Adult Internal Medicine Experiential Elective
PHEX 560

Coursemaster:
Office Phone:
Email:

Course Description:
Adult Internal Medicine provides students with experiences in the pharmacotherapeutic management of adult patients with common acute and chronic medical illnesses. The course activities focus on developing skills related to assessment and drug therapy management of hospitalized patients in an internal medicine environment. This elective is offered as a two-credit (100 experiential hours) in the spring semester and as three-credit (150 experiential hours) in the summer or fall. It is strongly recommended that this elective is completed as a three-credit course to allow students to provide a continuum of care as patient turnover can occur rapidly.

Prerequisites:
Students must have successfully completed ISAT I-IV (PHAR 554, 555, 564, 565). Pharmacotherapy I and II (PHMY 574, 575) are *strongly* recommended but not required as prerequisites.

Students must have successfully completed at least one PHPC 573 Institutional-based Phase IV Pharmaceutical Care rotation or request permission from the coursemaster.

Prior Learning:
Prior learning is not designated except as established through prerequisites.

Policies
Students and preceptors are expected to comply with the ELP Policies and Procedures Manual posted at: http://www.pharmacy.umaryland.edu/elp/GeneralInformation.htm

Required Reading/Texts and Equipment
Clean, pressed white laboratory coat and a School of Pharmacy name badge Koda-Kimble ed. Applied Therapeutics *or* DiPiro JT ed. Pharmacotherapy: a pathophysiologic approach, 5th or 6th edition

Recommended Reading/Texts and Equipment:
Harrison's Principles of Internal Medicine or Cecil Textbook of Medicine

Terminal Performance Outcomes:
Upon completion the rotation, the student pharmacist will develop competence, efficiency and confidence to provide pharmaceutical care for adult internal medicine patients and will be able to:

1. Maintain a pharmaceutical care database on all assigned patients while recognizing the specific needs of hospitalized patients in internal medicine.

    a. Develop a relationship with the patient/caregiver(s) and health care professionals caring for the patient.

    b. Gather relevant information by reviewing medical records and interviewing the patient/caregiver.

    c. Identify the pathophysiologic states, pharmacokinetic parameters, and laboratory parameters through discussions with preceptors providing care to hospitalized internal medicine patients.

2. Identify and assess those patients who require a change in pharmacotherapy.

    a. Identify and assess problems for which pharmacotherapy may be indicated.

    b. Identify any adverse drug reactions or medication errors and document.

    c. Assess current treatment regimens.

3. Develop and implement pharmaceutical care plans specific to hospitalized internal medicine patients.

    a. State the desired and achievable pharmacotherapeutic goals for each identified problem.

    b. Make appropriate drug therapy decisions by integrating patient-specific data with drug disease information. Drug-specific information that must be considered include the comparative efficacy, pharmacokinetics, toxicity, appropriate dosage form, and costs of available agents. Decisions may be to select, recommend, adjust, or discontinue drug therapy.

    c. Design and record drug therapy monitoring plans that state the parameters to be   measured and frequency of measurement, including measures of therapeutic response and toxicity.

    c. Provide appropriate pharmacologic and non-pharmacologic treatment recommendations.

    d. Recommendations will be supported by primary literature and/or in accordance with national guidelines.

4. 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 educational plans. Such plans should include directions for use/administration, storage, purpose, potential adverse effects, and drug interactions with prescription, over the counter and herbal products of medications prescribed or recommended.

    b.   Educate professional colleagues, including pharmacists, physicians, nurses, and dieticians, regarding drug therapy using formal and informal methods. Formally present to a group of colleagues an organized patient case and discuss the important drug therapy issues related to the case.

    c.   If facilitating patient transitions from one care setting to another, assist by obtaining prescriptions and by communicating the pharmaceutical care plan to another pharmacist and/or health care provider(s).

    d.   Communicate effectively during professional interactions including but not limited to preceptor meetings, journal clubs, committee meetings, and professional gatherings.

5. Measure and document patient outcomes.

    a.   Implement pharmaceutical care monitoring plans to determine the outcome(s) of drug therapy. Measure and record the therapeutic response and toxicity.

    b.   Modify pharmaceutical care plans appropriately based on data collected from patient monitoring or when other data becomes available.

    c.   Identify, assess, and report adverse drug reactions (ADR's) and medication errors using the appropriate reporting system.

