



REQUIRED COMPETENCY AREAS, GOALS, AND OBJECTIVES FOR INTERNATIONAL ADVANCED PHARMACY PRACTICE RESIDENCY PROGRAMS

Introduction

The international advanced pharmacy practice residency is focused on the care of adult and pediatric patients with medical and surgical problems in the inpatient and ambulatory care settings. Residency program graduates are equipped to participate as integral members of interdisciplinary teams caring for a wide variety of patients, assuming responsibility for patient's medication-related care needs. In that role they provide the patient care team with evidence-based medication-related information and formulate that information into expert recommendations to the team for the use of medications and other therapeutic approaches.

In addition, residency graduates' extensive patient care experience, combined with their wealth of knowledge of medical problems and their treatment, provides for pharmacists who can successfully serve health care organizations as an essential information resource to support decisions affecting the care of patients. In this role, they contribute to the development and implementation of medication use policies and procedures. They also possess advanced skills for identifying the medication-related training needs of other health care professionals and trainees, as well as delivering effective training to them.

The competency areas, goals, and objectives are for use with the *ASHP Accreditation Standard for International Advanced Pharmacy Practice Residency Programs*.

The required competency areas and all of the goals and objectives they encompass must be included in all programs. Each of the objectives must be evaluated in at least one learning experience during the residency year. However, some may require evaluation in several learning experiences. 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 international advanced pharmacy practice residency program residencies are available on the ASHP website. The enclosed advanced competency areas, goals, and objectives are differentiated by building on the skillsets developed during the international pharmacy practice residency program and the expectation that the advanced pharmacy practice residency program residents will work at a higher level of work quality and quantity.

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.

Definitions

Competency Areas: Categories of the residency graduates' capabilities.

Required: Seven competency areas are required (all programs must include them and all their associated goals and objectives in required learning experiences).

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, family members, and caregivers regarding the patient's well-being and health outcomes.
- Demonstrates cultural competence.

Competency Area R1: Patient Care

Goal R1.1: In collaboration with the health care team, provide safe and effective patient care 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.

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.
- Demonstrates cultural competence.

Objective R1.1.3: (Analyzing) Collect and organize all patient-specific information needed by the pharmacist to prevent, detect, and resolve medication-related problems and to make appropriate medication therapy recommendations.

Criteria:

- Information base contains all information needed (demographic, medical, medication therapy, behavioral/lifestyle, social/economic, and administrative [e.g., physician/prescriber, informed consent, pharmacy]).
- Information base does not contain extraneous information.
- Sources of information are the most reliable available.
- Recording system is functional for subsequent problem solving and decision making.
- Accurately determines the presence of any of the following medication therapy problems in a patient's current medication therapy:
 1. medication used with no medical indication
 2. patient has medical conditions for which there is no medication prescribed
 3. medication prescribed inappropriately for a particular medical condition
 4. immunization regimen is incomplete
 5. current medication therapy regimen contains something inappropriate (dose, dosage form, duration, schedule, route of administration, method of administration)
 6. there is therapeutic duplication
 7. medication to which the patient is allergic has been prescribed
 8. there are adverse drug or device-related events or potential for such events
 9. there are clinically significant drug-drug, drug-disease, drug-nutrient, or drug-laboratory test interactions or potential for such interactions
 10. medical therapy has been interfered with by social, recreational, non-prescription, or non-traditional drug use by the patient or others
 11. patient not receiving full benefit of prescribed medication therapy
 12. there are problems arising from the financial impact of medication therapy on the patient
 13. patient lacks understanding of medication therapy
 14. patient not adhering to medication regimen

- Considers the effects of herbal, complementary, or traditional medicines on prescribed medication regimen
- All medications used with no medical indication are identified
- All medical conditions for which there is not a medication prescribed are identified
- All medications inappropriately prescribed for a particular medical condition are identified
- All missing immunizations are identified
- Everything inappropriate in the current medication therapy regimen (dose, dosage form, schedule, duration, route of administration, method of administration) is identified
- All therapeutic duplications are identified
- All medications in the regimen to which the patient is allergic are identified
- Any presence or potential for ADEs is identified
- Any presence or potential for clinically significant drug interactions is identified
- Any interference with medical therapy by social, recreational, non-prescription or non-traditional medication use is identified
- Any instance of the patient not receiving full benefit of prescribed medication therapy is identified (e.g., system failure, clinical failure)
- All problems arising from the financial impact of medication therapy on the patient are identified
- Any lack of patient (or caregiver) understanding of his/her medication therapy is identified
- Any lack of patient adherence to medication regimen is identified
- Nothing is identified as a problem that is not a problem

Objective 1.1.4: (Analyzing) Using an organized collection of patient-specific information, summarize patients' health care needs.

Criteria:

- List of needs is comprehensive.
- Identification of health care needs integrates all relevant patient-specific and disease-specific information.
- List of needs is concise.
- List contains no irrelevant information.
- List is organized appropriately.

Objective R1.1.5: (Evaluating) Analyze and assess information on which to base safe and effective medication therapy.

Criteria:

- Includes accurate assessment of patient's:
 - Health and functional status.
 - Medical conditions
 - Risk factors.
 - Health data (e.g., age, height, weight, renal function and other organ system functions).
 - Cultural factors.
 - Health literacy.
 - Access to medications.
 - Immunization status.
 - Allergies.
 - 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).

