REQUIRED COMPETENCY AREAS, GOALS, AND OBJECTIVES FOR 24 MONTH POSTGRADUATE YEAR ONE (PGY1) / POSTGRADUATE YEAR TWO (PGY2) PHARMACOTHERAPY RESIDENCIES

Prepared Jointly with the American College of Clinical Pharmacy

Introduction

The PGY1/PGY2 pharmacy residency in pharmacotherapy is designed to produce a specialized practitioner with an advanced degree of proficiency and expertise in working with interdisciplinary teams to deliver pharmaceutical care to diverse populations from ambulatory to critically ill, pediatric to geriatric ages and presenting with varied and complex health problems. The intense focus on direct patient care of this residency develops a specialist of great flexibility in the direct patient care arena, an individual who can move from one specialized area of practice to another with confidence and ease. While other clinical specialized residencies build a knowledge base and decision-making skills in one area of focus, the pharmacotherapy residency graduate refines the decision-making skill in such a way that it is transferable across practice areas and then supplements that skill with strong knowledge acquisition in a broad range of disease states.

The scope and depth of residency graduates' knowledge of the broad sweep of diseases and their treatment, combined with extensive patient care experience as outlined in the appendix, produces a pharmacist who can successfully serve health care organizations as an authoritative resource for information about medications and for decision-making affecting the care of patients. This includes contributions to formulary decision-making.

Groomed for practice leadership, pharmacotherapy residency graduates can be expected to continue their pursuit of expertise in practice; to possess advanced skills to identify the pharmacotherapy and medication-use training needs of other health care professionals; to deliver effective training to those health care professionals; and to contribute to the pharmacy literature.

The competency areas, goals, and objectives are for use with the *ASHP Accreditation Standard for Postgraduate Year Two (PGY2) Pharmacy Residency Programs.* The first five 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 additional competency areas. 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 additional competency areas with associated goals and objectives. Each of the goals encompassed by the program's selected program competency areas (required and additional) must be evaluated at least once during the residency year. In addition, elective competency areas may be selected for specific residents only.

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]

Definitions

Competency Areas: Categories of the residency graduates' capabilities.
Competency areas are classified into one of three categories:

Required: Five 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 five required areas) to meet program-specific program needs.

Elective (for specific residents): 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. They are intended to be used to give feedback to residents on the 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.

[1] Bloom, B., Englehart, M. Furst, E., Hill, W., & Krathwohl, D. (1956). *Taxonomy of educational objectives: The classification of educational goals. Handbook I: Cognitive domain*. New York, Toronto: Longmans, Green.

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 patients following a consistent patient care process.

Objective R1.1.1: (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.
- Effectively contributes pharmacotherapy knowledge and patient care skills as an essential member of the healthcare team.

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

Criteria:

- Interactions are respectful and collaborative.
- Uses effective communication skills.
- Shows empathy.
- Empowers patients, family members, and caregivers regarding the patient's well-being and health outcomes.
- Communicates with family members to obtain patient information when patients are unable to provide the information.
- Empowers patients to take responsibility for their health.
- Demonstrates cultural competence.
- Ensures understanding of, and consensus with, care plans.
- Utilizes effective motivational interviewing techniques, such as goal setting and identification of barriers for improved health.
- Demonstrate advocacy for caregivers.

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

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, physiologic monitoring, laboratory values (including organ function), pathology, vital signs, microbiology results, diagnostic imaging, procedural results, and scoring systems.
  - Pharmacogenomics and pharmacogenetic information, if available.
  - Adverse drug reactions.

- o Medication adherence and persistence.
- o 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 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 on which to base safe and effective medication therapy.
Criteria:
- Includes accurate assessment of patient's:
  - o Health and functional status.
  - o Risk factors.
  - o Health data.
  - o Cultural factors.
  - o Health literacy.
  - o Access to medications.
  - o Immunization status.
  - o Need for preventive care and other services, when appropriate.
  - o Insurance/payer status.
  - o Other aspects of care, as applicable.
- Identifies medication therapy problems, including:
  - o Lack of indication for medication.
  - o Medical conditions for which there is no medication prescribed.
  - o Medication prescribed or continued inappropriately for a particular medical condition.
  - o Suboptimal medication regimen (e.g., dose, dosage form, duration, schedule, route of administration, method of administration).
  - o Medication toxicity requiring medication dose adjustments.
  - o Abnormal lab values requiring medication dose adjustments.
  - o Therapeutic duplication.
  - o Adverse drug or device-related events or the potential for such events.
  - o Clinically significant drug–drug, drug–disease, drug–nutrient, drug–DNA test interaction, drug–laboratory test interaction, or the potential for such interactions.
  - o Use of harmful social, recreational, nonprescription, nontraditional, or other medication therapies.
  - o Patient not receiving full benefit of prescribed medication therapy.
  - o Problems arising from the financial impact of medication therapy on the patient.
  - o Patient lacks understanding of medication therapy.
  - o Patient not adhering to medication regimen and root cause (e.g., knowledge, recall, motivation, financial, system).
  - o Laboratory monitoring needed.
  - o Patient assessment.
  - o Discrepancy between prescribed medications and established care plan for the patient.
  - o Potential toxicity in overdose.
- Prioritizes medication therapy problems.

