



**Required Educational Outcomes, Goals, and Objectives for Postgraduate Year Two
(PGY2) Pharmacy Residencies in Psychiatry**

Prepared Jointly with the College of Psychiatric and Neurologic Pharmacists

Overview of PGY2 Pharmacy Residencies in Psychiatry

The PGY2 pharmacy residency in psychiatry is designed to transition PGY1 residency graduates from generalist practice to specialized practice focused on the care of patients with psychiatric and neuropsychiatric disorders. Residency graduates are equipped to participate as integral members of inpatient and outpatient interdisciplinary teams caring for individuals with psychiatric and neuropsychiatric disorders, assuming responsibility for patient-centered medication therapy. In that role they are skilled at running psychoeducation sessions involving individuals with psychiatric and neuropsychiatric disorders whose focus is on the achievement of adherence and persistence.

Psychiatric pharmacy residency graduates will serve health care organizations successfully as the ultimate resource for information about medications used for the care of individuals with psychiatric and neuropsychiatric disorders and for decision-making affecting the care of these patients. This includes leadership in decision-making related to the use or modification of guidelines for the care of individual patients and for organizational planning and implementation of technology and automation systems.

Exiting residents have been trained to assume responsibility for identifying and implementing opportunities to improve the medication-use system in psychiatric practice areas. Groomed for practice leadership, psychiatric pharmacy 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 caring for individuals with psychiatric and neuropsychiatric disorders; to deliver effective training to those health care professionals; and to contribute to public health efforts for mental health improvement, wellness, and disease prevention.

Graduates of the PGY2 psychiatric pharmacy residency are well-equipped to initiate and establish a successful clinical pharmacy service in diverse healthcare settings (e.g., clinic, hospital, day treatment program) and provide exemplary patient-centered medication therapy for individuals with psychiatric and neurologic disorders.

Explanation of the Contents of This Document:

Each of the document's objectives has been classified according to educational taxonomy (cognitive, affective, or psychomotor) and level of learning. An explanation of the taxonomies is available elsewhere.¹

The order in which the required educational outcomes are presented in this document does not suggest relative importance of the outcome, amount of time that should be devoted to teaching the outcome, or sequence for teaching.

The educational outcomes, goals, and objectives are divided into those that are required and those that are elective. The required outcomes, including all of the goals and objectives falling under them, must be included in the design of all programs. The elective outcomes are provided for those programs that wish to add to the required outcomes. Programs selecting an elective outcome are not required to include all of the goals and objectives falling under that outcome. In addition to the potential elective outcomes contained in this document, programs are free to create their own elective outcomes with associated goals and objectives. Other sources of elective outcomes may include elective educational outcomes in the list provided for PGY1 pharmacy residencies and educational outcomes for training in other PGY2 areas. Each of the goals falling under the program's selection of program outcomes (required and elective) must be evaluated at least once during the resident's year.

Educational Outcomes (Outcome): Educational outcomes are statements of broad categories of the residency graduates' capabilities.

Educational Goals (Goal): Educational goals listed under each educational outcome are broad sweeping statements of abilities.

Educational Objectives (OBJ): Resident achievement of educational goals is determined by assessment of the resident's ability to perform the associated educational objectives below each educational goal.

Instructional Objectives (IO): Instructional objectives are the result of a learning analysis of each of the educational objectives. They are offered as a resource for preceptors encountering difficulty in helping residents achieve a particular educational objective. The instructional objectives falling below the educational objectives suggest knowledge and skills required for successful performance of the educational objective that the resident may not possess upon entering the residency year. Instructional objectives are teaching tools only. They are not required in any way nor are they meant to be evaluated.

¹ Nimmo, CM. Developing training materials and programs: creating educational objectives and assessing their attainment. In: Nimmo CM, Guerrero R, Greene SA, Taylor JT, eds. Staff development for pharmacy practice. Bethesda, MD: ASHP; 2000.

Required Educational Outcomes, Goals, and Objectives for Postgraduate Year Two (PGY2) Pharmacy Residencies in Psychiatry

Outcome R1: Serve as an authoritative resource on the optimal use of medications used to treat individuals with psychiatric and neuropsychiatric disorders.

Goal R1.1 Select core biomedical literature resources appropriate for psychiatric pharmacy practice.

OBJ R1.1.1 (Application) Use knowledge of standard resources to select core primary, secondary, and tertiary biomedical literature resources appropriate for psychiatric pharmacy practice.

Goal R1.2 Contribute the psychiatric pharmacy specialist's perspective to decisions about technology and automation systems.

OBJ R1.2.1 (Synthesis) When appropriate, contribute to the organization's design of its technology and automation systems.

IO Explain the psychiatric pharmacy specialist's role in contributing to the design of technology systems (e.g., CPOE, PDAs, software) for the organization.

IO Explain the psychiatric pharmacy specialist's role in contributing to decisions regarding automation systems.

Goal R1.3 Establish oneself as an organizational expert for pharmacy-related information and resources regarding psychiatric and neuropsychiatric disorders.

OBJ R1.3.1 (Synthesis) Implement a successful strategy for earning credibility within the organization to be an authoritative resource on the patient-centered medication therapy of individuals with psychiatric and neuropsychiatric disorders.

IO Identify barriers for the psychiatric pharmacist to earning credibility with members of the interdisciplinary psychiatric team.

IO Identify barriers for the psychiatric pharmacist to earning credibility within the organization.

OBJ R1.3.2 (Comprehension) Explain the resources for which specialist should negotiate to establish a new psychiatric pharmacy practice.

Goal R1.4 Provide concise, applicable, comprehensive, accurate, and timely responses to requests for drug information pertaining to the care of individuals with psychiatric and neuropsychiatric disorders.

OBJ R1.4.1 (Analysis) Discriminate between the requester's stated drug information question and the appropriate drug information need(s) by investigating the clinical situation and obtaining appropriate additional information.

OBJ R1.4.2 (Synthesis) Formulate a systematic, efficient, and thorough procedure for retrieving drug information.

IO State sources of psychiatric and neuropsychiatric biomedical literature.

IO Compare the characteristics of each of the available resources.

OBJ R1.4.3 (Analysis) Determine from all retrieved biomedical literature the appropriate information to evaluate.

