



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

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.¹

Competency areas for PGY1 residencies are available on the ASHP website. PGY2 competency areas, goals, and objectives in ambulatory care pharmacy are differentiated from those from PGY1 by specialization and the expectation of PGY2 residents for greater work competence and proficiency.

Definitions

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).

¹Anderson, 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).

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: Provide comprehensive medication management to ambulatory care patients following a consistent patient care process.

Objective R1.1.1: (Applying) Interact effectively with health care teams to collaboratively manage ambulatory care 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 ambulatory care patients, family members, and 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.
- Shows empathy.
- Empowers patients, family members, and caregivers regarding the patient's well-being and health outcomes.
- Demonstrates cultural competence.
- Communicates with family members to obtain patient information when patients are unable to provide the information.
- Communicates with patient and family about initiation and changes of patient therapies.
- Demonstrates advocacy for patients, family members, and caregivers.

Objective R1.1.3: (Analyzing) Collect information to ensure safe and effective medication therapy for ambulatory care 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, physical assessment, physiologic monitoring, laboratory values, microbiology results, diagnostic imaging, procedural results, and risk assessments).
 - 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.
- 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 to ensure safe and effective medication therapy for ambulatory care patients.

Criteria:

- Includes accurate assessment of patient's:
 - Health, functional and nutritional status.
 - Risk factors.
 - Laboratory and other objective data.
 - Cultural factors.
 - Health literacy.
 - Access to medications.
 - Immunization status.
 - Need for preventive care and other services, when appropriate.
 - Other aspects of care, as applicable.
- Identifies medication therapy problems, including:
 - 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).
 - 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 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, system).
 - Patient assessment needed
 - Discrepancy between prescribed medications and established care plan for the patient identified through medication reconciliation.
- Prioritize an ambulatory care patient's health care needs.
- Triage ambulatory care patients' health care needs as necessary.

- When presented with a patient with health care needs that cannot be met by the ambulatory care pharmacist, make a referral to the appropriate health care provider based on the patient's presenting problem and acuity.
- Assures a plan for follow up for a referred ambulatory patient.

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

Criteria:

- Specify evidence-based, measurable, achievable therapeutic goals that include consideration of:
 - Relevant patient-specific information, including cultural preferences and shared decision-making.
 - The goals of other interprofessional team members.
 - The patient's disease state(s) and comorbidities.
 - 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:
 - Are appropriate for the disease states being treated.
 - Reflect:
 - Clinical experience
 - The therapeutic goals established for the patient.
 - The patient's and caregiver's specific needs.

Consideration of:

- Any pertinent pharmacogenomic or pharmacogenetic factors.
- Best evidence.
- Pertinent ethical issues.
- Pharmacoeconomic components (patient, medical, and systems resources).
- Patient preferences, culture, and/or language differences.
- Patient-specific factors, including physical, mental, emotional, and financial factors that might impact adherence to the regimen.
- Drug shortages.
- Adhere to the health system's medication-use policies.
- Follow applicable ethical standards.
- Address wellness promotion and lifestyle modification.
- Support the organization's or patient's insurance formulary.
- Address medication-related problems and optimize medication therapy.
- Engage the patient through education, empowerment, and promotion of self-management.
- 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 adherence.
- 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 ambulatory care 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.
- Determines whether provider's alternative recommendation is justified and reasonable.
- 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 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.
 - Regimen is initiated at the appropriate time.
 - Patient receives their medication and supplies as directed.
 - 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.
- 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 by collaborative practice agreements, scope of practice or state law.
- 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, adherence, 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) Document direct patient care activities appropriately in the medical record, or where appropriate.

Criteria:

- Accurately and concisely communicates drug therapy recommendations to appropriate healthcare professionals.
- Appropriately documents all relevant direct patient care activities in a timely manner.
- Documentation follows organizational policies and procedures.

Objective R1.1.8: (Applying) Demonstrate responsibility to ambulatory care 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.

Goal R1.2: Design and/or deliver programs that contribute to public health efforts or population management.