- Therapeutic duplication.
- Adverse drug or device-related events or the potential for such events.
- Clinically significant drug–drug, drug–disease, drug–nutrient, drug–DNA test interaction, drug–laboratory test interaction, or the potential for such interactions.
- Use of harmful social, recreational, nonprescription, nontraditional, or other medication therapies.
- Patient not receiving full benefit of prescribed medication therapy.
- Problems arising from the financial impact of medication therapy on the patient.
- Patient lacks understanding of medication therapy.
- Patient not adhering to medication regimen and root cause (e.g., knowledge, recall, motivation, financial, system).
- Laboratory monitoring needed.
- Discrepancy between prescribed medications and established care plan for the patient.

Objective R1.1.6 (Evaluating) Evaluate biomedical literature and incorporate into the management of medication therapy plans for patients.

Criteria:

- Selects core biomedical literature resources appropriate to meet medication therapy needs.
- Accurately evaluates biomedical literature.
 - Determines if the study design and methodology are appropriate to accomplish study objectives.
 - Accurately interpret statistical information.
 - Identifies potential sources of bias and the impact on study results.
 - Determines if the overall study design, population, and results apply to specific patient scenarios.
 - Draws reasonable conclusions when presented with limited evidence-based biomedical literature
- Appropriately incorporates biomedical literature into patients’ care plans and monitoring plans

Objective R1.1.7: (Creating) Design or redesign safe and effective patient-centered therapeutic regimens (care 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 inter-professional 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.
 - 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 self-management.

Objective R1.1.8: (Creating) Design or redesign safe and effective patient-centered monitoring plans.

Criteria:

- 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 medication adherence.
 - If for an ambulatory patient, includes strategy for ensuring patient returns for needed follow-up visit(s).

Objective R1.1.9: (Evaluating) Ensure implementation of therapeutic regimens 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 and, when necessary, supported by primary literature citation.
 - 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.

Objective R1.1.10: (Evaluating) Ensure implementation of monitoring plans by taking appropriate follow-up actions.

Criteria:

- 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, medication 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 R1.1.11 (Creating) Document direct patient care activities appropriately in the medical record.

Criteria:

- Selects appropriate direct patient care activities for documentation.
- Documentation is clear and complete.
- 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 R1.1.12: (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 medication adherence and makes appropriate adjustments.

Objective R1.1.13: (Creating) When required by the therapeutic regimen and monitoring plan, design patient-specific and caregiver-specific education.

Criteria:

- Design a patient-specific education program for the patient or the patient's caregiver that will help the patient successfully implement the therapeutic regimen and monitoring plan.
- Use effective patient education techniques to provide counseling to patients and caregivers, including information on drug therapy, adverse effects, compliance, appropriate use, handling, storage and medication administration.
- Use effective strategies for communicating with patients who do not speak the common language of the country or who are impaired (e.g., blind, deaf, cognitively impaired, illiterate).
- Accurately identifies the special communication needs of the patient
- Approach to communication meets the patient's special needs
- Accurately assesses the patient's understanding
- Communication affirms the patient's dignity

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

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

Criteria:

- Effectively participates in obtaining or validating a thorough and accurate medication history.
- Participates in the medication reconciliation process.
- Follows up on all identified drug-related problems.
- Participates effectively in medication education.
- Provides accurate and timely follow-up 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.

Competency Area R2: Literature Evaluation

Goal R2.1: Employ advanced literature analysis skills to analyze evidence-based information.

Objective R2.1.1: (Applying) Conduct an efficient and effective advanced search strategy to obtain information.

Criteria:

- Uses the full range of biomedical information resources that are currently available.
- Uses content and applicability of specialized sources of biomedical information.
- Uses the principles of using search engines when the search needs to be at an advanced level.
- Implements an effective search strategy to determine the appropriate answer to a question posed.

Objective R2.1.2: (Analyzing) Accurately assess the study design employed for a piece of biomedical literature.

Criteria:

- Explains the key features of observational (e.g., epidemiologic) and experimental designs and the strengths and weaknesses of each.
- Determines the relevant limitations of the study design for a published research article.
- Determines if the study's design and methodology are appropriate to accomplish the Objectives of a piece of biomedical literature.

Objective R2.1.3: (Evaluating) Accurately interpret the results of a study presented in a piece of biomedical literature.

Criteria:

- Explains the application and interpretation of advanced statistical methods.
- Determines instances in which a study conclusion is not supported by the data presented.
- Explain the potential biases of a piece of biomedical literature.
- Determines if the potential biases are relevant to the question posed, for which the literature is being used to support an answer.
- Determines the internal and external validity of a piece of biomedical literature.
- Determines if a study's results have applicability for hypothesizing future research or for directing patient care decisions.

Objective R2.1.4: (Evaluating) When presented with conflicting biomedical literature, determine the validity and applicability for a specific information need.

Criteria:

- Compares and contrasts the reputations of biomedical journals.
- Compares and contrasts the peer-review procedures of biomedical journals.
- Appraises biomedical information for the expertise and reputation of the author(s).
- Describes what additional factors may explain conflicting biomedical literature information (e.g., publication date, scope of information cited).

Objective R2.1.5: (Evaluating) Prepare an expert response for the specific drug information inquiry.

Criteria:

- Evaluates the available biomedical literature to determine if there is an appropriate answer to the question posed.
- Interprets and uses standards of care applicable to a specific information need.
- Uses a standardized process to document, store, and retrieve information responses.
- Develops a response to a question or therapeutic controversy posed by utilizing evidence-based information.

Objective R2.1.6: (Evaluating) Appraise information provided by a pharmaceutical manufacturer.

Criteria:

- Determines if information provided by pharmaceutical manufacturers, or supported by grants from the pharmaceutical industry, is trustworthy and can be included in responding to an issue or question posed.