Objective R1.1.5: (Creating) Design or redesign safe and effective patient-centered therapeutic regimens and monitoring plans (care plans).
Criteria:
- Specifies evidence-based, measurable, achievable therapeutic goals that include consideration of:
  o Relevant patient-specific information, including culture and preferences.
  o The goals of other interprofessional team members.
  o The patient's disease state(s).
  o Medication-specific information.
  o Best evidence, including clinical guidelines and the most recent literature.
  o Effectively interprets new literature for application to patient care.
  o Ethical issues involved in the patient's care.
  o Quality-of-life issues specific to the patient.
  o Integration of all the above factors influencing the setting of goals.
- Designs/redesigns regimens that:
  o Are appropriate for the disease states being treated and the environment of the patient.
  o 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.
  o Adhere to the health system's medication-use policies.
  o Follow applicable ethical standards.
  o Address wellness promotion and lifestyle modification.
  o Support the organization's or patient's insurance formulary.
  o Address medication-related problems and optimize medication therapy.
  o Engage the patient through education, empowerment, and promotion of self-management.
- Designs/redesigns monitoring plans that:
  o Effectively evaluate achievement of therapeutic goals.
  o Ensure adequate, appropriate, and timely follow-up.
  o Establish parameters that are appropriate measures of therapeutic goal achievement.
  o Reflect consideration of best evidence.
  o Select the most reliable source for each parameter measurement.
  o Have appropriate value ranges selected for the patient.
  o Have parameters that measure efficacy.
  o Have parameters that measure potential adverse drug events.
  o Have parameters that are cost-effective.
  o Have obtainable measurements of the parameters specified.
  o Reflects consideration of compliance.

- o Includes strategy for ensuring patient returns for needed follow-up visit(s) depending on the environment of the patient.
- o When applicable, reflects preferences and needs of the patient.
- o Reflects the highest level of patient care.

Objective R1.1.6: (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.
  - o Poses appropriate questions as needed.
  - o Recommendation is persuasive.
  - o Presentation of recommendation accords patient's right to refuse treatment.
  - o If patient or medical team refuses recommendation, pharmacist exhibits responsible professional behavior.
  - o Creates an atmosphere of collaboration.
  - o Skillfully defuses negative reactions.
  - o Communication conveys expertise.
  - o Communication is assertive but not aggressive.
  - o 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 that the:
  - o Therapy corresponds with the recommended regimen.
  - o Regimen is initiated at the appropriate time.
  - o Patient receives their medication as directed.
  - o Medications are administered in situations requiring immediacy.
  - o Medication orders are clear and concise.
  - o Activity complies with the health system's policies and procedures.
  - o Tests correspond with the recommended monitoring plan.
  - o 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, 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) Document direct patient care activities appropriately in the medical record or where appropriate.
Criteria:
- Accurately and concisely communicates drug therapy recommendations, including implementation and follow-up to healthcare professionals.
- Selects appropriate direct patient care activities for documentation.

- Documentation is clear.
- Documentation is written in time to be useful.
- Documentation follows the health system's policies and procedures, including requirements that entries be signed, dated, timed, legible, and concise.

Objective R1.1.8: (Applying) Demonstrate responsibility to patients.
Criteria:
- Gives priority to patient care activities.
- Plans prospectively.
- Routinely completes 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.
- Helps patients learn to navigate the health care system, as appropriate.
- Informs patients how to obtain their medications in a safe, efficient, and cost-effective manner.
- Determines barriers to patient compliance and makes appropriate adjustments.

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

Objective R1.2.1: (Applying) Manage transitions of care effectively.
Criteria:
- Effectively participates in obtaining or validating a thorough and accurate medication history.
- Conducts thorough medication reconciliation when necessary.
- Follows up on all identified drug-related problems.
- Participates effectively in medication education.
- Provides accurate, pertinent and timely follow-up and information when patients transfer to another facility, level of care, pharmacist, or provider, as appropriate.
- Follows up with patient in a timely and caring manner.
- Provides additional effective monitoring and education, as appropriate.
- Takes appropriate and effective steps to help avoid unnecessary hospital admissions and/or readmissions.
- Facilitates medication access, as needed.

