# RESIDENCY MANUAL

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The Ten Commandments

I. Thou shalt question everything.

II. Thou shalt never give anyone reason to question thy work ethic.

III. Thou shalt never ignore thy responsibility to the sick and injured.

IV. Thou shalt be a model of professionalism, integrity and responsibility at all times.

V. Thou shalt recognize your own biases and be objective when providing care.

VI. Thou shalt balance thy professional and personal life, giving no undue time or attention to either.

VII. Thou shalt honor and respect thy peers.

VIII. Thou shalt come to work every day with purpose: work hard, learn and deliver exceptional care.

IX. Thou shalt respect the roles and concerns of other members of the healthcare team.

X. Thou shalt contribute as much to the profession as thou took from it.
INTRODUCTION

Congratulations, and welcome to the SSM Health Saint Louis University Hospital Pharmacy Residency Program! The Residency Manual was developed to guide current and future residents, document our policies and expectations, and to address questions or concerns that may arise during the residency year. The information contained herein serves as the basis and structure of the residency program, but is subject to change at the discretion of the Program Director and Director of Pharmacy Services based on department or individual needs.

MISSION, VISION, GOALS AND SCOPE OF SERVICE

Mission and Vision

SSM Health mission: “Through our exceptional health care services, we reveal the healing presence of God.”

In accordance with the philosophy of the Franciscan Sisters of Mary, we value the sacredness and dignity of each person. Therefore, we find these five values consistent with both our heritage and ministerial priorities: Compassion, Respect, Excellence, Stewardship, Community.

Saint Louis University Hospital is a regional leader providing tertiary-quaternary healthcare in the SSM Health network, in partnership with the physicians of the Saint Louis University School of Medicine. We are the primary teaching site for health professions’ education for the University, training tomorrow’s health care leaders. We engage the passion of our people and partners in holistic care, respectful and inclusive of the uniqueness of each person.

The mission of the Department of Pharmacy Services is to provide safe and compassionate high quality, evidence-based pharmaceutical services in a professional, collaborative, and financially responsible environment.

The vision of the Department of Pharmacy Services is to be a recognized leader in pharmacy excellence by contributing to the optimal patient experience through:

- Recognizing our pharmacy staff as the foundation for our success
- Providing innovative, adaptable, cost-effective, and evidence-based pharmaceutical care as an integral member of the healthcare team
- Ensuring safe transitions of care across the healthcare continuum
- Educating today’s providers to become tomorrow’s leaders in healthcare

Goal

The Department of Pharmacy Services assists in meeting this mission through our departmental goal of:

Providing high-quality, comprehensive pharmaceutical care to patients in an atmosphere of educational growth, shared respect and communication. Pharmaceutical care has been defined as “the responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient’s quality of life.” To this end, the Department of Pharmacy Services, in conjunction with the Department of Nursing, hospital administration and the medical staff, has directed efforts towards promoting and maintaining the role of pharmacy within the medication use system.

Scope of Service

The Department of Pharmacy Services ensures the safe, effective, timely and economical use of medications through provision of the following clinical and distributive services by licensed personnel:
1. The Department of Pharmacy Services ensures the accurate preparation, dispensing and administration of medications. Pharmacists verify medication orders; review and maintain accurate patient profiles; and ensure accurate medication compounding, dispensing and administration of medications. In addition, the Department of Pharmacy Services also recruits and retains specialized individuals qualified to deliver advanced clinical services via multidisciplinary rounds, protocol development, policy implementation and involvement in clinical research.

2. Pharmacists review and evaluate medication orders for appropriateness of medication ordered, dosage, route and frequency of administration. Pharmacists consider patient-specific factors (age, weight, allergies, comorbidities, etc.), drug-specific factors (pharmacokinetics, pharmacodynamics, potential adverse events, etc.), previously ordered medications, medical staff policies and the biomedical literature in determining the appropriateness of the order. Pharmacists confer with physicians, nurses and other health care providers as needed to achieve optimal patient outcomes. If, in the pharmacist’s opinion, the therapeutic plan requires modification based on the above parameters, the prescriber is contacted and an alternate plan discussed.

3. The Department of Pharmacy Services further contributes to patient care and to the profession of pharmacy by serving as a training site for pharmacy students and residents. Trainees will learn to incorporate the concepts of evidence-based medicine as part of the delivery of comprehensive pharmaceutical care and to facilitate the delivery of care by functioning as an integral member of the healthcare system.

