“Experiential education is the requisite step that transforms pharmacy students armed with basic facts and skills into mature pharmacy practitioners who are able to integrate and apply knowledge to solve problems and manage patient drug therapies. Perhaps more importantly, the model experiential education that a student experiences...will shape how that student approaches the lifelong process of learning”
Overview

- Relationship between the ISU School of Pharmacy and the pharmacy practice site and the preceptor.
- Preceptor Development
- Teach Styles
- Handling Problems
- Designing a Syllabus
Responsibility of the Pharmacy to The Students

To follow ACPE/APPE Standards and Guidelines to insure that we incorporate the necessary tools to enhance our student’s knowledge, skills, attitudes and values required for clinical practice.
Obligation of the School of Pharmacy to the Preceptor/Practice Site

- To help the preceptors develop a syllabus that contains expectations, goals and guidelines so that the student will have a complete understanding as to what to expect on their rotations.
- Provide guidance to help the preceptor handle problem situations.
- Help provide preceptors with continuing education.
- To provides preceptors with support and resources to allow the preceptor to function at the highest level.
Obligation of the Practice Site to the Preceptor/School

- Assure that the preceptors are qualified, knowledgeable and have the desire, ability and the time to incorporate students into their practice.

- To assure that the preceptors have the necessary tools for teaching and that ongoing learning opportunities are available to help maximize knowledge and teaching ability.
Eight Tasks to Help Facilitate Learning
Adapted from “Marshfield Clinic Pharmacy Resident Preceptor Guide” with permission.

- Discuss goals and expectations with the student (orientation).
- Create a supportive learning environment (be enthusiastic and give positive feedback).
- Motivate student.
- Help the student identify what is important.
- Use questions to stimulate memory and previous learning.
- Supervise active practice and hands-on experience.
- Generalize to broader learning experience “You said you would use Zosyn for the treatment of VAP. What if the patient is allergic to penicillin”
- Give prompt and constructive feedback.
4 Basic Roles of the Preceptor

- Direct Instruction
- Modeling
- Coach
- Facilitator

Staff development for pharmacy practice. Christine Nimmo, PhD. Senior Editor
Direct Instruction

- Direct learners to content that is specific to their practice problems. “I give a lecture on ventilator associated pneumonia and include the diagnosis.”

- Teach how a new piece of content relates to other pieces. “Let’s talk about how the white count, FiO2, secretions, CXR, respiratory cultures and temperature come in to play in the diagnosis.”

- Introduce a new content in the context of solving a direct patient care practice problem. “We have discussed the use of micro, radiology, chemistry, vitals and patient presentation to help us evaluate a VAP, but another piece of information that may be very helpful is utilization of procalcitonin.”

- Much of direct instruction occurs in pharmacy school. This is where the student learns the basic knowledge that he or she will utilize on their P-4 rotations.
  - Includes didactic learning, case-studies, etc.
Modeling

- Modeling is allowing the student to understand your thought process.
- As you evaluate a case, you explain out loud what you are thinking.
- Example: “When I am evaluating this patient for a VAP, one of the first things I look at is the number of white cells on the respiratory culture. If the cultures has only a few WBCs, then the chance of this being a pneumonia diminishes.”
Coaching

- Give the student the opportunity to evaluate a patient with VAP. “Do you think this patient has a VAP. Defend your evaluation.”

- Provide sufficient problem-solving to build speed. “One of the areas this is done is in pharmacokinetic dosing of vancomycin and aminoglycosides. The more cases the student does the more proficient he or she becomes.”

- Ask the student to think out loud as they evaluate a case. “Essentially, they do the modeling.”
Facilitating

- Teach the student to evaluate their own work.
- The more proficient the student becomes evaluating a case, the better they become at catching their own mistakes.
How to Ask Questions

- Try and ask open-ended questions
  - No- *Do you think this patient has a pneumonia?*
  - Yes- *Do you think this patient has a pneumonia and tell me how you made your decision?*
Teaching Styles
Basic Principles

- Although there are different teaching styles (and we often may use a combination of more than one), there are basic principles that apply to all styles
  - Do not over teach:
    - Students can only learn so much over a 6 week rotation. The more information you give them the less they will retain.
  - Repetitiveness is good.
    - Students learn by repetition. Ask them questions on assignments that they may have had 1-2 weeks ago.
  - Set aside time for questions and answers emphasizing that there are “NO DUMB QUESTIONS”.
    - At least once a week for 15 minutes can be extremely helpful.
Basic Principles (continued)

- If you give a student an assignment, be specific on what you want them to learn.
  - If you ask them to read a 50 page chapter in a book, be specific on the important points that you want them to learn.

