Institutional Introductory Pharmacy Practice Experience (IPPE)

Syllabus and Work Book

THE UNIVERSITY OF TEXAS AT AUSTIN COLLEGE OF PHARMACY

Summer 2016
PHR F377H – Institutional Clinical Skills
Institutional Introductory Pharmacy Practice Experience (IPPE)

Summer 2016

Course Coordinator:
Donna Burkett, M.S., R.Ph.
PHR 3.209
(512) 475-6152
donna.burkett@austin.utexas.edu
Office hours by appointment

Course Administrative Coordinator:
Sherrie Bendele
PHR 5.102 (512) 232-2630
s.bendele@austin.utexas.edu

Course Description:
Canvas site http://canvas.utexas.edu will be used for all class information, reading assignments, and for uploading reflections to the Course Coordinator.

The institutional Introductory Pharmacy Practice Experience (IPPE) is an 80 hour (two week) on-site rotation in a hospital/institutional pharmacy designed to introduce students to the fundamentals of pharmacy practice in that setting. This is a required course and it must be completed before progressing to the P3 year. There are a total of three sessions (two weeks each) over a six week period the summer after the P2 year. Students will be assigned to one of the two week sessions in hospitals in the Austin/Waco/Temple, El Paso, Rio Grande Valley, and San Antonio regions. This course is designed to prepare the student for the Advanced Pharmacy Practice Experience (APPE) offered in the P4 year.

Course Objective:
The objective of the course is to familiarize students with the fundamentals of pharmacy practice in the institutional (hospital) pharmacy setting and to enhance the students’ attitude, skills and knowledge to better prepare them to provide pharmaceutical care. The format of the IPPE is a combination of observation, application of current knowledge, and feedback and assessment between the student, the preceptor, and others with whom the student may encounter. The educational outcomes for the IPPE address basic skills and knowledge that assist in the integration of classroom instruction and prepare the student for the APPE offered in the P4 year of the curriculum.

Session 1: May 23 – May 3
Session 2: June 6 - June 17
Session 3: June 20 – July 1
Educational Outcomes:

With knowledge gained from this course, students will be able to synthesize basic clinical and scientific knowledge obtained from their previous didactic coursework in the care of patients in actual institutional practice settings. Under the supervision of the preceptor, the student should be able to:

1. Participate in accurate prescription/medication order processing
2. Demonstrate knowledge of a unit dose system
3. Demonstrate knowledge of an intravenous admixture system. (Please note that the IPPE students have not taken the sterile admixture course, are not certified and therefore, are not allowed to prepare sterile admixtures.)
4. Demonstrate knowledge of current standards of institutional pharmacy practice, including medication safety, Core Measures and National Patient Safety Goals
5. Display appropriate professional behavior and work ethic
6. Demonstrate cultural and social competency

Course Requirements:

During their rotation, student-interns are required to do the following:

1. **Demonstrate knowledge** and/or participate in the six educational outcomes stated above.
2. **Successfully complete three exercises.** One must be on medication safety; one on pharmacy information systems (See page 31 for specifics); and an institutional project, as determined by the preceptor. Suggestions and examples will be given later in this syllabus/workbook.
3. **Reflections:** Reflections, using the PIE-RECAP format, on experiences will be required at the end of each rotation week. The reflection will be on some aspect of medication management that they have experienced. These reflections give the student-intern an opportunity to think about what they have learned and examine the procedures used in completing each exercise. It is strongly encouraged to write the reflection immediately upon completion of the exercise while it is still fresh in the student-intern’s mind. It is also strongly recommended that reflection notes are written on a daily basis to keep tract of highlights and thoughts that occur. Reflections need to be no more than 300 words. The final paragraph of each reflection should contain a brief summary of all the things you learned in that week about institutional pharmacy practice and especially which of the Educational Outcomes outlined above were achieved. This paragraph is in addition to the PIE-RECAP reflection. The reflections are due Monday by midnight after the end of each week of the rotation. The reflections will be forwarded to the institutional IPPE Course Coordinator, via Canvas. **They will be kept confidential and not required to be shared with preceptors.**
4. **Read** the required documents listed on page five prior to the first day of rotation. It will make your rotation much more meaningful.
5. **Complete** a web-based evaluation of the preceptor-faculty member, site and rotation experience at the conclusion of the rotation via a link on Canvas. Your comments and feedback are very important. **Failure to complete this evaluation by the stated deadline will result in failure of the course.**
Note to preceptors: The institutional IPPE students have taken the following courses prior to their IPPE rotation.

Pre-requisites for PHR 377H Institutional Clinical Skills

**Fall P1**
- Intro to Pharmacy Practice A 242DA
- Professional Dev Convocation I 142H

**Spring P1**
- Pharmacy Administration 244C
- Pharmacy Administration Lab 144D
- Intro to Pharmacy Practice B 242DB
- Professional Dev Convocation II 152H

**Fall P2**
- Drug Info & Evidence-Based Practice 163C
- Drug Info & Evid-Based Prac Lab 163P
- Pharmacotherapeutics I 665E
- Patient Assessment Skills Lab 262D
- Pharmacy & the Healthcare System 392S
- Professional Dev Convocation III 161H
- Pharmacy Prof Communications 266P

**Fall P2**
- Integrated Basic & Appl PKin 371S
- Integrated Basic & Appl PKin Lab 171P
- Pharmacotherapeutics II 675E
- Pharmacotherapeutics II Lab 175P
- Interprofessional Ethics 176E
- Introduction to Clinical Skills 177G
- Introduction to Clinical Skills Lab 177P
- Professional Dev Convocation IV 172H
Required topics to read and review prior to your rotation. Be aware that Internet links change. Let me know if one of these is not active. They will be posted on Canvas as soon as it is available to us.