OBJ R1.4.4 (Evaluation) Evaluate the usefulness of biomedical literature gathered.

OBJ R1.4.5 (Evaluation) Determine whether a study's conclusions are supported by the study results.

OBJ R1.4.6 (Synthesis) Formulate responses to drug information requests based on analysis of the literature.

OBJ R1.4.7 (Synthesis) Provide appropriate responses to drug information questions that require the pharmacist to draw upon his or her knowledge base.

OBJ R1.4.8 (Evaluation) Assess the effectiveness of drug information recommendations.

IO Explain all factors that must be assessed to determine the effectiveness of a response.

Goal R1.5 Assist the organization in achieving compliance with accreditation, legal, regulatory, and safety requirements related to the use of medications used in the care of individuals with psychiatric and neuropsychiatric disorders (e.g., The Joint Commission requirements; ASHP standards, statements, and guidelines; state and federal laws regulating pharmacy practice; OSHA regulations).

OBJ R1.5.1 (Evaluation) Determine appropriate activities and documentation required to meet accreditation, legal, regulatory, and safety requirements in the area of psychiatric pharmacy.

Outcome R2: Optimize the outcomes of diverse populations of inpatients and outpatients with a variety of psychiatric and neuropsychiatric disorders and a range of complexity of problems by providing evidence-based, patient-centered medication therapy as an integral part of an interdisciplinary team.



Goal R2.1 Establish collaborative professional relationships with members of the outpatient and inpatient psychiatric interdisciplinary teams.

OBJ R2.1.1 (Synthesis) Implement a strategy that effectively establishes cooperative, collaborative, and communicative working relationships with members of the psychiatric interdisciplinary team.

IO Explain the training and expected areas of expertise of the members of the psychiatric interdisciplinary team with which one works.

IO For each of the professions with which one interacts on the psychiatric interdisciplinary team, explain the profession's view of its role and responsibilities in collaborations on patient-centered care.

IO Explain the expectations of the pharmacist's role on the psychiatric interdisciplinary team from the viewpoint of different collaborating professions.

IO Explain the professional dynamics of the different services that contribute to the care of individuals with psychiatric and neuropsychiatric disorders.

IO Identify the interpersonal dynamics of each member of the psychiatric interdisciplinary team.

Goal R2.2 For a caseload of patients with psychiatric and neuropsychiatric disorders, triage and prioritize the delivery of patient-centered medication therapy.

OBJ R2.2.1 (Synthesis) Devise a plan for deciding on which individuals with psychiatric and neuropsychiatric disorders to focus if given limited time and multiple patient care responsibilities.

IO Explain factors to consider when determining priority for care among individuals with psychiatric and neuropsychiatric disorders.

Goal R2.3 Establish collaborative pharmacist-patient-caregiver relationships.

OBJ R2.3.1 (Synthesis) Establish a successful patient-centered pharmacist-patient-caregiver relationship.

IO Explain unique characteristics of individuals with psychiatric and neuropsychiatric disorders that may influence the pharmacist-patient-caregiver relationship.

IO Explain the importance of including in the strategy an explanation to the patient of the psychiatric pharmacist's role in his/her care.

IO Explain the impact of the pharmacist's choice of dress and overall appearance in the psychiatric and neuropsychiatric care areas on relationships with patients.

IO Explain problems associated with emotional attachments between health care professionals and patients.

IO Explain the need for forming a nonjudgmental approach to patients with psychiatric and neuropsychiatric disorders.

IO Explain how to integrate the principles of prevention and management of aggressive behavior into an effective approach to communicating with people with psychiatric and neuropsychiatric disorders.

IO Explain the influence of psychodynamics, milieu, and psychosocial stressors on the formulation of effective communications with people with psychiatric and neuropsychiatric disorders.

- IO Explain instances in which it is impossible for the psychiatric pharmacist to establish a relationship with the patient and/or caregiver.*
- IO Explain the importance of assessing people with psychiatric and neuropsychiatric disorders for their capacity to give consent for treatment.*
- IO Explain the legal requirements for obtaining consent.*
- IO Explain the legal requirements for voluntary and involuntary admissions or outpatient commitment.*
- IO Explain the legal requirements for compelling treatment.*
- IO Explain the view of diverse cultures and religions on the conceptualization of psychiatric and neuropsychiatric disorders.*

Goal R2.4 Collect and analyze patient information.

OBJ R2.4.1 (Analysis) Collect and organize all patient-specific information needed by the psychiatric pharmacist to make appropriate evidence-based, patient-centered medication therapy recommendations as part of the psychiatric interdisciplinary team.

- IO Accurately interpret medical terminology and approved abbreviations particular to the discussion of psychiatric and neuropsychiatric disorders.*
- IO Identify the types of patient-specific information the pharmacist requires to anticipate, prevent, detect, and/or resolve medication-related problems and to make appropriate evidence-based, patient-centered medication therapy recommendations for individuals with psychiatric and neuropsychiatric disorders.*
- IO Explain the categorization of psychiatric and neuropsychiatric disorders in the current edition of the Diagnostic and Statistical Manual for Mental Disorders.*
- IO Explain signs and symptoms, epidemiology, risk factors, pathogenesis, natural history of disease, pathophysiology, clinical course, etiology, and treatment of psychiatric and neuropsychiatric disorders.*
- IO Explain the relevance of neuroimaging studies, laboratory findings, and other technologies in formulating a diagnosis.*
- IO Explain the mechanism of action, pharmacokinetics, pharmacodynamics, pharmacogenomics, pharmacoeconomics, usual regimen (dose, schedule, form, route, and method of administration), indications, contraindications, interactions, adverse reactions, and therapeutics of medications used to treat the symptoms of psychiatric and neuropsychiatric disorders.*
- IO Exercise skill in the performance of an examination of a patient with psychiatric and neuropsychiatric disorders, including measures of blood sugar and pulse, a mental status examination and neurological assessment that involves movement disorders.*
- IO Accurately administer appropriate clinical rating tools used in the assessment of psychiatric and neuropsychiatric disorders.*
- IO Accurately interpret the results of clinical rating tools used in the assessment of psychiatric and neuropsychiatric disorders.*

OBJ R2.4.2 (Analysis) Detect the presence of any of the following medication therapy problems in the medication therapy of an individual with psychiatric and neuropsychiatric disorders:

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 or sensitive to 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-food, or drug-laboratory test interactions or potential for such interactions
10. Medical therapy has been interfered with by social, recreational, nonprescription, complementary, or alternative 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

IO Compare the impact of medication tolerability, costs, and schedule on the adherence and persistence of individuals with psychiatric and neuropsychiatric disorders treated in the ambulatory versus inpatient environments.

