports' also highlighted by a red box.

Reports

The screenshot shows the 'Reports' page. At the top, there is a search bar and a 'Filter By' dropdown menu set to 'All'. Below this, there are three columns of report categories: 'Evaluation Preceptor Reports', 'Evaluation Student Reports', and 'Learning Module Reports'. Each category has several links. Under 'Scheduling Reports', the 'Schedule Report' link is highlighted with a red box.

- The Role Selection should be 'Preceptor.' Then click next.

Role Selection

You have been designated with multiple roles. Please select one of your roles from the following list.

Your role selection will determine your criteria options for your report:

The screenshot shows a dropdown menu for 'Roles' with 'Preceptor' selected. The dropdown is highlighted with a red box. Below the dropdown is a green 'Next ->' button.

- **Note:** If you have the role of “**Site Coordinator**” (for those who are responsible for multiple preceptors) you will have to select “**Site Coordinator**” at Role Selection. At the 'Schedule Report' you can either click on **Next** or filter based on certain criteria.

- By default, the date range will be the current date plus one year. You can modify it by clicking on the calendar icon

Schedule Report

Filter Template:

 Curriculum:

Start Date:  **End Date:** 

 Show Participation Dates: No Yes

 Show Sessions: No Yes 

 Format Option:

 Show User Photos: No Yes 

Click on 'Next' to view schedule

- The student schedule will look something like this.

Northeast Ohio Medical University
College of Pharmacy

Roster By Preceptor Schedule Report

Time Period: 08/01/2012 to 08/31/2013
Report Date: 08/22/2016

TESTPRECEPTOR, Jane							
User Start Date	User End Date	Time Frame	Courses/Rotations	Site	Student	Rank	Dates
08/01/2012	08/31/2012	APPE 2012-2013 Aug	APPE Community Adv Community	Northeast Ohio Medical University College of Pharmacy 4209 St Rt 44 PO Box 95 Rootstown, OH 44272	NEOMED-P4 TEST STUDENT	P4	08/01 - 08/31
09/03/2012	09/28/2012	APPE 2012-2013 Sep	APPE Community Adv Community	Northeast Ohio Medical University College of Pharmacy 4209 St Rt 44 PO Box 95 Rootstown, OH 44272	NEOMED-P4 TEST STUDENT	P4	09/03 - 09/28
06/03/2013	06/28/2013	APPE 2013-2014 Jun	APPE Elective Pharmacoeconomics	TESTSITE 123 Main Street Glendale, AZ 85318	NEOMED-P3 TEST STUDENT	P3	06/03 - 06/28

- Clicking on the student's name will give you more information about the student (picture, email, rotation schedule, portfolio) about the student

COMPLETING FINAL STUDENT EVALUATIONS

- When you are scheduled to complete the final **Student Evaluation**, an e-mail will be sent to you (within 1 week prior to the end of the rotation) with a link. Clicking on the link will automatically take you to your pending evaluations queue:

Complete Pending Evaluations

Courses/Rotations:		IPPE-P2 Community		Site:	TESTSITE	
Period:		TEST		Time Frame:	05/01/2010 through 05/01/2010	
Edit/Status	Suspend	Evaluation Type(s)	Subject	Request Date	View Image	View Printable Evaluation
Edit Evaluation	Suspend	IPPE Preceptor Evaluation of Student	NEOMED-P2 TEST STUDENT	11/22/2011	View Picture	View/Print

- To complete the evaluation, click 'Edit Evaluation.'
- You should complete all applicable sections of the evaluation form to include providing comments. Comments are required if the student receives *"Unsatisfactory Performance"*, or *"Needs Improvement"* grades.
- E-Value will automatically calculate the final rotation grade.
- Once the evaluation is completed, you will need to click on **Submit** at the bottom of the evaluation.
- **NOTE:** The final **Student Evaluation** is due on the last day of the rotation. A reminder notice from E-Value will be sent if you have not completed the evaluation!
- Scheduled evaluations you need to complete will also appear in the middle of your 'Welcome Page' under *Urgent Tasks*.

Welcome to E*Value

- You can also navigate to the pending evaluations by clicking the 'Evaluations' icon | Evaluation Management | Complete Pending Evaluation.
- **For APPE Only - Please Note:** On-the-Fly Evaluations are now called **Ad Hoc Evaluations**. Preceptors can create an Ad Hoc Evaluation for a Mid-Point Evaluation or when a scheduled student final evaluation has not yet been generated by the system.

VIEW STUDENT EVALUATION OF PRECEPTOR AND SITE

- Students are required to complete an evaluation of the preceptor and site. To view an anonymous evaluation summary, click the 'Reports' icon | Reports | My Performance by Courses/Rotations. Select the time frame. Then click the appropriate rotation.