4. The Department of Pharmacy Services provides a formulary management process including the addition, deletion, temporary approval and recall of medications. Pharmacy personnel ensure the appropriate availability, procurement and storage of pharmaceuticals included on the hospital’s formulary.

5. The Department of Pharmacy Services coordinates the identification, researching, and cataloging of Adverse Drug Reactions (ADRs) and Medication Errors (MEs). Further, the Director of Pharmacy or his/her representative reports serious ADRs and MEs to the Pharmacy, Therapeutics, Nutrition and Transfusion (PTNT) Committee. Action plans will be developed to manage or prevent particularly serious or recurrent events if deemed necessary by the PTNT Committee.

6. Investigational drugs are handled according to protocol, including proper records of use and storage.

7. The Department of Pharmacy Services provides drug information to physicians, nurses and other health care professionals.

8. The Department of Pharmacy Services provides a Medication Utilization Evaluation (MUE) process; a criteria-based process of drug usage monitoring and evaluation.

9. All medication orders and drug distribution policies and procedures approved by the medical staff shall meet JCAHO standards, federal laws and regulations and Missouri state laws and regulations.

10. The Department of Pharmacy Services is staffed 24 hours a day, seven days a week.
SAINT LOUIS UNIVERSITY HOSPITAL RESIDENCY ADVISORY COMMITTEE

The Residency Advisory Committee, composed of residency program directors, preceptors and pharmacy administrators, meets regularly and as needed. The Committee is responsible for:

1. Approving residency program and rotation goals and objectives
2. Assuring that residents and the program meet stated goals and objectives
3. Assuring that the program meets ASHP standards
4. Developing new residency practice opportunities
5. Approving preceptors and rotations
6. Reviewing individual resident plans, goals, rotation objectives and performance
7. Reviewing and approving resident research projects
8. Recruiting new residents
9. Reviewing and maintaining the quality of the residency program
10. Other duties deemed necessary by the committee

MEMBERS

Chairperson(s): Stacy Revelle, Pharm.D., BCPS (PGY1 pharmacy residency program director)
Bobby Sbertoli, Pharm.D., BCCCP (PGY2 critical care residency program director)

Members: Julia Alexander, Pharm.D., BCPS (Residency coordinator)
James Braun, Pharm.D., BCCCP
Timothy Heuring, Pharm.D., MHA, BCPS
Liz Gau, Pharm.D., BCCCP
Janet Laquet, Pharm.D., BCPS, BCOP
Valerie Mansfield, Pharm.D., BCPS
Kelly Martin, Pharm.D. MS, BCPS
Anna Schmidt, Pharm.D., BCPS
Joseph Van Tuyl, Pharm.D., BCPS
Emily Welch, Pharm.D., BCPS
Susan Woelich, Pharm.D., BCOP

As an organization, SSM Health has a system RAC composed of individual institutions’ residency program directors and coordinators, along with some administrators. This group meets to share information pertaining to best practices in the conduct of resident training; however the system RAC does not have governance over the Saint Louis University Hospital (SLUH) RAC or its residents. The guidance and requirements as set forth in the SSM Health SLUH residency manual are applied to the SLUH program residents, and they are expected to adhere to the outlined principles and policies contained within it.

RESIDENCY PROGRAM COORDINATOR ROLES

The Residency Program Coordinator serves in a leadership and supportive role within the residency program and assists the Residency Program Directors (RPD) with administrative duties/activities for the conduct of the residency program. The duties and activities that the Coordinators assist with include, but are not limited to:

1. Assisting with the quarterly evaluation and update of the Resident Development Plan for selected resident(s)
2. Participation in recruitment activities (local/national residency showcases, updating recruitment materials, website updates)
3. Residency candidate application evaluation and communication with candidates
4. Residency Advisory Committee (RAC) agenda planning and minutes
5. Residency scheduling (rotations, presentations, etc.)
RESEARCH SUBCOMMITTEE

The research subcommittee is a small group of preceptors formed to improve the research process at Saint Louis University Hospital. The subcommittee has been tasked by RAC to evaluate research ideas prior to the start of the residency year. The subcommittee also serves as a resource for residents and preceptors when issues arise throughout the residency year. Membership on the committee may change on a year to year basis.