IO Explain the impact of co-occurring disorders (e.g., personality disorders, substance use disorders, cognitive disorders) on adherence and persistence in patients with psychiatric and neuropsychiatric disorders.

IO Explain the importance of patient insight in the achievement of medication adherence and persistence.

OBJ R2.4.3 (Evaluation) Using an organized collection of patient-specific information, assess the health care needs of individuals with psychiatric and neuropsychiatric disorders.

Goal R2.5 When necessary, make and follow up on referrals/consults for individuals with psychiatric and neuropsychiatric disorders.

OBJ R2.5.1 (Evaluation) When presented with an individual with psychiatric and neuropsychiatric disorders and health care needs that cannot be met by the pharmacist, make a referral/consult to the appropriate health care provider based on the patient's acuity and the presenting problem.

OBJ R2.5.2 (Synthesis) Devise a plan for follow-up for a referral/consult for an individual with psychiatric and neuropsychiatric disorders.

Goal R2.6 Design evidence-based therapeutic regimens for individuals with psychiatric and neuropsychiatric disorders.

OBJ R2.6.1 (Synthesis) Develop therapeutic goals for an individual with psychiatric and neuropsychiatric disorders, incorporating the principles of evidence-based medicine that integrate patient-specific data, disease and medication-specific information, ethics, and quality-of-life considerations.

IO Identify the sources of disease management and medication-use guidelines currently used in psychiatric practice.

IO Explain various genetic, gender-related, age-related, and disease-related factors that influence response to psychiatric and neuropsychiatric disorders-related medication therapy.

IO Explain the impact of potential patient, family member, caregiver, and/or health care professional misconceptions of realistic treatment outcomes on the setting of therapeutic goals for individuals with psychiatric and neuropsychiatric disorders.

IO Compare and contrast the realistic limits of treatment outcomes in various treatment settings (e.g., psychiatric versus medical; institutional versus non-institutional).

IO Compare realistic expectations of outcomes in patients with acute versus chronic psychiatric and neuropsychiatric disorders.

IO Explain quality-of-life issues that may impact the setting of therapeutic goals for individuals with psychiatric and neuropsychiatric disorders.

IO Explain ethical issues specific to setting therapeutic goals for individuals with psychiatric and neuropsychiatric disorders.

IO Explain the concept of target symptoms and its application to the management of individuals with psychiatric and neuropsychiatric disorders.

IO Explain how therapeutic goals for an individual with psychiatric and neuropsychiatric disorders may be staged over time.

IO Explain the range of therapeutic goals (e.g., independent living, no longer homeless, staying out of jail) that the psychiatric pharmacist may establish for patients.

OBJ R2.6.2 (Synthesis) Design a patient-centered regimen that meets the evidence-based therapeutic goals established for an individual with psychiatric and neuropsychiatric disorders; integrates patient-specific information, disease and drug information, ethical issues and quality-of-life issues; and considers pharmacoeconomic principles.

IO Explain how treatment guidelines may be used when designing a therapeutic regimen for an individual with a psychiatric and neuropsychiatric disorders.

IO Explain situations in which pharmacotherapy for individuals with psychiatric and neuropsychiatric disorders plays a secondary role to other treatments

- Goal R2.7 Design evidence-based monitoring plans for individuals with psychiatric and neuropsychiatric disorders.
- OBJ R2.7.1 (Synthesis) Design a patient-centered, evidenced-based monitoring plan for a therapeutic regimen that effectively evaluates achievement of the therapeutic goals set for an individual with psychiatric and neuropsychiatric disorders.
- IO Explain how treatment guidelines may be used when designing a monitoring plan for an individual with a psychiatric and neuropsychiatric disorders.*
- IO State standard monitoring parameters for therapeutic regimens commonly prescribed for individuals with psychiatric and neuropsychiatric disorders.*
- IO Explain the role of clinical rating tools in monitoring of patients with psychiatric and neuropsychiatric disorders.*
- IO Explain psychosocial issues unique to individuals with psychiatric and neuropsychiatric disorders that should be considered when designing a monitoring plan.*
- IO Explain the potential role of the patient's caregiver in the fulfillment of a monitoring plan.*
- Goal R2.8 Recommend or communicate regimens and monitoring plans for individuals with psychiatric and neuropsychiatric disorders.
- OBJ R2.8.1 (Application) Secure consensus from the psychiatric interdisciplinary team and the individual with psychiatric and neuropsychiatric disorders for a patient-centered, evidence-based therapeutic regimen and corresponding monitoring plan in a way that is systematic, logical, accurate, timely, and sensitive.
- IO Explain the kinds of issues that require particular sensitivity when discussing treatment plans with individuals with psychiatric and neuropsychiatric disorders.*
- Goal R2.9 Implement regimens and monitoring plans.
- OBJ R2.9.1 (Application) When appropriate, initiate the patient-centered, evidence-based therapeutic regimen and monitoring plan for an individual with psychiatric and neuropsychiatric disorders according to the organization's policies and procedures.
- IO Explain the organization's policies and procedures for ordering medications.*
- IO Explain the organization's policies and procedures for ordering tests.*
- OBJ R2.9.2 (Application) When necessary, contribute to the work of the team that secures reimbursement for medications used in a regimen for an individual with psychiatric and neuropsychiatric disorders.
- IO Explain the general framework of patient assistance programs available for psychotropic medications.*
- IO Explain the pharmacist's role (versus other interdisciplinary team members) in securing payer coverage or patient assistance.*
- IO Explain circumstances in which it may be appropriate to redesign a patient's medication regimen in order to ensure that a patient will have financially viable access to the prescribed psychotropic medications.*