Home Evaluations Learning Modules **Reports**

Reports | Recently Viewed Reports

Reports

Preceptor Evaluation Reports

- [Aggregate Comments about Preceptors](#)
- [Aggregate Preceptor Performance](#)
- [My Performance by Courses/Rotations](#)**
- [Completed Evaluations By Me](#)

Student Evaluation Reports

- [Aggregate Comments about Students](#)
- [Aggregate Performance](#)

Learn Courses

My Performance Reports For The Last 2 Years [Overview PDF](#)

Courses/Rotations	Start	End	Complete
IPPE-P2 Community	01/12/2015	03/05/2015	1 of 1
IPPE-P3 Community	01/12/2015	03/05/2015	1 of 1
IPPE-P1 Community Chain	02/16/2015	03/05/2015	1 of 1
IPPE-P2 Community	03/09/2015	05/07/2015	1 of 1
IPPE-P1 Community Chain	03/11/2015	03/26/2015	1 of 1
IPPE-P1 Community Chain	04/20/2015	05/07/2015	1 of 1
IPPE-P1 Community Chain	05/14/2015	05/28/2015	1 of 1
IPPE-P3 Community	10/19/2015	12/10/2015	1 of 1
IPPE-P1 Community Chain	01/11/2016	01/28/2016	1 of 1
All Courses/Rotations for the last 24 months	08/22/2014	08/22/2016	9 of 9

PRECEPTOR CONTINUING EDUCATION

- E*Value offers CEI (Collaborative Education Institute) continuing education. You can access this on-line CE approved preceptor development program by clicking the 'Learning Modules' icon | CEI | Connect to CEI Account.

Home Evaluations **Learning Modules** Reports

CEI

CEI

Collaborative Education Institute (CEI)

[Connect to CEI Account](#)

FAVORITES

- For convenience, you can customize your site by using the 'Favorites' feature at the top right which allows you to create a list of your most frequently used pages within the site.
- Click to the page you want to add to the list. Click 'Favorites' and choose 'Add' from the drop-down menu. This will add the page name under the 'Favorites' bar. You can change the list order or name by choosing View/Edit | Edit.



LOGGING OUT OF E-VALUE

- To logout of E*Value, click on the 'My Account' button on the top right of the page. Then click 'Log Out.' This will end your E*Value session.



NEED ASSISTANCE

- If you are experiencing any difficulties logging in, navigating, or completing the evaluation forms, please contact:

Charles Cather, RPh., M.B.A., FASCP Experiential Director Phone: 330-325-6228 Email: ccather@neomed.edu	Debbie Frank Senior Curriculum Coordinator Phone: 330-325-6339 Email: dlfrank@neomed.edu	Patti Pfeifer Administrative Assistant Phone: 330-325-6390 Email: ppfeifer@neomed.edu
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P4 STUDENT APPE EVALUATION

Please evaluate the student during the midpoint and final week of the rotation using the following scale for evaluation. A midpoint evaluation is required for any student who is currently performing at an unsatisfactory or needs improvement level. Preceptors are required to provide narrative comments to support *Unsatisfactory Performance, Needs Improvement, and Exceeds Expectations* scores.

<p style="text-align: center;">1</p> <p style="text-align: center;">Unsatisfactory Performance</p> <p><i>Student does not meet requirements. Student is unable to complete basic/routine tasks despite guidance and prompting.</i></p>	<p style="text-align: center;">2</p> <p style="text-align: center;">Needs Improvement</p> <p><i>Student meets some minimum requirements. Student frequently requires guidance and/or prompting to complete basic or routine tasks.</i></p>	<p style="text-align: center;">3</p> <p style="text-align: center;">Progressing Satisfactorily</p> <p><i>Student consistently meets requirements. Student completes basic and some complex tasks independently with minimal or no guidance and/or prompting.</i></p>	<p style="text-align: center;">4</p> <p style="text-align: center;">Exceeds Expectations</p> <p><i>Student exceeds requirements. Student consistently and independently completes all basic and complex tasks going beyond what is required.</i></p>
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The FINAL rotation grade will be based on student achieving an average of ≥ 2.0 in each section and the average score for the all the sections based on following distribution:

Grading Distribution
 Less than 2.5 = Fail
 2.5 to 3.5 = Pass
 Greater than 3.5 = Pass with Honors

SECTION I: PROFESSIONALISM	Midpoint	Final Week
1. Participates in the process of self-assessment and displays an interest in life-long learning and continuous professional development		
2. Maintains a professional manner in both appearance and behavior at all times		
3. Demonstrates courtesy and respect towards others and exhibited self-control in all interactions		
4. Maintains confidentiality		
5. Displays cultural sensitivity and tolerance		
6. Arrives on time and prepared for all rotation activities		
7. Demonstrates appropriate time-management skills and the ability to prioritize		
8. Demonstrates initiative and responsibility for providing patient care and completing assignments		
Comments	Section Scores	