- Try and incorporate critical thinking: Critical thinking is the ability to solve problems. There are different methods of teaching critical thinking.
  - One method is to have a student to evaluate a patient that does not yet have a diagnosis and ask them to make the diagnosis. This involves all of the positive aspects of critical thinking.
Basic Principles (continued)

- Critical thinking (continued)
  - Debating helps establish critical thinking
  - Point Counter Point
  - Journal Clubs
  - One-minute preceptor
  - Case evaluations
Basic Principles (continued)

- Feed back. Try and make this constructive. Pointing out the positive along with what can be improved upon. Make sure you show them how to make the improvements.
  - Set aside a time for feed back so there is time for a discussion. Immediately following a presentation is a good time.
  - Asking the student to critique themselves is often a good way to start. “What do you think went well and what could you have improved upon?”
  - Start with the positive and then go to want can be improved upon.
Teaching Methods

- Although there are many teaching methods, the student is ultimately responsible for learning.

- Lecturing:
  - You lecture to the students or have the students lecture to you. If more than one preceptor is teaching a rotation, then there should be continuity between the different preceptors. If there is a lecture outline, then all of the preceptors can use the same outline. If the student lectures to you, be specific about what you want. *(I use pathophysiology, presentation, diagnosis and treatment).*

- Patient discussions:
  - Have the student present a patient to you and you evaluate the students approach including history of current disease, social history, medications, evaluation of laboratory data and differential diagnosis. The preceptor interjects learning points and offers ways of improving the presentation.
Teaching Methods (continued)

- **Collaborative learning:**
  - Learning in small groups

- **Visualization:**
  - Depending upon the subject, visualization is one of the most effective forms of learning. I can tell a student what a diabetic foot looks like, but once they see a few, the visualization will stay with them long past my words.

- **Literature review:**
  - Please look up the latest treatment for multiple sclerosis and we will discuss it tomorrow.
Teaching Methods (continued)

- **Listening:** The is a very important part of precepting.
  - Show a genuine interest in what the student is saying.
  - Let the student talk without interruption.
  - Demonstrate that you are listening by making eye contact and occasionally nodding.

- **Shadowing:**
  - Seeing a preceptor as a clinician who interacts with the hospital staff and makes effective changes that benefit a patient should be incorporated into all teaching styles.

- **Hands on experience:**
  - Interviewing patients, examining patients, compounding, writing progress notes. Students learn the most when hands on experience is incorporated with other teaching styles.
One-Minute Preceptor

- **Get a commitment.** “Do you think this patient as a VAP “ Student “No ”

- **Probe for evidence.** “How did you make your decision? “Student “Although the patient has an elevated white count, fever and has thick secretions, the TA did not grow any bacteria and the portable CXR showed atelectasis ”

- **Teach a general point.** “The TA may not have growth, but may still point to a pneumonia. Note the TA showed many WBCs and many GPC. If you look at the gram-stain we see many gram-positive diplococci. Streptococcus pneumoniae is a fastidious bacteria that can be difficult to grow and the CXR was portable and therefore is not very accurate ”

- **Reinforce positive behaviors.** “Your were right to look at the TA results, secretions and the CXR ”

- **Correct errors or mistakes.** “Remember that certain bacteria may not grow, but still be present and the CXR can sometimes be misleading ”
Handling Potential Problems
Handling Potential Problems

- Preventing problems is one of the primary goals of the preceptor. This may be accomplished by appropriate orientation on day one.
  - Address tardiness, dress code, sick days, attitude, etc.
- If you detect problems, speak with the student immediately. Make sure they are aware of the consequences of their behavior.
- If the student continues, contact the school and let them know your plans.
Scenario: A student is creating a problem.

Subjective:
- What do you and others think and say? Get feedback from other preceptors or staff that have had this student.

Objective:
- Document specific incidences or situations with dates.

Assessment:
- Based upon your subjective and objective findings coupled with input from others, try to diagnosis the problem.

Devise a Plan:
- Talk with the student about your concerns
- Talk to the school. Are they aware of previous problems?
- Make the student is aware of the consequences if problems continue.
Potential Problem Scenarios

- **Problem:** Preceptor is busy and does not have time for the student.
  - **Solution:** You can have them start tomorrow's assignment. You can have them help you by looking up labs or interviewing patients. Finds something for them to do that is not just busy work.

- **Problem:** The subject for today is not one of your strong points.
  - **Solution:** Have the student teach you. "This is not one of my strong points. Why don’t you teach me about this tomorrow and we will both learn." Do not pretend to know something you don’t.
Potential Problem Scenarios

- **Problem:** Student is not motivated. Does not do assignments.
  - **Solution:** Relay your feeling to the student as soon as possible. If it continues to be a problem you can contact the primary preceptor if there is one or contact the school. Document problems.

- **Problem:** The student is continually late or wears inappropriate attire.
  - **Solution:** Relay your feeling to the student as soon as possible. If the problem continues see above solution.
Potential Problem Scenarios

- **Problem:** Student and preceptor do not get along.
- **Solution:** Talk with the student and express your concerns. The student may not always agree with you, but he or she MUST be respectful at all times. Contact the school if you do not get satisfaction after the initial talk with the student. You may want to bring in a third party.
Potential Problem Scenarios

- **Problem:** You precept the student occasionally because of the schedule. Your not sure what the student has covered and what you should emphasize.