- IO Explain various approaches used to adjust medication regimens in order to facilitate patient access to psychotropic medications.*
- IO Explain organizational policies and procedures for securing compassionate use medications needed for an individual patient.*
- OBJ R2.9.3 (Synthesis) Use effective patient education techniques to provide counseling to individuals with psychiatric and neuropsychiatric disorders and caregivers.
 - IO Explain issues unique to the counseling of individuals with psychiatric and neuropsychiatric disorders.*
 - IO Explain the types of patient and caregiver education required to facilitate self-care.*
 - IO Explain the critical role of adherence and persistence in the short and long-term achievement of treatment goals.*
 - IO Explain lay terms that can successfully be used when counseling individuals with psychiatric and neuropsychiatric disorders regarding complex medication-related issues.*
- OBJ R2.9.4 (Synthesis) Conduct group education for individuals with psychiatric and neuropsychiatric disorders that effectively teaches strategies and techniques for improving their quality of life and therapeutic outcomes.
 - IO Explain the principles of group dynamics.*
 - IO Explain techniques and strategies for managing group education.*
 - IO Explain topics that in general should be covered in group education.*
 - IO Explain how to customize a group educational program to the immediate needs of participants.*
- Goal R2.10 Evaluate the progress of individuals with psychiatric and neuropsychiatric disorders and redesign regimens and monitoring plans.
 - OBJ R2.10.1 (Evaluation) Accurately assess progress toward the therapeutic goal(s) of an individual with psychiatric and neuropsychiatric disorders.
 - OBJ R2.10.2 (Application) Ensure that accurate and timely medication-specific information regarding a specific individual with psychiatric and neuropsychiatric disorders reaches those who need it at the appropriate time.
 - OBJ R2.10.3 (Synthesis) Redesign the regimen and monitoring plan of an individual with psychiatric and neuropsychiatric disorders as necessary based on evaluation of monitoring data and therapeutic outcomes.
- Goal R2.11 Communicate ongoing patient information to facilitate continuity of care.
 - OBJ R2.11.1 (Synthesis) Formulate a strategy for continuity of patient-centered medication therapy across all applicable treatment settings.
 - IO Explain accrediting organizations' requirements for discharge planning.*
 - IO Explain methods for coordinating information between multiple pharmacy and other health care workers serving the needs of individuals with psychiatric and neuropsychiatric disorders that will facilitate the provision of patient-centered medication therapy.*
 - IO Explain methods for assuring continuity of patient-centered medication therapy across all treatment settings (e.g., hospital, clinic, home) used by a specific patient.*

OBJ R2.11.2 (Application) When given an individual with psychiatric and neuropsychiatric disorders who is transitioning from one health care setting to another, communicate pertinent pharmacotherapeutic information to the receiving health care professionals.

Goal R2.12: Document direct patient care activities appropriately.

OBJ R2.12.1 (Analysis) Appropriately select direct patient care activities for documentation for individuals with psychiatric and neuropsychiatric disorders.

IO Explain accreditation organizations' requirements for the documentation of interdisciplinary treatment plans for individuals with psychiatric and neuropsychiatric disorders.

OBJ R2.12.2 (Application) Demonstrate effective communication practices when documenting a direct patient-care activity for an individual with psychiatric and neuropsychiatric disorders.

Outcome R3: Demonstrate leadership and practice management skills.

Goal R3.1 Exhibit the ongoing development of essential personal skills of a psychiatric pharmacy practice leader.

OBJ R3.1.1 (Characterization) Practice self-managed continuing professional development with the goal of improving the quality of one's own performance through self-assessment and change.

IO State criteria for judging one's performance of tasks that are critical in one's own practice.

IO Explain the role of participation in psychiatric and pharmacy professional organization meetings in the ongoing development of expertise in psychiatric and neuropsychiatric pharmacy.

IO Explain the importance of staying current with pertinent psychiatric and neuropsychiatric literature.

IO Explain the process and requirements for acquiring Board of Pharmaceutical Specialties (BPS) specialty certification in psychiatric pharmacy.

OBJ R3.1.2 (Characterization) Demonstrate commitment to the professional practice of psychiatric pharmacy through active participation in the activities of local, state, and/or national psychiatric and pharmacy professional organizations.

IO Assess the relevance of membership or participation in various professional organizations associated with psychiatric or pharmacy practice.

IO Explain the importance of contributing to the work of psychiatric professional organizations in advancing the visibility of the pharmacist's role in the care of individuals with psychiatric and neuropsychiatric disorders.

OBJ R3.1.3 (Synthesis) Devise an effective plan for balancing professional and personal life.

IO Explain the importance of balancing professional and personal life.

IO Explain potential negative consequences of failure to achieve balance in professional and personal life.

IO Explain Maslow's Hierarchy of Needs.

- IO *Explain various approaches advocated for achieving balance in one's life.*
- OBJ R3.1.4 (Characterization) Display integrity in professional relationships and actions.
- IO *Explain ethical dilemmas that may confront the psychiatric pharmacy leader.*
- IO *Explain the system of ethical reasoning employed in arriving at a particular ethical decision.*
- IO *Explain ethical principles embodied in the American Pharmacists Association Code of Ethics for Pharmacists.*
- IO *Explain the implications of the Belmont Report² for ethical decision-making in psychiatric pharmacy.*
- OBJ R3.1.5 (Application) Observe the requirements of the organization's policy in all interactions with the pharmaceutical industry and managed care organizations.
- IO *Explain the potential conflicts inherent in the objectives of one's health care organization and the objectives of a pharmaceutical industry or managed care representative.*
- OBJ R3.1.6 (Synthesis) Initiate and maintain a portfolio documenting activities and accomplishments.
- Goal R3.2 Contribute to the leadership and management activities within the psychiatric pharmacy practice area.
- OBJ R3.2.1 (Application) Use effective negotiation skills to resolve conflicts.
- OBJ R3.2.2 (Synthesis) Use group participation skills when leading or working as a member of a formal or informal work group.
- Goal R3.3 Exercise practice leadership.
- OBJ R3.3.1 (Characterization) Demonstrate a commitment to advocacy for the optimal care of individuals with psychiatric and neuropsychiatric disorders through the assertive and persuasive presentation of patient care issues to members of the health care team, the patient, and/or the patient's representative(s).
- IO *Explain the potential impact of direct-to-consumer advertising and other pharmaceutical industry marketing activities on the use of medications for the care of individuals with psychiatric and neuropsychiatric disorders.*
- OBJ R3.3.2 (Comprehension) Explain the nature of mentoring in pharmacy, its potential connection with achievement, and the importance of being willing to serve as a mentor to appropriate individuals.
- OBJ R3.3.3 (Comprehension) Explain the general processes of establishing and maintaining a psychiatric pharmacy residency program.
- OBJ R3.3.4 (Comprehension) Explain the benefits, to the practitioner and the profession, of contributing to the psychiatric pharmacy literature.
- OBJ R3.3.5 (Evaluation) Perform peer review of a pharmacy professional's manuscript submitted for consideration as a publication or presentation.
- IO *Explain sources of information on the components of a peer review.*