Goal R1.3: Prepare, dispense, and manage medications to support safe and effective drug therapy for patients.

Objective 1.3.1: (Applying) Prepare and dispense medications following best practices and the organization's policies and procedures.
Criteria:
- Correctly interpret appropriateness of a medication order before preparing or permitting the distribution of the first dose, including:
  o Identifying, clarifying, verifying, and correcting any medication order errors.
  o Considering complete patient-specific information.
  o Identifying existing or potential drug therapy problems.
  o Determining an appropriate solution to an identified problem.

- Securing consensus from the prescriber for modifications to therapy.
- Ensuring that the solution is implemented.
- Prepares medication using appropriate techniques and following the organization's policies and procedures and applicable professional standards, including:
  - When required, accurately calibrates equipment.
  - Ensuring solutions are appropriately concentrated, without incompatibilities, stable, and appropriately stored.
  - Adheres to appropriate safety and quality assurance practices.
  - Prepares labels that conform to the health system's policies and procedures.
  - Medication contains all necessary and/or appropriate ancillary labels.
  - Inspects the final medication before dispensing.
- When dispensing medication products:
  - 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.
  - Ensures the patient receives medication on time.
- Maintains accuracy and confidentiality of patients' protected health information (PHI).
- Obtains agreement on modifications to medication orders when acting in the absence of, or outside, an approved protocol or collaborative agreement.

Objective 1.3.2: (Applying) Manage aspects of the medication-use process related to formulary management.
Criteria:
- Follows appropriate procedures regarding exceptions to the formulary, if applicable, in compliance with policy.
- Ensures non-formulary medications are dispensed, administered, and monitored in a manner that ensures patient safety.

Objective 1.3.3: (Applying) Manage aspects of the medication-use process related to oversight of dispensing.
Criteria:
- When appropriate, follows the organization's established protocols.
- Makes effective use of relevant technology to aid in decision-making and increase safety.
- Demonstrates commitment to medication safety in medication-use process.
- Effectively prioritizes work load and organizes work flow.
- Checks accuracy of medications dispensed, including correct patient identification, medication, dosage form, label, dose, number of doses, expiration dates, and properly repackaged and relabeled medications, including compounded medications (sterile and nonsterile).
- Checks the accuracy of the work of pharmacy technicians, clerical personnel, pharmacy students, and others according to applicable laws and institutional policies.
- Promotes safe and effective drug use on a day-to-day basis.

Competency Area R2: Advancing Practice and Improving Patient Care

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

Objective R2.1.1: (Creating) Prepare or revise a drug class review, monograph, treatment guideline, or protocol. [NOTE: *At some point throughout the 24 month program, each resident MUST 'prepare' a drug class review, monograph, treatment guideline, or protocol at least ONCE. Any subsequent related assignment may involve 'revision' as opposed to 'preparing'.*]
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 in presenting pharmacy concerns, solutions, and interests to internal and external stakeholders.
- When appropriate, may include proposals for medication-safety technology improvements.

Objective 2.1.2: (Applying) Participate in a medication-use evaluation.
- Uses evidence-based medicine to develop criteria for use.
- Demonstrates a systematic approach to gathering data.
- Accurately analyzes data gathered.
- Demonstrates appropriate assertiveness in presenting pharmacy concerns, solutions, and interests to internal and external stakeholders.
- Implements approved changes, as applicable.

Objective 2.1.3: (Applying) Participate in medication event reporting and monitoring.
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 2.1.4: (Analyzing) Identify opportunities for improvement of the medication-use system.
Criteria:
- Appropriately identifies problems and opportunities for improvement and analyzes relevant background data.
- Accurately evaluates or assists in the evaluation of data generated by health information technology or automated systems to identify opportunities for improvement.
- Uses best practices to identify opportunities for improvements.
- When needed, makes medication-use policy recommendations based on a review of practice standards and other evidence (e.g., National Quality Measures, Institute for Safe Medication Practices alerts, Joint Commission sentinel alerts).

Objective R2.1.5: (Understanding) Explain the pharmacotherapy specialist's role in the development of emergency protocols for public health disasters (e.g., natural disaster, bioterrorism, epidemic).
Criteria:
- Effectively identifies and describes appropriate roles.

Goal R2.2: Demonstrate ability to evaluate and investigate practice, review data, and assimilate scientific evidence to improve patient care and/or the medication use system.

Goal R2.2 and the associated objectives are intended for the **first year** of the 24-month program.