Competency Area R3: Medication-Use System Management

Goal 3.1: Lead pharmacy department efforts to manage the hospital's formulary process.

Objective R3.1.1: (Creating) Lead departmental and/or interdisciplinary teams in the design, implementation, and/or enhancement of the organization's medication-use process.

Criteria:

- Demonstrates understanding of the potential contributions to the achievement of a safe and effective medication-use system.
- Represent the pharmacy perspective on an interdisciplinary team, participating in the redesign of a selected aspect of the organization's medication-use system.
 - Contributes appropriate and relevant information to discussions at medication-related organization committees.
- Recommends or implements an improvement based on the assessment of the medication use system.
- Idea for improvement will result in a significant improvement to the existing process.
- Leadership strategy devised for its implementation is effective in getting the idea implemented.
- There is consistent follow-through on the planned leadership activities.

Objective R3.1.2: (Creating) Develops or modifies and then implements policies (e.g., criteria for use, restrictions, therapeutic interchanges, protocols, etc.) for the use of medications in the hospital.

Criteria:

- Policy's criteria reflect current medical practice
- Policy's criteria are Objective
- Policy's criteria are effective measures of the quality of medication-use
- Policy's criteria are relevant to the health care system

- Policy's criteria reflect the principles of patient care
- Policy's criteria reflect the use of pharmacoeconomic principles, when appropriate

Objective R3.1.3: (Creating) Contribute to the creation of a treatment guideline/protocol related to patient care and evaluate the effect of its implementation by assessing the patient outcomes.

Criteria:

- Judgment of outcome information is accurate
- Judgment gives appropriate weightage to humanistic as well as clinical and economic outcomes

Objective: R3.1.4 (Evaluating) Assess the hospital's formulary system for its effectiveness in achieving the hospital's medication use cost goals.

Criteria:

- Evaluate the formulary system's impact on the cost of drug budget.
- Explain the different types of formulary systems (e.g., core, open, closed, managed care).
- Explain the types of information needed to assess the effectiveness of a hospital's formulary system.
- Reviews formulary costs and interprets their impacts on the pharmacy budget and the hospital formulary.
- Compare medication costs using available cost data.

Goal R3.2: Manage drug shortages and supply interruptions.

Objective R3.2.1: (Analyzing) Utilize strategies for early identification and communication of potential supply issues to minimize impact on patient care.

Criteria:

- Examines evidence-based and current organizational strategies for early identification and communication of potential supply issues to minimize impact on patient care.
- Accesses information regarding updates to drug supplies that impact patient care.
- Regularly monitors all current updates regarding drug shortage supply issues that may impact patient care.

Objective R3.2.2: (Evaluating) Complete an operational and therapeutic assessment of a drug shortage and/or a medication-related supply shortage.

Criteria:

- Conducts an operational and therapeutic assessment of a new drug shortage and/or a medication-related supply (e.g. drug container) issue for the organization, including its potential effect on patient care, patient care systems, and medication safety.
- Recommends changes to practices or systems in response to a medication shortage.

Objective R3.2.3: (Creating) Develop and implement a plan for managing a drug shortage and/or a medication-related supply shortage including effective communication of the plan.

Criteria:

- Understands and builds strategies for managing a drug shortage, including how to increase stock, reduce usage and implement appropriate therapeutic alternatives.
- Works with key interdisciplinary stakeholders as appropriate, to develop a plan to manage a new drug shortage and/or a medication-related supply (e.g. drug container) issue for the organization that minimizes its impact on patient care, organizational systems, and medication safety.
- Develops a communications strategy for the plan that maximizes reach and understanding by appropriate medical staff and hospital personnel regarding drug shortages.

Goal R3.3: Identify opportunities to improve the medication use system.

Objective R3.3.1: (Understanding) Understand pharmacy's medication use systems.

Criteria:

- Demonstrates understanding of the principles underlying a safe medication distribution system.
- Summarizes the principles for management and control of:
 - unit-dose medications.
 - sterile product preparation.
 - chemotherapy and other hazardous substances.
 - controlled substances.
 - investigational drugs.
 - automated dispensing systems and floor stock management
 - medication samples.
 - take-home medications.
 - medication repackaging.
 - drug compounding.
 - self-administered medications.
 - home infusions.
 - non-formulary medications.
 - pumps.
 - emergency medication supplies.
 - pharmaceutical waste.
 - Specialty medication.
 - Community/Retail medication.

Objective R3.3.2: (Evaluating) Evaluate pharmacy's medication use systems to assure practice is safe and effective.

Criteria:

- Demonstrates understanding of advantages and disadvantages of various medication distribution systems.
- Demonstrates understanding of how principles for management and control of medications may differ among various settings (e.g., inpatient care units, ambulatory clinics, procedural areas, operative suite, retail/outpatient/specialty pharmacy, mail order).
- Demonstrates understanding of medication distribution activities that can effectively be performed by pharmacy technicians.
- Demonstrates understanding of medication storage requirements and who should have authorized access to medications.
- Demonstrates understanding of strategies used within the organization for routine review and management of non-formulary medication use.
- Recommends revisions to policies and procedures or practices to improve the safety of the medication-use system.

Objective R3.3.3: (Analyzing) Identify opportunities for improvement of the hospital's 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 (e.g., National Quality Measures, ISMP alerts, Joint Commission International Sentinel Alerts/similar data).

- Demonstrates appropriate assertiveness in presenting pharmacy concerns, solutions, and interests to internal and external stakeholders.