Activities

1. The student will be assigned to a preceptor, who will orient the student to the site and site procedures for documenting patient records. Together they will determine the schedule of activities which support the terminal performance outcomes.
2. Students will collect data from patients, healthcare providers, and the literature in order to evaluate therapeutic efficacy and the potential for drug-induced toxicity in patients whom they are assigned to monitor.
3. Students will fully monitor 5 to 15 patients at a time, and therefore it is recommended that days on rotation for a two-credit rotation be scheduled consecutively.
4. Students must write daily SOAP notes for at least eight patients during their rotation. A copy of at least one SOAP note per patient should be included in the

student's portfolio. Students should identify therapeutics objectives, monitoring parameters and plan.

5. Students will **attend rounds** daily and/or be an integral part of the general medical service team and will attend grand rounds, conferences, attending rounds, or other applicable teaching rounds as assigned by preceptor.

6. Students will **provide at least one in-service** to the medical team or pharmacy staff on selected drug therapy topics approved by the preceptor. A copy of the in-service will be included in the student's portfolio.

7. Students will meet with the preceptor a minimum of three times per week to discuss patient care, pertinent pharmacotherapeutic topics, and assigned readings.

8. Students will **record interventions and outcomes of interventions** made during rotation (**with the preceptor's prior approval**) by classifying interventions into one of the following categories: untreated indication; drug use without indication; improper drug selection; failure to receive drug; sub-therapeutic dose; overdose; adverse drug reaction; drug interaction; improper route; improper monitoring; formulary management issues; and patient education. Intervention lists will be turned in to the preceptor at the end of rotation and the student will place a copy in his/her portfolio. (Students should used attached intervention sheet or one provided by preceptor)

9. Students will provide discharge counseling to *at least* two patients per week. Students should document discharge counseling in the patient's medical chart in accordance with the individual institution's guidelines. A copy of two discharge counseling notes will be placed in the student's portfolio (patient identifiers should be removed).

10. Students will obtain a medication history (including drug allergies and intolerances with reactions, previous pertinent medications taken) and student should evaluate compliance from *at least* two patients per week. A copy of two medication histories will be placed in the student's portfolio (patient identifiers should be removed).

Student Assessment:

The student will be assessed by the preceptor on performance and professionalism at the midpoint and at the end of the rotation. The mid-rotation evaluation will not be used in the calculation of the student's grade. The preceptor's evaluations will be recorded and orally communicated to the student. The original evaluation forms (both mid-rotation and final) must be returned by the student to the Experiential Learning Office within 7 days after completing a rotation. The student will retain a copy of the evaluation in his/her portfolio. Students will receive a letter grade. The lowest passing letter grade is a "C".

Performance:

The preceptor will assess the student using the syllabus evaluation form

Behavior:

Students must achieve acceptable ratings for all four professionalism criteria in order to pass the course.

Letter Grade:

The letter grade is determined by the percentage of total points earned for the combined objectives.

Points	Letter Grade
90-100% of total points	A
80-89% of total points	B
70-79% of total points	C
0-69% of total points	F

Preceptor Assessment:
The student will complete and submit the *Phase VI Student Evaluation of Self/Site/Preceptor Performance no* later than seven days following the completion of the rotation. Each summer, preceptors will be provided summaries (no student names included) of their evaluations in order for them to improve rotations. If a preceptor has had only one student during the previous year, no summary will be sent.

Preceptor Qualifications and Responsibilities:
The preceptor must have a clinical faculty appointment from the University of Maryland School of Pharmacy. The preceptor will be qualified to teach this rotation with a PharmD and BCPS, or BCNSP, or a completed pharmacy practice residency, or a specialty residency, or relevant clinical experience as determined by the coursemaster. He or she will offer in-depth internal medicine student opportunities either through a general medical service team in a teaching hospital or a general medicine area in a community hospital.   Preceptors will provide the coursemaster with current resume or curriculum vitae and a letter of recommendation prior to precepting students.

The preceptor is responsible for the guidance, supervision, and assessment of the student in the day-to-day conduct of the course. The preceptor will develop a learning contract to include site-specific requirements, such as expectations, the rotation schedule, readings, and assignments.