SECTION II: COMMUNICATION	Midpoint	Final Week
1. Demonstrates active listening skills and empathy		
2. Effectively communicates both verbally and in writing with patients and other health care professionals		
3. Demonstrates the ability to establish effective relationships with other health care professionals and patients		
4. Appropriately demonstrates a willingness to form an opinion, express observations and/or ask questions		
5. Displays effective presentation skills		
6. Demonstrates assertiveness and confidence when making recommendations		
7. Responds to questions in a clear and concise manner with supporting evidence/rationale via written or verbal communication as appropriate to the situation		
Comments:	Section Scores	

SECTION III: DRUG/DISEASE KNOWLEDGE	Midpoint	Final Week
1. Demonstrates knowledge of disease states appropriate for this clinical setting		
2. Describes the expected mechanism of action, therapeutic response, adverse effects, and monitoring parameters for a given drug or combination of drugs		
3. Applies physical assessment skills as appropriate to assist in evaluating a patient and his/her medication therapy		
4. Demonstrates knowledge of evidence based medicine and clinical practice guidelines		
Comments:	Section Scores	

SECTION IV: APPLICATION	Midpoint	Final Week
Problem Assessment		
1. Utilizes a systematic problem-solving approach to patient care		
2. Obtains and interprets information from the medical chart, computer system or patient to assess therapy		
3. Consistently and accurately identifies and prioritizes all medication-related problems		
Plan Development		
1. Designs and evaluates regimens for optimal outcomes, incorporating pharmacokinetic, formulation data, and routes of administration into decision		
2. Adjusts regimens based patient physiologic parameters and response to therapy		
Monitoring Parameters		
1. Create and implement a monitoring plan to assess the outcomes of drug therapy for a patient		
2. Prospectively measure, record, and track a patient's therapeutic response and toxicity to drug therapy		
3. Identify, assess, and appropriately report drug related problems, adverse events, and toxicities		
4. Assesses patient adherence to medications and risk factors for non-adherence		
Use & Interpretation of Drug Information		
1. Identifies and thoroughly evaluates current literature and effectively apply this information to patient care		
2. Given a drug, health or operational information question, formulates a timely efficient, thorough and effective answer using appropriate sources of information		

3. Provides and appropriately document references and resources		
Comments:	Section Score	

SECTION V: INTERPROFESSIONAL ACTIVITIES	Midpoint	Final Week
1. Demonstrates the ability to interact effectively with prescribers/student prescribers to address and resolve patient's drug therapy problems		
2. Demonstrates the ability to actively participate as a healthcare team member in providing direct patient care and engaging in shared decision-making		
3. Demonstrates competence in the roles and responsibilities of members of the interprofessional healthcare team		
Comments:	Section Score	

SECTION VI: MEDICATION DISTRIBUTION / DISPENSING	Midpoint	Final Week
4. Demonstrates proficiency in processing new and refill prescriptions/medication orders in accordance with regulatory requirements		
5. Accurately selects and prepares appropriate medication for prescription or medication order		
6. Develops a systematic approach for final verification to ensure the five principles of drug delivery: right drug, right patient, right dose, right time, right route		
7. Using the concepts of pharmaceuticals, and applying best practice guidelines, appropriately compounds products for patient use		
Comments:	Section Score	

SECTION VII: ADMINISTRATIVE SKILLS (To be completed for leadership/management rotations only)	Midpoint	Final Week
1. Discusses use of management principles (e.g. planning, organizing, directing and controlling) for simple/individual tasks and complex activities		
2. Discusses and/or participates in resource management related to Time, people, finances and technology/informatics		
3. Discusses and/or participates in quality assurance and/or patient safety activities		
4. Discusses marketing principles and how they are applied		
5. Identifies methods to enhance pharmacy services		
6. Reviews and applies all site related policies and procedures.		
7. Demonstrates an understanding of leadership needs and opportunities in pharmacy practice		
Comments:	Section Score	

PRESENTATIONS, JOURNAL CLUBS, ETC.
Provide description/title of presentation & comments on student performance:
PROJECTS, RESEARCH, PUBLICATIONS, ETC.
Provide description of project & comments on student performance:
OVERALL COMMENTS: <i>It is important to provide an accurate overall written assessment of the student's performance on the rotation. Information in this section is available to the student's other preceptors.</i>
LIST AREAS IN NEED OF IMPROVEMENT FOR SUBSEQUENT ROTATIONS: <i>Information in this section is available to the student's other preceptors.</i>

MIDPOINT ROTATION GRADE: _____

FINAL OVERALL ROTATION GRADE: _____

By submitting this evaluation, you confirm that the student has fulfilled all attendance requirements

ABSENCE REQUEST FORM

Student: _____

Clerkship Site/Rotation: _____

Number of days' absence included in this request: _____

Approval is requested for absence from rotation activities on ___/___/___ for reason indicated below.