Objective R1.2.1: (Applying) Design and/or deliver programs for patients that focus on health improvement, wellness, and disease prevention (e.g., immunizations, health screenings).

Criteria:

- Considers prevalent health improvement, wellness, and disease prevention educational needs in public health efforts.
- Promotes and provides health improvement and wellness resources for patients (e.g. tobacco cessation).

Competency Area R2: Advancing Practice and Improving Patient Care

Goal R2.1: Manage the development or revision, and implementation, of proposals related to the ambulatory care setting.

Objective R2.1.1: (Creating) Prepare or revise a protocol (e.g., work flow, scope of practice, collaborative practice agreement, or clinical practice protocols) related to ambulatory care .

Criteria:

- Displays objectivity.
- Effectively synthesizes information from the available literature.
- Applies evidenced-based principles.
- Consults relevant sources.

- Considers medication-use safety and resource utilization.
- 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) Contribute to the development of a new ambulatory care pharmacy service or to the enhancement of an existing service.

Criteria:

- Accurately assesses current ambulatory care pharmacy service or program to determine if it meets the stated goals.
- Identifies need(s) that may exist.
- Makes contributions to a proposal for a new service, or enhancement of existing services that clearly describes the service or enhancement, the role of different health care providers in the service/enhancement, predicts financial outcome(s) and system and human resources needs.
- Plans effectively for implementation and utilization of the new or enhanced service.
- Demonstrates understanding of the relevance of the existence and use of evidence-based treatment guidelines/protocols in the ambulatory environment.
- Effectively selects metrics for evaluation, such as humanistic and economic outcomes, when applicable.
- Appropriately interprets existing quality and/or safety metrics data, when applicable.

Goal R2.2: Demonstrate ability to conduct a research project.

Objective R2.2.1: (Analyzing) Identify a scholarly question related to clinical practice, education, or healthcare that would be useful to study and can be completed within the PGY2 residency year.

Criteria:

- Appropriately identifies or understands problems and opportunities for research projects.
- Analyzes relevant background data.
- Evaluates data generated by health information technology or automated systems to identify opportunities for improvement, if a quality improvement project.
- Completed in a timely manner within the residency year.
- Area identified is relevant to improving ambulatory patient care, the medication-use system and/or the scholarship of teaching.
- Effectively assimilates scientific evidence.

Objective R2.2.2: (Creating) Develop a plan or research protocol for the project.

Criteria:

- Develops specific aims, selects an appropriate study design, and develops study methods to answer the research question(s).
- Develops and follows an appropriate research or project timeline.
- When applicable, applies safety design practices (e.g., standardization, simplification, human factors training, lean principles, FOCUS-PDCA, other process improvement or research methodologies) appropriately and accurately.
- Applies evidence-based and/or 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, departmental, and other relevant stakeholders) 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.
- Correctly identifies need for additional modifications or changes to the project.
- Plan design is practical to implement and is expected to remedy or minimize the identified challenge or deficiency.

Objective R2.2.3: (Evaluating) Collect and evaluate data for the project.

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.
- 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.
- Follows organizational procedures for protected health information.

Objective R2.2.4: (Applying) When applicable, implement the project.

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.
- Implements the project as specified in its design.
- 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 based on the project.

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.

Objective R2.2.6: (Creating) Effectively develop and present, orally and in writing, a final project report suitable for publication.

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. (Submission of manuscript to a peer-reviewed journal is preferred, when possible.)
- 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. (Reporting to an external audience is preferred, when possible.)

Competency Area R3: Leadership and Management

Goal R3.1: Demonstrate leadership skills.

Objective R3.1.1: (Applying) Demonstrate personal, interpersonal, and teamwork skills critical for effective leadership.

Criteria:

- Demonstrates efficient time management.
- Manages conflict effectively.
- Demonstrates effective negotiation skills.
- Demonstrates ability to lead interprofessional 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.

Objective R3.1.2: (Applying) Apply a process of ongoing self-evaluation and personal performance improvement.

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 ambulatory care patients.

