

Ambulatory Care 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. Conducts a thorough patient-specific medical and medication history

- a. *Introduces self to patient and explain services.*
- b. *Demonstrates a good assessment of a patient's primary language, literacy, and communication ability.*
- c. *Evaluates a patient's understanding, expectations and concerns about their drug therapy.*
- d. *Medical and medication history is complete.*

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

1. Patient assessment/caregiver interview

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

1. Patients &/or caregivers
2. Private consultation area (place to see patients)
3. Preceptor
4. Medical charts/patient records

2. Accurately assesses patient-specific medical conditions

- a. *Demonstrates understanding of the pathophysiology of common conditions encountered in the ambulatory setting.*
- b. *Obtains and interprets data from the medical chart (e.g., labs, test results) to assess a patient's medical condition.*
- c. *Integrates and applies knowledge to assess the current status of each patient-specific condition.*
- d. *Identifies the goal of therapy for each patient-specific condition.*

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

1. Management of specific patients
2. Directly providing care for patients either as the provider or in an interdisciplinary manner
3. Select any two of the following:
 - a. Chart reviews
 - b. Case presentations
 - c. Clinical consults
 - d. Topic discussions
4. Attending educational opportunities (e.g., lectures, noon conferences, grand rounds)

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

1. Medical charts
2. Patients &/or caregivers
3. Laboratory information
4. Other health professionals (physicians, nurses, PAs, NPs)
5. Preceptor
6. Access to online and hard copy references
7. Access to educational opportunities
8. Designated space to sit
9. Private consultation area (place to see patients)

3. Effectively evaluates a patient's current therapy

- a. *Demonstrates understanding of the pharmacotherapy of the most common medications used in the ambulatory care setting.*
- b. *Obtains and interprets data from the medical chart or computer system (e.g., labs, test results) used to objectively assess a patient's therapy.*
- c. *Applies physical assessment skills as appropriate to assist in evaluating a patient's therapy.*
- d. *Assesses the current regimen based on drug-specific, patient-specific and disease-specific data.*
- e. *Assesses patient adherence to medications and any factors which may predispose the patient to non-adherence.*
- f. *Assesses appropriateness of medications and identifies drug-related problems.*

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

1. Chart reviews
2. Case presentations
3. Clinical consults
4. Topic discussions
5. Management of specific patients
6. Seeing patients as a member of an interdisciplinary team
7. Attending educational opportunities (e.g., lectures, noon conferences, grand rounds)
8. Medical or pharmacy rounds

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

1. Medical charts
2. Patients & caregivers
3. Laboratory information
4. Other health professionals (physicians, nurses, PAs, NPs)
5. Preceptor
6. Access to online and hard copy references
7. Access to educational opportunities
8. Designated space to sit and work

4. Develops appropriate patient-specific therapeutic plans

- a. *Integrates a specific patient's needs into the decision-making process.*
- b. *Develops a complete, patient-specific care plan.*
 - i. *Includes plan for existing therapy, addition of missing therapy, non-pharmacologic therapy, alternative therapy options and future plans for drug therapy.*
 - ii. *Resolves any drug-related problems.*
 - iii. *Identifies the correct drug, dose, route, frequency and duration.*
- c. *Integrates clinical, humanistic and economic data in the development of drug therapy plans.*
- d. *Justifies the recommendations by providing a patient-specific rationale.*
- e. *Identifies appropriate patient-specific therapeutic outcomes.*

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

1. Chart reviews
2. Case presentations
3. Clinical consults
4. Topic discussions
5. Management of specific patients
6. Seeing patients as a member of an interdisciplinary team
7. Attending educational opportunities (e.g., lectures, noon conferences, grand rounds)
8. Medical or pharmacy rounds

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

1. Medical charts
2. Patients & caregivers
3. Laboratory information
4. Other health professionals (physicians, nurses, PAs, NPs)
5. Preceptor
6. Access to online and hard copy references
7. Access to educational opportunities
8. Designated space for student to sit