PHARMACY SERVICE AND HOSPITAL ORIENTATION

Each July is dedicated to orient new residents to the mission, policies, procedures, and general activities of the Saint Louis University Hospital Department of Pharmacy Services. The orientation includes the following:

1. Hospital Orientation

   The Department of Human Resources presents a basic hospital orientation. This program introduces the resident to SSM Health Saint Louis University Hospital's mission, philosophy, policies, procedures, benefits, and other general information. It also provides basic health and safety information required by state and federal law. This program is generally completed over the first two days of employment. As an employee of the hospital, the resident is expected to adhere to all policies applicable to pharmacists.

2. Patient Care, Pharmacy, and General Computer Training

   During the orientation learning experience, the residents are instructed in the use of the patient care computer system. Computer training emphasizes information organization, medication order review and verification, patient information access, database management, and communications.

3. Pharmacy Practice Duties

   During orientation the resident is assigned to work in the general pharmacy practice area to gain practical experience and get acquainted with the pharmacy staff. The resident receives training in various areas of the pharmacy and on patient care floors.

4. Distributive Responsibilities

   Residents are assigned to scheduled general pharmacy practice coverage (“staffing”) on scheduled weekends and/or weekday evening shifts. These shifts may be days or evenings and may include duties in central pharmacy, on the floors, in satellites or other areas as dictated by the program director. The typical resident staffing schedule includes two 8-hour shifts every fourth weekend, and one 4-hour shift every week; this is subject to change based on department and resident needs. Residents who have received their Missouri pharmacist license will work independently; those that have not will have limited responsibilities as described in this manual.

5. Start Dates/Calendar

   The incoming residency class will start on the first available orientation period after July 1 of the interviewing year. If possible, residents may be asked to attend orientation before July 1. A detailed orientation schedule will be prepared as part of the Resident Development Plan.

6. Professional Conduct

   As a representative of the department of pharmacy as well as the hospital, it is the responsibility of the resident to conduct themselves in a professional manner, which includes appearance and behavior. Pharmacy residents will dress professionally at all times (business casual at a minimum), and adhere to the overall hospital dress code policy. If the resident wears attire that is deemed unprofessional or
noncompliant with the policy by the RPD or preceptors, the resident will be asked to leave and change into appropriate attire before returning.

**PRACTICE ROTATIONS/LEARNING EXPERIENCES**

Saint Louis University Hospital pharmacy residents are required to complete twelve (12) months of learning experiences during their residency, eleven of which must be completed at Saint Louis University Hospital. Additional rotations may be taken at affiliated institutions to meet specific skill needs and interests of each resident if approved by the program director and Residency Advisory Committee. The resident position is a full time commitment. Residents are expected to report according to the learning experience and preceptor’s schedule. When residents are staffing they are required to report according to their assigned shift on the pharmacy schedule.

The following learning experiences and associated preceptors are listed below:

### PGY1 Residency

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<th>PRECEPTORS</th>
<th>TYPE</th>
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<tbody>
<tr>
<td>Bone Marrow Transplant</td>
<td>Susan Woelich, Pharm.D., BCOP</td>
<td>Patient care</td>
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<tr>
<td>Bone Marrow Transplant Clinic</td>
<td>Janet Laquet, Pharm.D., BCPS, BCOP</td>
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<tr>
<td>Distributive Services</td>
<td>Kelly Martin, Pharm.D., MS, BCPS, BCPS</td>
<td>Longitudinal</td>
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<td></td>
<td>Julia Alexander, Pharm.D., BCPS</td>
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<tr>
<td>Emergency Medicine</td>
<td>Stacy Revelle, Pharm.D., BCPS</td>
<td>Patient care</td>
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<tr>
<td>General Cardiology</td>
<td>Joseph Van Tuyl, Pharm.D., BCCP, BCPS</td>
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<td>Susan Woelich, Pharm.D., BCOP</td>
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<td>Infectious Disease</td>
<td>Emily Welch, Pharm.D., BCPS</td>
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<td>Integrated Practice</td>
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<td>Neurocritical Care</td>
<td>James Braun, Pharm.D., BCCCP</td>
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<td>Pharmacy Practice Management/Medication</td>
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<td>Safety/Investigational Drug Service</td>
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<td>Anna Schmidt, Pharm.D., BCPS</td>
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<td>Pulmonary/Medicine Critical Care</td>
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<td>Bobby Sbertoli, Pharm.D., BCCCP</td>
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<td>Research</td>
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<td>Resident Orientation</td>
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<td>Teaching</td>
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<td>Trauma Critical Care</td>
<td>Julia Alexander, Pharm.D., BCPS</td>
<td>Patient care</td>
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**PGY1 Required Rotations:**
- Resident Orientation, Integrated Practice, Infectious Disease, Pharmacy Practice Management/Medication Safety/Investigational Drug Service, General Cardiology, Distributive Services, Longitudinal Resident Development, Research, Teaching
- One Critical Care rotation: Trauma Critical Care, Neurocritical Care, Pulmonary/Medicine Critical Care
- Two of: Hematology, Bone Marrow Transplant, Bone Marrow Transplant Clinic