² The Belmont Report.: Ethical Principles for the Protection of Human Subjects of Research. Report from the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (resource on the World Wide Web). URL: <http://ohsr.od.nih.gov/guidelines/guidelines.html>. Office of Human Subjects Research, National Institutes of Health. 1979 April 18, Available from Internet. Accessed 2007April 2.

OBJ R3.3.6 (Comprehension) Explain how the psychiatric pharmacist can participate in the development of health care laws, rules, and regulations.

Outcome R4: Demonstrate excellence in the provision of training or educational activities for health care professionals, health care professionals in training, and the public.

Goal R4.1 Provide effective education and/or training to health care professionals and health care professionals in training.

OBJ R4.1.1 (Synthesis) Use effective educational techniques in the design of all educational/training activities.

IO Identify emerging issues in psychiatric pharmacy that would be suitable for interdisciplinary educational sessions.

IO Explain the differences in effective educational strategies when teaching colleagues versus residents versus students versus health professionals in other disciplines.

IO Design instruction that meets the individual learner's needs.

IO Explain the concept of learning styles and its influence on the design of instruction

IO Write appropriately worded educational objectives.

IO Explain the match between instructional delivery systems (e.g., demonstration, written materials, video) and the specific types of learning each facilitates.

IO Design instruction that employs strategies, methods, and techniques congruent with the objectives for education or training.

IO Explain effective teaching approaches for the various types of learning (e.g., imparting information, teaching psychomotor skills, inculcation of new attitudes).

OBJ R4.1.2 (Synthesis) Design an assessment strategy that appropriately measures the specified objectives for education or training and fits the learning situation.

IO Explain appropriate assessment techniques for assessing the learning outcomes of educational or training programs.

OBJ R4.1.3 (Application) Demonstrate proficiency in the four preceptor roles employed in practice-based teaching (direct instruction, modeling, coaching, and facilitation).

IO Explain the stages of learning that are associated with each of the preceptor roles.

OBJ R4.1.4 (Application) Demonstrate proficiency in case-based teaching.

IO Explain the importance of identifying the key teaching points for a case before attempting to construct it.

IO Explain factors to consider when deciding the patient data to present in a case.

OBJ R4.1.5 (Application) Use public speaking skills to speak effectively in large and small group situations.

IO Explain techniques that can be used to enhance audience interest.

IO Explain techniques that can be used to enhance audience understanding of one's topic.

IO Explain speaker habits that distract the audience.

- OBJ R4.1.6 (Synthesis) Design an effective poster for the presentation of a specific topic.
 - IO Explain the types of content that should be included in a poster.*
 - IO Explain the rules for visual presentation of poster material.*
 - IO Explain resources that can be used to generate poster materials.*
- OBJ R4.1.7 (Synthesis) Exercise skill in responding appropriately to questions occurring during the presentation of a poster.
- Goal R4.2 Design and present education programs to the public that center on mental health improvement, wellness, and disease prevention.
 - OBJ R4.2.1 (Synthesis) Design and deliver education programs to the public that center on mental health improvement, wellness, and disease prevention.
 - IO Explain appropriate educational topics for support groups for individuals with psychiatric and neuropsychiatric disorders, their caregivers, and their families that center on mental health improvement, wellness and disease prevention.*
 - IO Explain appropriate educational topics for the general public that center on mental health, wellness, and de-stigmatization.*
- Goal R4.3 Contribute to mental health screening programs.
 - OBJ R4.3.1 (Application) Conduct mental health screening according to the guidance provided by a sponsoring organization.
 - OBJ R4.3.2 (Synthesis) Design a mental health screening program that would meet the needs of one's community.

Outcome R5: Evaluate and improve the medication-use process in psychiatric and neuropsychiatric patient care areas.

- Goal R5.1 Contribute to the maintenance of the organization's formulary for medications used in individuals with psychiatric and neuropsychiatric disorders.
 - OBJ R5.1.1 (Evaluation) Based on literature and/or comparative reviews, make recommendations for modifications to the organization's formulary for medications used in individuals with psychiatric and neuropsychiatric disorders.
 - IO Explain the importance of using primary literature in the preparation of a formulary recommendation.*
 - IO State sources to use in the preparation of a comparative review of medications used in individuals with psychiatric or neuropsychiatric disorders.*
 - IO State sources to use in the preparation of a monograph for a medication used in individuals with psychiatric or neuropsychiatric disorders.*
 - OBJ R5.1.2 (Evaluation) When presented with a real or hypothetical shortage of a medication used in individuals with psychiatric or neuropsychiatric disorders, identify an appropriate alternative.
 - IO State resources for identifying medications in short supply.*
 - IO Explain the organization's system for communicating information regarding drug shortages.*
 - IO Explain a strategy for making optimal choices for alternative medications.*