Competency R4: Medication Safety Program Management

Goal R4.1: Exercise leadership in the hospital's and in the pharmacy department's process for preventing medication errors and adverse events and for identifying, assessing, and managing those that occur.

Objective R4.1.1: (Understanding) Explain the characteristics of effective hospital and pharmacy department approaches to preventing medication events and to identifying, assessing, and managing those that occur.

Criteria:

- Explanation reflects understanding of the hospital's medication-use process as a system
- Explanation reflects understanding of system error
- Explanation reflects understanding of human factors error
- Cites the potential contribution of automation and technology to preventing medication events at the hospital and the pharmacy departmental level
- Cites the potential contribution of automation and technology to the occurrence of medication events at the hospital and the pharmacy departmental level or to the prevention of medication events
- Cites effective approaches to reporting and analyzing medication events

Objective R4.1.2: (Evaluating) Lead pharmacy department event reporting system management program activities.

Criteria:

- Voluntarily reports all errors and near-misses according to the department's or hospital's reporting policy
- Report conforms to the department's or hospital's reporting policies

Objective R4.1.3: (Analyzing) Lead pharmacy department's ongoing process for tracking, trending and evaluation of medication errors and ADEs.

Criteria:

- Follows the hospital's policies and procedures for tracking and trending medication errors and ADEs.
- Manages pharmacy department and other employee workload in collaboration with appropriate leaders.
- Identifies opportunities for medication use system or formulary changes based upon the trends.

Goal R4.2: Contribute to the organization's efforts to identify actual or potential failures and/or appropriate medication-use within the current medication-use systems/policies.

Objective R4.2.1: (Applying) Participate in a proactive risk assessment for a medication-use process, for example, a failure mode and effects analysis (FMEA).

Criteria:

- Demonstrates understanding of the process for conducting a FMEA vs. other forms of proactive risk assessment, including the pros and cons of each.
- Evaluate medication-use problems reported in other external organizations to determine if current medication-use systems and policies can result in similar problems in the organization.
- Conduct an analysis of current medication-use systems and policies against nationally-recognized best practices/protocols.
- Prepare a formal written proactive risk assessment of a medication-use process or policy.
- Present a proactive risk assessment at a formal interdisciplinary committee meeting.

Objective R4.2.2: (Applying) Demonstrate understanding of the steps and applicability of a root cause analysis (RCA).

Criteria:

- Appropriately applies the process of RCA to an adverse drug event (ADE).
- Collects relevant evidence related to the RCA.
- Demonstrates understanding of the legal, regulatory, and internal cultural implications related to conducting an RCA for an ADE.
- Demonstrates understanding of the difference between FMEA and a root cause analysis.
- Participates in an RCA for an ADE, if one conducted during the residency.

Objective R4.2.3: (Applying) Contribute to the organization's evaluation of, and response to, a medication-related adverse event.

Criteria:

- Collaborates with risk managers, quality managers, and other appropriate individuals to determine the appropriate response for a medication-related adverse event.
- Prepares an effective written document evaluating a medication-related adverse event, with suggested responses to prevent further similar events.
- Presents an evaluation to a medication-related adverse event at a formal interdisciplinary committee meeting.

Objective R4.2.4: (Creating) Design a process to measure the impact of an intervention intended to improve an aspect of the organization's medication-use systems, policies, and/or culture of safety.

Criteria:

- Identifies what outcomes should be utilized to effectively measure the operational and patient care/safety impact of a newly implemented intervention intended to improve an aspect of the organization medication-use systems, policies, and culture of safety.
- Defines the length of time needed for appropriate data collection for impact measurement.
- Utilizes data collection for ongoing monitoring of an intervention's effectiveness over time, to ensure that it remains effective.
- Develops a process for measuring the impact of all recommended interventions that efficiently utilizes technology and resources as part of the intervention proposal.
- Ensures collection of baseline data before implementing a new intervention, ensuring concurrent implementation of impact measurement with the intervention.

Objective R4.2.5: (Creating) Construct systems that are standardized, streamlined, and reduce the risk for adverse events throughout each step of the organization's medication-use system.

Criteria:

- Utilizes methodologies for process improvements (e.g., Six Sigma, LEAN, DMAIC) to create systems to reduce risk of adverse events or improve processes.
- Develops a proposal to standardize, streamline and/or reduce the risk for adverse events for an assigned organization medication-use system or patient care process.

Competency R5: Leadership and Management Skills

Goal R5.1: Demonstrate leadership and management skills.

Objective R5.1.1: (Understanding) Explain elements affecting pharmacy practice in the health care system.

Criteria:

- Explains mechanisms and resources used to identify patient care needs of the population and health care system, and is able to critique reliability of information acquired
- Identifies common diseases and disease trends that affect the health care system (usual diseases of the population, idiosyncrasies of diseases in the population, etc.)
- Describes needs of patients served by the pharmacy department and the health care system and the extent to which they are being met
- Differentiates needs of the patients served by the health care system and those of the surrounding areas (e.g., city, state, country, region)
- Identifies appropriate resources to keep updated on trends and changes within the pharmacy profession and health care
- Explains laws and regulations that affect pharmacy practice
- Explains the medication review and approval process for the country (e.g., FDA in the United States, etc.)
- Explains the supply chain for medication procurement within the health care system
- Explains reimbursement systems affecting pharmacy practice and health care
- Explains external bodies and quality measures that affect pharmacy practice and the health care system
- Explains metrics used to measure pharmacy performance in the health care system

Objective R5.1.2: (Applying) Demonstrate personal, interpersonal, and teamwork skills critical for effective leadership.

Criteria:

- Demonstrates effective time management.
- Manages conflict effectively.
- Demonstrates effective negotiation skills.
- Uses effective communication skills and styles.
- Manages own responses to the perspectives of various health care professionals appropriately.

Objective R5.1.3: (Applying) Manage change effectively to achieve hospital, departmental, and/or team goals.

Criteria:

- Assures the practice environment is ready for the desired change
- Assures staff have the opportunity to acquire any necessary new knowledge or skills in order to accommodate the change
- Assures those involved in the change are motivated to exercise their roles
- Follows through by monitoring the progress of the planned change
- Keeps others informed of progress on the implemented change

Objective R5.1.4: (Analyzing) When developing a program with multiple stakeholders and/or when confronted with a barrier to the accomplishment of a particular project, analyze the organizational environment, including its structure, network of resources, and politics, to determine a strategy for achieving success.

Criteria:

- Demonstrates understanding of the organizational structure including the function of pharmacy department and key individuals.
- Engage key stakeholders at all levels of the organization to ensure alignment and to establish a sustainable accountability structure.
- Effectively uses networking skills in barrier removal.
- Identifies key stakeholders of a given project.
- Uses effective skills in persuasion when appropriate.
- Demonstrates understanding of the types of persuasive arguments that are potentially effective with external customers, pharmacists, health care providers, health-system executives, and decision-makers.

- Identifies formal and informal medical staff leaders and how they can help achieve a goal.
- Effectively uses pharmacy databases when developing a new service (e.g., disease state management programs).
- Justifies new services using return on investment (ROI) analyses.
- Effectively prepares an ROI template.
- Effectively uses the steps in calculating a ROI.
- Calculates a break-even point.

Goal R5.2: Contribute to efforts to advance pharmacy practice in the city, state, region or country in which the residency program is offered.

Objective R5.2.1: (Applying) Lead activities of local, regional, national, and international professional pharmacy organizations.

Criteria:

- Is a member of and actively participates (on committees or councils) in the local, regional, national, and/or international pharmacy association.
- Leads, co-leads or actively contributes to developing or expanding the membership and activities of local, regional, national and international professional pharmacy organizations.
- Discusses the comparative benefits to his/her own practice of membership in the array of associations at each level.

Objective R5.2.2 (Understanding): Maintain a current understanding of national, regional, and local health care policy.

Criteria:

- Explain current national health care policy issues.
- Explain current regional health care policy issues.
- Explain current local health care policy issues.

Objective R5.2.3: (Creating) Work collaboratively with other pharmacy leaders to improve pharmacy services to patients.

Criteria:

- Identifies opportunities for improvements in pharmacy services
- Identifies appropriate stakeholders with interests for improvements
- Differentiates between individual patient care and population patient care needs appropriately
- Uses appropriate tools to determine feasibility of improvements (SWOT Analysis, FMEA, etc.)
- Identifies funding sources required for improvements in services (including governmental and social services available to patients)
- Collaborates with other stakeholders to develop measurable outcomes
- Collaborates with other stakeholders, and other disciplines, if appropriate to develop educational needs required for staff members, patients and their families or caregivers.
- Develops plan to improve or expand pharmacy services for patients
- Develops priorities for program development
- Promotes plan for acceptance and funding
- Implements plan to improve or expand pharmacy services for patients.
- Evaluates the results of the plan and makes needed alterations.

Goal R5.3: Identify opportunities to improve patient care services.

Objective R5.3.1: (Evaluating) Assess the scope of the pharmacy department's services and identify any service opportunities.

Criteria:

- Demonstrates understanding of the scope of pharmacy services that the organization should provide.
- Appropriately addresses organizational goals and identifies metrics related to those goals.
- Develop a vision for the pharmacy department.
- Helps identify and define significant departmental needs.
- Recommend changes or additions to address the assessed service opportunities.
- 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 R5.3.2: (Evaluating) Assess the quality of selected aspects of pharmacy services (e.g., operations, clinical, education, administrative, procurement, policy, etc.) making effective use of appropriate data.

Criteria:

- Data sources are chosen appropriately.
- Data sources are reliable and accurate.
- Reviews data using a systematic approach needed to solve problem or answer question.
- Utilizes appropriate resources for evaluation of services (e.g., best practices, etc., SWOT and other methods of evaluation)
- Develops report that accurately summarizes findings
- Share results with appropriate pharmacy managers and/or organizational managers or leaders.

Objective R5.3.3: (Evaluating) 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 R5.3.4: (Creating) Develop a business plan for a new or enhanced pharmacy service or program.

Criteria:

- Accurately identifies unmet customer (i.e., patient, physicians, and other health care providers) needs.
- Uses the organization's desired format for a proposal for a new or enhanced pharmacy service.
- Demonstrates understanding of the components of a new service (e.g., disease state management program).

- Demonstrates understanding of the role of other healthcare providers in meeting the needs of patients involved in a new service (e.g., disease state management programs).
- Identifies the stakeholders for a specific proposal.
- Uses modeling to predict the financial outcome(s) of implementing a proposed new or enhanced service on meeting unmet customer needs.
- Accurately predicts system and human resource needs for developing and implementing a new or enhanced service.
- Accurately predicts the outcome(s) for patients of implementing a new or enhanced service.

Goal R5.4: Contribute to pharmacy department financial management processes.

Objective R5.4.1: (Understanding) Demonstrates understanding of societal forces that influence costs for medications and supplies and the provision of pharmacy services.

Criteria:

- Understands government influences on costs
- Explain how to address disparities and ensure access to medications.

Objective R5.4.2: (Analyzing) Leads the operating budget process for a selected aspect of the pharmacy's activities.

Criteria:

- Includes appropriate contents in an operating budget.
- Appropriately exercises the pharmacy department's responsibilities in the budget process.
- Demonstrates understanding of the organization's budget cycle.
- Uses an appropriate process for establishing an operating budget.
- States sources of information for constructing an operating budget.
- Outlines a strategy for presenting a budget to senior administration.
- Demonstrates understanding of the organization's process for making new personnel requests.

Objective R5.4.3: (Analyzing) Contributes to the capital budget process for a selected aspect of the pharmacy's activities.

Criteria:

- Demonstrates understanding of appropriate contents in a capital budget.
- Applies effective strategies for securing major and minor capital resources.
- Demonstrates understanding of the role of return on investment (ROI) analysis in obtaining new capital requests.
- Understand the relationship of the operating budget and capital budget, including depreciation expenses based on clinical equipment replacement processes.

Objective R5.4.4: (Understanding) Review the process of negotiating contracts with vendors.

Criteria:

- Demonstrates understanding of the relationships between the manufacturers of medications, group purchasing organizations (GPOs), wholesalers, and pharmacy departments.
- Demonstrates understanding of laws and rules related to discriminatory pricing and regulations/laws
- Demonstrates understanding of language in legal agreements (e.g., indemnification).
- Demonstrates understanding of the concept of bundling relative to contracting.
- Demonstrates understanding of the concept of, chargebacks, market share, rebates, channeling, contract rebates, cost minus, and classes of trade.
- Demonstrates understanding of the typical bidding process for the purchase of pharmaceuticals.

- Demonstrates understanding of the importance of effective contract analysis, impact on the organization, as well as skills related to optimization of wholesale distribution agreements.

Objective R5.4.5: (Creating) Design and implement a cost reduction or inventory management initiative.

Criteria:

- Demonstrates understanding of the pharmacy department's role in resource utilization throughout the organization.
- Summarizes the literature on the value of clinical pharmacists in managing the total cost of care.
- Uses a proactive approach to monitoring drug expense.
- Effectively uses strategies for minimizing the cost of pharmaceutical waste.
- Identifies operational and medication-use cost reduction opportunities in the pharmacy department.

Goal R5.5: Contribute to the management of pharmacy department human resources.

Objective: R5.5.1 (Applying) Understand the process of managing the practice area's human resources.

Criteria:

- Explains recruitment strategies for a specific position.
- Describes how to determine the duties of a specific position
- Discusses factors to consider when determining the individual's qualifications for a position
- Describes the hospital's and department's policies and procedures for screening and interviewing applicants
- Discusses what should be discussed and not discussed in an interview
- Discusses considerations in determining with whom candidates should interview
- Discusses considerations in determining how many candidates to interview
- Explain the importance of orientation and training for practice area personnel.
- Describes the purposes of orientation and training
- Manages the orientation of a new pharmacy department employee
- Discusses the roles of the hospital and of the department in orientation and training
- Describes the subjects that should be covered in the department's orientation
- Describes the subjects that should be covered in training for a specific position
- Discusses how to determine the length of training for a specific position
- Describes and uses effective measures (competencies) for determining that a new employee is sufficiently trained for his/her position
- Describes the hospital's probationary period
- Explain the components of an employee performance evaluating system.
- Describe the importance of employee development plans.
- Describes the performance standards for a specific position
- Describes effective ways to measure work against performance standards
- Discusses the role of subjective criteria in evaluating performance
- Explain the principles and applying of a progressive discipline process.
- Describes the components of the progressive discipline process
- Understand the principles of a systematic approach to staff development in pharmacy practice.
- Explain the steps in a systematic approach to staff development.
- Accurately describes each of the steps in a systematic approach
- Assists in evaluating the effectiveness of the pharmacy's staff development program
- Assists with designing modifications to the pharmacy's current staff development process to better ensure attainment of the stated goals
- Explain strategies to reduce employee stress, turnover and burnout.

Objective R5.5.2: (Creating) Use knowledge of the organization's customary practice to write or revise a job description for a pharmacy position.

Criteria:

- Follows the organization's format for writing job descriptions.
- Effectively determines the duties of a specific position.
- Writes a job description, or revises an existing one, that meets the organization's requirements.
- States sources of prototype pharmacy job descriptions.

Objective R5.5.3: (Applying) Participate in recruitment and hiring for a particular pharmacy position.

Criteria:

- Demonstrates understanding of factors to consider when deciding to hire internally versus externally.
- Demonstrates understanding of differences in the advertising approach for a position to be filled internally versus externally.
- Demonstrates understanding of appropriate information in an advertisement for a pharmacy position, effective strategies for marketing the position, and follows the organization's policy regarding equal employment opportunity and affirmative action.
- Evaluates job candidates for interviews.
- Effectively uses behavioral interviewing techniques.
- Follows laws governing interviewing and hiring.
- Conducts hiring interviews that elicits information helpful for making a hiring decision.
- Follows the organization's and department's policies and procedures for screening and interviewing applicants.
- Collaborates in determining how many candidates to interview.
- Collaborates in determining how many times to interview an applicant.
- Demonstrates understanding of with whom candidates should interview.
- Appropriately determines what should be discussed and not discussed in an interview.
- Demonstrates understanding of actions to pursue when none of the candidates interviewed is acceptable.
- Demonstrates understanding of how many references to require and how to check references.
- Draws appropriate conclusions about an interviewee's potential fit for a position.
- Demonstrates understanding of factors to consider when determining the individual's qualifications for a position.