Approval is requested for absence from rotation activities from ___/___/___ through ___/___/___ for the reason indicated below.

REASON FOR ABSENCE:

- _____ Illness
- _____ Death in Family
- _____ Job/Residency Interview
- _____ Attend Professional Meeting
- _____ Personal Reason
- _____ Other _____

FURTHER REASON FOR ABSENCE CAN BE GIVEN HERE IF EXPLANATION IS REQUIRED:

Approval requested _____ /_____/_____
(Student) (Date)

Approval _____ /_____/_____
(Preceptor) (Date)

Received _____ /_____/_____
(Director of Experiential Education) (Date)

This form should be faxed to: 330-325-5951 to the attention of: Pharmacy Practice, Director of Experiential Programs.
A copy should be kept on file with the Preceptor.



TEMPLATE JOURNAL ARTICLE PRESENTATION FORM

- I. Background/overview:
 - A. Article title/citation
 - B. Study objective/hypothesis
 - C. Introduction/background
 - D. Funding sources/sponsorship/role
- II. Methods:
 - A. Study design/demographics
 - 1. Study design
 - 2. Intervention
 - 3. Institution setting
 - 4. Study population
 - B. Methodology
 - 1. Inclusion criteria
 - 2. Exclusion criteria
 - 3. Study methods
 - C. Outcome Measures
 - 1. Primary endpoint
 - 2. Secondary endpoint(s)
 - 3. Statistical analysis
 - a. Sample size
 - b. Power
 - c. Statistical significance
 - d. Statistical methods/tests

III. Results:

A. Baseline characteristics

B. Outcomes

1. Primary results
2. Secondary results
3. Miscellaneous results
4. Adverse effects/side effects

IV. Author's discussion/conclusions:

A. Brief summary of author's main discussion points

B. Author's acknowledged limitations

C. Author's conclusions

V. Student's discussion/conclusions:

A. Positive attributes

B. Negative attributes/bias

C. Student's conclusions

D. Clinical applicability/impact on healthcare providers

VI. References:

TEMPLATE JOURNAL ARTICLE CRITIQUE

The following questions should be considered when critiquing a journal article. The student should discuss the answers to any questions *that apply* to their journal article in their presentation.

I. Background/overview:

A. Article title/citation

What is the professional reputation of the journal? Are manuscripts peer-reviewed?

What is the professional background of the investigators? Do they have the appropriate qualifications to conduct the study?

B. Study objective/hypothesis

Are the objectives clear, unbiased, specific, and obtainable?

C. Introduction/background

Does the study's introduction provide adequate and current background information?

Have the investigators described the results of previous related research and do they explain why the current study is necessary (why is it important)?

D. Funding sources/sponsorship/role

Who funded the investigation? Could this lead to bias?

What role (if any) did the drug manufacturer have in the study (such as authorship, investigator, collection/analysis of study data)? Could this lead to bias?

Do the investigators have any relevant disclosures?

II. Methods:

A. Study design/demographics

1. Study design

What types of control groups (parallel, cross-over, historical) were used to compare the effectiveness of the studied treatment?

Were patients randomized to treatment groups?

Was everyone (patients, physicians, study personnel, etc.) blinded to treatments? Does the type of blinding, or lack thereof, introduce any potential bias?

2. Intervention

Is the study intervention (and control group) feasible and relevant in today's practice? Were appropriate doses and regimens used for the disease state under study?

3. Institution setting

Was the study conducted at a single institution or multicenter? If there were multiple observers, how was variation among their observations minimized?

4. Study population

B. Methodology

1. Inclusion criteria

2. Exclusion criteria

Are the inclusion and exclusion criteria specific enough and is there a logical rationale for these criteria? Are additional criteria needed?

Are sample subject's representative of the target population (patients commonly treated)? Does selection bias exist (consider the severity of illness, type of population, etc.)?

3. Study methods

Is enough detail provided so that a different investigator could repeat the study?

Were patient groups treated similarly during the study, except for the study treatment?

Are other interventions (such as medications on non-pharmacologic treatments) that were used/allowed in the trial feasible and relevant in today's practice? Were appropriate doses and regimens used for the disease state under study?

Was patient adherence monitored and assured?

C. Outcome Measures

1. Primary endpoint

2. Secondary endpoint(s)

Is the primary outcome a DOE (Disease-Oriented Evidence) or POEM (Patient Oriented Evidence that Matters)? Does this study look at outcomes my patients care about?

