

Institutional Practice Outcomes
for Advanced Pharmacy Practice Experiences
University of Minnesota College of Pharmacy

It is expected that student achievement of these outcomes includes awareness and application of cultural competence. There also should be incorporation of principles specific to the care of geriatric and/or pediatric patients in discussions of patients in these populations.

1. Demonstrate ability to perform prescription processing

- a. *Correctly interpret a prescription order that is obtained in oral and/or written form.*
- b. *Analyze the prescription for appropriateness.*
- c. *Prepare the prescription for administration, counsel the patient and provide nursing information as needed.*

Activities in which outcomes can be taught and/or evaluated:

1. Receive and correctly interpret the prescriptions.
2. Analyze the prescription, including an assessment of efficacy and safety of the medication as well as drug interactions.
3. Dispense prescription orders using appropriate monitoring skills.

Resources needed at site (services, facilities, people) to conduct needed activities:

1. Computer system (understanding)
2. Preceptor discussion
3. Prescription volume (good)
4. Technician collaboration
5. References text

2. Demonstrate knowledge of current standards of institutional pharmacy.

- a. *JCAHO*
- b. *ASHP*
- c. *Department policies and procedures*
- d. *Pharmaceutical Services outpatient, inpatient*
- e. *Institution policies*
- f. *Pharmacy Therapeutics Committee*
- g. *Pharmacy Nursing Committee*

Activities in which outcomes can be taught and/or evaluated:

1. Explain the application of standards of hospital pharmacy practice to the preceptor.
2. Read and discuss hospital and department policies and procedures with the preceptor.
3. Assist in the provision of Pharmaceutical Services after hours (if applicable)

Resources needed at site (services, facilities, people) to conduct needed activities:

1. Preceptor discussion/orientation material
 - a. JCAHO Standards of Practice document
 - b. ASHP Standards
 - c. HIPAA
 - d. Confidentiality Policy
 - e. Dress code
 - f. Blood Borne Pathogens

2. 1:1 Preceptor discussion/material
 - a. automation system process
 - b. medication administration times
 - c. patient counseling

3. Demonstrate knowledge and skills regarding unit dose and intravenous admixture systems

- a. *Identifies key elements of unit dose system.*
- b. *Demonstrate understanding of special handling, preparation, and administration procedures for IV drug products (chemo, TPN)*
- c. *Identifies proper procedures for dispensing sterile products.*
- d. *Assesses technology in drug*

Activities in which outcomes can be taught and/or evaluated:

1. Review admixture orders for compatibility and stability, and make appropriate changes.
2. Define relevant laws and standards regarding unit dose system.
3. Perform proper prepackaging procedures.
4. Prepare and dispense parenteral products using aseptic techniques.
5. Prepare different chemotherapy and TPN orders, following the appropriate techniques.

Resources needed at site (services, facilities, people) to conduct needed activities:

1. 1:1 preceptor discussion
2. List of drugs compatibilities and stabilities
3. TPN preparation material
4. chemo protocols
5. Unit dose system – material

4. Demonstrate knowledge and understanding regarding purchasing and inventory control system

- a. *Identifies the appropriate terms used in the purchasing, billing, inventory control system, contracts, bid pricing*

Activities in which outcomes can be taught and/or evaluated:

1. Determine pharmacy cost for products and services, using the different bar codes.
2. Be part of inventory control, purchasing, and lending/borrowing activities, emergency supplies.
3. Assist in the storage of medications that require special storage conditions.
4. Assign prices to medications and use billing systems appropriately.

Resources needed at site (services, facilities, people) to conduct needed activities:

1. 1:1 Preceptor teaching
2. Inventory control forms
3. Billing forms
4. Pricing list
5. Formularies

5. Become familiar with Quality Assurance (QA) and Medication use Evaluation

- a. *Demonstrate knowledge of MUE.*
- b. *Demonstrate knowledge of QA process.*

Activities in which outcomes can be taught and/or evaluated:

1. Explain steps involved in (QA) procedures.
2. Describe the role of a MUE program in the hospital.

3. Work with databases and data analyses to collect the information for MUE purpose.

Resources needed at site (services, facilities, people) to conduct needed activities:

1. Quality Assurance procedures material
2. Forms/discussion MUE process
3. Access to database

6. Describe legal and regulatory requirements: distribution, disposal, and transfer of controlled substances, as well as requirement for investigational medication distribution

Activities in which outcomes can be taught and/or evaluated:

1. Describe legal requirements for purchasing controlled substances, include C-II
2. Compliance with regulations regarding distribution, waste, disposal, and transfer of controlled substances
3. List the policies and procedures involved in handling investigational drugs

Resources needed at site (services, facilities, people) to conduct needed activities:

1. Preceptor discussion
2. Controlled Substances list
3. References
4. Law and Regulation materials
5. Investigational drug material (forms, protocols)
6. Institutional Review Board information (forms/applications)

7. Interpret the medical literature and apply data to clinical practice

- a. *Conduct appropriate literature searches to find information.*
- b. *Interpret primary literature.*
- c. *Understand and apply evidence-based medicine concepts.*
- d. *Understand and apply basic biostatistical principles.*

Activities in which outcomes can be taught and/or evaluated:

1. Locate and retrieve pertinent information related to medications as well as pharmacy services.
2. Research information to respond to health care professional's questions.

Resources needed at site (services, facilities, people) to conduct needed activities:

1. References
2. Internet access
3. Access to online databases

8. Demonstrate appropriate behavior and work ethic

- a. *Maintain professional behavior at all times.*
- b. *Is a responsible member of the health care team.*
- c. *Follow HIPAA regulations.*
- d. *Apply ethical principles to patient care.*
- e. *Is reliable, responsible, infrequently late, and finishes work that is started.*
- f. *Initiate activities and utilize time effectively.*
- g. *Display good response to feedback.*
- h. *Is able to resolve conflict appropriately.*

Activities in which outcomes can be taught and/or evaluated:

1. Student observation of pharmacist role model
2. Preceptor and health professional observation of student
 - a. Student orientation re proper dress, standard of behavior, confidentiality.
 - b. Demonstrate commitment to patient care.
 - c. Accept responsibilities for patient care.
 - d. The student is truly a member of the team.

Resources needed at site (services, facilities, people) to conduct needed activities:

1. Preceptor role model
2. Frequent feedback from preceptor and other health professionals
3. Patient interactions

9. Cultural competency (optional)

- a. Respectful of different patient groups and cultural/ ethnic/ religious traditions*
- b. Displays an open-minded attitude to cultural perspectives different from his/her own*
- c. Applies knowledge of a patient's geographic location, socioeconomic status and environment to their assessment of health care needs, access, and health risk.*
- d. Patient – student interactions are conducted at appropriate language and educational levels.*
- e. Care plans are designed to appropriately reflect the patient's cultural identity*
- f. Patient Care is delivered in a culturally sensitive manner*

Activities in which outcome can be taught and/or evaluated:

1. Student interviews conducted via interpreters/ family member care giver/ relay service for the hearing impaired.
2. Preceptor observation of student interactions with patients of different cultural/ ethnic/ geographic/ or religious backgrounds
3. Discussion of particular patient populations regarding: Health care needs, health understanding, barriers to care and stereotypes.

Resources needed at site (services, facilities, people) to conduct needed activities:

1. Preceptor
2. Access to patients or people of diverse cultural/ethnic/religious/ socioeconomic or geographic groups
3. Feedback from other health professionals
4. Feedback from patients and their families