Objective R5.5.4: (Applying) Supervise the work of pharmacy personnel.

Criteria:

- Demonstrates understanding of different roles and responsibilities.
- Develops and communicates the goals of the unit or department and strategies for achieving them.
- Establishes suitable goals, action plans, and timelines.
- Develops and clearly explains performance expectations.
- Effectively provides ongoing guidance and support to the employee.
- Observes performance and provide timely and objective feedback.
- Models the role for direction and development.
- Evaluates workload and work patterns and reassigns as needed.

Goal R5.6: Actively contributes to pharmacy department strategic planning processes.

Objective R5.6.1: (Understanding) Explain factors that influence departmental planning.

Criteria:

- Identifies and explains factors that influence departmental planning, including:
 - Basic principles of management.

- Financial management.
- Accreditation, legal, regulatory, and safety requirements.
- Facilities design.
- Human resources.
- Culture of the organization.
- The organization's political and decision-making structure.
- Explains the potential impact of factors on departmental planning.
- Explains the strategic planning process.

Objective R5.6.2: (Creating) Participate in the development of appropriate short-term and long-term strategic planning goals.

Criteria:

- Demonstrates an understanding of the difference between short- and long-term strategic planning goals for the pharmacy department.
- Reviews a set of current short- and long-term pharmacy strategic planning goals for improvement in the organization's medication-use systems and policies, making recommendations for addition or revision.
- Participates with the appropriate pharmacy leader(s) in the development of new annual long- term and short-term strategic planning goals.

Objective R5.6.3: (Applying) Participate in the pharmacy department's short-term and long-term planning processes.

Criteria:

- Explains the purpose of strategic planning
- Accurately states the components of a strategic plan
- Accurately explains the necessary relationship between the hospital's and the department's strategic plans.
- Explain the departmental strategic planning process.
- Actively contributes to short-term planning meeting
- Contributions reflect understanding of effective short-term planning principles
- Actively contributes to a specific departmental long-term planning process
- Contributions reflect understanding of effective long-term planning principles
- Uses appropriate resources for planning purposes (e.g., best practices, regulatory or legal influences)

Objective R5.6.4: (Creating) Participate in the development and implementation of selected pharmacy department policies and procedures.

Criteria:

- Participates in review of existing policies
- Determines need for revision of existing policy or development of new policy
- Write a new or revise an existing departmental policy and/or procedure so that it is congruent with the hospital's goals, needs, and mission.
- Policy or procedure is congruent with the goals, needs, and mission of the hospital and/or department
- Policy or procedure conforms to regulatory, hospital, and department standards
- Policy or procedure is appropriate for the situation
- Policy or procedure is written clearly and concisely
- Procedure follows a logical sequence
- Secures approval as appropriate

Goal R5.7: Contribute to the management of the pharmacy department's quality performance improvement and outcomes measures program.

Objective R5.7.1: (Creating) Lead the development or revision of the pharmacy's quality improvement plan.

Criteria:

- Ensures quality improvement plan integrates appropriately with the organization's quality initiatives and effectively uses the organization's process for improving quality.
- Demonstrates understanding of current quality improvement methodologies and tools, including the applicability of each.
- Effectively participates in the development of a proposal for improvement of a specific area of pharmacy services, including identification of an area for improvement, addresses key stakeholders and assesses different options in the integration of the service.
- Outlines metrics to measure, to determine success.
- Evaluates metrics and analyzes results to improve the quality and/or productivity of the pharmacy.
- Effectively apply the guidelines of the department's performance improvement process.
- Accurately identifies an opportunity for improvement
- Selects appropriate indicators to monitor
- Sets appropriate thresholds for indicators, which are based on current literature, opinion, and clinical experience, and follows hospital guidelines
- Collects data relevant for the indicators
- Uses a systematic data analyzing process
- Develops an effective corrective action plan
- Effectively implements the corrective action plan
- Communicates the results to appropriate entities

Objective R5.7.2: (Evaluating) Develop effective strategies for reporting internal and external quality data.

Criteria:

- Explains the pharmacy's role in assuring compliance.
- Evaluates factors that impact the quality of performance.
- Compares sources of quality standards.
- Explains the meaning of commonly used quality indicators.
- Explains sources of internal and external data and criteria for measuring compliance.
- Knows the quality standards pertinent to pharmacy.
- Determines the current state of compliance with the quality standards.
- Review and discuss literature and known solutions on effective compliance strategies.
- Recommends improvement initiative to address quality or compliance concern.
- Share pharmacy's viewpoint with internal and external customers when appropriate to discussion.

Goal R5.8.: Contribute to clinical, humanistic and economic outcomes analyses.

Objective R5.8.1: (Evaluating) Contribute to a prospective or retrospective clinical, humanistic and/or economic outcomes analysis.

Criteria:

- Follows, or explains, principles and methodology of basic pharmacoeconomic analyses.
- Accurately explains the purpose of a prospective and a retrospective clinical, humanistic or economic outcomes analysis.

- Selects, or explains, appropriate study design appropriate for their research (prospective and/or retrospective clinical, humanistic or economic outcomes analysis).
- Appropriately uses modeling, if appropriate, or explains how modeling is used.
- Accurately explains the content and utilization of reports and audits produced by the pharmacy department.
- Accurately explains the types of data that must be collected in a prospective and a retrospective clinical, humanistic and economic outcomes analysis.
- Effectively collects data for their research or explains the types of data that must be collected in a clinical, humanistic and economic outcomes analysis.
- Uses, or explains, reliable sources of data for a clinical, humanistic and economic outcomes analysis.
- Accurately explains methods for analyzing data in a retrospective clinical, humanistic and economic outcomes analysis.
- Effectively analyzes, or explains how to analyze, collected data in a clinical, humanistic and economic outcomes analysis.
- Applies, or explain how research results can be applied, to internal business decisions and modifications to a customer's formulary or benefit design.
- Accurately explains the impact of limitations of retrospective data on the interpretation of results.