I. Review and understand the minimum standards for pharmacies in hospitals developed by the American Society of Health-System Pharmacists:

II. Medication errors and patient safety:

III. Review the role that The Joint Commission (TJC) plays in hospital accreditation. Discuss standards with your preceptor. See mission and vision of TJC:
     http://www.jointcommission.org/facts_about_the_joint_commission/

IV. For reference during your rotation, this is a very useful website on medication safety:
    http://www.ismp.org/
The following pages define more specifically the stated outcomes, as well as, suggested activities that can by taught or evaluated by the preceptor to achieve these outcomes. By the end of the Institutional IPPE rotation, under the supervision of the preceptor, the student should be able to:

1. **PARTicipate in accurate prescription/medication order processing**
   a. Interpret a medication order that is obtained in oral, electronic and/or written form, and be familiar with pharmacy’s role in transferring orders into the computerized processing system.
   b. Correctly analyze orders for necessary components (is there a drug, dose, route and frequency) and be familiar with the order verification process.
   c. Communicate accurate and appropriate medical and drug information to a patient, pharmacist, preceptor or other health care professional.
   d. Participate in preparing prescription orders for administration, and be familiar with the hospital’s drug delivery system.

*Suggested activities in which outcome can be taught or evaluated:*
   i. Receive and interpret prescriptions/medication orders (order entry).
   ii. Assess a prescription/medication order for necessary components (drug, dose, route, frequency) and safety (order verification).
   iii. Assess a medication order for appropriate dose based on renal function.
   iv. Perform therapeutic drug monitoring and calculate the dosage for drugs, such as vancomycin, aminoglycosides, anticoagulants, etc.
   v. Compare medication products against labels for accuracy (checking).
   vi. Actively listen to patients, peers, and other health care professionals.
   vii. Determine the appropriate means of communication for the situation.
   viii. Use proper grammar, spelling, and pronunciation in communications.
   ix. Distribute prescriptions using automation, robotics, tube system, direct unit delivery, etc.
   x. Discuss the role of the pharmacist in medication reconciliation, unapproved abbreviations and verbal & telephone orders.

2. **DEMONSTRATE KNOWLEDGE OF A UNIT DOSE SYSTEM**
   a. Identify key elements of a unit dose system.
   b. Identify different services pharmacy technicians provide and the role they play in hospital drug distribution.
   c. Participate in medication storage, pre-packaging and distribution.
   d. Identify relevant laws and standards regarding a unit dose system.

*Suggested activities in which outcome can be taught or evaluated:*
   i. Provide various technician services.
   ii. Perform prepackaging procedures.
   iii. Retrieve and label products.
   iv. Restock the hospital distribution system.
3. **DEMONSTRATE KNOWLEDGE OF AN INTRAVENOUS ADMIXTURE SYSTEM**
   a. Observe and describe proper procedures for dispensing sterile products.
   b. Observe and describe special handling, preparation and administration procedures for IV drug products (chemo, TPN, etc.).
   c. Discuss technology in IV medication mixing.
   d. Discuss outsourcing of IV admixtures.
   e. Discuss different types of equipment used with IV therapy

   **Suggested activities in which outcome can be taught or evaluated:**
   i. Participation in reviewing admixture orders for compatibility and stability and making appropriate recommendations.
   ii. Observe preparation, storage and dispensing of parenteral products using aseptic techniques.
   iii. Observe techniques for chemotherapy and TPN orders.

4. **DEMONSTRATE KNOWLEDGE OF CURRENT STANDARDS OF INSTITUTIONAL PHARMACY PRACTICE, INCLUDING MEDICATION SAFETY**
   a. Describe The Joint Commission’s and other accrediting bodies’ role in health care evaluation and accreditation, including Core Measures and National Patient Safety Goals.
   b. Discuss the composition and role of a Pharmacy and Therapeutics Committee, including Medication Use Evaluation (MUE).
   c. Describe the composition and role of an Institutional Review Board Committee in the hospital setting.
   d. Discuss the function and importance of a quality assurance program and how it influences daily pharmacy practice, including the role of pharmacy computer systems in this function.
   e. Discuss the role of pharmaceutical representatives in the hospital setting.
   f. Identify one element of practice in this setting for which a patient safety issue could be examined. Describe, discuss and formulate a plan for addressing this issue.

   **Suggested activities in which outcome can be taught or evaluated:**
   i. Read and discuss the role of Joint Commission, as well as patient safety standards, such as, Core Measures and National Patient Safety Goals
   ii. Attend and/or discuss a Pharmacy and Therapeutics Committee meeting.
   iii. Attend and/or discuss an Institutional Review Board meeting.
   iv. Discuss the role and scope of the hospital’s quality assurance program.
   v. Discuss the role of pharmaceutical representatives in the hospital setting.
   vi. Discuss patient safety issues and/or events with the preceptor and other health care professionals in the site.
   vii. Discuss high alert meds and look-alike/sound-alike meds
5. **DISPLAY APPROPRIATE PROFESSIONAL BEHAVIOR AND WORK ETHIC**
   a. Arrives at practice site and meetings on time.
   b. Does not ask to leave early unless medically necessary; when necessary, asks appropriately.
   c. Meets deadlines for completion of tasks and finished all work started.
   d. Seeks knowledge, asks questions, searches for information, and takes responsibility for his/her own learning.
   e. Responds openly and positively to constructive feedback and modifies behavior if necessary.
   f. Demonstrates regard for patients, superiors, colleagues, other personnel, and property.
   g. Embraces tasks assigned, no matter the level of importance or skill involved.
   h. Follows HIPAA regulations.
   i. Makes decisions and performs duties in accordance with legal, ethical, social, cultural, economic, and professional guidelines.
   j. Adheres to dress code and maintains personal health and good grooming habits as put forth by the practice setting.

*Suggested activities in which outcome can be taught or evaluated:*
   i. Student observation of pharmacist role model.
   ii. Preceptor and/or other health professional observation of student.
   iii. Establish professional rapport with patients and healthcare professionals.
   iv. Prioritize workload appropriately.
   v. One on one interaction with preceptor and/or other health care professional.

