Advanced Hospital Practice Objectives

Upon completion of the hospital practice experience, the student will be able to complete*:

1. **Order Entry**
   a. Utilize the patient profile to assess the current order for:
      i. Patient allergy
      ii. Drug interactions
      iii. Therapeutic duplication
      iv. Potential for adverse effects
   b. For each medication order, assess appropriate:
      i. Indication
      ii. Completeness
      iii. Dose/pharmacokinetics
      iv. Dosage form, if injectable consider:
         1. IV compatibility
         2. Stability
         3. Administration rate
         4. Administration restriction
         5. Reconstitution
         6. Route (IM, Sub-Q, IV)
      v. Compliance with hospital policy and procedure, including formulary restrictions
      vi. Duration of therapy
      vii. Medication safety issues (i.e. look-alike/sound-alike, legibility, unapproved abbreviations)
   c. Become proficient at pharmaceutical calculations
   d. Develop a systematic approach to verifying the accuracy of one’s own entry before final completion of the order
   e. Know when to discontinue and/or restart medications without an order when situations warrant (post-operatively, upon transfer, etc.)

2. **Product Preparation**
   a. Unit dose
i. Accurately select the appropriate medication

b. Injectable product preparation
   i. Using aseptic technique and following USP 797 guidelines, competently compound injectable products

c. Chemotherapy
   i. Use the institution’s policy and procedure to ensure safe handling, preparation, and administration of chemotherapy products

d. Compounding
   i. Using the concepts of pharmaceutics, appropriately compound products for patient use, differentiating when sterile vs. non-sterile technique is suitable

e. For all products leaving the pharmacy:
   i. Develop a systematic approach to ensure the five principles of drug delivery:
      1. Right drug
      2. Right patient
      3. Right dose
      4. Right time
      5. Right route

3. Clinical Services
   a. Use pertinent patient information to identify problems, including the following drug related problems, and subsequently recommend medication therapy changes:
      i. A problem of the patient is not being treated or is not maximally being treated
      ii. A medication the patient is receiving is not indicated or is contraindicated
      iii. A problem of the patient is being caused by one of his/her medications
      iv. The patient is not being properly monitored with respect to his/her drug therapy (efficacy, toxicity, pharmacokinetics)
      v. A drug interaction or potential drug interaction exists
      vi. A drug dose or duration of therapy is inappropriate (especially in the presence of hepatic or renal impairment)
      vii. A drug is interfering with or masking the manifestation of a disease or altering the interpretation of a lab test
      viii. A medication is being administered utilizing an inefficient route or dosage form, specifically focusing on IV to oral
ix. The patient has a medication regimen that is leading to non-compliance

b. Pharmacokinetic dosing
   i. Become familiar with the institution’s policy and procedure for pharmacokinetic dosing and monitoring

4. **Drug Therapy**
   a. When performing any task in the hospital setting, the student should have a firm understanding of drug therapy. For each drug encountered, be familiar with:
      i. Pharmacology
      ii. Dosing
      iii. Pharmacokinetics
      iv. Routes of administration
      v. Contraindications/precautions
      vi. Adverse drug reactions
      vii. Interactions (drugs, dietary supplements, food, laboratory)
      viii. Monitoring parameters for efficacy and toxicity
      ix. Benefit of therapy versus risk
      x. Cost of treatment

5. **Drug Information Skills**
   a. Use the most appropriate resources to respond to drug information questions in an accurate and timely manner

6. **Administrative/Operational Functions**
   a. Understand the process to meeting and maintaining JCAHO compliance standards
   b. Understand the process to maintain pharmacy operations within local and federal regulations
   c. Participate in a quality assurance project, for example:
      i. DUE/MUE
      ii. Patient safety initiative
      iii. Time study
      iv. Reporting of adverse drug reactions
      v. Reviewing and reporting of medication errors
   d. Understand the process involved for making institutional formulary decisions
e. Recognize factors that are involved in balancing a departmental budget
f. Discuss the maintenance of the institution's adverse drug event reporting process
g. Attend any interdisciplinary committee meetings deemed appropriate by the preceptor
h. Review key components of human resource management, including:
   i. Hiring/conducting an interview
   ii. Formal disciplinary procedures/termination
   iii. Staff development

7. Additional Activities to be Completed
   a. At least one formal presentation to pharmacists or an interdisciplinary committee from the following list:
      i. Monograph for formulary review
      ii. Journal club
      iii. Patient safety initiative
   b. Pharmacokinetic consults that should be reviewed during the course of the rotation include:
      i. Vancomycin
      ii. Aminoglycosides
      iii. Anticoagulants
      iv. Medication adjustments based on disease state (especially renal and hepatic impairment)

8. Communication Skills
   a. Develop the ability to effectively communicate, both in writing and verbally, with the patient as well as with health professionals; specific examples include, but are not limited to:
      i. Medication education and patient discharge counseling
      ii. Concisely communicate responses to drug information requests, either verbally or in writing
      iii. Complete documentation of interventions made
      iv. Effective communication with the healthcare team, including:
         1. Conveying the therapeutic plan
         2. Calling attention to unrecognized patient problems

9. Professionalism
   a. Conduct him/herself in a professional and ethical manner when interacting with patients and health professionals by always:
i. Demonstrating the ability to initiate, organize, and complete projects and assignments in an accurate and timely manner

ii. Demonstrating the ability to establish effective relationships with patients and other health professionals

iii. Arriving on time and prepared for all rotation activities

iv. Effectively utilizing his/her time

v. Expressing an appropriate degree of empathy for patients and their families

vi. Maintaining protected health information in a confidential manner

vii. Developing the philosophy of a team approach to patient care

viii. Developing habits consistent with life-long learning