Objective R3.2.1: (Applying) Manage one's own ambulatory care 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.
- 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 ambulatory care through membership in professional organizations related to ambulatory care.
- Demonstrates effective advocacy for one's own practice and for pharmacy.

Goal R3.3.: Manage the operation of an ambulatory care pharmacy service.

Objective R3.3.1: (Analysis) Effectively manage ongoing operational functions of the service.

Criteria:

- Effectively manages clinic appointment lengths and space needs.
- Effectively utilizes EMR technology to maintain efficient documentation, alerts, and referral processes.
- Effectively maintains the established system for securing service supplies (e.g., patient education materials, clinic supplies).
- Effectively implements plans for the ongoing marketing of the service including the recruitment of patients.
- Effectively applies the principles of performance improvement to the ongoing functions of the service.
- Effectively solves problems arising in the operation of the service, such as when demand exceeds staffing, when clinic resources are not sufficient, managing overbooks, managing "no shows" to clinic, managing patients discharged from the clinic.
- Demonstrates understanding of the functions of a group session clinic.
- Effectively contributes to strategic planning for the service and/or practice.
- Effectively participates in orienting new ambulatory care staff, and other trainees.
- Effectively selects factors for evaluation, such as humanistic and economic outcomes

Objective R3.3.2: (Creating) Assure that the service operates in accord with legal and regulatory requirements.

Criteria:

- Demonstrates understanding of relevant legal and regulatory requirements.
- Takes effective action to ensure compliance with requirements.
- Effectively maintains legal coding and billing activities.
- Maintains applicable certifications and training requirements.

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

Goal R4.1: Demonstrate excellence in providing effective medication and practice-related education.

Objective R4.1.1: (Applying) Design effective educational activities related to ambulatory care.

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).
- 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 address specified objectives and match learner needs, including active learning (e.g., patient cases, polling).
- Selects content that is relevant, thorough, evidence based (using primary literature where appropriate), and 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 ambulatory care related education to pharmacy or interprofessional attendees, including complex topics to expert drug therapy audiences.

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.
- Includes critical evaluation of primary literature regarding drug therapy.
- Effectively utilizes complex drug therapy objectives (higher learning levels of Bloom's Taxonomy (e.g., creating, evaluating)).

Objective R4.1.3: (Applying) Use effective written communication to disseminate knowledge related to ambulatory care.

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) Assess effectiveness of education related to ambulatory care.

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 and reviews 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 ambulatory care.

Objective R4.2.1: (Analyzing) When engaged in teaching related to ambulatory care, 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 ambulatory care.

Criteria:

- 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 AMBULATORY CARE 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) Demonstrates 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).

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; and,
 - 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: Credentialing

Goals E2.1: Where the ambulatory care pharmacy practice is within a setting that allows pharmacist credentialing, successfully apply for credentialing.

Objective E2.1.1: (Applying) Follow established procedures to successfully apply (may be a hypothetical application if not permitted at the site) for credentialing as an ambulatory care pharmacy practitioner.

Criteria:

- Follows the practice setting’s policy for applying to be credentialed as an ambulatory care pharmacy practitioner.

Competency Area E3: Management of Medical Emergencies

Goal E3.1: Participate in the management of medical emergencies.

Objective E3.1.1: (Evaluating) Exercise skill as a team member in the management of medical emergencies according to the organization’s policies and procedures.

Criteria:

- Acts in accordance with the organization’s policies and procedures for medical emergencies.
- Applies appropriate medication therapy in medical emergency situations.
- Accurately prepares medications and calculates doses during a medical emergency.
- Effectively anticipates needs during a medical emergency.
- Obtains certification in the American Heart Association Advanced Cardiac Life Support (ACLS).

Competency Area E4: Treatment of Hospitalized Patients

Goal E4.1: In collaboration with the health care team, provide safe and effective patient care to a diverse range of patients, including those with multiple co-morbidities, high-risk medication regimens, and multiple medications following a consistent patient care process.