**PGY1 Elective Rotations:** Emergency Medicine, 2nd critical care experience, 3rd hematology/transplant experience

### PGY2 Critical Care Residency

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<th>LEARNING EXPERIENCE</th>
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<td>Advanced Emergency Medicine</td>
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<td>Critical Care</td>
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<td>Advanced Trauma Critical Care</td>
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<td>Longitudinal Resident Development</td>
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<tr>
<td>Trauma Critical Care</td>
<td>Julia Alexander, Pharm.D., BCPS</td>
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**PGY2 Required Rotations:**
- Resident Orientation (if not an early commit from this institution), Emergency Medicine, Infectious Disease, Pulmonary/Medicine Critical Care, Advanced Pulmonary/Medicine Critical Care, Neurocritical Care, Trauma Critical Care, Surgical Critical Care, Cardiology Critical Care, Distributive Services, Research, Teaching

**PGY2 Elective Rotations:** Hematology, Advanced Trauma Critical Care, Advanced Emergency Medicine

Rotations for PGY1 and PGY2 residents are 5 weeks in length for all patient care, non-patient care, and administrative experiences; longitudinal experiences take place throughout the year concurrently with other learning experiences. The learning experience descriptions with their associated goals, objectives, learning activities, and criteria for evaluation are available in PharmAcademic. These descriptions allow the resident to choose preceptors and practice experiences that best complement his/her practice interests, skill development needs, and career goals.

**INITIAL ASSESSMENT AND DEVELOPMENT PLAN FOR RESIDENCY TRAINING**

In order to plan a challenging program that fulfills each resident’s professional goals and objectives, it is crucial to assess initial interests, goals, strengths, and weaknesses. This assessment will be made during the orientation period with the program director and a rotation schedule will be devised. Prior to this, the resident must complete the ASHP Entering Interests Form and the Entering Objective-Based Self-Assessment in PharmAcademic as directed by the RPD. Progress and any adjustments will be reviewed quarterly during the course of the residency and documented in the Resident Development Plan. The most recent plan will always be available in PharmAcademic.

**EVALUATIONS**

The resident must be evaluated at the end of each learning experience by his/her preceptor by both verbal and written assessments. In addition, all assignments, including journal clubs and presentations, must be evaluated by all preceptor attendees. The Residency Learning System will be used to provide a consistent method of training. Residents will be evaluated based on a 1-5 scale:

- N/A – Not Applicable
- 1 - Does not know/No progress/Unable to complete basic/routine tasks
- 2 - Knows/Some progress, but below expectations. Requires guidance/extensive questioning to complete some or all basic tasks
- 3 - Knows how/Progress meets expectations. Independently completes all basic and routine activities.
- 4 - Shows how/Competent/Progress exceeds expectations. Consistently, independently completes basic and routine activities and starting to complete some complex patient care activities.
- 5 - Does/Mastered/Progress significantly exceeds expectations. Consistently, independently and efficiently completes all basic/routine and most complex patient care activities

Residents are evaluated by each preceptor considering 1) how the resident compares to an individual with the same level of training or experience and 2) the level of improvement in the skill since the last performance.
Preceptor written comments should be specific and actionable as related to the educational goals and objectives with the focus being on how the resident may improve their performance. A score of “3” indicates that the resident has met the minimum expectations for the criterion being evaluated and denotes satisfactory progress of the resident.

The categories of required documented evaluations are listed below.