The preceptor will provide the student with a written and verbal midpoint and final evaluation. The preceptor will assess the student at the midpoint to provide the student with constructive feedback. At the midpoint evaluation, if the student is not meeting expectations, the preceptor will be responsible for providing this information to the coursemaster. The final written evaluation will include examples or reasons to support grade given to the student. It is also strongly recommended that the preceptor routinely (at least weekly) provides verbal evaluation of the student's progress toward goals.

Preceptor's Evaluation of Student
PHEX 560 Adult Internal Medicine

Student's Name (Print):

_____

Preceptor's Name (Print):

_____

Site Name (Print):

_____

Rotation Start Date: _____   Midpoint Evaluation Date: _____

Final Review Date: _____

NOTE: The student and preceptor sign this form to attest that the course objectives, including the required hours of participation, were accomplished and that the assessment was discussed. This does not necessarily indicate the student's agreement with the assessment.   It is the **STUDENT'S** responsibility to submit the completed original evaluation form to the Office of Experiential Learning. The student and the preceptor should retain a copy of the completed evaluation.

I have reviewed this evaluation with the student:

_____
Preceptor's Signature and Date

Preceptor's Comments:

_____

_____

_____

_____

I have reviewed this evaluation with my preceptor. My signature does not necessarily imply agreement with the evaluation, only that it has been reviewed with me and I understand the preceptor's basis for the evaluation.

_____
Student's Signature and Date

Student's Comments:

_____

_____

_____

_____

Definitions:

O = Outstanding: The student is able to perform all of the skill's elements with minimal assistance from the preceptor. Also, the student is able to verbally justify his/her actions and decisions. Point Value: 10

A = Acceptable: The student is able to perform the skill but requires assistance from the preceptor for some of the skill's elements. Point Value: 8

N = Not acceptable: The student is unable to perform the skill without assistance from the preceptor for all or most of the skill's elements. Point Value: 0

Terminal Performance Objectives		Mid Eval	Final Eval
1. Maintain a pharmaceutical care database on all assigned patients while recognizing the special needs of the hospitalized internal medicine patient.	**ENTER O, A, N**		
⮞ Collect pertinent and accurate subjective (CC, HPI, ROS, FH, and SH) data from the patient/caregiver. ⮞ Collect a complete and accurate medication history and drug allergies and intolerance list from the patient/caregiver (including dose, route, frequency, start date etc. and pertinent medications used in the past) ⮞ Collect pertinent and accurate subjective and objective (PE, LAB, and test results) data from the medical chart. ⮞ Identify pertinent issues from pharmacokinetics, laboratory parameters, and pathophysiology.	Comments:		

2. Identify and assess those patients who require a change in pharmacotherapy. ➢ Identify problem list consistent with patient database and does not contain signs/symptoms. (List asthma instead of wheezing, SOB.) ➢ Identify adverse reactions or medication errors. ➢ Assess each problem commenting on stability, control, etiology, risk factors present, severity, and need for treatment. ➢ If currently receiving treatment, assess therapy.	**ENTER O, A, N**		
	Comments:		

3. Develop and implement pharmaceutical care plans. ➢ List therapeutic goals for each problem. ➢ After considering patient- and agent-related variables, recommend drug and non-drug treatment for each problem (include dose, frequency, and duration) that will likely meet therapeutic goals and discontinue therapies if needed. ➢ Develop and implement (**with preceptor prior approval**) monitoring plan that will evaluate toxicity and efficacy of the treatment regimen. ➢ Uses primary literature or national guidelines to support recommendations.	**ENTER O, A, N**		
	Comments:		

4. Educate patients and health care professionals regarding the appropriate use of drugs in common acute and chronic medical illnesses in adults. ➢ Educate the patient/caregiver on the treatment plan using materials and language that is appropriate to the level of education. ➢ Respond appropriately and accurately to questions from patients, caregivers, and healthcare providers (MD, RN, etc). ➢ If facilitating patient transitions, communicate the treatment and monitoring plan to appropriate healthcare providers such as pharmacists.	**ENTER O, A, N**		
	Comments:		