Objective R2.2.1: (Analyzing) Identify changes needed to improve patient care and/or the medication-use systems.
Criteria:
- Appropriately identifies problems and opportunities for improvement and analyzes relevant background data.
- Determine an appropriate topic for a practice-related project of significance to patient care.
- 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 to improve the patient care and/or medication-use system.
Criteria:
- Steps in plan are defined clearly.
- 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 includes meeting the concerns of all stakeholders.
- Applies evidence-based principles, if needed.
- Develops a sound research or quality improvement question realistic for time frame, if appropriate.
- Develops a feasible design for a project that considers who or what will be affected by the project.
- Identifies and obtains necessary approvals, (e.g., IRB, funding) for a practice-related project.
- Uses appropriate electronic data and information from internal information databases, external online databases, and appropriate internet resources, and other sources of decision support, as applicable.
- Plan design is practical to implement and is expected to remedy or minimize the identified opportunity for improvement.

Objective R2.2.3: (Applying) Implement changes to improve patient care and/or the medication-use system.
Criteria:
- Follows established timeline and milestones.
- Implements the project as specified in its design.
- Collects data as required by project design.
- Effectively presents plan to appropriate audience (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).
- Plan is based upon appropriate data.
- Gains necessary commitment and approval for implementation.
- Effectively communicates any changes in medication formulary, medication usage, or other procedures to appropriate parties.

- Demonstrates appropriate assertiveness in presenting pharmacy concerns, solutions, and interests to external stakeholders.
- Change is implemented fully.

Objective R2.2.4: (Evaluating) Assess changes made to improve patient care or the medication-use system.
Criteria:
- Outcome of change is evaluated accurately and fully.
- Includes operational, clinical, economic, and humanistic outcomes of patient care.
- Uses Continuous Quality Improvement (CQI) principles to assess success of implementation of change, if applicable.
- Correctly identifies modifications or if additional changes are needed.
- Accurately assesses the impact, including sustainability if applicable, of the project.
- Accurately and appropriately develops plan to address opportunities for additional changes.

Objective R2.2.5: (Creating) Effectively develop and present, orally and in writing, a final project report.
Criteria:
- Outcome of change are reported accurately to appropriate stakeholders(s) and policy making bodies according to department or organizational processes.
- Report includes implications for changes to/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, organization, or to external audiences use effective communication and presentation skills and tools (e.g., handouts, slides) to convey points successfully.

Goal R2.3: Demonstrate ability to conduct a quality improvement or research project.

Goal R2.3 and the associated objectives are intended for the **second year** of the 24-month program.

Ideally, objectives R2.3.1-R2.3.7 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.

Objective R2.3.1: (Analyzing) Identify, and/or demonstrate understanding of, a quality improvement project or research project.
Criteria:
- Appropriately identifies problems and opportunities for improvement and analyzes relevant background data.
- Determines an appropriate topic for a practice-related project of significance to patient care or quality improvement.
- 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.

Objective R2.3.2: (Creating) Develop a plan or research protocol for the project.

Criteria:
- Steps in plan are defined clearly.
- 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 principles, if applicable.
- Develops a plan or research protocol that can be realistically completed in the desired time frame.
- Develops a feasible design for a project that considers who or what will be affected by the project.
- Identifies and obtains necessary approvals and training, (e.g., IRB, HIPAA, funding) for a practice-related project.
- Uses appropriate electronic data and information from internal information databases, external online databases, appropriate Internet resources, and other sources of decision support, as applicable.

Objective R2.3.3: (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.
- Correctly identifies need for additional modifications or changes to the project.
- Accurately assesses the impact of the project, including its sustainability, using operational, clinical, economic, and/or humanistic outcomes of patient care.
- 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.

Objective R2.3.4: (Applying) Implement the project.
Criteria:
- Follows established timeline and milestones.
- Implements the project as specified in its design.
- Plan is based on appropriate data.
- Gains necessary commitment and approval for implementation.
- Effectively communicates any changes in medication formulary, medication usage, or other procedures to appropriate parties.
- Demonstrates appropriate assertiveness in presenting pharmacy concerns, solutions, and interests to external stakeholders.
- Change is implemented fully.

Objective R2.3.5: (Evaluating) Assess project results and the need to make changes, if applicable.
Criteria:
- Outcome of change is evaluated accurately and fully.
- Includes operational, clinical, economic, and humanistic outcomes of patient care.
- Uses continuous quality improvement (CQI) principles to assess the success of the implemented change.
- Correctly identifies need for additional modifications or changes.
- Accurately assesses the impact of the project, including its sustainability (if applicable).
- Accurately and appropriately develops plan to address opportunities for additional changes.

Objective R2.3.6: (Creating) Effectively present the results of a pharmacotherapy-related project.
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.