6. **DEMONSTRATE CULTURAL AND SOCIAL COMPETENCY**
   a. Respect different patient groups and cultural/ethnic/religious traditions.
   b. Display an open-minded attitude to different cultural perspectives.
   c. Demonstrate empathy and caring in interactions with others.
   d. Experience the patients’ perspective on their health and the health care system through individuals with chronic conditions.
   e. Articulate the concepts of public awareness about pharmacy’s role in health care, and professional advocacy – what it means both professionally and personally.

*Suggested activities in which outcome can be taught or evaluated:*
   i. Student observation of pharmacist role model.
   ii. Preceptor and/or other health professional observation of student.
   iii. One on one patient and/or preceptor interaction.
   iv. Discuss the role and scope of pharmacy practice in public health.
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<thead>
<tr>
<th>Day</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
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<tr>
<td><strong>Theme:</strong></td>
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|            | Standard compliance
|            | Operations
|            | Pharmacy workflow
|            | Child dose distribution
|            | Pharmacy workflow
|            | Caring procedures/Order processing
|            | Demonstrating knowledge of a universal system
|            | Evaluating institutional project
|            | Submitting institutional project
|            | Institutional project due |
| **Objective:** |         |         |           |          |        |
|            | Objective 3: Demonstrating knowledge of a universal system
|            | Objective 4: Demonstrating knowledge of current standards of institutional pharmacy practice
|            | Objective 5: Displaying appropriate professional behavior and work ethic
|            | Objective 6: Demonstrating cultural and social competence
|            | Evaluating institutional project

**Week One**

10 Day Experience: 8 hours/day average
Introduction: Pharmacy practice experience: Hospital Pharmacy

Sample Schedule #1
## Institutional IPPS Syllabus and WorkBook

### IPE: Institutional Plan Sample Schedule #2

<table>
<thead>
<tr>
<th>Week One</th>
<th>Monday</th>
<th>Tuesday</th>
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10 Day Experience: 8 hours/day average

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# Introductory Pharmacy Practice Experience Sample Schedule #3

<table>
<thead>
<tr>
<th>Day</th>
<th>Time/Location</th>
<th>Tasks</th>
<th>Staff Involvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>0700-1200 (Main Rx)</td>
<td>- Resident/Student Introductions</td>
<td>Preceptor</td>
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<td>- Hospital Tour (resident guided)</td>
<td>Residents</td>
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<td>- Parking Permit/Hospital Badges</td>
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<td>- Lockers/Changing Areas</td>
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<td>- Pagers/Hospital Paperwork</td>
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<td>- Computer Access</td>
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<td></td>
<td>1300-1500</td>
<td>- Rotation Orientation</td>
<td>Preceptor</td>
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<td></td>
<td></td>
<td>- Syllabus</td>
<td>Residents</td>
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<td>- Rotation Outcomes</td>
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<td>- Expectations</td>
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<td>- Website resources log-in</td>
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<td>- Meeting plans</td>
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<td></td>
<td>- How students will be scheduled</td>
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<tr>
<td>Tuesday</td>
<td>0700-1200</td>
<td>- General Overview</td>
<td>Administrative</td>
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<td>- Hospital Introduction</td>
<td>staff,</td>
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<td>- Department Overview/Statistics (director)</td>
<td>pharmacists</td>
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<td></td>
<td>- Operational Structure Main Rx</td>
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<td>- Operational Structure IV room/surgery</td>
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<td>- Clinical Services Overview</td>
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<td>1300-1500</td>
<td>- Pyxis/ADC technology</td>
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<td></td>
<td>- IV Room Overview</td>
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<tr>
<td>Wednesday</td>
<td>0700-1200</td>
<td>- Computer Overview (Residents)</td>
<td>Residents</td>
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<td>- Rotation Project Proposal</td>
<td>Pharmacists</td>
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<td></td>
<td>1300-1500</td>
<td>Pharmacist Shadowing: Clinical Unit</td>
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<td>Thursday</td>
<td>0700-1200</td>
<td>- Module Work</td>
<td>TBD</td>
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<td>- Meetings (any that coincide with the rotation)</td>
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<td></td>
<td>1300-1500</td>
<td>- IV room preparation video (ASHP)</td>
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<td>Friday</td>
<td>0700-1200</td>
<td>- Field Trip (potential areas: ER, Radiation/ Oncology, Cath lab, social worker)</td>
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<td></td>
<td>- Patient Safety Discussion Presentation</td>
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<td></td>
<td>1300-1500</td>
<td>- Interviewing skills</td>
<td>Manager</td>
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<td>- Project Work</td>
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<td>- Resident Meeting/Overview</td>
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<td>- Competency Work</td>
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<td>- Protocol Discussions (Heparin, K, Mg, DTI’s, etc.)</td>
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<td>- Update/Clarification of goals/Questions answered?</td>
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<tr>
<td>Day</td>
<td>Time</td>
<td>Tasks</td>
<td>Staff Involvement</td>
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<tr>
<td>Monday</td>
<td>0700-1200</td>
<td>- Main Rx (Audit Tech)</td>
<td>Pharmacy Tech</td>
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<td>1300-1500</td>
<td>- will spend time seeing other responsibilities</td>
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<td>- pre-packing</td>
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<td>- first fill</td>
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<td>Clinical Discussion – CV, Neonatology, etc.</td>
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<td>Tuesday</td>
<td>0700-1200</td>
<td>- Main Rx (IV room)</td>
<td>Pharmacy Tech, Pharmacist</td>
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<td>1300-1500</td>
<td>- chemo technician observation</td>
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<td>- TPN compound machine</td>
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<td>Clinical Discussion - Oncology, etc.</td>
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<td>Wednesday</td>
<td>0700-1200</td>
<td>- Nursing Pharmacy Meeting</td>
<td>Clinical pharmacist</td>
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<td>1300-1500</td>
<td>- Main Rx (Picking tech)</td>
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<td>- will spend time seeing other responsibilities:</td>
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<td>- pre-packing and first fill</td>
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<td>Clinical Discussion - Intensive Care</td>
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<td>- Crash Cart Overview</td>
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<td>Thursday</td>
<td>0700-1200</td>
<td>Field Trip (ER, IA chemo, Cath lab, social worker?)</td>
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<td>1300-1500</td>
<td>Module Work</td>
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<td>Meetings</td>
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<td>Final Project Proposal Review</td>
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<td>Friday</td>
<td>0700-1200</td>
<td>- P&amp;T meeting</td>
<td>Director, Clinical pharmacist, Staff Pharmacist</td>
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<td>1300-1500</td>
<td>- Pharmacist Shadowing: Clinical Unit</td>
<td>Preceptor</td>
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<td>Project Work/Presentation</td>
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<td>Meeting/Update/Review</td>
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<td>- Competency Work</td>
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<td>- Protocol Discussions (Heparin, K, Mg, DTI’s, etc.)</td>
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<td>- Update/Clarification of goals/Questions answered?</td>
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<td>Final Evaluation</td>
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Course Grade:

This is a 3-hour experience-based course graded “Credit/Fail”. To receive credit for this course, the student-intern must satisfactorily complete all course requirements. Failure to satisfactorily complete any of the following course requirements will result in automatic failure of the entire course:

- Completion of 80 experiential hours
- Completion of Pharmacy Information Systems exercise. (This is a required exercise. See Example 2 on page 30, Information System Support to Improve Patient Safety)
- Completion of Medication Safety Assessment exercise plus all required activities and documentation. (You may use one of the examples at the back of the syllabus or develop one of your own.)
- Completion of an Institution-based project/exercise plus all required activities and documentation. (Your preceptor will decide what this should be. They may use one of the examples given in the syllabus or choose one of their own.)
- Completion and submission of the Institutional IPPE Evaluation Form and Hours sheet to your regional contact by 5:00 pm on the Monday after the last day of your rotation.

Please note the regional contacts below:
- AUSTIN – Sherrie Bendele
- EL PASO – Jacquelyn Navarrete
- RIO GRANDE VALLEY – Gabby Garza
- SAN ANTONIO – Laura Patterson

- Web-based evaluation of the experience via a link on Canvas

- Reflections
  - A minimum of two reflections will be required, one each week
  - Examples of reflection topics are:
    - Medication Safety exercise
    - Institutional Project
    - Any portion of the medication management system that has been observed by the student
    - Other examples are in the work book section of this syllabus

*****IMPORTANT NOTE: This is a required portion of your reflections.*****

At the end of each reflection, please write one short paragraph about your overall impression of the week. After the first week, let me know your first impression of hospital pharmacy. In each of these final paragraphs let me know what you learned that week about hospital pharmacy and which of the Educational Outcomes were achieved. What did you like or not like and why?
Intern Evaluation Form:
- Must NOT receive 3 or more “2” ratings on the end of rotation evaluation
- Must NOT receive a “1” rating on the end of rotation evaluation
- An end of rotation evaluation should be recorded on the student-intern’s evaluation form. The practitioner-faculty member should discuss the student-intern’s overall performance with him/her, pointing out strengths and areas where improvement can be made. Any indication that the student-intern is not performing at an acceptable competency needs to be reported to the course coordinator as soon as possible.

Professional Points: If the student-intern receives a deduction of 15 or more professional points during the course, he/she automatically fails the course. The points are determined as follows:
- Missed day – 10 points
- 15 minutes late for a rotation – 3 points
- No professional business casual attire, lab coat or UT name badge worn during your assigned shifts – 3 points
- Violation of HIPAA – 10 points
- Designated deadlines on course timeline – 3 points for each day past deadline. These include the following:
  - Medication Safety Exercise
  - Pharmacy Information Systems Exercise
  - Institutional Project
  - Reflections-2 required
  - Evaluation Form and Hour Sheet
  - Web-based evaluation of the experience

Timeline:
All projects are due no later than the second Friday of each two week rotation, unless requested earlier by the preceptor. The first required reflection is due to the I-IPPE course coordinator on the Monday after the first week at midnight. The second required reflection is due to the I-IPPE course coordinator on Monday after the second week at midnight. These reflections will be forwarded to the I-IPPE course coordinator via Canvas.
Schedules:
Schedules will be determined by student-intern and site preceptor. It is required that student-interns be present on all days of the scheduled rotation period. Regular and prompt attendance mimics the actual working world. Holidays may be observed by the student-intern provided the preceptor approves. Religious holidays may be observed according to University policy. The student-intern must make up the hours missed during this time, at the discretion of the preceptor.

Hours Sheet:
The Hours Sheet is designed to keep track of all hours worked each week plus any scheduled required documentation. It is the student-intern’s responsibility to ensure this sheet is complete, accurate and current. All entries need to be completed in ink. At the end of the shift, the student-intern or preceptor must record the shift and hours completed and review any required documentation for that week. The student-intern is not allowed to work more than 10 hours per shift, nor more than 50 hours per week. If a preceptor feels that there is reason to believe that a student-intern may be misrepresenting his or her hours as recorded on the hour sheet, the Course Coordinator should be notified immediately. This type of behavior constitutes academic dishonesty and will not be tolerated. The penalty for falsification of hours is failure of the course.