- OBJ R5.1.3 (Evaluation) When the needs of a particular patient warrant, determine if a non-formulary medication used in patients with psychiatric or neuropsychiatric disorders should be considered for use.
 - IO Identify the appropriate literature that supports the use of a non-formulary medication in a clinical situation.*
 - IO Explain the organization's system for approving, obtaining, and handling non-formulary medications used by patients.*
- Goal R5.2 Make recommendations for the use of guidelines in the care of individuals with psychiatric or neuropsychiatric disorders.
 - OBJ R5.2.1 (Comprehension) Compare and contrast the contents of currently available guidelines relevant to the organization's care of individuals with psychiatric or neuropsychiatric disorders.
 - IO State sources of guidelines applicable to the care of individuals with psychiatric or neuropsychiatric disorders.*
 - OBJ R5.2.2 (Evaluation) Assess a specific guideline used in the care of individuals with psychiatric or neuropsychiatric disorders for the degree to which it is evidence based.
 - IO Explain how level of evidence is determined.*
 - OBJ R5.2.3 (Evaluation) When presented with the needs of a particular patient, determine the applicability for use of a proposed guideline.
- Goal R5.3 Identify opportunities for improvement of aspects of the organization's medication-use system affecting individuals with psychiatric and neuropsychiatric disorders.
 - OBJ R5.3.1 (Comprehension) Explain those aspects of the organization's medication-use system affecting individuals with psychiatric and neuropsychiatric disorders and its vulnerabilities to adverse drug events (ADEs).
 - OBJ R5.3.2 (Synthesis) Design a MUE on a medication used in the care of individuals with psychiatric or neuropsychiatric disorders.
 - OBJ R5.3.3 (Application) Perform a MUE on a medication used in the care of individuals with psychiatric or neuropsychiatric disorders.
 - OBJ R5.3.4 (Application) Analyze the data collected for a MUE on a medication used in the care of individuals with psychiatric or neuropsychiatric disorders.
 - OBJ R5.3.5 (Evaluation) Interpret the data collected in a MUE on a medication used in the care of individuals with psychiatric or neuropsychiatric disorders.
 - OBJ R5.3.6 (Evaluation) Identify opportunities for improvement in aspects of the organization's medication-use system affecting individuals with psychiatric and neuropsychiatric disorders by comparing the medication-use system to relevant best practices.
- Goal R5.4 Recommend quality improvement changes to aspects of the organization's medication-use system affecting individuals with psychiatric and neuropsychiatric disorders.
 - OBJ R5.4.1 (Synthesis) Design a pilot intervention to change a problematic or potentially problematic aspect of the medication-use system.

Outcome R6: Conduct psychiatric pharmacy practice research.

Goal R6.1 Conduct a psychiatric pharmacy practice research project using effective project management skills.

OBJ R6.1.1 (Synthesis) Identify a topic of significance for a psychiatric pharmacy research project.

IO: Explain the types of resident projects (e.g., prospective, retrospective, clinical trials) that will meet residency program project requirements and timeframe.

IO Explain how one determines if a potential project topic is of significance in one's particular practice setting.

IO Explain how to conduct an efficient and effective literature search for the background analysis.

IO Explain how to generate a research question(s) to be answered by an investigation.

OBJ R6.1.2 (Synthesis) Formulate a feasible design for a psychiatric pharmacy research project.

IO Explain the elements of a project proposal.

IO Explain how to identify those individuals who will be affected by the conduct of the project and strategies for gaining their cooperation.

IO Explain how to determine a timeline with suitable milestones that will result in project completion by an agreed upon date.

IO: Explain the ethics of research on human subjects and the role of the IRB.

IO: Explain various methods for constructing data collection tools.

OBJ R6.1.3 (Synthesis) Secure any necessary approvals, including IRB, for one's design of a project.

IO Explain how to identify those stakeholders who must approve a particular project.

IO Explain the components that make up a budget for a project.

IO Explain strategies for seeking funding for a research project.

IO Explain the role of the IRB in the approval process.

OBJ R6.1.4 (Synthesis) Implement a psychiatric pharmacy research project as specified in its design.

IO Explain strategies for keeping one's work on a project at a pace that matches with the projected timeline.

IO When given a particular approved residency project, explain methods for organizing and maintaining project materials and documentation of the project's ongoing implementation.

IO: Explain methods for data analysis.

IO Explain issues surrounding confidentiality of patient information accessed for a research study.

IO Explain the particular sensitivity of patient information when the patient has a mental illness.

OBJ R6.1.5 (Synthesis) Effectively present the results of a psychiatric pharmacy research project.

OBJ R6.1.6 (Synthesis) Successfully employ accepted manuscript style to prepare a final report of a psychiatric pharmacy research project.

IO When given a particular residency project ready for presentation, explain the type of manuscript style appropriate to the project and criteria to be met when using that style.

OBJ R6.1.7 (Application) Follow the submission requirements of an appropriate peer-reviewed publication to submit the completed project for publication.

<p style="text-align: center;">Elective Educational Outcomes, Goals, and Objectives for Postgraduate Year Two (PGY2) Pharmacy Residencies in Psychiatry</p>
--

Outcome E1: Conduct outcomes research.

Goal E1.1 Contribute to clinical, humanistic and economic outcomes analyses.

OBJ E1.1.1 (Evaluation) Contribute to a prospective clinical, humanistic and/or economic outcomes analysis.

IO Explain the principles and methodology of basic pharmacoeconomic analyses.

IO Explain the purpose of a prospective clinical, humanistic or economic outcomes analysis.

IO Explain study designs appropriate for a prospective clinical, humanistic and economic outcomes analysis.

IO Explain the technique and application of modeling.

IO Explain the types of data that must be collected in a prospective clinical, humanistic and economic outcomes analysis.

IO Explain possible reliable sources of data for a clinical, humanistic and economic outcomes analysis.

IO Explain methods for analyzing data in a prospective clinical, humanistic and economic outcomes analysis.

IO Explain how results of a prospective clinical, humanistic and economic outcomes analysis can be applied to internal business decisions and modifications to a customer's formulary or benefit design.

OBJ E1.1.2 (Evaluation) Contribute to a retrospective clinical, humanistic, and/or economic outcomes analysis.

IO Explain the purpose of a retrospective clinical, humanistic or economic outcomes analysis.

IO Explain study designs appropriate for a retrospective clinical, humanistic and economic outcomes analysis.

IO Explain the types of data that must be collected in a retrospective clinical, humanistic and economic outcomes analysis.

IO Explain the content and utilization of reports and audits produced by the pharmacy department.

IO Explain possible reliable sources of data for a retrospective clinical, humanistic and economic outcomes analysis.

IO Explain methods for analyzing data in a retrospective clinical, humanistic and economic outcomes analysis.