Objective R2.3.7: (Creating) Use correct grammar, punctuation, spelling, style, and formatting conventions to prepare a written summary of a pharmacotherapy-related project.
Criteria:
- Uses manuscript style appropriate to the project.
- Creates a written summary of the project that is suitable for publication.

Competency Area R3: Leadership and Management

Goal R3.1: Demonstrate leadership skills for successful self-development.

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

Objective R3.2.1: (Understanding) Explain factors that influence departmental planning.
Criteria:
- Identifies and explains factors that influence departmental planning, including:
  o Basic principles of management.
  o Financial management.
  o Accreditation, legal, regulatory, and safety requirements.
  o Facilities design.
  o Human resources.
  o Culture of the organization.
  o The organization's political and decision-making structure.
- Explains the potential impact of factors on departmental planning.
- Explains the strategic planning process.

Objective R3.2.2: (Understanding) Explain the elements of the pharmacy enterprise and their relationship to the healthcare system.
Criteria:
- Identifies appropriate resources to keep updated on trends and changes within pharmacy and healthcare.
- Explains changes to laws and regulations (e.g. value-based purchasing, consumer-driven healthcare, reimbursement models) related to medication use.
- Explains external quality metrics and how they are developed, abstracted, reported, and used (e.g., Risk Evaluation and Mitigation Strategy).
- Describes the governance of the healthcare system and leadership roles.

Objective R3.2.3: (Applying) Contribute to departmental management.
Criteria:
- Helps identify and define significant departmental needs.
- Helps develop plans that address departmental needs.
- Participates effectively on committees or informal workgroups to complete group projects, tasks, or goals.
- Participates effectively in implementing changes, using change management and quality improvement best practices/tools, consistent with team, departmental, and organizational goals.

Objective R3.2.4: (Applying) Manage one's own pharmacotherapy practice effectively.
Criteria:
- Accurately assesses successes and areas for improvement (e.g., staffing projects, teaching) 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 new learning opportunities when performance does not meet expectations.
- Demonstrates effective workload management and time management skills.
- Assumes responsibility for personal work quality and improvement.
- Is well prepared to fulfill responsibilities (e.g., patient care, project, management, meetings).
- Sets and meets realistic goals and timelines.
- Demonstrates awareness of own values, motivations, and emotions.
- Demonstrates enthusiasm, self-motivation, and "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, and pharmacy association membership activities.
- Demonstrates personal commitment to and adheres to organizational and departmental policies and procedures.

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

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

Objective R4.1.1: (Applying) Design effective educational activities.
Criteria:
- Accurately defines educational needs 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 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 education.
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.

Objective R4.1.3: (Applying) Use effective written communication to disseminate knowledge.
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, the public).
- Creates one's own work and does not engage in plagiarism.

Objective R4.1.4: (Applying) Appropriately assess effectiveness of education.
Criteria:

- Selects assessment method (e.g., written or verbal assessment or self-assessment questions, case with case-based questions, 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.

Objective R4.1.5: (Applying) Provides effective patient and caregiver education.
Criteria:

- Accurately identifies educational needs of patients and caregivers.
- Defines educational objectives that are specific, measurable, and address patient/caregiver learning needs.
- Includes content that is relevant, thorough, up-to-date, and reflects best practices.
- Selects or designs teaching activities appropriate for patients' and caregivers' developmental level, health-literacy level, and other learning needs.
- Effectively uses selected teaching strategies to meet patient and caregiver learning needs (e.g., teach back method, age-appropriate games for patients).
- Uses written communications that are age- and literacy-appropriate.
- Assesses patient and/or caregiver understanding of education activities.

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

Objective R4.2.1: (Analyzing) When engaged in teaching, 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.
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.

Competency Area R5: Management of Medical Emergencies

Goal R5.1: Demonstrate understanding of the management of medical emergencies.

Objective R5.1.1: (Applying) Demonstrate understanding of the management of medical emergencies according to the organization's policies and procedures.
Criteria:
- Obtains certification in the ACLS.
- 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.

ELECTIVE COMPETENCY AREAS, GOALS, AND OBJECTIVES FOR PHARMACOTHERAPY 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 variations in the expectations of different colleges/schools of pharmacy for teaching, practice, research, and service, including public versus private colleges/schools of pharmacy and relationships between scholarly activity and teaching, practice, research and service.
- Accurately describes the academic environment, including how the decisions by university and college administration impact the faculty and how outside forces (e.g. change in the profession, funding source, accreditation requirements) that impact administrator and faculty roles.
- Accurately described faculty roles and responsibilities.
- Accurately describes the types and ranks of faculty appointments, including the various types of appointments (e.g. non-tenure, tenure-track, and tenured faculty), various ranks of faculty (e.g. instructor, assistant professor, associate professor, full professor), and the role and implications of part-time and adjunct faculty as schools continue to expand and faculty shortages occur, and promotion and tenure process for each type of appointment, including types of activities that are considered in the promotion process and for tenure.
- Accurately explains the role and influence of faculty in the academic environment, including faculty in governance structure (e.g. the faculty senate, committee service) and faculty related to teaching, practice, research, and service roles (e.g. curriculum development and committee service).
- Accurately identifies resources available to help develop academic skills, including the role of academic-related professional organizations (e.g., AACP) and other resources to help develop teaching skills and a teaching philosophy.
- 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:
  o Self-reflection on personal beliefs about teaching and learning.
  o Identification of attitudes, values, and beliefs about teaching and learning.
  o Illustrates personal beliefs on practice and how these beliefs and experiences are incorporated in a classroom or experiential setting with trainees.
  o 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 measureable 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:
  o Organizes student activities (e.g., student calendar).
  o Effectively facilitates topic discussions and learning activities within the allotted time.
  o Effectively develops and evaluates learner assignments (e.g., journal clubs, presentations, SOAP notes.
  o Effectively assesses student performance.
  o 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.
  - Student/learner evaluations.

Competency Area E2: Additional Contributions Pharmacotherapy Knowledge

Goal E2.1: Prepare and deliver effective poster presentations.

Objective E2.1.1: (Creating) Design an effective poster and/or platform presentation of a specific topic.
Criteria:
- Includes appropriate types of content that should be included in a poster or slide presentation.
- Effectively applies rules for visual presentation of poster or slide material.
- Uses appropriate resources to generate poster or slide materials.

Objective E2.1.2: (Creating) Exercise skill in responding to questions occurring during a poster or platform presentation.
Criteria:
- Demonstrates understanding of, or clarifies, the meaning of the question.
- Response is clear and succinct.
- Restates the question, if appropriate, based on the environment.

Goal E2.2: Conduct effective peer review of materials for publication or presentation.

Objective E2.2.1: (Evaluating) Contribute to the peer review of a pharmacotherapy professional's article submitted for publication or presentation.
Criteria:
- Demonstrates understanding of characteristics of an effective peer review.

Competency Area E3 Medication-Use Evaluations

Goal E3.1: Lead medication-use evaluations.

Objective E3.1.1: (Applying) Lead a medication-use evaluation.
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.

Competency Area E4: Added Leadership and Practice Management Skills

Goal E4.1: Apply leadership and practice management skills to contribute to management of pharmacy services.

Objective E4.1.1: (Applying) Demonstrate personal leadership qualities essential to operate effectively within the organization and advance the profession and practice of pharmacy.
Criteria:
- Establishes sustained active participation in relevant professional associations.
- Contributes to pharmacy's influence on organizational decision-making to improve patient care.
- Contributes to the pharmacy's planning process including review and/or revision of the pharmacy's vision and mission statements.

Objective E4.1.2: (Applying) Contribute to the development of a new pharmacy service or to the enhancement of an existing service.
Criteria:
- Determines if a current pharmacy service or program meets the stated goals.
- Identifies the need for a new service or program, or improvements to an existing service or program.
- Participates in the development of goals and measurable outcomes of a new or enhanced service or program.
- Participates in the writing of a proposal for a marketable, new or enhanced pharmacy service or program.
- Uses appropriate methods (e.g., modeling) to predict the financial outcome(s) of implementing a proposed new or enhanced service or program.
- Uses appropriate methods to predict the intended clinical outcomes of new or enhanced service or program.
- Proposal includes the necessary components of a new service or program (e.g., disease state management program).
- Proposal considers the role of other health care providers in meeting the needs of patients involved in a new service or program (e.g., disease state management programs).
- Proposal considers how potential shifts in market share should be factored into decisions on the marketability of a service or program.
- Applies an effective strategy for promoting a proposal for a new or enhanced service or program, addressing stakeholder interests.
- Participates in the development of a strategy to evaluate the effectiveness (financial, clinical, or other metric) of a new or enhanced service or program.
- Ensures compliance with relevant regulations.

Objective E4.1.3: (Applying) Contribute to the pharmacy procurement process.
Criteria:
- Considers the processes and contractual relationships of the pharmacy department's medication procurement system.
- Interacts appropriately with wholesalers and GPOs.

- Considers the role of competitive contracting.
- Applies principles of inventory management.
- Applies special procedure for unique drug entities (e.g., controlled substances, refrigerated medications).
- Appropriately addresses issues surrounding the return or disposal of medications.
- Ensures compliance with relevant regulations.

Objective E4.1.4: (Applying) Contribute to the financial management of the department.
Criteria:
- Participates in development of an operating or capital budget.
- Participates in the evaluation of pharmacy budget monitoring reports.
- Participates in the development of cost reduction strategies and revenue capture and recovery.
- Participates in revenue management and reimbursement for products and services in the department.
- Ensures compliance with relevant regulations.

Objective E4.1.5: (Applying) Manage the use of investigational drug products (medications, devices, and biologicals).
Criteria:
- Describes and observes regulatory requirements.
- Observes established protocols and the organization's policies and procedures.
- Participates in monitoring activities of involved study sponsors.
- Prepares and dispenses medications, devices, and biologicals according to the organization's policies and procedures.
- Assists with processes to develop and educate staff regarding on-going protocols and their related distribution systems.
- Ensures compliance with relevant regulations.

Goal E4.2: Contribute to the management and development of pharmacy staff.

Objective E4.2.1: (Applying) Contribute to recruitment for specified positions.
Criteria:
- Determines responsibilities and qualifications of a specified position.
- Applies appropriate advertising approach for a position to be filled (e.g., internally versus externally).
- Includes appropriate information in recruitment materials for a position.
- Considers appropriate factors when determining the individual's qualifications for a position.
- Considers appropriate factors when deciding to hire internally versus externally.
- Considers the organization's policy regarding equal employment opportunity and affirmative action.
- Considers requirements of the American Disabilities Act on interviews.
- Applies appropriate organizational and department processes to interview and recommend personnel for employment.
- Determines appropriate content for interview questions.
- Determines with whom candidates should interview.
- Determines how to select candidates to interview.
- Makes appropriate use of references.
- Includes appropriate information in an offer letter.
- Ensures compliance with relevant regulations.

Objective E4.2.2: (Applying) Contribute to orientation, staff development, and training activities for practice area personnel.
Criteria:
- States the purposes of orientation, staff development, and training.
- States the roles of the organization and of the practice area in orientation, staff development, and training.
- Assists with analysis to determine staff development and training needs.
- Uses data from development analysis to develop gap analysis.
- Effectively assists with program development.
- Evaluates program effectiveness.
- Effectively helps determine what subjects should be covered in orientation and time needed for adequate coverage.
- Effectively helps determine subjects that should be covered in training for a specific position and time needed for adequate coverage.
- Helps determine and implement effective methods for ensuring that a new employee is sufficiently trained for his or her position.
- Explains the impact of the Family Medical Leave Act and union contract on human resources policy.
- Describes the organization's probationary period.

Objective E4.2.3: (Understanding) Explain the components of an employee performance evaluation system.
Criteria:
- States the performance standards for a specific position.
- States effective methods for communicating performance standards and evaluation of performance to employees.
- Explains effective ways to measure work against objective and subjective performance standards.
- Ensures compliance with relevant regulations.

Objective E4.2.4: (Understanding) Explain the principles and application of a progressive discipline process.
Criteria:
- Explains the components of the progressive discipline process.
- States the benefits of the progressive discipline process to the employer and the employee.
- Ensures compliance with relevant regulations.

Goal E4.3: Understand the process of establishing a pharmacy residency program.

Objective E4.3.1: (Understanding) Explain the steps involved in establishing a pharmacy residency program at a particular site.
Criteria:
- Explains the sources of published information to be used when establishing a residency program (e.g., accreditation regulations, accreditation standards, ASHP website).

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 payors.
- Determines payor 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 payor 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.
- 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: Health, Wellness, and Emergency Preparedness

Goal E6.1: Design and deliver programs that contribute to public health efforts.

Objective E6.1.1: (Creating) Design and deliver programs for health care consumers that center on disease prevention and wellness promotion.
Criteria:
- Identifies target audiences for disease prevention and wellness promotion and the relative priority of programming for each of these audiences.
- Uses the data required to justify a program.
- Identifies and provides the support needed to establish a program.
- Identifies and manages problems and shortcomings associated with the maintenance of a wellness promotion program.

Objective E6.1.2: (Applying) Contributes to organizational procedures for emergency preparedness.
Criteria:
- Participates in the development or revision of organizational plans for emergency preparedness.

The effective date for implementation of these educational outcomes, goals and objectives is July 1, 2018.

Appendix

Core Areas or Types of Patient Care Experiences

The list of topics below represents core areas or diseases that graduates of PGY1/PGY2 Pharmacotherapy programs are expected to have adequate knowledge of to provide patient care. The primary method for PGY1/PGY2 Pharmacotherapy programs to help residents 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.

For this purpose, residents are required to have direct patient care experience for disease states listed in the first column, " **Required – Direct Patient Care Experience".** Topics in the second column, **"Required - Case - Based Application Acceptable",** may be covered by direct patient care or by case - based application through didactic discussion, reading assignments, case presentations, and/or written assignments. Topics in the third column, **"Elective"**, are considered optional topics or diseases states that programs may include if applicable to the program's patient population. Elective areas may be covered by direct patient care or by case - based application through didactic discussion, reading assignments, case presentations, and/or written assignments.

Disease State Appendix			
	Required	**Required**	**Elective**
Topic Areas	**Direct Patient Care Experience Required**	**Case Based Discussion Acceptable**	
Bone and Joint	Gout/Hyperuricemia Osteoarthritis Rheumatoid arthritis	Osteoporosis	Connective tissue disorders
Cardiovascular	Acute coronary syndromes (including ST Elevation-ACS and Non-ST Elevation-ACS) Advanced cardiac life support Atrial and ventricular arrhythmias Disorders of lipid metabolism Heart failure (including acute and chronic heart failure) Hypertension and hypertensive emergency/urgency Peripheral arterial (atherosclerotic) disease Stable Ischemic Heart Disease Venous thromboembolism		Pulmonary arterial hypertension Valvular heart disease
Critical Care	Adult respiratory distress	Toxicology (drug	Burns

	syndrome ICU sedation Sepsis Shock states (cardiogenic, hypovolemic, and distributive) Stress ulcer prophylaxis ICU Delirium Conditions requiring neuromuscular blocking agents	overdoses)	Trauma/surgery
Dermatologic			Acne Decubitus ulcers Dermatitis Psoriasis Urticaria
Endocrine	Diabetes mellitus Diabetic ketoacidosis Adrenal disorders Thyroid disorders	Obesity	Diabetes insipidus Disorders of pituitary gland (e.g., GH deficiency, SIADH, acromegaly) Metabolic syndrome Parathyroid disorders Polycystic ovarian syndrome
Eyes, Ears, Nose, and Throat			Allergic rhinitis Glaucoma
Fluid and Electrolyte/Nutrition	Acid-base disorders Electrolyte abnormalities Nutrition support		
Gastrointestinal	Chronic liver disease and cirrhosis Constipation Diarrhea Gastroesophageal reflux disease Hepatitis Nausea/vomiting Peptic ulcer disease Gastrointestinal bleeding	Inflammatory bowel disease Motility disorders Pancreatitis	Irritable bowel syndrome Malabsorption syndrome
Genitourinary	Benign prostatic hyperplasia Urinary incontinence	Sexual dysfunction	
Hematologic	Anemias	Clotting factor disorders Drug-induced hematologic disorder	Disseminated intravascular coagulation Sickle cell disease
Immunologic		Organ transplantation	Angioedema Immunodeficiency diseases Stevens-Johnson

			syndrome
Infectious Diseases	Antimicrobial prophylaxis Antimicrobial stewardship Bone and joint infections *C. difficile* colitis Febrile neutropenia Human immunodeficiency virus infection Infectious endocarditis Intra-abdominal infections Meningitis Pneumonia Skin and soft tissue infections Systemic fungal infections Tuberculosis Upper respiratory tract infections Urinary tract infections	Otitis media Sexually transmitted diseases	Gynecologic infections Pelvic inflammatory diseases Prostatitis
Neurological	Acute pain Chronic pain Epilepsy Headache/migraine Parkinson's disease Peripheral neuropathy Cerebral ischemia (including ischemic stroke)	Dementia	Central nervous system hemorrhage Neuromuscular diseases Spinal-cord injuries/abnormalities Status epilepticus Tremors
Obstetrics/Gynecology		Contraception Menopause Pregnancy and lactation	Menstrual disorders Pregnancy-related disease
Oncology	Breast cancer Leukemia/lymphomas Malignancy-induced hypercalcemia Supportive care (e.g., preventing / treating complications associated with malignancy or treatment)	Lung cancer	Other solid organ tumors Prostate cancer Skin cancer
Psychiatric	Anxiety disorders Bipolar disorders Depressive disorders Drug/alcohol overdose/withdrawal Schizophrenia Sleep disorders Smoking cessation		Attention deficit disorders (with or without hyperactivity)

	Substance abuse		
Renal	Acute kidney injury Chronic kidney disease Contrast induced nephropathy Intermittent, continuous, and peritoneal dialysis (managing associated complications and drug dosing)		Glomerulonephritis Nephrolithiasis Renal tubular acidosis
Respiratory	Asthma Chronic obstructive airway disease (other than asthma)		Cystic fibrosis Sleep apnea