Standards of Conduct:
- Student-interns are required to abide by the facility’s Health Information Portability and Accountability Act (HIPAA) policies. You may be required to sign a temporary HIPAA form at your site. Ask your preceptor about emailing restrictions.
- Student-interns must abide by all laws and regulations pertaining to a student-intern as defined by the Texas Pharmacy Act and Rules. Violation of these laws and regulations may jeopardize the intern’s privilege to become a registered pharmacist in Texas and may also result in failure of the course and dismissal from the College and/or the University.
- Student-interns will be removed from a practice site for conduct deemed unprofessional by the preceptor and/or Student Affairs Office, or if the student-intern’s actions endanger a patient’s health or welfare. Removal from a practice site may result in failure of the course.
- Professional demeanor and dress are expected and required throughout the course. The student-intern is representing the University of Texas College of Pharmacy and is expected to behave accordingly.
General Requirements:

- **Completion of the following UT Compliance Modules:**
  - Bloodborne Pathogens
  - General HIPAA Privacy
  - Log into [https://utdirect.utexas.edu/cts/index.WBX](https://utdirect.utexas.edu/cts/index.WBX) and click on Compliance Training
  - Complete BOTH courses and take the quiz at the end of each course
  - You may be prompted or have the option to print a certification of completion. Please print these for your records. We verify your participation in another way.

- **E-Mail** – Student-interns are required to be accessible via e-mail and to check e-mail at a minimum of two times weekly per University policy. Additionally, it is mandatory that students communicate any changes in e-mail or regular mail addresses to the Office of Student Affairs and the Course Coordinator immediately.

- **Transportation** – The student-intern is responsible for his/her own transportation to and from any assigned practice site or class activity. Prompt arrival is expected.

- **Dress Code** - Intern identification badges MUST be worn on-site and at off campus college or professional functions. Texas State Board of Pharmacy compliance officers require the student-intern to have his/her intern card in his/her possession at all times. The student-intern must meet the practitioner-faculty’s dress code while on-site and while participating in special activities, including a *blazer-style* (short, not long) white jacket (with tie, if male student-intern) AND UT student-intern orange nametag. Blue jeans, shorts, inappropriately short skirts, exposed midriffs, excessively low necklines, and open-toed shoes are not acceptable for student-interns. Also, be aware that denim of any color may not be accepted in some facilities.

  Please note: “fake” (acrylic or other) fingernails and body piercings may not be acceptable in most, if not all, institutional practice sites. These will have to be removed for the student-intern to complete rotations at these sites. In addition, some sites require that all visible tattoos be covered up.

- **Cell phones** - Cell phones are not to be used during the hours you are at your site.

- **Laptops** - Students are encouraged to bring their laptops to insure access to the Internet.
**Academic Integrity:**
The "Statement on Scholastic Integrity of the College of Pharmacy" reads as follows: "Pharmacy practitioners enjoy a special trust and authority based upon the profession's commitment to a code of ethical behavior in its management of client affairs. The inculcation of a sense of responsible professional behavior is a critical component of professional education, and high standards of ethical conduct are expected of pharmacy students. Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including failure of the course involved and dismissal from the college and/or the University. Since dishonesty harms the individual, fellow students, and the integrity of the University and the College of pharmacy, policies of scholastic dishonesty will be strictly enforced in this class".

Students are expected to work independently on all exercises unless otherwise indicated. Any student caught cheating will be given a "zero" on the exercise (minimum). Any student suspected of dishonesty will be reported to the Dean of the College of Pharmacy and to the Dean of Students, as per University regulations. Students are expected to have read and understood the current issue of the General Information Catalog published by the Registrar's Office for information about procedures and about what constitutes scholastic dishonesty.

**Students with Disabilities:**
The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. All University rules concerning accommodations must be followed, including the student arranging for special accommodations prior to each examination. In the absence of such prearrangement, the student will be assumed that the student is not requesting special accommodations for that exam, and will be expected to take the exam with the rest of the class at the regularly scheduled exam time. For more information, contact the Office of the Dean of Students at 471-6259, 471-4641 TTY. http://www.utexas.edu/diversity/ddce/ssd/.
Worksheets

Institutional Practice Introductory Pharmacy Practice Experience
The purpose of this worksheet is to help the preceptor and the student to monitor progress against the objectives. This should be reviewed with the preceptor at least weekly, as a guide to activities completed and for discussion. This sheet does not need to be turned in at the end of the rotation. It is a worksheet only.

Student Name: ____________________________________________

Objective 1. Participate In Accurate Prescription/Medication Order Processing
  a. Interpret a medication order that is obtained in oral, electronic and/or written form.
  b. Be familiar with pharmacy’s role in transferring orders into the computerized processing system.
  c. Correctly analyze orders for necessary components (is there a drug, dose, route and frequency) and be familiar with the order verification process.
  d. Communicate accurate and appropriate medical and drug information to a patient, pharmacist, preceptor or other health care professional.
  e. Participate in preparing prescription orders for administration, and be familiar with the hospital’s drug delivery system.

Suggested activities in which outcome can be taught or evaluated. Place a check mark next to those that applied.

  ___ Receive and interpret prescriptions/medication orders (order entry).
  ___ Assess a prescription/medication order for necessary components (drug, dose, route, frequency) and safety (order verification).
  ___ Assess a medication order for appropriate dose based on renal function.
  ___ Perform therapeutic drug monitoring and calculate the dosage for drugs, such as vancomycin, aminoglycosides, anticoagulants, etc.
  ___ Compare medication products against labels for accuracy (checking).
  ___ Follow an order through all phases of the medication use process (from the floor to the pharmacy and back to the floor for patient administration.)
  ___ Actively listen to patients, peers, and other health care professionals.
  ___ Determine the appropriate means of communication for the situation.
  ___ Use proper grammar, spelling, and pronunciation in communications.
  ___ Distribute prescriptions using automation, robotics, tube system, direct unit delivery, etc.
  ___ Discuss the role of the pharmacist in medication reconciliation, unapproved abbreviations, and verbal and telephone orders.
  ___ Other Activity:
Objective 2. Demonstrate Knowledge of a Unit Dose System
   a. Identify key elements of a unit dose system.
   b. Identify different services pharmacy technicians provide and the role they play in hospital drug distribution.
   c. Participate in medication storage, pre-packaging and distribution.
   d. Identify relevant laws and standards regarding a unit dose system.