Objective E4.1.1: (Applying) Interact effectively with health care teams to manage patients’ medication therapy.

Criteria:

- Interactions are cooperative, collaborative, communicative, and respectful.
- Demonstrates skills in negotiation, conflict management, and consensus building.
- Demonstrates advocacy for the patient.

Objective E4.1.2: (Creating) Design or redesign safe, effective and evidence-based patient-centered therapeutic regimens and monitoring plans.

Criteria:

- Specifies evidence-based, measurable, achievable therapeutic goals that include consideration of:
 - Relevant patient-specific information, including culture and preferences.
 - The goals of other interprofessional team members.
 - The patient's disease state(s).
 - Medication-specific information.
 - Best evidence.
 - Ethical issues involved in the patient's care.
 - Quality-of-life issues specific to the patient.
 - Integration of all the above factors influencing the setting of goals.
- Designs/redesigns regimens that:
 - Are appropriate for the disease states being treated.
 - Reflect:
 - The therapeutic goals established for the patient.
 - The patient's and caregiver's specific needs.
 - Consideration of:
 - Any pertinent pharmacogenomic or pharmacogenetic factors.
 - Quantitative laboratory values.
 - Best evidence.
 - Pertinent ethical issues.
 - Pharmacoeconomic components (patient, medical, and systems resources).
 - Patient preferences, culture, and/or language differences.
 - Patient-specific factors, including physical, mental, emotional, and financial factors that might impact adherence to the regimen.
 - Adhere to the health system's medication-use policies.
 - Follow applicable ethical standards.
 - Address wellness promotion and lifestyle modification.
 - Support the organization's or patient's formulary.
 - Address medication-related problems and optimize medication therapy.
 - Engage the patient through education, empowerment, and promotion of self-management.
- 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 adherence.
 - If for an ambulatory patient, includes strategy for ensuring patient returns for needed follow-up visit(s).
 - When applicable, reflects preferences and needs of the patient.

Objective E4.1.3: (Applying) Ensure implementation of therapeutic regimens and monitoring plans (care plans) 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.
 - 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 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:
 - Therapy corresponds with the recommended regimen.
 - Regimen is initiated at the appropriate time.
 - 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.
- 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, adherence, 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.

Competency Area E5: Specialty Pharmacy

Thanks to the National Association of Specialty Pharmacy (NASP) for providing the job analysis on which these goals, objectives, and criteria are based.

Goal E5.1: Effectively fulfill the major functions of a specialty pharmacist, including intake, clinical management, fulfillment, and facilitating optimal outcomes.

Objective E5.1.1: (Applying) Effectively conduct the patient intake process for specialty pharmacy patients.

Criteria:

- Screens patient demographic and clinical information to determine suitability for specialty pharmacy services.

- Conducts benefits investigation and validation of insurance coverage for requested medication (submit test claims) and coordinate benefits with multiple payers.
- Determines payer coverage and which benefit channel is required by medication or optimal for patient when either channel is acceptable.
- Initiates and conducts prior authorization process.
- Determines eligibility for specific clinical management programs.
- Determines patient eligibility and need for financial assistance based on insurance, available programs, and patient financial burden.
- Works with patient care coordinator to enroll qualified patients in financial assistance programs.
- Bills payer under pharmacy benefit structure or medical benefit structure.

Objective E5.1.2: (Applying) Effectively engage in clinical management activities for specialty pharmacy patients.

Criteria:

- Addresses Risk Evaluation and Mitigation Strategies (REMS).
- Develops individualized education plan for specialty pharmacy patients to achieve treatment goals.
- Enrolls specialty pharmacy patients in specific clinical management programs.
- Manages patient treatment holidays and other extenuating circumstances.
- Manages specialty pharmacy patient discontinuation of medication.

Objective E5.1.3: (Applying) Effectively conduct fulfillment activities for specialty pharmacy patients.

Criteria:

- Verifies that medication is available.
- Refers medication referral to another provider if unable to distribute medication.
- Accurately determines delivery location and makes arrangements for the delivery and receiving of medication package.
- Ships the medication package using appropriate shipping method.
- Correctly bills patient for services rendered.
- Contacts patients prior to delivery of medication refill.
- Resolves situations in which the integrity of medication shipment has been compromised or the shipment was not received.
- Conducts investigation in the case of discrepancy between patient and facility.
- Contacts manufacturer for replacement of product in the case of patient misuse or product failure.

Objective E5.1.4: (Evaluating) Effectively facilitate optimal treatment outcomes for specialty pharmacy patients.

Criteria:

- Determines clinical, patient-reported, operational, and financial data to be collected based on the parameters of disease state and medication, and how data will be obtained from internal and external sources.
- Determines patient, internal stakeholder, and external stakeholder requirements for data reporting and structuring the format of reports to meet requirements.
- Obtain, collect, and extract clinical, patient-reported, operational, and financial data.
- Integrate and reconcile clinical, patient-reported, operational, and financial data from disparate sources and use standard data elements.
- Analyzes and interprets clinical and patient-reported data to determine clinical and patient-reported outcomes to improve patient treatment and quality of life.

- Analyzes and interprets operational and financial data to determine operational and financial outcomes to evaluate the pharmacoeconomic impact of service offerings.
- Reports clinical, patient-reported, operational, and financial data and make recommendations to patients, internal stakeholder, and external stakeholder.

Competency Area E6: Continuity of Care

Goal R6.1: Ensure continuity of care during ambulatory care patient transitions between care settings.

Objective R6.1.1: (Applying) Manage transitions of care effectively for ambulatory care 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.
- Takes 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 E7: Medication Event Reporting and Monitoring

Goal R7.1 Ensure appropriate medication event reporting and monitoring.

Objective R7.1.1: (Applying) Participate in the review of medication event reporting and monitoring related to care for ambulatory care patients.

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.

Competency Area E8: Delivery of Medications

Goal E8.1: Manage and facilitate delivery of medications to support safe and effective drug therapy for ambulatory care patients.

Objective E8.1.1: (Applying) Manage aspects of the medication-use process related to formulary management for 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 E8.1.2: (Applying) Facilitate aspects of the medication-use process for 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 E9: Medication-Use Evaluations

Goal E9.1: (Evaluating) Lead a medication-use evaluation related to care of ambulatory care patients.

Objective E9.1.1: (Evaluating) Lead a medication-use evaluation related to care for ambulatory care patients.

Criteria:

- 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.

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Practice, Director, PGY2 Ambulatory Care Residency, University of Illinois at Chicago College of Pharmacy; and Naomi Schultheis, M.Ed., Director, Standards Development and Training, Accreditation Services Office, ASHP. This document replaces a set of goals and objectives approved by the ASHP Board of Directors September 22, 2006. The contribution of reviewers is gratefully acknowledged.

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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.

Appendix

The resident will explain signs and symptoms, epidemiology, risk factors, pathogenesis, natural history of disease, pathophysiology, clinical course, etiology, and treatment of diseases and conditions in areas listed below. The resident will also have experience managing patients in these areas.

The resident will explain the mechanism of action, pharmacokinetics, pharmacodynamics, pharmacogenomics, pharmacoeconomics, usual regimen (dose, schedule, form, route, and method of administration), indications, contraindications, interactions, adverse reactions, and therapeutics of medications and non-traditional therapies, where relevant, that are applicable to diseases and conditions in the areas listed below.

The resident will explain various forms of non-medication therapy, including life-style modification and the use of devices for disease prevention and treatment, for diseases and conditions in the areas listed below.

From the list of 15 areas below, residents are required to have direct patient care experience in at least eight areas. When direct patient care is not possible, up to two of these eight areas may be covered by case-based application through didactic discussion, reading assignments, case presentations, and/or written assignments.

Cardiology
Dermatology
Endocrinology
Gastroenterology
Geriatrics
Hematology – Oncology
Infectious diseases
Men's health
Nephrology
Neurology
Pediatrics
Psychiatry
Pulmonology
Rheumatology
Women's health