IO Explain the impact of limitations of retrospective data on the interpretation of results.

IO Explain how results of a retrospective clinical, humanistic and economic outcomes analysis can be applied to internal business decisions and modifications to a customer's formulary or benefit design.

Outcome E2: Demonstrate skills required to function in an academic setting.

Goal E2.1 Understand faculty roles and responsibilities.

OBJ E2.1.1 (Comprehension) Explain variations in the expectations of different colleges/schools of pharmacy for teaching, practice, research, and service.

IO Discuss how the different missions of public versus private colleges/schools of pharmacy can impact the role of faculty members.

IO Discuss maintaining a balance between teaching, practice, research and service.

IO Discuss the relationships between scholarly activity and teaching, practice, research and service.

OBJ E2.1.2 (Analysis) Explain the role and influence of faculty in the academic environment.

IO Explain the responsibilities of faculty in governance structure (e.g. the faculty senate, committee service).

IO Describe the responsibilities of faculty (e.g. curriculum development and committee service) related to teaching, practice, research, and service roles.

OBJ E2.1.3 (Comprehension) Describe the academic environment.

IO Describe how the decisions by university and college administration impact the faculty.

IO Discuss outside forces (e.g. change in the profession, funding source, accreditation requirements) that impact administrator and faculty roles.

OBJ E2.1.4 (Comprehension) Describe the types and ranks of faculty appointments.

IO Explain the various types of appointments (e.g. non-tenure, tenure-track, and tenured faculty).

IO Differentiate among the various ranks of faculty (e.g. instructor, assistant professor, associate professor, full professor).

IO Discuss the role and implications of part-time and adjunct faculty as schools continue to expand and faculty shortages occur.

OBJ E2.1.5 (Comprehension) Discuss the promotion and tenure process for each type of appointment.

IO Identify the types of activities that are considered in the promotion process.

IO Identify the types of activities that are considered for tenure.

OBJ E2.1.6 (Application) Identify resources available to help develop academic skills.

IO Explain the role of academic-related professional organizations (e.g. AACP) in faculty professional development.

IO Identify resources to help develop teaching skills and a teaching philosophy.

OBJ E2.1.7 (Comprehension) Explain the characteristics of a typical affiliation agreement between a college of pharmacy and a practice site (e.g., health system, hospital, clinic, retail pharmacy).

IO Explain how the political environments of either a college or a practice site may affect the other.

Goal E2.2 Exercise teaching skills essential to pharmacy faculty.

- OBJ E2.2.1 (Synthesis) Develop an instructional design for a class session, module, or course.
- IO Construct a student-centered syllabus.*
 - IO Construct educational objectives for a class session, module, or course that is appropriate to the audience.*
 - IO Identify appropriate instructional strategies for the class session, module, or course to achieve the objectives.*
 - IO Consider assessment tools that measure student achievement of the educational objectives.*
- OBJ E2.2.2 (Synthesis) Prepare and deliver didactic instruction on a topic relevant to the specialized area of pharmacy residency training.
- IO Identify educational technology that could be used for a class session, module, or course (e.g., streaming media, course management software, audience response systems).*
 - IO Create instructional materials appropriate for the topic and audience.*
 - IO Identify strategies to deal with difficult learners.*
 - IO Given feedback from teaching evaluations (e.g. student and or peer), devise a plan to incorporate improvements in future instruction.*
- OBJ E2.2.3 (Application) Develop and deliver cases for workshops and exercises for laboratory experiences.
- IO Identify the appropriate level of case-based teachings for small group instruction.*
 - IO Identify appropriate exercises for laboratory experiences.*
 - IO Provide appropriate and timely feedback to improve performance.*
- OBJ E2.2.4 (Application) Serve as a preceptor or co-preceptor utilizing the four roles employed in practice-based teaching (direct instruction, modeling, coaching and facilitation).
- IO Assess the learner's skill level to determine the appropriate preceptor strategy for providing practice-based teaching.*
 - IO Given performance-based criteria, identify ways to provide constructive feedback to learners.*
 - IO Develop strategies to promote professional behavior.*
 - IO Identify strategies to deal with difficult learners in the practice setting.*
 - IO Given a diverse learner population, identify strategies to interact with all groups with equity and respect.*
- OBJ E2.2.5 (Analysis) Develop a teaching experience for a practice setting (e.g., introductory or advanced pharmacy experience).
- IO Create educational goals and objectives to be achieved.*
 - IO Develop activities that will allow achievement of identified educational goals and objectives.*
 - IO Identify how and when feedback should be provided.*
 - IO Identify other preceptors for the experience, if appropriate.*
 - IO Determine training that might be needed for the preceptors to deliver student education.*
 - IO Identify potential challenges of precepting and providing patient care services simultaneously.*

- OBJ E2.2.6 (Synthesis) Design an assessment strategy that appropriately measures the specified educational objectives for the class session, module, course, or rotation.
- IO Identify appropriate techniques for assessing learning outcomes in various educational settings [e.g., written examinations, oral examinations, practical examinations, Objective Structured Clinical Examination (OSCE)].*
 - IO Develop examination questions to assess the knowledge, skills, attitudes and behaviors that are appropriate to the learner's level and topic.*
 - IO Discuss the various methods for administering examination questions (e.g., computerized testing, paper testing).*
- OBJ E2.2.7 (Evaluation) Create a teaching portfolio.
- IO Define the concept of a teaching portfolio and describe its primary purpose*
 - IO Outline the steps in building a teaching portfolio.*
 - IO Develop a personal teaching philosophy to guide one's teaching efforts and facilitate student learning.*
- OBJ E2.2.8 (Evaluation) Compare and contrast methods to prevent and respond to academic and profession dishonesty.
- IO Evaluate physical and attitudinal methods to prevent academic dishonesty.*
 - IO Discuss methods of responding to incidents of academic dishonesty.*
 - IO Discuss the role of academic honor committees in cases of academic dishonesty.*
 - IO Identify examples and methods to address unprofessional behavior in learners.*
- OBJ E2.2.9 (Comprehension) Explain the relevance of copyright laws to developing teaching materials.
- IO Discuss copyright regulations as related to reproducing materials for teaching purposes.*
 - IO Discuss copyright regulations as related to linking and citing on-line materials.*

Outcome E3: Where the psychiatric pharmacy practice is within a setting that allows pharmacist privileging, successfully apply for privileging.

- Goal E3.1 Successfully petition for privileging as a psychiatric pharmacy practitioner.
- OBJ E3.1.1 (Application) Follow established procedures to successfully apply (may be a hypothetical application if not permitted at the site) for privileging as a psychiatric pharmacy practitioner.
- IO Explain the importance of privileging and how that influences practice.*
 - IO State the practice setting's policy for applying to be privileged as a psychiatric pharmacy practitioner.*

Outcome E4: Contribute to the development of guidelines.

- Goal E4.1 Contribute to the review of existing, or the development and implementation of, evidence-based guidelines for medications used in individuals with psychiatric or neuropsychiatric disorders.

- OBJ E4.1.1 (Analysis) Identify the need for a new or modification of an existing guideline for a medication used in individuals with psychiatric or neuropsychiatric disorders by comparing the applicability of existing guidelines to the needs of the organization.
- OBJ E4.1.2 (Synthesis) Develop a new or modify an existing medication-related guideline for the care of individuals with a psychiatric and neuropsychiatric disorders based on best evidence and the characteristics of the local environment and patients.
IO Explain factors to consider when tailoring an existing guideline to the needs of one's organization.
- OBJ E4.1.3 (Synthesis) Formulate a strategy that will successfully implement a guideline for a medication used in the care of individuals with psychiatric and neuropsychiatric disorders.
IO Explain the importance of using an interdisciplinary approach to implementation of a medication guideline.
- OBJ E4.1.4 (Evaluation) Assess the results of implementing a medication-related guideline for the care of individuals with psychiatric and neuropsychiatric disorders.

Outcome E5: Design and implement a new psychiatric pharmacy-related service.

- Goal E5.1 Develop a proposal for a new psychiatric pharmacy-related service.
- OBJ E5.1.1 (Synthesis) Write a proposal for a psychiatric pharmacy-related service that meets a perceived need of the health system and its patients.
- OBJ E5.1.2 (Application) Use effective presentation skills to present a proposal for a new psychiatric pharmacy-related service to the various concerned entities within the health system.
- OBJ E5.1.3 (Evaluation) Employ effective strategies for implementing a new psychiatric pharmacy-related service.
- OBJ E5.1.4 (Evaluation) Evaluate a new psychiatric pharmacy-related service for adequacy in meeting the stated goals.

Approved by the ASHP Commission on Credentialing on August 21, 2007. Endorsed by the ASHP Board of Directors on September 28, 2007. Endorsed by the College of Psychiatric and Neurologic Pharmacists (CPNP) Board of Directors on March 2007. Developed by the ASHP Commission on Credentialing in collaboration with the American College of Clinical Pharmacy (ACCP) and CPNP. The design group comprised the following psychiatric pharmacy practitioners, residency program directors, and ASHP staff: Julie A. Dopheide, Pharm.D., BCPP, Associate Professor of Clinical Pharmacy, Psychiatry and the Behavioral Sciences, University of Southern California Schools of Pharmacy and Medicine; Matthew A. Fuller, Pharm.D., BCPS, BCPP, FASHP, Clinical Pharmacy Specialist, Psychiatry, Louis Stokes Cleveland Department of Veterans Affairs Medical Center; Stephen R. Saklad, Pharm.D., BCPP, Director, Psychiatric Pharmacy Residency Program, University of Texas Health Science Center at San Antonio; Bruce A. Nelson, R.Ph., M.S., Director, Operations, Accreditation Services Division, ASHP; and Christine M. Nimmo, Ph.D., Director, Standards Development and Training, Accreditation Services Division, ASHP. This document replaces the educational goals and learning objectives for psychiatric pharmacy practice residencies approved by the ASHP Board of Directors on November 15, 1997. The contribution of reviewers is gratefully acknowledged.

Copyright © Year 2007, American Society of Health-System Pharmacists, Inc. All rights reserved.

The effective date for implementation of these educational outcomes, goals, and objectives is July 1, 2008.

Appendix

Core Experiences in Patient Care

For each of the following psychiatric, neurological, and developmental disorders, the resident should be able to describe the clinical presentation, pharmacotherapeutic treatments, their alternatives, and monitoring parameters for therapeutic effects and adverse reactions or toxicity:

1. Schizophrenia and other psychotic disorders
2. Bipolar Disorder
3. Major Depressive Disorder
4. Anxiety disorders (GAD, Panic, OCD, SAD, PTSD)
5. Sleep disorders
6. Psychoactive substance-use disorders (including information on routes of administration of psychoactive substances and common street names)
7. Personality disorders
8. Psychiatric disorders in the elderly
9. Psychiatric disorders in children and adolescents
10. Neurological disorders
11. Developmental disorders
12. Syndromes associated with aggression, hostility, or agitation

A. *Required Learning Experiences.* The resident's training shall include training in the following required areas:

1. Adult inpatient psychiatry (acute or "step-down unit")
2. Outpatient clinic, "partial hospitalization," or day treatment center

B. *Selected Learning Experiences.* A minimum of two from the following seven shall be selected. Experiences should be chosen to provide variety in the patient populations with whom the resident works:

1. Child and adolescent psychiatry
2. Developmental disabilities
3. Geriatric psychiatry (acute, ambulatory, or long term care)
4. Neurology (*e.g.*, epilepsy, movement disorders, headache)
5. Substance abuse treatment
6. Consultation liaison psychiatry
7. Chronic, intermediate, or extended inpatient psychiatric care

C. *Elective Experiences.* The following may be taken as electives:

1. Administration
2. Eating disorders
3. Emergency psychiatry
4. Forensic psychiatry

5. Mental health court
6. Specialty clinic (*e.g.* mood disorders, clozapine, depot antipsychotic, movement disorders, HIV/psychiatry, hepatitis)
7. Pain management (inpatient or outpatient)
8. Sleep disorders
9. Pregnancy and postpartum psychiatric disorders
10. Psychopharmacology laboratory and pharmacokinetics
11. Community mental health screening
12. Other (based upon the identified needs of the individual resident and the resources available to the residency program)