Suggested activities in which outcome can be taught or evaluated. Place a check mark next to those that applied.

   __ Provide various technician services, with a technician.
   __ Perform pre packaging procedures.
   __ Retrieve and label products.
   __ Restock the hospital distribution system.
   __ Check an emergency cart or drug kit for contents and expiration dating.
   __ Discuss relevant laws and standards regarding a unit dose system.
   __ Other Activity:

Potential Student Projects Related to Objective #1 or #2. Place a check mark next to those that applied.

   __ Review inventory reports and/or automated dispensing cabinet (eg. Pyxis) turnover.
   __ Perform a station or unit check as preparation for Joint Commission review.
   __ Review and prepare a report of medication costs.
   __ Prepare a phone list of local retail pharmacies and hospital pharmacies
   __ Provide a quality assurance check for an aspect of the unit dose system.
   __ Other Project:
Objective 3. **Demonstrate Knowledge of an Intravenous Admixture System**

a. Observe and describe proper procedures for dispensing sterile products.
b. Observe and describe special handling, preparation and administration procedures for IV drug products (chemo, TPN, etc.).
c. Discuss technology in IV medication mixing.
d. Discuss outsourcing of IV admixtures.
e. Discuss different types of equipment used with IV therapy.

*Suggested activities in which outcome can be taught or evaluated. Place a check mark next to those that applied.*

__ Participation in reviewing admixture orders for compatibility and stability, and making appropriate recommendations.

__ Observe preparation, storage and dispensing of parenteral products using aseptic techniques.

__ Observe techniques for chemotherapy and TPN orders.

__ Observe techniques/equipment for IV preparations on the nursing units

*Potential Student projects related to objective #3. Place a check mark next to those that applied.*

__ Write up a drug information question.

__ Update brand charts.

__ Prepare and/or update compatibility charts.

__ Review compounding log for commercially available products.

__ Review inventory turnover for potential improvements to “batch” policies.

__ Other Project:
Objective 4. **Demonstrate Knowledge of Current Standards of Institutional Pharmacy Practice, Including Medication Safety.**

a. Describe The Joint Commission’s and other accrediting bodies’ role in health care evaluation and accreditation.

b. Discuss the composition and role of a Pharmacy and Therapeutics Committee, including Medication Use Evaluation (MUE).

c. Describe the composition and role of an Institutional Review Board Committee in the hospital setting.

d. Discuss the function and importance of a quality assurance program and how it influences daily pharmacy practice, to include the role of the pharmacy computer system in this function.

e. Discuss the role of pharmaceutical representatives in the hospital setting.

f. Identify one element of practice in this setting for which a patient safety issue could be examined. Describe, discuss and formulate a plan for addressing this issue.

g. Discuss the importance of the pharmacy information system and the vital role that it plays to assure compliance with the current institutional pharmacy standards and clinical intervention duties.

**Suggested activities in which outcome can be taught or evaluated. Place a check mark next to those that applied.**

- Read and discuss the role of JCAHO, as well as patient safety standards, such as Core Measures and National Patient Safety Goals

- Attend and/or discuss a Pharmacy and Therapeutics Committee meeting.

- Attend and/or discuss an Institutional Review Board meeting.

- Discuss the role and scope of the hospital’s quality assurance program.

- Discuss the role of pharmaceutical representatives in the hospital setting

- Discuss patient safety issues and/or events with the preceptor and other health care professionals

- Discuss high alert meds and look-alike/sound-alike meds

- Other Activity:
Objective 5. Display Appropriate Professional Behavior And Work Ethic
   a. Arrives at practice site and meetings on time.
   b. Does not ask to leave early unless medically necessary; when necessary, asks appropriately.
   c. Meets deadlines for completion of tasks and finished all work started.
   d. Seeks knowledge, asks questions, searches for information, and takes responsibility for his/her own learning.
   e. Responds openly and positively to constructive feedback and modifies behavior if necessary.
   f. Demonstrates regard for patients, superiors, colleagues, other personnel, and property.
   g. Embraces tasks assigned, no matter the level of importance or skill involved.
   h. Follows HIPAA regulations.
   i. Makes decisions and performs duties in accordance with legal, ethical, social, cultural, economic, and professional guidelines.
   j. Adheres to dress code and maintains personal health and good grooming habits as put forth by the practice setting.

Suggested activities in which outcome can be taught or evaluated. Place a check mark next to those that applied.

   ■ Student observation of pharmacist role model.
   ■ Preceptor and/or other health professional observation of student.
   ■ Establish professional rapport with patients and healthcare professionals.
   ■ Prioritize workload appropriately.
   ■ One on one interaction with preceptor and/or other health care professional.
   ■ Other Activity:
Objective 6. Demonstrate Cultural and Social Competency
   a. Respect different patient groups and cultural/ethnic/religious traditions.
   b. Display an open-minded attitude to different cultural perspectives.
   c. Demonstrate empathy and caring in interactions with others.
   d. Experience the patients’ perspective on their health and the health care system through individuals with chronic conditions.
   e. Articulate the concepts of public awareness about pharmacy’s role in health care, and professional advocacy – what it means both professionally and personally.

Suggested activities in which outcome can be taught or evaluated. Place a check mark next to those that applied.

- Student observation of pharmacist role model.
- Preceptor and/or other health professional observation of student.
- One on one patient and/or preceptor interaction.
- Discuss the role and scope of pharmacy practice in public health.
- Other Activity:
The following reflection questions may be used for your reflections assignments or for your three required exercises. They are linked to the six course outcomes as listed earlier in this syllabus. Your preceptor may want you to do something else.

**Reflection Question-Objective 1**

**Participate in Accurate Prescription Processing**

In the hospital setting, pharmacists and technicians work closely together to provide quality products and deliver patient care. You have had the opportunity to observe pharmacists, technicians, and others in the work setting.