Was the test period large enough for the treatment effect to be measured adequately?

How were the measurements made (observer report, self-report, interview, lab tests)? Do they appear to be appropriate, reliable/accurate, and standardized? Were they made at the appropriate times and frequency? If a lab or diagnostic test is used to measure the outcome(s), is it feasible and relevant in today's practice?

3. Statistical analysis

a. Sample size

Did the authors explain how they determined the number of patients to study?

b. Power

Was the power stated?

Was the β (Type II error) stated?

c. Statistical significance

Was the α level to determine significance stated?

d. Statistical methods/tests

Were descriptive statistics used properly to describe the results?

Were inferential statistical tests used to examine the results? Were significance levels set a priori? Are the statistical tests used appropriate for the data (consider whether the data is nominal, ordinal, or continuous)?

Are potential confounding variables explained and statistical measures taken to adjust for these variables?

Was data analyzed based on the groups the patients were initially randomized to (intent-to-treat analysis) or was data analyzed based on the treatment the patients received (per protocol analysis)?

III. Results:

A. Baseline characteristics

Were treatment and control patient groups similar at the beginning of the study?

B. Outcomes

1. Primary results

2. Secondary results

Are the results of the study statistically significant? How is statistical significance determined/reported (p values, ratios and confidence intervals, etc.)?

How clinically important are the reported differences between the experimental and control groups?

What is the ARR, RRR and NNT (or NNH) for the outcomes of the study?

What is the null hypothesis of the study? Was it accepted or rejected? Was there a chance a type I or a type II error was made?

3. Miscellaneous results

Were all patients accounted for at the end of the study? If not, were the missing patients addressed or adjusted for? Was the sample size of patients analyzed adequate to achieve power for the primary outcome?

Were confounding variables present that could have affected the study results?

Were any post-hoc or subgroup analyses conducted (if so, were they determined prior to starting the study)?

Adverse effects/side effects

Were adverse effects monitored prospectively?

Are adverse effects presented in sufficient detail along with the rates of occurrence?

IV. Author's discussion/conclusions:

A. Brief summary of author's main discussion points

Were the study results interpreted appropriately?

Were all deviations from the described methods reported and managed appropriately?

Author's acknowledged limitations

Did the investigators explain study limitations?

Did the investigators compare their study results to the results of similar studies?

Author's conclusions

Do the conclusions follow logically from the data?

V. Student's discussion/conclusions:

A. Positive attributes

B. Negative attributes/bias

C. Student's conclusions

D. Clinical applicability/impact on healthcare providers

To assess applicability of the results, compare your population (or patients commonly treated) to the study population.

Do the benefits of the treatment outweigh the risks (and costs)?

Will the study affect recommendations that you will make as a pharmacist?

Should/can practice be changed based on these results? If so, how can practice be changed based on these results?

What additional questions does the study raise?

VI. References:

EVALUATION OF JOURNAL CLUB

Student Name: _____ Evaluator: _____ Date: _____
 Key: MC = Meets Competency; NI = Needs Improvement; O = Omitted

MC	NI	O	Criteria	COMMENTS: Strengths and areas for improvement
BACKGROUND				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> States the title, journal of publication and author affiliations (if relevant) 	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> Background information from the article was succinctly presented 	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> Other literature (e.g., previous articles, guidelines, etc.) was discussed in context of the article being presented 	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> The study objective(s) was/were clearly stated 	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> The study's sponsor and their role are identified (If applicable) 	
METHODS				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> The study design (e.g. randomized controlled, cohort, case-control, etc.) was clearly and concisely described 	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> The study intervention was clearly and concisely described 	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> The study population was characterized 	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> Relevant inclusion/exclusion criteria were presented 	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> The primary (and secondary where applicable) endpoints were presented 	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> An accurate summary of the statistics was given 	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> Appropriateness (or lack thereof) of the statistical tests used was vocalized by the presenter 	
RESULTS				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> Baseline characteristics of the study population were discussed 	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> The primary (and secondary where applicable) results were presented 	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> The statistical significance (or lack thereof) of the results was noted 	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> The clinical significance (or lack thereof) of the results was noted 	
CONCLUSIONS				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> The author(s) conclusion(s) were presented 	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> Strengths and limitations as noted by the authors was presented 	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> Strengths and limitations identified by the student (aside from the authors) were presented 	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> The student's conclusion(s) were presented 	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> How the trial may or may not impact clinical practice was presented 	