- **Solution:** First, if there are multiple preceptors for a rotation, then a daily diary or syllabus with detailed assignments MUST be maintained. You should be able to walk into a rotation and immediately determine the day’s assignment.
Potential Problem Scenarios

- **Problem:** Failing a student.

- **Solution:** Make sure that this is not a surprise to the student. If a student is not doing well on the rotation, this should be discussed weekly with the student. Documentation on why student is failing is absolutely necessary. Warning the student prior to failing is also necessary. Otherwise, giving a student an update on how they are doing once every 2 weeks is appropriate with a mid-term review at 3 weeks. Contact the school prior to failing the student.
Potential Problem Scenarios

- **Problem:** Student is older than the preceptor and has a tendency to try to intimidate the preceptor.

- **Solution:** This should be handled by the preceptor if possible. Explain your concern to the student. If problem continues, let them know that you can be end to rotation immediately and they will have to deal with the consequences. Contact the school prior to terminating the rotation.
Situations to Avoid

- Assigning inappropriate activities: Taking out the trash, cleaning your office, etc.
- Assigning busy work. All assignments should have a purpose.
- Giving the student the feeling that they are in the way. “I’m just too busy for you today”. Though this may be true, there a better ways of handling this situation. They can help you by looking up labs or give them library time.
- Showing favoritism.
- Waiting to tell a student that you have a concern about a potential problem.
Developing a Syllabus

Many potential problems can be avoided with an appropriate syllabus. The more the student knows what to expect, the smoother the rotation goes.
Developing a Syllabus
Step 1: Goals of the Rotation

- Goals of the Rotation: General overview of what you expect the student to learn, what they will do on the rotation.
Goals of the Rotation
(Example)

The Internal Medicine Rotation is designed to introduce the student to all aspects of inpatient medical care through topic discussions, patient presentations, patient counseling, and active participation on internal medicine rounds. The student will learn to effectively communicate with other healthcare professionals and patients. They will discuss and defend their recommendations using evidence-based, patient-specific data. Ultimately the student will be expected to integrate disease state knowledge, patient-specific data, knowledge of medications to assure optimal healthcare to their patients.
Developing a Syllabus
Step 2: Orientation

- Rick Rhodes want us to use “Preceptor and Student Responsibilities”
- Orientation
  - HIPPA (addressed on first rotation, but remind students on each rotation).
  - Being late, sick days.
  - Dress Code.
  - Make sure you have an emergency contact.
  - Parking (should be addressed on first rotation).
  - Although you will probably give some feedback with each student encounter, there should be more formal feedback every 3 weeks.
  - What you expect from the student:
    - Attitude
    - Projects (Journal club, power point presentation, etc.)
    - I remind students that all of you may not want to do a PGY-1 residency, but this is how I prepare you.
    - What is takes to receive and “A” on the rotation.
    - Are there written tests?
    - Reasons for failure.
How the Student Will be Evaluated
Step 3: Objectives

- How the student will be evaluated should be co-ordinated with how they are graded.
- For ISU, the student objectives should be co-ordinated with the “College of Pharmacy Endpoint Competencies.”
- For PGY-1 residents: Match “ASAP Goals.”
Objectives
(Examples)

- Students will be evaluated on their initiative in preventing, identifying, and resolving pharmacy-related patient–specific problems during internal medicine rounds.

- Students will collect and organize all patient-specific information needed to prevent, detect, and resolve medication-related problems and to make appropriate evidence-based, patient-centered medication therapy recommendations as part of the interdisciplinary team.

- Apply pharmacokinetic and pharmacodynamics principles to assure appropriate drug dosing.

- Demonstrate the process of identifying and recording adverse drug events and medication errors.
Objectives
(Examples)

- Students will develop a treatment plan based upon the patient’s disease state, ethnicity and financial issues along with potential drug interactions. The student will also devise a monitoring plan with follow-up changes in the plan based upon patient outcomes.

- Students will be evaluated on their ability to communicate with their medical team and pharmacy preceptor so that they give clear, concise and accurate information. They must be able to justify all recommendations or information by employing evidence-based literature and updated guidelines.
Step 4: Subjects to be Covered
(Examples)

- List the subjects to be covered
  - ACS
  - CHF
  - Acute Renal Failure
  - Acid-base
  - Alcoholic Liver Disease
  - etc
Conclusion

- Understand the 4 basic roles of the preceptor and all of the different teaching styles that you can incorporate in your practice.
- Learn the approach to handling problem students.
- Develop an syllabus for your rotation that incorporates the four major areas; goals of the rotation, orientation, objectives matched to the evaluation criteria and subjects to be covered.
Additional Requirements for ISU

See Individual Syllabi

- Preceptor and Student Responsibilities
- Mid-Point Performance Evaluation
- Absence Policy
- Confidentiality (HIPPA) in each syllabi
- Academic Dishonesty/Professionalism
- Students with Disabilities
- Compensation Prohibited
- Grounds for APPE Failure
- College of Pharmacy Endpoint Competencies