What have you observed regarding the technician’s role at your IPPE site?

How do the roles and responsibilities of technician impact the roles of the pharmacists?

What other roles can technicians take on? What are some of the limitations to making changes?

Discuss these questions and the ones below with your preceptor.

- The technician’s role(s) in the workflow – give specific examples and describe how this is/is not different from pharmacist’s functions
- A brief description of the licensing requirements for technicians in the state where you are practicing; also address whether CE is required.
- Determine if any of the technicians are certified (e.g., PTCB); discuss the role of certification within the organization and profession.
- The technician’s role with patients and the general public
- Your assessment, including input from your preceptor if desired, on the qualities that a pharmacy technician should possess to be an effective team member. Include any insights from team members on the challenges that technicians and pharmacists face in working together.
Reflection Question – Objective 2

Demonstrate Knowledge of a Unit Dose System

Automated medication storage and distribution devices may free pharmacists from labor-intensive distributive functions, help pharmacists provide pharmaceutical care, and improve the accuracy and timeliness of medication distribution. However, when automated devices are not used appropriately, patient safety may be compromised.

If your pharmacy site employs automated filling and/or dispensing technologies, describe them for this assignment. You should include:

- Specifications about the system – name, capacity, software interface, manufacturer support
- How the system is integrated within the workflow of the pharmacy
- Safety procedures in place to ensure both data and product integrity
- If possible, ask the pharmacy staff how this technology has changed the functionality of the site (for better or worse) – this question would be applicable if staff members were on-site prior to the addition of automated devices.

If your site does not have automated filling machines, discuss the application of such technology with your preceptor. Include in the discussion issues of cost, maintenance, safety and challenges.
Reflection Question – Objective 3

Demonstrate Knowledge of an Intravenous Admixture System

Pharmacy sterile product preparation and compounding are governed by standards of practice, including USP 797 standards.

Observe the preparation of IV admixtures at your site, review the 797 standards and/or other guidelines and articles relating to IV preparation and dispensing, and respond to the following questions:

To what extent has the pharmacy been able to implement the recommendations in the standards?

What are some of the challenges to meeting the 797 standards?

What are some of the requirements for handling different types of products?
  •  Antibiotics
  •  TPN/ nutrition solutions
  •  Chemotherapy

In addition to preparation guidelines, what other considerations are there in the dispensing, administering and handling of these products. Consider:
  •  Pre-made products vs. compounded
  •  Syringe vs. small-volume delivery systems
  •  Use of pumps
  •  Considerations for IV sets/ administration lines
  •  Return policy/ dating and handling of IV solutions
Reflection Question – Objective 4

Demonstrate Knowledge of Current Standards of Institutional Pharmacy Practice, Including Medication Safety

Hospitals are governed by several bodies, including the State Board of Pharmacy, Joint Commission and the Department of Health. Hospital pharmacies also follow standards set out by national organizations, such as the American Society of Health-System Pharmacists.

Review at least one standard from one of the organizations listed above, and reflect on the impact to your IPPE Site.

- Does the pharmacy currently meet this standard, or is it one that they need to achieve?
- How is the pharmacy expected to perform in order to meet the standard?
- What measures are in place or can be put in place to monitor compliance with the standard?
- What metrics does your IPPE site use to show compliance with standards of practice? Review these with your preceptor, and discuss the use of metrics to show performance and improve care.
Reflection Question – Objectives 5 and 6

Display of Appropriate Professional Behavior and Work Ethic

Demonstrate Cultural and Social Competency

There are many goal statements with these two outcomes. The reflection for this is to observe interactions and behaviors in the workplace related to these two outcomes.

What are some of the behaviors and actions you observed that you would describe as professional behavior? Describe these to your preceptor.

Hospital communication is often completed via phone vs. ‘in-person.’ Describe a challenging phone conversation where you heard one side of the situation.

- What made the situation challenging?
- What are some of the potential issues that the caller was dealing with, which may not have been known to the person on the phone in the pharmacy?
- How did this impact the work environment in the pharmacy?
- Was someone right and wrong in this situation?
- How could the situation be handled differently?

Describe a situation where the interaction between two individuals was not professional?

- What was the situation?
- What did you observe happening?
- Was the outcome of the interaction positive or negative, and what made it that way?
- How could it have been handled differently?

Describe a challenging situation where you observed an individual manage the situation well.

- What was the situation?
- What did you observe happening?
- Was the outcome of the interaction positive or negative, and what made it that way?
- How could it have been handled differently?
- How could this situation be minimized in the future?
**Institutional IPPE MEDICATION SAFETY PROJECT**

During the course of the institutional IPPE rotation, students are required to complete a medication safety project. The scope of this project and what it entails should be determined in conjunction with the site preceptor and site needs. This project meets Objective 4, element f:

**Objective 4. Demonstrate Knowledge of Current Standards of Institutional Pharmacy Practice, Including Medication Safety**

Identify one element of practice in this setting for which a patient safety issue could be examined; describe, discuss and formulate a plan for addressing this issue.

Sample project templates are included in this workbook.

The preceptor should review the project with the student at the end of the IPPE rotation. **Satisfactory completion of a Medication Safety Project is a requirement for completing the course.**


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**Medication Safety Project – Example 1**

**Process Steps to Improve Patient Medication Safety**

During the two weeks at the site, observe and participate in order processing procedures.

<table>
<thead>
<tr>
<th>AREAS FOR DISCUSSION</th>
<th>NOTES / OBSERVATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the pharmacy’s policy regarding a “read back” procedure for telephoned prescriptions?</td>
<td></td>
</tr>
<tr>
<td>What steps in the prescription process require a double check? Which pharmacy staff members are involved?</td>
<td></td>
</tr>
</tbody>
</table>
Medication Safety Project – Example 2  *(THIS ONE IS REQUIRED!)*

**Information System Support to Improve Patient Safety**

Once you have reviewed the order entry process, discuss the computer system utilized. Review the patient safety areas listed below, and provide an assessment of the use of the system at your IPPE site.