MC	NI	Criteria	COMMENTS: Strengths and areas for improvement
<input type="checkbox"/>	<input type="checkbox"/>	ABILITY TO ANSWER QUESTIONS <ul style="list-style-type: none"> Answered questions logically and accurately. If unsure of answer, the student clearly stated so. 	
<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> Responded to >50% of questions without assistance from instructor or other participants. 	
<input type="checkbox"/>	<input type="checkbox"/>	OVERALL PRESENTATION / DELIVERY <ul style="list-style-type: none"> Presentation was generally presented in a logical sequence 	
<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> Presentation was within the allotted time 	
<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> Spoke audibly to the audience 	
<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> Used few (or no) distracters (e.g. "um") OR distracting mannerisms (e.g. clicking pen) 	
<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> Referred to notes occasionally, but did NOT read from notes 	
<input type="checkbox"/>	<input type="checkbox"/>	HANDOUT <ul style="list-style-type: none"> Handout was well organized, clear and succinct 	
<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> Appropriate references were cited in the proper format 	
<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> 	

PASS or FAIL (Circle One)

(Passing: ≥70% of MC's for applicable items)

Professional Conduct (failure to achieve in this area will result in a meeting with the course director)

The student was:

- dressed appropriately
- wearing a clean white coat
- displaying their name badge
- respectful to other presenters

Additional Comments:

CASE PRESENTATION EVALUATION

STUDENT: _____

DATE: _____

PRECEPTOR: _____

Student has excelled in performance. Student has completed work above and beyond the requirements of the assignment. Requires no intervention. <p style="text-align: center;">5</p>	Student performs with minimal preceptor assistance or guidance. Rarely requires intervention. <p style="text-align: center;">4</p>	Student performs at an acceptable level. Assistance or guidance from preceptor is frequently necessary. <p style="text-align: center;">3</p>	Student has attempted but not performed at an acceptable level in all areas. Needs significant improvement. <p style="text-align: center;">2</p>	Unacceptable. Below expectations. Student requires extensive intervention. <p style="text-align: center;">1</p>
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I. PREPARATION

1. Patient Presentation

1. ID, CC, HPI, FH, SH, Med history, ROS, VS, physical exam and lab/test, problem list	5	4	3	2	1
2. Chronological course adequately detailed.	5	4	3	2	1
3. All relevant data presented for necessary assessment.	5	4	3	2	1

II. KNOWLEDGE

1. Discussion of diseases states/pathophysiology

1. Overview of disease epidemiology, etiology, pathophysiology and therapy.	5	4	3	2	1
2. Signs, symptoms and risk factors reviewed.	5	4	3	2	1

2. Drug Therapy

1. Understands and explain patient's current drug therapy.	5	4	3	2	1
2. Identifies drug related problems.	5	4	3	2	1
3. Develops pharmacy care plan to resolve drug related problem(s).	5	4	3	2	1
4. Provides evidence-based rationale for recommendation(s). (Primary literature support preferred)	5	4	3	2	1

3. Monitoring

1. Used appropriate parameters to assess drug regimen efficacy and toxicity.	5	4	3	2	1
2. Defines endpoints of therapy, including patient follow up.	5	4	3	2	1

4. Patient Information/Counseling

1. Explains purpose(s) of drug therapy.	5	4	3	2	1
2. Important instructions for drug use.	5	4	3	2	1
3. Side effects/precautions that should be communicated to the patient.	5	4	3	2	1
4. Other (blood glucose testing, home BP monitoring, peak flow use, etc.)	5	4	3	2	1

III. STYLE OF PRESENTATION

1. Delivery

Diction, voice projection, personal appearance, eye contact with audience, reliance on notes	5	4	3	2	1
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2. Organization

Well organized, pertinent information, slides/overheads.	5	4	3	2	1
----------------------------------------------------------	---	---	---	---	---

3. Handout (also includes visual aids if applicable)

Includes at least two current primary references.	5	4	3	2	1
Professionally prepared, neat and free of typographical errors. All sources appropriately referenced.	5	4	3	2	1

4. Responses to Questions

Responses appropriate and straightforward.	5	4	3	2	1
--------------------------------------------	---	---	---	---	---

Comments: _____



STUDENT PHARMACIST OBSERVATION FORM

Student Pharmacist Name: _____

Preceptor name: _____ Site: _____

Today's date: _____

Use the following scale to rate the student pharmacist's daily activities:

1 Unsatisfactory Performance	2 Needs Improvement	3 Progressing Satisfactorily	4 Exceeds Expectations
Student does not meet requirements. Student is unable to complete basic/routine tasks despite guidance and prompting	Student meets some minimum requirements. Student frequently requires guidance and/or prompting to complete basic or routine tasks.	Student consistently meets requirements. Student completes basic and some complex tasks independently with minimal or no guidance and/or prompting	Student exceeds requirements. Students consistently and independently complete all basic and complex tasks going beyond what is required.

What activities did you see the student pharmacist perform today? Score _____

What did the student pharmacist do particularly well?

What improvements or suggestions should you provide the student pharmacist to increase his or her proficiency/skill level?