5. Measure and document patient outcomes.
    ➢ Document interventions and recommendations in format that conforms to practice site's standard (i.e., SOAP in chart, pharmacy system).
    ➢ Document patient response to treatment plan in follow up SOAP notes and update treatment and monitoring plan as needed.
    ➢ Correctly complete practice site's ADR / medication error report as needed.
    ➢ Correctly record list of interventions and turn into preceptor at the end of rotation.
	ENTER O, A, N
	
	Comments:		

6. In-Service Presentation		**Circle Rating:** **O** **A** **N**
Outstanding	In addition to meeting criteria for Acceptable, the student does **all** of the following: ♦ Maintains frequent eye contact with the audience. ♦ Presents materials appropriate to the audience. ♦ Presents the topic in an organized manner. ♦ States how the material is relevant to clinical practice. ♦ Answers almost all (>90%) questions posed by the audience correctly.	***Comments:**
Acceptable	The student does **all** of the following: ♦ Speaks using a volume, rate, and quality of speech that is understood by the audience. ♦ States action-oriented learning objectives for the presentation. ♦ Presents accurate information. ♦ Submits a referenced handout (following Uniform Requirements) that supports the presentation. ♦ Finishes within the allotted time. ♦ Answers most (> 50%) questions posed by the audience correctly.	
Not acceptable	Does not meet all criteria for Acceptable as stated above.	

Total Points (60 Max): _____

PROFESSIONALISM AND BEHAVIOR:
ACCEPTABLE RATINGS ARE REQUIRED FOR ALL FOUR CRITERIA .

ITEM 1: PATIENT AND PROVIDER COMMUNICATIONS		**Midpoint**	**Final**
Acceptable	The student <u>consistently</u> (greater than 90%): (1) Introduces self at first encounters; (2) Greets patients and other health care professionals with a smile and/or positive inflection in voice; (3) Guards patient information from disclosure and seeks permission to disclose information to other parties (e.g. family, other health care professionals); (4) Demonstrates effective listening skills (good eye contact, non-verbal cues); **AND** (5) Speaks effectively and respectfully (e.g. not condescending, sarcastic, meek, nor overly-assertive).	Comments:	
Not acceptable	(1) Does not meet criteria for acceptable as stated above; **OR** (2) The student inappropriately disclosed patient information on more than 1 occasion; **OR** (3) The student made negative or inappropriate public remarks about colleagues or patients on more than 1 occasion.		

ITEM 2: APPEARANCE, ATTIRE		**Midpoint**	**Final**
Acceptable	The student <u>consistently</u> (greater than 90%): (1) Wears clothing that is professional in appearance (e.g. appropriate to the culture of the institution as defined by the preceptor, site dress code, and professional norms); (2) Minimizes wearing of jewelry in patient care areas; (3) Is well-groomed; **AND** (4) Wears name badge.	**Comments:**	
Not acceptable	Does not meet criteria for acceptable as stated above.		

ITEM 3: TIMELINESS, COMMITMENT		Midpoint	Final
Acceptable	The student <u>consistently</u> (greater than 90%): (1) Completes assignments on or before deadline; (2) Arrives on time; (3) Calls/notifies preceptor when unable to meet deadline or arrive on time; (4) Gives high priority to completing course requirements during allotted rotation hours; **AND** (5) Arrives prepared with equipment and assignments as directed.	Comments:	
Not acceptable	(1) Does not meet criteria for acceptable as stated above; **OR** (2) The student completes some responsibilities in such an untimely manner that it jeopardizes patient health or institutional efficiency.		

ITEM 4: INITIATIVE		Midpoint	Final
Acceptable	The student <u>consistently</u> (greater than 90%): (1) Accepts responsibility and demonstrates accountability without repeated reminders; (2) Demonstrates a sense of duty; (3) Demonstrates an earnest desire to learn; (4) Demonstrates the willingness and flexibility to contribute to the well-being of others; **AND** (5) Applies knowledge, experience, and skills to the best of his/her ability.	Comments:	
Not acceptable	Does not meet criteria for acceptable as stated above.		

Revised January 2006

Student Name:_____

Date	Pt ID	Rx/non-Rx involved (include dose, frequency and route)	Drug initiated ((Y/N) &why?)	Dose/route change (Y/N &why?)	Treatment discontinuation ((Y/N) &Why?)	Other	accepted (Y/N)?	If not, why