5. Appropriately monitors a patient's therapy

- a. *Identifies patient-specific, disease-specific and drug-specific monitoring parameters (subjective and objective).*
- b. *Establishes correct intervals and frequencies for monitoring parameters.*
- c. *Identifies patient-specific drug-drug, drug-disease, drug-food, drug-herb and herb-herb interactions and monitors accordingly.*
- d. *Follows up with patient to evaluate if outcomes have been met.*

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

1. Chart reviews
2. Case presentations
3. Clinical consults
4. Topic discussions
5. Management of specific patients
6. Seeing patients as a member of an interdisciplinary team
7. Attending educational opportunities (e.g., lectures, noon conferences, grand rounds)
8. Medical or pharmacy rounds

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

1. Medical charts
2. Patients & caregivers
3. Laboratory information
4. Other health professionals (physicians, nurses, PAs, NPs)
5. Preceptor
6. Access to online and hard copy references
7. Access to educational opportunities
8. Designated space to sit and work

6. Effectively educates patients, patients' families and health professionals on drug therapy

- a. *When educating patients, includes information on administration, precautions, adverse effects and action to take if adverse effects occur with new therapy or changes in existing therapy.*
- b. *Determines if patient understands instructions on new medications and changes in existing therapy.*
- c. *Utilizes references and resources (print, PDA, online, CD-ROM) to respond to patients' and health professionals' information needs.*

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

1. Patient interviews
2. Making recommendations to physicians and other health professionals
3. Clinical consults
4. Giving lectures/in-services/presentations

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

1. Patients & caregivers
2. Other health professionals (physicians, nurses, PAs, NPs)
3. Access to online and hard copy references, including patient information
4. Opportunities for giving lectures/in-services/presentations
5. Use of computer/word processing
6. Space to sit and work

7. Effectively communicates with patients, caregivers and health professionals

- a. *Communicates effectively with patients with significant barriers (literacy, language, mechanical).*
- b. *Communicates in a clear, concise and organized manner, both verbally and in writing.*
- c. *Documents medication histories and interventions appropriately.*
- d. *Writes complete and concise notes in the patient record.*
- e. *Provides effective written communication to patients (e.g., medication changes).*
- f. *Recommends therapy verbally to health professionals, with confidence and assertiveness.*
- g. *Provides complete, concise answers to drug therapy questions from health professionals and patients.*

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

1. Patient interviews
2. Patient education
3. Making verbal and written recommendations to physicians and other health professionals
4. Clinical consults
5. Management of specific patients
6. Seeing patients as a member of an interdisciplinary team
7. Giving lectures/in-services/ presentations
8. Writing notes in the chart
9. Preparing written responses to requests for information

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

1. Patients & caregivers
2. Medical charts
3. Ability to write/dictate in the medical charts
4. Opportunities for giving lectures/in-services/ presentations
5. Pharmaceutical care records
6. Physicians and other healthcare professionals

8. Accurately interprets the medical literature and applies data to clinical practice

- a. *Conducts appropriate literature searches to find information.*
- b. *Interprets primary literature.*
- c. *Understands and applies evidence-based medicine concepts.*
- d. *Understands and applies basic biostatistical principles.*
- e. *Demonstrates knowledge of clinical guidelines for common conditions encountered in the ambulatory care setting.*

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

1. Journal clubs
2. Discussion of clinical studies and guidelines with preceptor
3. Case discussions and presentations
4. Clinical consults
5. Making recommendations to physicians and other health professionals
6. Seeing patients
7. Article reviews

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

1. Preceptor
2. Access to medical journals (online or hard copy) and other references
3. Patients & caregivers
4. Physicians and other health professionals

9. Displays professional behavior and work ethic

- a. *Maintains professional behavior at all times.*
- b. *Is a responsible member of the health care team.*
- c. *Follows HIPAA regulations.*
- d. *Applies ethical principles to patient care.*
- e. *Is reliable, responsible, infrequently late, and finishes work that is started.*
- f. *Initiates activities and utilizes time effectively.*
- g. *Displays appropriate response to feedback and is open-minded to recommendations for improvement*
- h. *Is able to resolve conflict appropriately.*

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

1. Student observation of model pharmacists (role models)
2. Preceptor observation of student

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

1. Preceptor
2. Pharmacy staff
3. Feedback from other health professionals
4. Feedback from patients and their families

10. 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