The above assessment was discussed with the student on: _____

Date

Preceptor Signature

Student Signature

EVALUATION OF ORAL CLINICAL QUESTION CONSULT

Student/Group Name: _____ Evaluator: _____ Date: _____

Key: MC = meets competency; NI = needs improvement

MC	NI	Criteria	COMMENTS: Strengths and areas for improvement
<input type="checkbox"/>	<input type="checkbox"/>	Presentation Style	
<input type="checkbox"/>	<input type="checkbox"/>	1. Maintained eye contact most of the time	
<input type="checkbox"/>	<input type="checkbox"/>	2. Did not rely solely on notes	
<input type="checkbox"/>	<input type="checkbox"/>	3. Appeared generally relaxed	
<input type="checkbox"/>	<input type="checkbox"/>	4. Movements and gestures enhanced delivery	
<input type="checkbox"/>	<input type="checkbox"/>	5. Most sentences were complete and grammatically correct	
<input type="checkbox"/>	<input type="checkbox"/>	6. Most words were precise and appropriate for the audience	
<input type="checkbox"/>	<input type="checkbox"/>	7. Voice was clear and audible	
<input type="checkbox"/>	<input type="checkbox"/>	8. Pronunciation was correct for most words	
<input type="checkbox"/>	<input type="checkbox"/>	9. Pace was appropriate	
<input type="checkbox"/>	<input type="checkbox"/>	Organization and Timing	
<input type="checkbox"/>	<input type="checkbox"/>	10. Sequence was logical	
<input type="checkbox"/>	<input type="checkbox"/>	11. Transitions were clear	
<input type="checkbox"/>	<input type="checkbox"/>	12. Within 1 minute of allotted time (e.g. within 7 to 11 minutes for an 8 to 10-minute presentation)	
<input type="checkbox"/>	<input type="checkbox"/>	Depth of Knowledge	
<input type="checkbox"/>	<input type="checkbox"/>	13. Most information was relevant to the question	
<input type="checkbox"/>	<input type="checkbox"/>	14. Explanations of concepts and theories were mostly accurate and complete	
<input type="checkbox"/>	<input type="checkbox"/>	15. Literature presented generally supports claims	
<input type="checkbox"/>	<input type="checkbox"/>	Ability to Answer Questions	
<input type="checkbox"/>	<input type="checkbox"/>	16. Answered questions concisely	
<input type="checkbox"/>	<input type="checkbox"/>	17. Appeared confident when answering questions	
<input type="checkbox"/>	<input type="checkbox"/>	18. Answered >50% of questions without assistance	

PASS or FAIL (Circle One)

(Passing: \geq 70% of MC's for applicable items)

Professional Conduct (failure to achieve in this area will result in a meeting with the course director)

The student was:

- dressed appropriately
- wearing a clean white coat
- displaying their name badge
- respectful to other presenters

Additional Comments:

EVALUATION OF WRITTEN CLINICAL QUESTION CONSULT

Student Name: _____ Evaluator: _____ Date: _____

Key: MC = meets competency; NI = needs improvement; O= omitted

MC	NI	O	Criteria	COMMENTS: Strengths and areas for improvement
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Question/Introduction 1. Identified and restated the drug information question 2. The introduction of the paper orients the reader to the main themes	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Literature Review 3. Identified all relevant literature resources 4. Evaluated the strengths and weaknesses of the literature 5. Properly analyzed and synthesized study data to answer the drug information question	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Discussion/Summary 6. The recommendation is logical and clinically sound 7. The recommendation is stated clearly with the appropriate level of certainty (or uncertainty) 8. The recommendation takes into account relevant patient-specific information 9. The consult is objective and does not impose bias upon the reader	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Quality of References / Citation 10. Appropriate information resources are used to answer the question (Must use primary literature where appropriate) 11. References are appropriately numbered (as superscripts and in the order, they appear) throughout the consult. 12. Reference citation formats are appropriately formatted (consistent with the Uniform Requirements)	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Quality of Writing 13. The consult is clear and succinct. 14. Paragraphs are organized logically/appropriately. 15. Sentences and paragraphs transition smoothly. 16. Correct grammar and spelling are used throughout the consult.	