Objective R5.8.2: (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 plans to address opportunities for additional changes.

Goal R5.9: Participate in assuring pharmacy compliance with internal and external compliance requirements, including legal, regulatory, safety, and accreditation requirements.

Objective R5.9.1: (Applying) Conduct a pharmacy departmental assessment to assure compliance with applicable legal, regulatory, safety, and accreditation requirements.

Criteria:

- Identifies all of the legal, regulatory, safety, and accreditation requirements affecting pharmacy.
- Explains the requirements for conduct of an ASHP-accredited pharmacy residency.
- Examines how the department's regulatory management systems integrate with the organization's overall management for achieving compliance.
- Explain the effect of accreditation, legal, regulatory, and safety requirements on practice.
- States current regulatory and safety requirements
- Describes the importance of these regulations and safety requirements
- Discusses how the regulations and safety requirements affect practice
- Discusses the process by which the regulations and safety requirements are implemented
- States which agencies are responsible for regulating these requirements

COMPETENCY R6: Conduct a quality improvement or research project.

Goal R6.1: Conduct a quality improvement or research project to advance pharmacy practice.

Note: Ideally, Objectives R6.1.1-R6.1.5 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 R6.1.1: (Analyzing) Identify and/or demonstrate understanding of a specific project topic related to a quality improvement, healthcare pharmacy administration, or a topic for advancing the pharmacy profession.

Criteria:

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

Objective R6.1.2: (Creating) Develop a plan or research protocol for a practice quality improvement, healthcare pharmacy administration topics, or related topics for advancing the pharmacy profession.

Criteria:

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

Objective R6.1.3: (Evaluating) Collect and evaluate data for a practice quality improvement or research project related to healthcare pharmacy administration or for a topic for advancing the pharmacy profession.

Criteria:

- Collects the appropriate types of data as required by project design.
- Uses appropriate electronic data and information from internal information databases, external online databases, appropriate Internet resources, and other sources of decision support, as applicable.
- Uses appropriate methods for analyzing data in a prospective and retrospective clinical, humanistic, and/or economic outcomes analysis.
- Develops and follows an appropriate research or project timeline.
- Correctly identifies need for additional modifications or changes to the project.

- Applies results of a prospective or retrospective clinical, humanistic, and/or economic outcomes analysis to internal business decisions and modifications to a customer's formulary or benefit design as appropriate.
- Uses continuous quality improvement (CQI) principles to assess the success of the implemented change, if applicable.
- Considers the impact of the limitations of the project or research design on the interpretation of results.
- Accurately and appropriately develops plans to address opportunities for additional changes.

Objective R6.1.4: (Applying) Implement a quality improvement or research project related to healthcare pharmacy administration or for a topic for advancing the pharmacy profession.

Criteria:

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

Objective R6.1.5: (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 plans to address opportunities for additional changes.

COMPETENCY R7: Manage one's own Practice

Goal R7.1: Manage one's own practice efficiently and effectively.

Objective R7.1.1: (Applying) Demonstrates consistent use of a systematic approach to problem solving.

Criteria:

- Correctly identifies the problem to be solved
- Takes the initiative and seeks information to solve the problem
- Accurately identifies appropriate sources of information needed to solve the problem
- Explores logical alternative approaches to solving the problem
- Chooses the most appropriate plan for solving the problem
- Evaluates the success of implementing the plan
- Initiates an alternative plan if the problem is not solved
- If the problem involves risks, correctly identify the risks, analyses and prioritizes the risks and propose/employ appropriate risk mitigation to minimize or eliminate the risks

Objective R7.1.2: (Applying) Apply a process of on-going self-evaluation and personal performance improvement.

Criteria:

- Accurately summarizes one's own strengths and areas for improvement (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).

Objective R7.1.3: (Applying) Manage one's own 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.

Objective R7.1.4: (Applying) Practice self-assessment and self-managed continuing professional development to improve personal performance.

Criteria:

- Demonstrates understanding of criteria for judging one's performance of tasks that are critical in one's own practice.
- Stays current with, and when possible contributes to, pertinent medication-use safety and policy-related literature.
- Actively participates in, local, state, and/or national medication-use safety and policy-related professional organizations.
- Effectively acts as an advocate for medication-use safety and policy, such as through assertive and persuasive presentation of safety issues to members of organizational leadership, health care team, patients and/or caregivers.
- Effectively serves as a mentor to appropriate individuals.

Objective R7.1.5: (Applying) Demonstrate ability to manage, prioritize, and execute on assigned responsibilities and tasks.

Criteria:

- Effectively uses verbal techniques that enhance listening to others.
- Uses time management skills effectively.
- Effectively avoids procrastination.
- Accurately describe and assess the use of various leadership styles and emotional intelligence in oneself and others.
- Effectively lead committees, including the conduct of meetings.
- Makes effective management decisions that align with the organization's goals and priorities.
- Demonstrate effective delegation strategies.
- Manage around others timelines

Approved by the ASHP International Accreditation Commission on June 29, 2022.

Approved by the ASHP Board of Directors on September 16, 2022.

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