What are some of the special components of the system (e.g., does the system flag drug doses that are outside of typical use, does it alert the pharmacist about inappropriate utilization [refill early or late])? Describe its complexity or ease of use. Describe anything “unique” about the system being utilized within the pharmacy. What type of information is printed out for the pharmacist and/or patient?

What happens within the system when a drug allergy is identified? How is this situation handled within the pharmacy?

What happens within the system/pharmacy when a drug interaction or therapeutic duplication is reported? Describe the steps taken.

Describe the documentation system. What type of information is entered into a patient’s electronic file? How accessible is this information, and how often is it reviewed for new or refill prescriptions? Describe documentation for patients at high risk of adverse drug reactions (e.g., renal dysfunction, fall risk, multiple medications); how is this documentation used in order processing?

Describe aspects of the workflow process that are designed to reduce the risks of dispensing errors. This could include the physical layout, pharmacist to technician ratios, and independent double check systems. Identify ways to improve the workflow, from an error-prevention view.

Describe the types of reports that can be generated to help with medication utilization evaluations, clinical reviews, such as, anticoagulants, antibiotic sensitivity reports, etc.
## Med Safety Project – Example 3

### Concerns with the Dispensing and Handling of Medications
For each medication in the chart, write a short description of concerns the pharmacist may have when dispensing and how these concerns are addressed. In your description, be sure to include aspects of dispensing and documentation that address the safe use of the product.

<table>
<thead>
<tr>
<th>Medication</th>
<th>Dispensing Concerns</th>
<th>Aspect of Dispensing/Documentation that addresses safe use of product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isotretinoin Products</td>
<td></td>
<td></td>
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<tr>
<td>Eye Drops</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalers/Nasal Sprays</td>
<td></td>
<td></td>
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<tr>
<td>Insulin</td>
<td></td>
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<tr>
<td>Insulin syringes</td>
<td></td>
<td></td>
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<tr>
<td>Glucose testing strips</td>
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<td></td>
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<tr>
<td>Medications for treating migraines</td>
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<td></td>
</tr>
<tr>
<td>(tablets, inhalers, injections)</td>
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</tbody>
</table>
Med Safety Project – Example 4

Look-Alike Sound-Alike Drug Names

A common source of medication errors involves the “mix-up” of drug names. Many drug names look or sound alike, and different products may be available in similar appearing containers. The Food and Drug Administration requires drug manufacturers to use “tall man” lettering on container labels for 16 look-alike generic name pairs. Manufacturers may also choose voluntarily to differentiate their product names or packaging from a similar product. Keep in mind that this FDA labeling standard applies only to products introduced after the 1938 Food, Drug and Cosmetic Act.

The Institute for Safe Medication Practices (ISMP) recommends that manufacturers use several methods to distinguish their product labels, including tall-man lettering (example: BuPROPion and BusPINEone), highlighting, bold face, color, and circling. ISMP further recommends that differentiation of look-alike products occur on computer screens, shelf labels and bins, pharmacy product labels, and medication administration records.

**Identify 5 pairs of look-alike/sound-alike medications** (10 medications in total). If you have any difficulty identifying these products on your own, you may refer to the list on the ISMP site ([www.ismp.org](http://www.ismp.org)).

**Fill out the table on the following page:**

1. List an indication for each medication; this can be the FDA-approved indication or a common off-label use of the product.

2. Describe efforts to differentiate product names; some examples are listed above.

3. Describe efforts within the pharmacy to separate products that look or sound alike. How often are shelves checked for potentially dangerous placements, and who is responsible for this?

4. Discuss with your preceptor if they are aware of errors made based on a name mix-up. If your site is part of an organization with multiple pharmacies, is there a mechanism for one pharmacy to let other pharmacies know of an error or near-miss based on a name mix-up?
Look-Alike Sound-Alike Drug Names  (continued)

<table>
<thead>
<tr>
<th>Drug Name Pair</th>
<th>Indication for each medication</th>
<th>Efforts to differentiate product names</th>
<th>Efforts at site to separate products</th>
<th>Errors based on mix-up?</th>
</tr>
</thead>
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Medication Safety Project – Example 5

Use of Abbreviations

Prescription writing remains one of the last and perhaps most important paper transactions in our increasingly computerized society. Most clinicians still write prescriptions by hand, utilizing memory for drug names, dosage strengths, and directions. The Institute for Safe Medication Practices (ISMP) estimated that in the year 2000, indecipherable or unclear prescriptions resulted in more than 150 million calls from pharmacists to physicians asking for clarification, a time-consuming process that could cost the healthcare system billions of dollars a year in wasted time. At the very least, that process can delay the time until patients receive their medications. At worst, a misread order can lead to injury or even death.

But computerized order entry is only part of the solution. To be truly effective in reducing medication errors, electronic prescribing must offer even more capabilities and stop errors at additional points in the medication management system. Electronic tools could be used for all manner of clinical tasks, including but not limited to automating and integrating the prescription-generating process. Other applications include provisions for medical histories, ICD-9 coding, clinical alerts, drug utilization reviews, and formulary compliance.

If your pharmacy site receives prescriptions electronically, describe this process. You should include:

- An assessment of the volume of prescriptions this represents (in relation to total prescription volume)
- A description of the workflow associated with an electronic prescription, including how the data is stored
- Compare and contrast electronic prescribing to traditional hand-written prescriptions – it may be helpful to ask for multiple perspectives on this question from several members of the pharmacy staff
- Ask your preceptor and other pharmacists about their confidence level regarding the accuracy and completeness of these prescriptions.
- Determine if there are special requirements (e.g., technology, etc) for the pharmacy to accept these prescriptions (if directly sent to the pharmacy)? How is security and validity ensured in this process?