

Geriatric 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. Conduct a thorough patient-specific medical and medication history

- a. Introduces self to patient and explains 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 outcomes can be taught and/or evaluated:

1. Engages in patient- specific discussions with preceptor and other healthcare professionals.
2. Participates and/or leads case-based topic discussions.
3. Applies principles of Pharmacokinetics/Pharmacodynamics to identify necessary changes in drug dosage and monitoring in elderly patients.
4. Interacts with the patient/caregiver and health professionals to assess drug response.

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

1. Patient/caregiver
2. Medical records
3. Preceptor
4. Other health professionals (e.g., nurses; physicians; PT/OT; dietary; RT)
5. Drug-disposition module in Geriatric Curriculum (web CT)
6. Geriatric and other information sources (e.g., Therapeutics in the Elderly; Geriatric Dosage Handbook; Micromedex; Geriatrics at Your Fingertips, pertinent landmark studies)

2. Assesses patient-specific medical conditions*

- a. Demonstrates understanding of the pathophysiology of common conditions encountered in the geriatric 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 outcomes can be taught and/or evaluated:

1. Conducts patient interviews
2. Gives patient case presentations
3. Gives didactic presentations
4. Interacts with preceptor and other members of health professionals

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

1. Patient/caregiver
2. Medical records
3. Preceptor and/or health professionals
4. Geriatric Curriculum forms for evaluations (web CT)
5. Geriatric and other information sources
6. AV equipment for presentation (as necessary)
7. Rounds
8. Health professional surveys (to evaluate student)

3. Accurately evaluates a patient's current therapy*

- a. *Demonstrates understanding of the pharmacotherapy of the most common medications used in the geriatric patient.*
- b. *Obtains and interprets data from the medical chart (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 that may predispose the patient to non-adherence.*
- f. *Assesses appropriateness of medications and identifies drug-related problems.*
 - i. *Applies the Medication Appropriateness Index (MAI)*
 - ii. *Applies federal and state regulations for long-term care facilities*
 - iii. *Prioritizes the patient's medical problems*

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

1. Applies Drug Regimen Review regulations for long-term care in assessing patients' pharmacotherapy (regardless of the institutional setting).
2. Becomes familiar with policies and procedures (P&P) for pharmacy services in Long-term Care through discussion with their preceptor and/or web site.

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

1. Patient/caregiver
2. Medical records
3. Preceptor and/or health professionals
4. Access to Nursing Home Regulations (e.g., web site, Geriatric Curriculum/web CT)
5. Access to P&P (e.g. web site, visits to nursing home site, Geriatric Curriculum/web CT)

4. Develops patient-specific therapeutic plans for geriatric patients*

- 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, 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.*
- f. *Involves patient &/or caregiver in final decision-making process.*

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

1. Journal Club
2. Literature evaluation exercises
3. Drug information questions
4. Patient Case Assessment exercises

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

1. On-line primary literature search engine (e.g., MEDLINE; Pub MED; Ovid; International Pharmaceutical Abstracts) or library
2. Geriatric and other information sources
3. Preceptor or other facilitator
4. Geriatric Curriculum Journal Club evaluation form (web CT)
5. Formularies
6. Patients and/or Geriatric Curriculum mock patients

5. Effectively 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-food, drug-herb and herb-herb interactions and monitors accordingly.*
- d. *Follows up to evaluate if outcomes have been met, either in person or by telephone.*

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

1. Collects needed information and clarifies the question, if needed, in providing drug information.
2. Provides clinical consultation to patients and/or health professionals.
3. Uses the literature when needed and appropriate.

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

1. Patient/caregiver
2. Preceptor or other facilitator

3. Rounds
4. Other health professionals
5. Health professional surveys (to evaluate student)
6. Geriatric and other information sources
7. On-line primary literature search engine or library

6. Effectively educates patients 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.*
- d. *Designs health professional education appropriate for audience, setting and other constraints.*
- e. *Provides complete, concise answers to drug therapy questions from health professionals.*

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

1. Responds to drug information requests
2. Responds to mock drug information requests

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

1. On-line primary literature search engine or library
2. Geriatric and other information sources
3. Patient/caregiver
4. Other health professionals
5. Preceptor
6. Geriatric Curriculum module (web CT)

7. Effectively communicates with patients, caregivers and health professionals

- a. *Communicates effectively with patients with significant barriers (e.g., literacy, language, hearing or visual impairment, use of interpreters).*
- 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 SOAP notes in the medical chart.*
- 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.*
- h. *Listens effectively.*

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

1. Conducts medication histories and counsels patient or caregiver
2. Completes patient work-ups
3. Has interprofessional interactions with other members of health care team

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

1. Patient/caregiver
2. Medical records
3. Preceptor
4. Medication assessment and communication skills module in Geriatric Curriculum (web CT)
5. Geriatric and other information sources
6. Other health professionals caring for patient
7. Rounds
8. Health professional surveys (to evaluate student)

8. Interprets the medical literature and applies data to clinical practice; use to improve site processes of pharmacy 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 principle.*
- e. Demonstrates knowledge of clinical guidelines for common conditions encountered in the geriatric care setting.*

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

1. Participates in journal clubs
2. Discusses clinical studies and guidelines with preceptor
3. Discusses and presents cases
4. Performs clinical consults
5. Makes recommendations to physicians and other health professionals

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

1. Preceptor
2. Geriatric and other information sources
3. On-line primary literature search engine or library
4. Web CT access
5. Access to telecommunications if outside metro area

9. Demonstrates professional conduct as a member of a health care team

- 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 outcomes can be taught and/or evaluated:

1. Orientation of student (e.g., proper dress; standards of behavior; confidentiality).
2. Observes other pharmacists.
3. Makes consistent progress (e.g., retains information taught; builds on existing information; learns throughout advanced practice experience).
4. Responds positively to criticism.
5. Demonstrates ability to resolve conflicts, if any.
6. Exhibits respect for patients, preceptor and other members of the health care team.
7. Attends to tasks in a timely manner (e.g., attends rounds; attends meetings; is prepared for 1:1 time with preceptor; comes to site, meetings, and appointments on time; stays at site for appropriate duration; completes required tasks on time; completes tasks as directed by preceptor; reliable; no excessive or unexplained absenteeism)

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

1. Preceptor
2. P&P for institution
3. Staff
4. Other health professionals

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

*Student will focus on the following topics/disease states:

- i. PK/PD
- ii. Dementia
- iii. Pain
- iv. Hypertension

Additional options include:

- CHF
- COPD
- Urinary incontinence
- Constipation
- Diabetes
- Osteoporosis