PASS or FAIL (Circle One)

(Passing ≥ 70% of MC's for applicable items)

Additional Comments:

VERBAL Patient Counseling Rubric

Student name: _____

Date: _____

1 = unsatisfactory, 3 = satisfactory, 5 = exceptional

PATIENT CARE DIMENSION	COMMENTS: Strengths and areas for improvement.
INTRODUCTION: Greeted patient; introduced self, verified patient name, used open invitation to talk, smooth opening overall. <div style="text-align: center;">1 3 5</div>	
PRIME QUESTIONS: Asked all 3 questions during encounter* <div style="text-align: center;">1 3 5</div>	
PURPOSE: Explained (or assured understanding of) the <u>purpose</u> of the medication(s). <div style="text-align: center;">1 3 5</div>	
GOALS OF THERAPY: Properly communicates <u>goals of therapy</u> for the medication. Describes what response to expect, when to expect response. <div style="text-align: center;">1 3 5</div>	
GENERAL DRUG INFO: Told the patient the <u>name</u> , <u>strength</u> , and <u>frequency of administration</u> for the medication, or reinforced existing patient knowledge. <div style="text-align: center;">1 3 5</div>	
TIMING OF ADMINISTRATION: Explained <u>how to take</u> medication relative to meals or other pertinent daily activities (statins in the evening, bisphosphonates 1 st thing in AM, etc.). <div style="text-align: center;">1 3 5</div>	
STORAGE: Explained the proper means of <u>storing</u> the medication. <div style="text-align: center;">1 3 5</div>	
SIDE EFFECTS: Described the most common / clinically significant <u>side effects</u> for each medication. <div style="text-align: center;">1 3 5</div>	
DURATION/FOLLOW UP: Told the patient <u>how long</u> to take the medication, what to do if <u>miss a dose</u> , and <u>who to contact</u> if symptoms continue, worsen, and/or there are side effects. <div style="text-align: center;">1 3 5</div>	
EXIT: Communicated end of counseling session; gave patient a chance to ask questions and responded appropriately; ended effectively. <div style="text-align: center;">1 3 5</div>	

*Prime Questions: "What did your doctor tell you about this medication?"
 "How did the doctor tell you to take it?"
 "What response do you expect to receive from this medication?"

TOTAL SCORE _____
 (maximum score=50)

ADDITIONAL COMMENTS:



APPE PRECEPTOR /SITE EVALUATION FORM

Using the following scale to indicate your agreement with the following statements:

- 4 = Strongly Agree
- 3 = Agree
- 2 = Disagree
- 1 = Strongly Disagree
- NA = Not applicable to the Rotation or Site

MY PRECEPTOR:

1. Adequately oriented me to the APPE site.
2. Outlined and/or explained the goals and objectives of the rotation.
3. Clearly identified the performance expectations and approach to evaluation of my performance at the beginning of the rotation.
4. Had an organized approach to precepting.
5. Regularly and in a timely manner provided feedback which identified both my strengths and weaknesses.
6. Encouraged problem solving and professional decision making.
7. Spent sufficient time to guide me and address any questions or concerns I had.
8. Treated me with respect.
9. Served as a positive role model.
10. Provided and reviewed a final evaluation of my performance at the end of the rotation.

Additional Comments including preceptor strengths and suggestions for enhancement (required):

THE ROTATION ALLOWED ME TO:

1. Assess patients and recognize health and drug related problems.
2. Develop and recommend pharmaceutical care plans to manage a patients' health and/or drug related problems.
3. Define the therapeutic goals or outcomes of pharmaceutical care plans for a patient.
4. Monitor drug therapy for efficacy, adverse effects, and compliance.
5. Process and dispense prescription or medication orders.
6. Respond to drug information questions from patient and/or healthcare professionals.
7. Provide patient education/counseling.
8. Develop my written communication and documentation skills.
9. Develop my formal presentation skills.
10. Enhance my understanding of the leadership and administrative aspects of the practice setting.
11. Collaborate with other healthcare professional (other than pharmacists) interprofessionally in providing quality health care to patients.

Additional Comments including rotation strengths and suggestions for enhancement:

THE SITE:

1. Provided a professional environment to enhance and expand student learning.
2. Provided access to reference materials, either hard copy or via electronic means.

3. Had staff that was receptive and willing to interact with students.
4. Afforded the necessary space to complete assignments and meet with the preceptor.
5. Provided adequate contact opportunities with patients and/or healthcare providers.

Additional Comments including site strengths and suggestions for enhancement:

INTERPROFESSIONAL ACTIVITIES:

1. Provided An opportunity to interact in a meaningful way with non-pharmacy healthcare professionals (e.g. physician, physician assistants, nurses, social workers, dentists, etc.)
2. Provided an opportunity to interact in a meaningful way with other non-pharmacy healthcare profession students (e.g. medical, nursing, social work, etc.)

Additional Comments including interprofessional activity strengths and suggestions for enhancement:

Please add comments below. Your feedback is important for continued improvement of the experiential program.

1. Describe the positive aspects of your learning experience.
2. What changes, if any, do you suggest that may have enabled you to learn more from this rotation?
3. List the areas/skills that you believe you need to further develop/improve on future rotations.
4. How did this experience contribute to your career planning?
5. Additional Comments\Suggestions: