



## REQUIRED COMPETENCY AREAS, GOALS, AND OBJECTIVES FOR POSTGRADUATE YEAR TWO (PGY2) GERIATRIC PHARMACY RESIDENCIES

**Prepared in collaboration with the American Society of Consultant Pharmacists**

### Introduction

The competency areas, goals, and objectives are to be used in conjunction with the *ASHP Accreditation Standard for Postgraduate Year Two (PGY2) Pharmacy Residency Programs*. The first four competency areas described herein are required, and the others are elective.

The required competency areas and all of the goals and objectives they encompass must be included in all programs. Programs may add one or more required additional competency areas from the elective competency area choices to meet program-specific needs. Programs selecting an additional competency area are not required to include all of the goals and objectives in that competency area. In addition to the potential additional competency areas described in this document, programs are free to create their own unique competency areas with associated goals and objectives based on the specific needs of their program. Each of the objectives associated with the goals encompassed by the program's selected program competency areas (required and additional) must be taught and evaluated at least once during the residency year. Elective competency area(s) may also be selected for specific residents when creating their residency development plan.

Each of the objectives listed in this document has been classified according to educational taxonomy (cognitive, affective, or psychomotor) and level of learning. An explanation of the taxonomies is available elsewhere.<sup>1</sup>

Competency areas for PGY1 residencies are available on the ASHP website. PGY2 competency areas, goals, and objectives in geriatric pharmacy are differentiated from those from PGY1 by breadth and depth and the expectation of PGY2 residents for greater work quality and quantity. Residents come into PGY2 geriatric pharmacy residencies from PGY1 residency training programs conducted in a variety of care settings. Their individual needs are addressed in their resident development plans.

### Definitions

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<sup>1</sup>Anderson, L. W. and Krathwohl, D. R., et al (Eds.) (2001) *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. Allyn & Bacon. Boston, MA (Pearson Education Group).

Competency Areas: Categories of the residency graduates' capabilities.

Competency areas are classified into one of three categories:

*Required:* Four competency areas are required (all programs must include them and all their associated goals and objectives).

*Additional (for program):* Competency area(s) that residency programs may choose to use (in addition to the four required areas) to meet program-specific program needs. Additional competency areas also include those developed by individual programs.

*Elective (for specific residents):* Competency area(s) or specific goals and objectives within the competency area(s) selected optionally for specific resident(s).

Educational Goals (Goal): Broad statement of abilities.

Educational Objectives: Observable, measurable statements describing what residents will be able to do as a result of participating in the residency program.

Criteria: Examples that describe competent performance of educational objectives. Since the criteria are examples, they are not all required but are intended to be used to give feedback to residents on how well they are doing and how they can improve on the skill described in educational objectives while they engage in an activity.

Activities: The Standard requires that learning activities be specified for each educational objective in learning experience descriptions. Activities are what residents will do to learn and practice the skills described in objectives. Activities are the answer to the question, "What can residents do in the context of this learning experience that will provide the kind of experiences necessary to achieve the educational objective?" (Compare and contrast activities with criteria by referring to the definition of criteria immediately above.) Specified activities should match the Bloom's Taxonomy learning level stated in parentheses before each objective.

Example:

*Objective R1.1.2: (Applying) Interact effectively with patients, family members, and caregivers.*

*Learning activity:* Provide education to patients regarding proper medication use and administration, adherence, and possible adverse drug effects for all new medications initiated during clinic appointments.

*Criteria:*

- Interactions are respectful and collaborative.
- Uses effective communication skills.
- Shows empathy.
- Empowers patients to take responsibility for their health.
- Demonstrates cultural competence.

## **Competency Area R1: Patient Care**

(See the appendix for additional specific requirements.)

**Goal R1.1: In collaboration with the health care team, provide comprehensive medication management to geriatric patients following a consistent patient care process.**

**Objective R1.1.1: (Applying) Interact effectively with health care teams to manage geriatric patients' medication therapy.**

Criteria:

- Interactions are cooperative, collaborative, communicative, and respectful.
- Demonstrates skills in consensus building, negotiation, and conflict management.
- Demonstrates advocacy for the patient.
- Effectively contributes pharmacotherapy knowledge and patient care skills as an essential member of the healthcare team.

**Objective R1.1.2: (Applying) Interact effectively with geriatric patients, family members, and/or caregivers.**

Criteria:

- Interactions are respectful and collaborative.
- Maintains accuracy and confidentiality of patients' protected health information.
- Uses effective (e.g., clear, concise, accurate) communication skills, including recognition of and management of functional limitations of the individual (e.g., hearing and/or vision loss, dexterity, cognitive impairments).
- Shows empathy.
- Empowers patients, family members, and caregivers regarding the patient's well-being and health outcomes.
- Demonstrates cultural competence.
- Communicates with family members and/or caregivers to obtain patient information when patients are unable to provide the information.
- Ensures understanding of, and consensus with, goals of care.
- Communicates with patient and family about initiation and changes of patient therapies.
- Demonstrates advocacy for caregivers.

**Objective R1.1.3: (Analyzing) Collect information on which to base safe and effective medication therapy for geriatric patients.**

Criteria:

- Collection/organization methods are efficient and effective.
- Collects relevant information about medication therapy, including:
  - History of present illness.
  - Relevant health data that may include past medical history, health and wellness information, biometric test results, and physical assessment findings.
  - Social history.
  - Medication history, including prescription, non-prescription, illicit, recreational, and non-traditional therapies; other dietary supplements; immunizations; and allergies.

- Patient assessment (examples include, but are not limited to, nutritional status, falls risk, cognitive function, physiologic monitoring, laboratory values, microbiology results, diagnostic imaging, procedural results, and, screening tools (e.g., multi-morbidity)).
  - Pharmacogenomics and pharmacogenetic information, if available.
  - Adverse drug reactions.
  - Medication adherence and persistence.
  - Patient lifestyle habits, preferences and beliefs, health and functional goals, and socioeconomic factors that affect access to medications and other aspects of care.
- Sources of information are the most reliable sources available, including electronic, face-to-face, and others. May involve working with caregivers as historians.
- Recording system is functional for subsequent problem solving and decision making.
- Clarifies information as needed.
- Displays understanding of limitations of information in health records.
- Poses appropriate questions as needed.

**Objective R1.1.4: (Analyzing) Analyze and assess information on which to base safe and effective medication therapy for geriatric patients.**

Criteria:

- Includes accurate assessment of patient's:
  - Physiologic changes with age.
  - Atypical presentation of disease.
  - Health and functional status.
  - Risk factors.
  - Health data.
  - Cultural factors.
  - Health literacy.
  - Access to medications.
  - Immunization status.
  - Need for preventive care and other services, when appropriate.
  - Ability to self-manage medications or need for assistance from a caregiver.
  - Other aspects of care, as applicable.
- Identifies medication therapy problems using appropriate geriatric assessment tools (e.g., Beers Criteria, STOPP/START Criteria), including:
  - Presentation of geriatric syndromes.
  - Lack of indication for medication.
  - Medical conditions for which there is no medication prescribed.
  - Medication prescribed or continued inappropriately for a particular medical condition.
  - Suboptimal medication regimen (e.g., dose, dosage form, duration, schedule, route of administration, method of administration).
  - Considers potential for adverse effects from non-prescription (OTC) medications and herbal supplements/home remedies.
  - Medication toxicity requiring medication therapy modifications.
  - Abnormal lab values requiring medication therapy modifications.
  - Therapeutic duplication.
  - Adverse drug or device-related events or the potential for such events.
  - Clinically significant drug-drug, drug-disease, drug-nutrient, drug-DNA test interaction, drug-laboratory test interaction, or the potential for such interactions.

- Use of harmful social, recreational, nonprescription, nontraditional, or other medication therapies.
- Patient not receiving full benefit of prescribed medication therapy.
- Problems arising from the financial impact of medication therapy on the patient.
- Patient lacks understanding of medication therapy.
- Patient not adhering to medication regimen and root cause (e.g., knowledge, recall, motivation, financial, psychosocial issues, transportation issues, literacy, limited dexterity, cognitive changes).
- Patient assessment needed.
- Discrepancy between prescribed medications and established care plan for the patient.
- Geriatric dosing principles and expert consensus on best practices.
- Prioritize a geriatric patient's health care needs.

**Objective R1.1.5: (Creating) Design, or redesign, safe and effective patient-centered therapeutic regimens and monitoring plans (care plans) for geriatric patients.**

Criteria:

- Specify evidence-based, measurable, achievable therapeutic goals that include consideration of:
  - Relevant patient-specific information, including culture and patient preferences.
  - The goals of other inter professional team members.
  - The patient's disease state(s).
  - Medication-specific information.
  - Best evidence, including clinical guidelines and the most recent literature.
  - Effectively interprets new literature for application to patient care.
  - Ethical issues involved in the patient's care.
  - Quality-of-life issues specific to the patient.
  - End of life issues, when needed.
  - Integration of all the above factors influencing the setting of goals.
- Designs/redesigns regimens that:
  - Medication therapy is appropriate for older adult with multi-morbidity including consideration of de-escalation or discontinuation.
  - Reflect:
    - Clinical experience.
    - The therapeutic goals established for the patient.
    - The patient's and caregiver's specific needs.

Consideration of:

- Best evidence OR limitations of applying available evidence in older adults.
- Geriatric practice standards and guidelines (e.g., CMS regulations).
- Pertinent ethical issues.
- Pharmacoconomic components (patient, medical, and systems resources).
- Patient preferences, culture, and/or language differences.
- Patient-specific factors, including life expectancy, functional, physical, psychosocial, mental/cognitive, emotional, and financial factors.
- Drug shortages.
- Adherence to medication-use policies (when appropriate, based on the care setting).
- Follow applicable ethical standards.
- Address wellness promotion and lifestyle modification where appropriate for goals of care.
- Engage the patient and caregivers, as appropriate.

- Consider non-pharmacologic treatments where appropriate.
- Designs/redesigns monitoring plans that:
  - Effectively evaluate achievement of therapeutic goals.
  - Ensure adequate, appropriate, and timely follow-up.
  - Establish parameters that are appropriate measures of therapeutic goal achievement.
  - Reflect consideration of best evidence.
  - Select the most reliable source for each parameter measurement.
  - Have appropriate value ranges selected for the patient.
  - Have parameters that measure efficacy.
  - Have parameters that measure potential adverse drug events.
  - Have parameters that are cost-effective.
  - Have obtainable measurements of the parameters specified.
  - Reflects consideration of compliance.
  - Anticipates future drug-related problems.
  - When applicable, reflects preferences and needs of the patient.
  - Plan represents the highest level of patient care.

**Objective R1.1.6: (Applying) Ensure implementation of therapeutic regimens and monitoring plans (care plans) for geriatric patients by taking appropriate follow-up actions.**

Criteria:

- Effectively recommends or communicates patients' regimens and associated monitoring plans to relevant members of the health care team:
  - Poses appropriate questions as needed.
  - Recommendation is persuasive.
  - Presentation of recommendation accords patient's right to refuse treatment.
  - If patient refuses treatment, pharmacist exhibits responsible professional behavior.
  - Creates an atmosphere of collaboration.
  - Skillfully defuses negative reactions.
  - Communication conveys expertise.
  - Communication is assertive but not aggressive.
  - Where the patient or caregiver/healthcare power of attorney has been directly involved in the design of the plans, communication reflects previous collaboration appropriately.
- Ensures recommended plan is implemented effectively for the patient, including ensuring that the:
  - Plan represents the highest level of patient care.
  - Therapy corresponds with the recommended regimen.
  - Activity complies with geriatric practice standards and guidelines (e.g., CMS regulations).
  - Regimen is initiated at the appropriate time.
  - Patient receives their medication as directed.
  - Medications in situations requiring immediacy are effectively facilitated.
  - Medication orders are clear and concise.
  - Activity complies with the health system's policies and procedures.
  - Tests correspond with the recommended monitoring plan.
  - Tests are ordered and performed at the appropriate time and consider patient's frailty and goals of care when determining aggressiveness vs conservativeness of plan.
- Takes appropriate action based on analysis of monitoring results (redesign regimen and/or monitoring plan if needed).
- Appropriately initiates, modifies, discontinues, or administers medication therapy as authorized.

- Responds appropriately to notifications and alerts in electronic medical records and other information systems that support medication ordering processes (based on factors such as patient weight, age, gender, comorbid conditions, drug interactions, renal function, and hepatic function).
- Provides thorough and accurate education to patients and caregivers, when appropriate, including information on medication therapy, adverse effects, compliance, appropriate use, handling, and medication administration.
- Addresses medication- and health-related problems and engages in preventive care strategies, including vaccine administration.
- Schedules follow-up care as needed to achieve goals of therapy.

**Objective R1.1.7: (Applying) For geriatric patients, document direct patient care activities appropriately in the medical record, or where appropriate.**

Criteria:

- Accurately and concisely communicates drug therapy recommendations to healthcare professionals representing different disciplines.
- Appropriately documents patient/caregiver communication and all relevant direct patient care activities in a timely manner.

**Objective R1.1.8: (Applying) Demonstrate responsibility to geriatric patients for patient outcomes.**

Criteria:

- Gives priority to patient care activities.
- Routinely ensures all steps of the medication management process.
- Assumes responsibility for medication therapy outcomes.
- Actively works to identify the potential for significant medication-related problems.
- Actively pursues all significant existing and potential medication-related problems until satisfactory resolution is obtained.
- Ensures appropriate transitions of care.
- Communicates with patients and family members/caregivers about their medication therapy.
- Determines barriers to patient adherence and makes appropriate adjustments.
- Demonstrates understanding of the role and impact of the geriatric pharmacist in different settings (e.g., consulting, on an interprofessional team).

**Goal R1.2: Ensure continuity of care during geriatric patient transitions between care settings.**

**Objective R1.2.1: (Applying) Manage transitions of care effectively for geriatric patients.**

Criteria:

- Participates in thorough medication reconciliation when necessary.
- When appropriate, follows up on identified drug-related problems, additional monitoring, and education in a timely and caring manner.
- Provides accurate, pertinent, and timely follow-up information when patients transfer to another facility, level of care, pharmacist, or provider, as appropriate.
- Screen and assess medication related risk (e.g. Project Boost Tool).
- Take appropriate and effective steps to help avoid unnecessary hospital admissions and/or readmissions.
- Provides appropriate information to other pharmacists in transitions to mitigate medication therapy problems.

## **Competency Area R2: Advancing Practice and Improving Patient Care**

**Goal R2.1: Demonstrate ability to manage formulary and medication-use processes for geriatric patients, as applicable to the organization.**

**Objective R2.1.1: (Creating) Prepare or revise a drug class review, monograph, treatment guideline, or protocol related to care of geriatric patients, including proposals for medication-safety technology improvements.**

**Criteria:**

- Displays objectivity.
- Effectively synthesizes information from the available literature.
- Applies evidenced-based principles.
- Consults relevant sources.
- Considers medication-use safety and resource utilization.
- Uses the appropriate format.
- Effectively communicates any changes in medication formulary, medication usage, or other procedures to appropriate parties.
- Demonstrates appropriate assertiveness and timeliness in presenting pharmacy concerns, solutions, and interests to internal and external stakeholders.
- When appropriate, may include proposals for medication-safety technology improvements.

**Objective R2.1.2: (Applying) Participate in the review of medication event reporting and monitoring related to care for geriatric patients as appropriate to the setting.**

**Criteria:**

- Effectively uses currently available technology and automation that supports a safe medication-use process.
- Appropriately and accurately determines, investigates, reports, tracks, and trends adverse drug events, medication errors, and efficacy concerns using accepted institutional resources and programs.

**Objective R2.1.3: (Analyzing) Identify opportunities for improvement of the medication-use system related to care for geriatric patients.**

**Criteria:**

- Identifies problems and opportunities for improvement and analyzes relevant background data.
- Evaluates data generated by health information technology or automated systems to identify opportunities for improvement.
- Utilizes best practices to identify opportunities for improvements.
- When needed, makes medication-use policy recommendations based on a review of practice standards, guidelines, and other evidence (e.g., National Quality Measures, Institute for Safe Medication Practices alerts/guidelines, Joint Commission sentinel event alerts., Centers for Medicare and Medicaid Services).
- Where applicable, leads a medication-use evaluation related to care for geriatric patients.
  - Uses evidence-based principles to develop criteria for use.
  - Demonstrates a systematic approach to gathering data.
  - Accurately analyzes data gathered.

- Demonstrates appropriate confidence and assertiveness in presenting pharmacy concerns, solutions, and interests to internal and external stakeholders.
- Implements approved changes, as applicable.

**Goal R2.2: Demonstrate ability to conduct a quality improvement or research project.**

Ideally, objectives R2.2.1-R2.2.6 will be addressed through residents working on one quality improvement or research project; however, if this is not possible, all objectives must be addressed by the end of the residency year and can be addressed through work on more than one initiative. In addition, residents must complete a medication-use evaluation.

**Objective R2.2.1: (Analyzing) Identify and/or demonstrate understanding of specific project topic to improve care of geriatric patients or for a topic related to advancing the pharmacy profession or geriatric pharmacy.**

Criteria:

- Appropriately identifies or understands problems and opportunities for improvement or research projects.
- Conducts a comprehensive literature search and draws appropriate conclusions.
- Determines an appropriate research question or topic for a practice-related project of significance to patient care that can realistically be addressed in the desired time frame.
- Uses best practices or evidence-based principles to identify opportunities for improvements.
- Accurately evaluates or assists in the evaluation of data generated by health information technology or automated systems to identify opportunities for improvement.

**Objective R2.2.2: (Creating) Develop a plan or research protocol for a practice quality improvement or research project for the care of geriatric patients or for a topic related to advancing the pharmacy profession or geriatric pharmacy.**

Criteria:

- Develops specific aims, selects an appropriate study design, and develops study methods to answer the research question(s).
- Applies safety design practices (e.g., standardization, simplification, human factors training, lean principles, FOCUS-PDCA, other process improvement or research methodologies) appropriately and accurately.
- Plan for improvement includes appropriate reviews and approvals required by department or organization and addresses the concerns of all stakeholders.
- Applies evidence-based and/or basic pharmacoeconomic principles, if needed.
- Develops a feasible design for a prospective or retrospective clinical or outcomes analysis project that considers who or what will be affected by the project.
- Identifies and obtains necessary approvals, (e.g., IRB, quality review board, funding) and responds promptly to feedback or reviews for a practice-related project.
- Acts in accordance with the ethics of research on human subjects, if applicable.
- Implements the project as specified in its design.
- Plan design is practical to implement and is expected to remedy or minimize the identified challenge or deficiency.

**Objective 2.2.3: (Evaluating) Collect and evaluate data for a practice quality improvement or research project for the care of geriatric patients or for a topic related to advancing the pharmacy profession or geriatric pharmacy.**

Criteria:

- Collects the appropriate types of data as required by project design.
- Uses appropriate electronic data and information from internal information databases, external online databases, appropriate Internet resources, and other sources of decision support, as applicable.
- Uses appropriate methods for analyzing data in a prospective and retrospective clinical, humanistic, and/or economic outcomes analysis.
- Develops and follows an appropriate research or project timeline.
- Correctly identifies need for additional modifications or changes to the project.
- Applies results of a prospective or retrospective clinical, humanistic, and/or economic outcomes analysis to internal business decisions and modifications to a customer's formulary or benefit design as appropriate.
- Uses continuous quality improvement (CQI) principles to assess the success of the implemented change, if applicable.
- Considers the impact of the limitations of the project or research design on the interpretation of results.
- Accurately and appropriately develops plan to address opportunities for additional changes.

**Objective R2.2.4: (Applying) Implement a quality improvement or research project to improve care for geriatric patients or for a topic related to advancing the pharmacy profession or geriatric pharmacy.**

Criteria:

- Plan is based on appropriate data.
- Effectively presents plan (e.g., accurately recommends or contributes to recommendation for operational change, formulary addition or deletion, implementation of medication guideline or restriction, or treatment protocol implementation) to appropriate audience.
- Demonstrates appropriate assertiveness in presenting pharmacy concerns, solutions, and interests to external stakeholders.
- Gains necessary commitment and approval for implementation.
- Follows established timeline and milestones.
- Effectively communicates any changes in medication formulary, medication usage, or other procedures to appropriate parties.
- Outcome of change is evaluated accurately and fully.

**Objective R2.2.5: (Evaluating) Assess changes or need to make changes to improve care for geriatric patients or for a topic related to advancing the pharmacy profession or geriatric pharmacy.**

Criteria:

- Evaluate data and/or outcome of project accurately and fully.
- Includes operational, clinical, economic, and humanistic outcomes of patient care, if applicable.
- Uses continuous quality improvement (CQI) principles to assess the success of the implemented change, if applicable.
- Correctly identifies need for additional modifications or changes based on outcome.

- Accurately assesses the impact of the project, including its sustainability (if applicable).
- Accurately and appropriately develops plan to address opportunities for additional changes.
- Develop recommendations for appropriate communications.

**Objective R2.2.6: (Creating) Effectively develop and present, orally and in writing, a final project or research report suitable for publication related to care for geriatric patients or for a topic related to advancing the pharmacy profession or geriatric pharmacy at a local, regional, or national conference (the presentation may be virtual).**

Criteria:

- Outcome of change is reported accurately to appropriate stakeholders(s) and policy-making bodies according to departmental or organizational processes.
- Report includes implications for changes to or improvement in pharmacy practice.
- Report uses an accepted manuscript style suitable for publication in the professional literature.
- Oral presentations to appropriate audiences within the department and organization or to external audiences use effective communication and presentation skills and tools (e.g., handouts, slides) to convey points successfully.

## **Competency Area R3: Leadership and Management**

**Goal R3.1: Demonstrate leadership skills for successful self-development in the provision of care for geriatric patients.**

**Objective R3.1.1: (Applying) Demonstrate personal, interpersonal, and teamwork skills critical for effective leadership in the provision of care for geriatric patients.**

Criteria:

- Demonstrates efficient time management.
- Manages conflict effectively.
- Demonstrates effective negotiation skills.
- Demonstrates ability to lead inter professional teams.
- Uses effective communication skills and styles.
- Demonstrates understanding of perspectives of various health care professionals.
- Effectively expresses benefits of personal profession-wide leadership and advocacy.
- Effectively provides leadership in patient care related services, including interprofessional teams.

**Objective R3.1.2: (Applying) Apply a process of ongoing self-evaluation and personal performance improvement in the provision of care for geriatric patients.**

Criteria:

- Accurately summarizes own strengths and areas for improvement (in knowledge, values, qualities, skills, and behaviors).
- Effectively uses a self-evaluation process for developing professional direction, goals, and plans.
- Effectively engages in self-evaluation of progress on specified goals and plans.
- Demonstrates ability to use and incorporate constructive feedback from others.
- Effectively uses principles of continuous professional development (CPD) planning (reflect, plan, act, evaluate, record/review).

## **Goal R3.2: Demonstrate management skills in the provision of care for geriatric patients.**

### **Objective R3.2.1: (Applying) Manage one's own geriatric practice effectively.**

Criteria:

- Review and interpret the most recent primary literature.
- Evaluate clinical practice activities for potential contributions to scholarship.
- Accurately assesses successes and areas for improvement (e.g., a need for staffing projects or education) in managing one's own practice.
- Makes accurate, criteria-based assessments of one's own ability to perform practice tasks.
- Regularly integrates new learning into subsequent performances of a task until expectations are met.
- Routinely seeks applicable learning opportunities when performance does not meet expectations.
- Demonstrates effective workload and time-management skills.
- Assumes responsibility for personal work quality and improvement.
- Is well prepared to fulfill responsibilities (e.g., patient care, projects, management, and meetings).
- Sets and meets realistic goals and timelines.
- Demonstrates awareness of own values, motivations, and emotions.
- Demonstrates enthusiasm, self-motivation, and a “can-do” approach.
- Strives to maintain a healthy work–life balance.
- Works collaboratively within the organization’s political and decision-making structure.
- Demonstrates pride in and commitment to the profession through appearance, personal conduct, planning to pursue board certification.
- Demonstrates pride in and commitment to geriatric through membership in professional organizations related to geriatric pharmacy.
- Demonstrates personal commitment to and adheres to organizational and departmental policies and procedures.
- Advocate for departmental policies and procedures that support geriatric care (e.g., patient safety).

## **Competency Area R4: Teaching, Education, and Dissemination of Knowledge**

### **Goal R4.1: Provide effective medication and practice-related education to geriatric patients, caregivers, health care professionals, students, and the public (individuals and groups).**

#### **Objective R4.1.1: (Applying) Design effective educational activities related to geriatric pharmacy.**

Criteria:

- Accurately defines educational needs, including learning styles, with regard to target audience (e.g., individual versus group) and learning level (e.g., health care professional versus patient, student versus PGY1 resident).
- Selects topics of significance to geriatric pharmacy as outlined in the appendix.
- Defines educational objectives that are specific, measurable, at a relevant learning level (e.g., applying, creating, evaluating), and address the audiences’ defined learning needs.
- Plans use of teaching strategies that match learner needs, including active learning (e.g., patient cases, polling).
- Selects content that is relevant, thorough, evidence based (using primary literature where appropriate), timely and reflects best practices.

- Includes accurate citations and relevant references and adheres to applicable copyright laws.

**Objective R4.1.2: (Applying) Use effective presentation and teaching skills to deliver education related to geriatric pharmacy.**

Criteria:

- Demonstrates rapport with learners.
- Captures and maintains learner/audience interest throughout the presentation.
- Implements planned teaching strategies effectively.
- Effectively facilitates audience participation, active learning, and engagement in various settings (e.g., small or large group, distance learning).
- Presents at appropriate rate and volume and without exhibiting poor speaker habits (e.g., excessive use of “um” and other interjections).
- Body language, movement, and expressions enhance presentations.
- Summarizes important points at appropriate times throughout presentations.
- Transitions smoothly between concepts.
- Effectively uses audio-visual aids and handouts to support learning activities.
- Uses effective communication skills, including recognition of functional limitations of the audience members (e.g., hearing and/or vision loss, impairments).

**Objective R4.1.3: (Applying) Use effective written communication to disseminate knowledge related to geriatric pharmacy.**

Criteria:

- Writes in a manner that is easily understandable and free of errors.
- Demonstrates thorough understanding of the topic.
- Notes appropriate citations and references.
- Includes critical evaluation of the literature and knowledge advancements or a summary of what is currently known on the topic.
- Develops and uses tables, graphs, and figures to enhance reader’s understanding of the topic when appropriate.
- Writes at a level appropriate for the target readership (e.g., physicians, pharmacists, other health care professionals, patients, and the public).
- Creates one’s own work and does not engage in plagiarism.

**Objective R4.1.4: (Applying) Appropriately assess effectiveness of education related to geriatric pharmacy.**

Criteria:

- Selects assessment method (e.g., written or verbal assessment or self-assessment questions, case with case-based questions, and learner demonstration of new skill) that matches activity.
- Provides timely, constructive, and criteria-based feedback to learner.
- If used, assessment questions are written in a clear, concise format that reflects best practices for test item construction.
- Determines how well learning objectives were met.
- Plans for follow-up educational activities to enhance or support learning and (if applicable) ensure that goals were met.
- Identifies ways to improve education-related skills.
- Obtains, reviews, and applies feedback from learners and others to improve effectiveness as an educator.

**Goal R4.2: Effectively employ appropriate preceptor roles when engaged in teaching students, pharmacy technicians, or fellow health care professionals) in geriatric pharmacy.**

**Objective R4.2.1: (Analyzing) When engaged in teaching related to geriatric pharmacy, select a preceptor role that meets learners' educational needs.**

Criteria:

- Identifies which preceptor role is applicable for the situation (direct instruction, modeling, coaching, facilitating).
  - Selects direct instruction when learners need background content.
  - Selects modeling when learners have sufficient background knowledge to understand the skill being modeled.
  - Selects coaching when learners are prepared to perform a skill under supervision.
  - Selects facilitating when learners have performed a skill satisfactorily under supervision.

**Objective R4.2.2: (Applying) Effectively employ preceptor roles, as appropriate, when instructing, modeling, coaching, or facilitating skills related to geriatric pharmacy.**

Criteria:

- Accurately assesses the learner's skill level to determine the appropriate preceptor role for providing practice-based teaching.
- Instructs students, technicians, or others as appropriate.
- Models skills, including "thinking out loud," so learners can "observe" critical-thinking skills.
- Coaches, including effective use of verbal guidance, feedback, and questioning, as needed.
- Facilitates, when appropriate, by allowing learner independence and using indirect monitoring of performance.

# **ELECTIVE COMPETENCY AREAS, GOALS, AND OBJECTIVES FOR geriatric POSTGRADUATE YEAR TWO (PGY2) PHARMACY RESIDENCIES**

## **Competency Area E1: Academia**

**Goal E1.1: Demonstrate understanding of key elements of the academic environment and faculty roles within it.**

**Objective E1.1.1 (Understanding) Demonstrate understanding of key elements of the academic environment and faculty roles within it.**

Criteria:

- Accurately describes expectations of public and private schools of pharmacy for teaching, practice, research, and service.
- Demonstrates understanding of relationships between scholarly activity and teaching, practice, research and service.
- Accurately describes the academic environment (e.g., how administration decisions and outside forces impact faculty).
- Accurately describes faculty roles and responsibilities.
- Accurately describes the types and ranks of faculty appointments.
- Demonstrates understanding of the role and implications of part-time and adjunct faculty.
- Accurately describes the complexity of the promotion and/or tenure process.
- Accurately explains the role and influence of faculty in the academic environment.
- Accurately identifies resources available to help develop academic skills.
- Accurately identifies and describes ways that faculty maintain balance in their roles.
- Accurately describes typical affiliation agreements between a college of pharmacy and a practice site (e.g., health system, hospital, clinic, retail pharmacy).
- Develop a basic understanding of research design skills.

**Goal E1.2: Exercise case-based and other teaching skills essential to pharmacy faculty.**

**Objective E1.2.1: (Applying) Develop and deliver cases for workshops and exercises for laboratory experiences.**

Criteria:

- Identifies the appropriate level of case-based teachings for small group instruction.
- Identifies appropriate exercises for laboratory experiences.
- Provides appropriate and timely feedback to improve performance.

**Objective E1.2.2: (Evaluating) Compare and contrast methods to prevent and respond to academic and profession dishonesty and adhere to copyright laws.**

Criteria:

- Accurately evaluates physical and attitudinal methods to prevent academic dishonesty.
- Accurately describes methods of responding to incidents of academic dishonesty.
- Accurately explains the role of academic honor committees in cases of academic dishonesty.
- Identifies examples and methods to address unprofessional behavior in learners.

- Accurately describes copyright regulations as related to reproducing materials for teaching purposes.
- Accurately describes copyright regulations as related to linking and citing on-line materials.

### **Goal E1.3: Develops and practices a philosophy of teaching.**

#### **Objective E1.3.1: (Creating) Develop or update a teaching philosophy statement.**

Criteria:

- Teaching philosophy includes:
  - Self-reflection on personal beliefs about teaching and learning.
  - Identification of attitudes, values, and beliefs about teaching and learning.
  - Illustrates personal beliefs on practice and how these beliefs and experiences are incorporated in a classroom or experiential setting with trainees.
  - If updating, reflect on how one's philosophy has changed.

#### **Objective E1.3.2: (Creating) Prepare a practice-based teaching activity.**

Criteria:

- Develops learning objectives using active verbs and measurable outcomes.
- Plans teaching strategies appropriate for the learning objectives.
- Uses materials that are appropriate for the target audience.
- Organizes teaching materials logically.
- Plans relevant assessment techniques.
- When used, develops examination questions that are logical, well-written, and test the learners' knowledge rather than their test-taking abilities.
- Participates in a systematic evaluation of assessment strategies (e.g., post-exam statistical analysis) when appropriate.
- Ensures activity is consistent with learning objectives in course syllabus.

#### **Objective E1.3.3 (Applying) Deliver a practice-based educational activity, including didactic or experiential teaching, or facilitation.**

Criteria:

- Incorporates at least one active learning strategy in didactic experiences appropriate for the topic.
- Uses effective skills in facilitating small and large groups.
- For experiential activities:
  - Organizes student activities (e.g., student calendar);
  - Effectively facilitates topic discussions and learning activities within the allotted time;
  - Effectively develops and evaluates learner assignments (e.g., journal clubs, presentations, SOAP notes);
  - Effectively assesses student performance; and,
  - Provides constructive feedback.

#### **Objective E1.3.4: (Creating) Effectively document one's teaching philosophy, skills, and experiences in a teaching portfolio.**

Criteria:

- Portfolio includes:

- A statement describing one's teaching philosophy;
- Curriculum vitae;
- Teaching materials including slides and other handouts for each teaching experience;
- Documented self-reflections on one's teaching experiences and skills, including strengths, areas for improvement, and plans for working on the areas for improvement;
- Peer/faculty evaluations; and,
- Student/learner evaluations.

## **Competency Area E2: Long-Term Care Environment**

**Goal E2.1: Demonstrate understanding of the role of the consultant pharmacist in the long-term care settings.**

**Objective E2.1.1: (Understanding) Demonstrate understanding of unique needs in long-term care settings that can be met by consultant pharmacists.**

Criteria:

- Demonstrates understanding of aspects of providing medication therapy management with interdisciplinary teams that are unique to consultant pharmacists in long-term care settings.
- Demonstrates understanding of the role of consultant pharmacists on interdisciplinary teams.
- Demonstrates understanding of appropriate personnel for managing patients' health care needs in long-term care settings.
- Demonstrates understanding of the use of formularies in the long-term care setting.
- Demonstrates understanding of the role of the consultant pharmacist in assisting the long-term care facility in complying with applicable regulations and preparing for accreditation and licensure surveys.

**Goal E2.2: Manage patient health care needs and related medications in the long-term care environment.**

**Objective E2.2.1: (Analysis) When appropriate, in a long-term care environment devise a plan for managing a patient's health care needs that matches the patient with appropriate personnel to meet the patient's needs.**

Criteria:

- Accurately identify patient health care needs.
- Identify appropriate personnel to meet identified needs.
- Plan appropriately to meet patient health care needs.

**Objective E2.2.2: (Evaluating) Assess the integrity of the medication storage and distribution system in a long-term care facility.**

Criteria:

- Demonstrates understanding of proper medication storage in a long-term care facility.
- Demonstrates understanding of effective distribution systems in a long-term care facility.

## **Competency Area E3: Home Care Environment**

**Goal E3.1: Understand the scope of services that might be provided in the home care environment.**

**Objective E3.1.1: (Understanding) Compare and contrast the scope of services, and applicable legal, regulatory, and accreditation issues, that might be provided in a typical home care practice for a variety of health systems or stand-alone organizations.**

Criteria:

- Accurately identifies and describes home care services.
- Demonstrates understanding of applicable legal, regulatory, and accreditation issues.

**Goal E3.2: Contribute to an interdisciplinary team's determination of the suitability of individual geriatric patients for home care.**

**Objective E3.2.1: (Analyzing) Collect and organize all patient-specific information needed by the geriatric pharmacist to determine the suitability of individual patients for home care.**

Criteria:

- Accurately identifies the types of information the geriatric pharmacist requires to determine the suitability of individual patients for home care.

**Objective E3.2.2: (Evaluating) Assess geriatric patients' suitability for home care.**

Criteria:

- Demonstrates understanding of criteria for acceptance into home care.
- Demonstrates understanding of factors to consider when determining the ability and willingness of a patient or caregiver to fulfill the tasks of home care.
- Demonstrates understanding of factors to consider when evaluating a potential home care patient's psychosocial and family support.

**Goal E3.3: Understand unique aspects of providing evidence-based, patient-centered medication therapy management with interdisciplinary teams in the home care environment.**

**Objective E3.3.1: (Understanding) Explain those aspects of providing evidence-based, patient-centered medication therapy management with interdisciplinary teams that are unique to the home care environment.**

Criteria:

- Demonstrates understanding of the rights and responsibilities of a home care patient.
- Demonstrates understanding of strategies for getting information from unwilling or inaccessible participants.
- Demonstrates understanding of additional concerns with compliance, cost, route of administration, and vascular access and medication devices when making decisions on medication regimens for home care patients.
- Demonstrates understanding of how to determine whether the first dose of medication should be administered at home or in a controlled-care setting.

- States customary monitoring parameters for the effects of the use of access and administration devices.

**Goal E3.4: Understand unique aspects of preparing and dispensing medications for home care patients.**

**Objective E3.4.1: (Understanding) Explain those aspects of preparing and dispensing medications that are unique to the home care environment.**

Criteria:

- Selects appropriate supplies for the patient's method of administration, access device and medication.
- Uses appropriate technique for care of a catheter and a catheter site.
- Effectively uses procedures for administering medications used in the home care environment.
- Effectively uses procedures for managing complications resulting from the administration of medications.
- Determines the best delivery method to get supplies and medications to the patient's home.

**Goal E3.5: Demonstrates understanding of the complexity of the financial environment of home care practice.**

**Objective E3.5.1: (Understanding) Demonstrates understanding of the various factors that affect the financial environment of home care practice.**

Criteria:

- Demonstrates understanding of the different types of payers in home care and the effect of that mix on the finances of the home care practice.
- Demonstrates understanding of the ethical and pharmaceutical issues involved in providing home care to patients with little or no insurance coverage.
- Demonstrates understanding of the effect of patient mix (therapy type) on profitability.
- Appropriately identifies resources for financial and reimbursement advice when working in the home care environment.

**Competency Area E4: Added Leadership and Practice Management Skills**

**Goal E4.1: Exhibits additional skills of a practice leader.**

**Objective E4.1.1: (Applying) Exhibits additional personal skills of a practice leader.**

Criteria:

- Establishes sustained active participation in relevant professional associations.
- Speaks clearly and distinctly in grammatically correct English or the alternate primary language of the practice site.
- Use listening skills effectively.
- Uses effective body language when listening to others.
- Effectively uses verbal techniques to enhance listening to others.

- Uses correct grammar, punctuation, spelling, style, and formatting conventions in preparing written communications.
- Considers recipient's preferences to determine the appropriate type of, and medium and organization of communications.
- Communicates in terms appropriate to one's audience.
- Accurately determines audience's needs.
- Explain the importance of assessing the listener's understanding of the message conveyed.
- Accurately assesses and addresses the level of health literacy of a patient.
- Uses sources of patient information that are appropriately adjusted for various levels of health literacy.
- Effectively uses techniques for persuasive communications.
- Applies guidelines for the preparation of statements to be distributed to the media.

**Objective E4.1.2: (Creating) Develops and implements an effective proposal for a new geriatric pharmacy service.**

Criteria:

- Effectively employs clinical, humanistic, and economic outcome strategies to justify geriatric pharmacy services, as applicable.
- Appropriately documents outcomes of geriatric pharmacy services.
- Employs effective strategies to implements a new geriatric pharmacy service.

## **Competency Area E5: Delivery of Medications**

**Goal E5.1: Manage and facilitate delivery of medications to support safe and effective drug therapy for geriatric patients.**

**Objective E5.1.1: (Applying) Facilitate delivery of medications for geriatric patients following best practices and local organization policies and procedures.**

Criteria:

- Ensures correct interpretation of appropriateness of a medication order before they are prepared or permitting the distribution of the first dose, including:
  - Identifying, clarifying, verifying, and correcting any medication order errors.
  - Considering complete patient-specific information.
  - Identifying existing or potential drug therapy problems.
  - Determining an appropriate solution to an identified problem.
  - Securing consensus from the prescriber for modifications to therapy.
  - Ensuring that the solution is implemented.
- Facilitates preparation of medication using appropriate techniques and following the organization's policies and procedures and applicable professional standards, including:
  - When required, accurately calibrating equipment.
  - Adhering to appropriate safety and quality assurance practices.

- Ensuring preparation of labels that conform to the health system's policies and procedures, as appropriate.
  - Ensuring that medication has all necessary and appropriate ancillary labels.
  - Inspecting the final medication before dispensing for accuracy, as appropriate.
- Ensures that when medication products are dispensed:
  - Follows the organization's policies and procedures.
  - Ensures the patient receives the medication(s) as ordered.
  - Ensures the integrity of medication dispensed.
  - Provides any necessary written and/or verbal counseling for the patient and support/education for relevant interdisciplinary staff (e.g. nursing, respiratory therapy).
  - Ensures the patient receives medication on time.
- Maintains accuracy and confidentiality of patients' protected health information.
- Obtains agreement on modifications to medication orders when acting in the absence of, or outside, an approved protocol or collaborative agreement.
- Ensures appropriate dosing, preparation, and dispensing the following types of medications:
- Medications used in emergency response (e.g., psychiatric crisis, overdose, neurologic emergency).
- Assesses appropriate stock of automatic dispensing cabinets.
- References appropriate literature resources to ensure use of proper practices regarding compatibility, and concentrations.

**Objective E5.1.2: (Applying) Manage aspects of the medication-use process related to formulary management for geriatric patients.**

**Criteria:**

- Follows appropriate procedures regarding exceptions to the formulary, if applicable, in compliance with policy.
- Ensures non-formulary medications are evaluated, dispensed, administered, and monitored in a manner that ensures patient safety.

**Objective E5.1.3: (Applying) Facilitate aspects of the medication-use process for geriatric patients.**

**Criteria:**

- Makes effective use of technology to aid in decision-making and increase safety.
- Demonstrates commitment to medication safety.
- Effectively prioritizes workload and organizes workflow:
  - Checks accuracy of medications dispensed, including correct patient identification, medication, dosage form, label, dose, number of doses, and expiration dates; and proper repackaging and relabeling medications, including compounded medications (sterile and nonsterile).
  - Promotes safe and effective drug use on a day-to-day basis.

## **Competency Area E6: Initiating a Geriatric Pharmacy-Related Service**

**Goal E6.1: Develop a proposal for a new geriatric pharmacy-related service.**

**Objective E6.1.1: (Creating) Write a proposal for a geriatric pharmacy-related service.**

Criteria:

- Proposal meets a perceived need of the health system and its patients.
- Proposal is clear and persuasive.

**Objective E6.1.2: (Creating) Present a proposal for a new geriatric pharmacy-related service.**

Criteria:

- Identifies appropriate concerned entities as audience for presentation.
- Uses effective presentation skills.

**Objective E6.1.3: (Applying) Implement a new geriatric pharmacy-related service.**

Criteria:

- Identifies appropriate strategies for implementing the new service.
- Effectively employs selected strategies for implementing the new service.

**Objective E6.1.4: (Applying) Appraise a new geriatric pharmacy-related service.**

Criteria:

- Accurately evaluates adequacy of the new service in meeting the stated goals.

## **Competency Area E7: Geriatric Pharmacy Credentialing**

**Goal E7.1: Successfully petition for credentialing as a geriatric pharmacy practitioner.**

**Objective E7.1.1: (Applying) Follow established procedures to successfully apply (may be a hypothetical application if not permitted at the site) for credentialing as a geriatric pharmacy practitioner.**

Criteria:

- Follows established procedures to successfully apply for credentialing.
- Demonstrates understanding of the practice setting's policy for applying to be credentialed.

## **Competency Area E8: Publishing**

**Goal E8.1: Write and submit for publication pertinent medication-use information on geriatric-related topics.**

**Objective E8.1.1: (Applying) Write an article for a publication on a geriatric-related topic.**

Criteria:

- Selects appropriate publication for submission of article.
- Writes in a style appropriate for the audience of the publication (e.g., health care professional and/or the public).

**Objective E8.1.2: (Creating) Submit an article on a geriatric-related topic for a peer-reviewed publication.**

Criteria:

- Article is suitably formatted.
- Follows appropriate submission procedures.
- Effectively addresses reviewer comments, if appropriate.

**Competency Area E9: Management of Geriatric Patients in Emergency Settings**

**Goal E9.1: Participate in the management of geriatric patients in medical emergencies.**

**Objective E9.1.1: (Applying) Exercise skill as a team member in the management of medical emergencies according to the organization's policies and procedures and as exhibited by certification in Advanced Cardiac Life Support and/or other certifications as applicable to the setting and organization (e.g., Advanced Trauma Life Support, Advanced Burn Life Support, Advanced HazMat Life Support).**

Criteria:

- Demonstrates understanding of the role of the geriatrics pharmacist in the setting of a medical emergency.
- Demonstrates understanding of the potential for medication errors in the setting of a medical emergency.
- Demonstrates understanding of organization's protocol for medical emergencies.
- Appropriately prepares and dispenses medications and calculates doses during medical emergencies.
- Applies appropriate medication therapy in medical emergency situations.
- Effectively anticipates needs during a medical emergency.
- Obtains ACLS certification.

**Goal E9.2: Participate in the management of geriatric patients in the emergency department.**

**Objective E9.2.1: (Applying) Demonstrates effective management of the geriatric patient in the emergency room setting in accordance with the American Geriatric Society "*Geriatric Emergency Department Guidelines*".**

Criteria:

- Demonstrates understanding of the role of the geriatrics pharmacist in the emergency department setting.
- Demonstrates understanding of the role of the geriatrics pharmacist when using high-risk medications or when performing high-risk procedures.
- Demonstrates understanding of patient safety concerns that may arise when members of the interdisciplinary team caring for patients in the emergency department setting are required to make complex care decisions under tight time constraints.

- Exercise skill in the administration of emergency medications, when appropriate.

## **Competency Area E10: Palliative Care**

**Goal E10.1: Demonstrate understanding of unique challenges associated with providing palliative care.**

**Objective E10.1.1: (Applying) Demonstrates effective self-management of unique emotional challenges associated with dying, death, and loss.**

Criteria:

- Identifies and articulates the unique and challenging emotions that come with dying, death, and loss.
- Explains and uses strategies for providing care while experiencing challenging emotions.
- Demonstrates empathy and support to patients and loved ones who are dealing with dying, death, and loss.

**Objective E10.1.2: (Creating) Develop care plans that take into consideration unique aspects of palliative care.**

Criteria:

- Considers factors unique to geriatric and/or terminal patients when developing palliative care plans (e.g., quality of life, frailty).
- Considers cultural factors.
- Discontinues treatment and/or medications when appropriate.

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The effective date for implementation of these educational outcomes, goals and objectives is commencing with the entering resident class of 2017.

## **PGY2 Geriatric Pharmacy Residency Appendix**

### **Core Areas or Types of Patient Care Experiences**

It is expected that all residents will acquire new knowledge and understanding related to core areas or types of patients for graduates of PGY2 geriatrics programs. The primary method for PGY2 geriatrics programs to help residents to achieve patient care competence in providing comprehensive medication management is to provide residents with sufficient experience providing patient care for common disease states and conditions.

### **Core Geriatric Principles**

All of the core geriatric principles must be taught through direct patient care experiences. Didactic methods such as topic discussions, case presentations, and/or written assignments may be utilized to enhance the resident's knowledge and skills of these principles.

### **Biology of Aging**

- Pharmacokinetics/pharmacodynamics of aging
- Atypical presentation of disease

### **Geriatric Assessment**

- Prescribing criteria in the elderly (e.g. Beers Criteria, STOPP/START Criteria)
- Medication related problems
- Swallowing problems, Dysphagia
- Psychosocial and safety issues
- Weight loss/malnutrition (Failure to Thrive)

### **Geriatric Syndromes**

- Constipation
- Falls/gait problems
- Dizziness
- Functional/cognitive decline
- Medication induced disease (including OTC/herbals)
- Weakness/frailty

### **Organ Systems with Associated Disease States**

From the list of 15 organ systems, residents are required to have, at a minimum, direct patient care experiences in the diseases listed as required. Residents will be able to elect other areas to develop patient care competence.

When direct patient care is not possible, up to 7 organ systems may be covered by case-based application through didactic discussion, reading assignments, case presentations, and/or written assignments. However, patient care competence cannot be achieved solely through these methods without actual patient care experience in providing comprehensive medication management. The resident will become familiar with the management of these disease states in the context of the geriatric patient with multi morbidity.

## **Cardiology**

### Required

- Atrial Fibrillation
- Disorders of lipid metabolism
- Heart failure (including acute and chronic heart failure)
- Hypertension
- Peripheral arterial (atherosclerotic) disease
- Venous thromboembolism
- Anticoagulation management
- Hypotension

### Elective

- Stable Ischemic Heart Disease
- Pulmonary arterial hypertension
- Valvular heart disease
- Hypertensive emergency/urgency
- Acute coronary syndrome

## **Dermatology**

### Required

- Decubitus ulcers

### Elective

- Dermatitis
- Psoriasis
- Urticaria

## **Endocrinology**

### Required

- Diabetes mellitus
- Thyroid disorders
- Sexual/Erectile dysfunction

### Elective

- Adrenal disorders
- Diabetes insipidus
- Disorders of pituitary gland (e.g., GH deficiency, SIADH, acromegaly)
- Paget's disease

## **Gastroenterology**

### Required

- Gastroesophageal reflux disease
- Peptic ulcer disease
- Gastrointestinal bleeding

### Elective

- Motility disorders
- Nausea/vomiting
- Chronic liver disease, hepatitis, and cirrhosis
- Inflammatory bowel disease
- Irritable bowel syndrome
- Diarrhea

Diverticular disease

### **Head, Eyes, Ears, Nose, and Throat**

Required

Glaucoma

Macular degeneration

Elective

Hearing loss

Dysphagia

Diabetic eye disorders (e.g., retinopathy, macular edema)

### **Hematology/Oncology**

Required

Anemia

Disorders of hemostasis/platelets/white blood cells

Elective

Skin cancer

Breast cancer

Colon cancer

Prostate cancer

Leukemia/lymphomas

Lung cancer

Multiple myeloma

Supportive care (e.g., preventing / treating complications associated with malignancy or treatment)

### **Infectious Diseases**

Required

Antimicrobial stewardship

Bone and joint infections

Immunizations (herpes zoster, influenza, pneumonia)

Skin and soft tissue infections

Respiratory tract infections (upper, lower)

Urinary tract infections; asymptomatic bacteriuria

Elective

Human immunodeficiency virus infection

Prostatitis

Sexually transmitted infections

Herpes Zoster (shingles)/post-herpetic neuralgia

Pneumonia (community, hospital acquired)

Influenza

### **Nephrology**

Required

Chronic kidney disease

Drug dosing in renal disease

Elective

Acute kidney injury

End-stage renal disease

Intermittent, continuous, and peritoneal dialysis (managing associated complications and drug dosing)

### **Neurology**

#### Required

- Acute pain
- Chronic pain
- Dementia (various forms: Alzheimer's/vascular/Lewy Body)
- Delirium
- Parkinson's disease
- Peripheral neuropathy
- Cerebral ischemia (including ischemic stroke, transient ischemic attacks)
- Neuropathy

#### Elective

- Central nervous system hemorrhage
- Neuromuscular diseases
- Tremors
- Seizure disorders

### **Nutritional Support**

#### Required

- Enteral

#### Elective

- Parenteral
- Dehydration

### **Palliative/Hospice Care**

#### Required

- End-of-life care and symptom management (e.g., pain, dyspnea, constipation, restlessness)

### **Psychiatry**

#### Required

- Anxiety disorders, Agitation
- Depressive disorders
- Sleep disorders
- Substance/alcohol abuse/misuse

#### Elective

- Bipolar disorders
- Schizophrenia
- Smoking cessation

### **Pulmonary**

#### Required

- Chronic obstructive airway disease

#### Elective

- Asthma
- Sleep apnea

## **Rheumatology**

### Required

- Gout/Hyperuricemia
- Osteoarthritis
- Osteoporosis

### Elective

- Rheumatoid arthritis
- Hip fracture

## **Urology**

### Required

- Benign prostatic hyperplasia
- Urinary incontinence (OAB, stress)

**Reference Source:** *Geriatric Pharmacy Curriculum Guide, Third Edition, American Society of Consultant Pharmacists*