1. Rotation Evaluation of the Resident (by the Preceptor)

   The preceptor must evaluate the resident on the extent of their progress toward achievement of assigned educational goals and objectives, with reference to specific criteria. This evaluation will determine when a resident has achieved an objective and describe the behaviors, attributes and skills of the resident during and on completion of the rotation. Criteria assigned a score less than “3” should be regarded as areas of emphasis for the next evaluation period, with the expectation that noticeable improvement will have taken place. A score below “3” on the “Overall Performance” criterion indicates that the resident failed to satisfactorily attain the rotation’s assigned goals and objectives and the experience must be remediated. The type of remediation will be determined by RPD and preceptor. If remediation mandates an entire rotation being repeated, a rotation may not be repeated more than once; if this circumstance presents, then consideration for the resident’s inability to complete the residency based on achievement of all goals and objectives will be discussed by RPD and RAC members, with the resident not being awarded a certificate and/or a corrective plan with human resources with termination a possible outcome. Written evaluation of the resident must be completed at the end of every rotation. However, continuous informal feedback during the rotation is strongly encouraged. All rotation evaluations must be reviewed, signed (or equivalent in PharmAcademic) and dated by the resident, preceptor and program director.

2. Preceptor/Rotation Evaluation (by the Resident)

   The resident must evaluate the quality of each learning experience/rotation, including the preceptor’s performance as a teacher and mentor. This should be completed at the end of the rotation and discussed with the preceptor. The resident’s evaluation provides useful information to the program director regarding the resident’s evaluation of the strengths and weaknesses of the rotations, the preceptors and the residency program in order to improve the quality of future practice experiences.

3. Self-Evaluations

   The ability to self-evaluate is considered an important skill. Individual preceptors may decide to assign a resident to complete a self-evaluation based on preceptor discretion and/or direction from the RPD. Preceptors will evaluate the quality and accuracy of the resident’s self-evaluation of his or her rotation performance at the final evaluation by providing comments specific to the resident’s self-evaluation in the “Preceptor Comments” area of the resident’s self-evaluation. All rotation self-evaluations must be reviewed, signed and dated by the resident, preceptor and program director.

   PGY1 residents will complete quarterly self-evaluations to evaluate their progress. In addition, PGY1 residents will be required to complete final self-evaluations on two of their required clinical rotations.

   PGY2 residents must evaluate their own performance 1) at the end of each learning experience, 2) after completion of each assignment and 3) at the end of each quarter (for longitudinal learning experiences).

   Both PGY1 and PGY2 residents will also be required to complete self-evaluations on their case and journal club presentations to be discussed with the primary preceptor for the assignment.

4. Quarterly Evaluations
After review of all rotation evaluations and completion of all quarterly evaluations (distributive services, research, teaching, pharmacy practice management/medication safety/investigational drug service), a plan for the following quarter is devised by the program director and resident. The Resident Development Plan is updated based on resident and program director assessment of the resident’s strengths, weaknesses, interests, needs and career plans as well as rotation, project and presentation performance. Criteria assigned a score less than “3” should be regarded as areas of emphasis for the next evaluation period, with the expectation that noticeable improvement will have taken place; the RPD should review these identified areas for improvement at RAC meetings so all preceptors are aware. Evaluation of the resident’s progress in achieving the program’s goals and objectives will be completed in conjunction with the customized development plan. The RPD will determine if the specific program’s goals and objectives have been achieved. Required program goals and objectives must achieved at least twice during the residency program, with a minimum score of 3 denoting achieved; these will be marked as “Achieved for Residency” (ACHR). A score of 3 or more on consecutive rotations will be sufficient to document ACHR. If the resident has a score below 3 on a subsequent rotation after ACHR, the resident must score a 3 or higher on a subsequent evaluation to maintain ACHR. The RPD will review the quarterly evaluation with the resident at the end of each quarter to track the percentage of objectives achieved for residency. All quarterly evaluations must be reviewed, signed (or equivalent in PharmAcademic) and dated by the resident and program director. At the end of the year, there is a final evaluation of the resident that is documented as part of the Resident Development Plan.

5. Evaluation of Resident Assignments and Presentations

For exercises such as journal clubs or presentations, a score below “3” on the “Overall Performance” criterion indicates that the overall performance was unsatisfactory and may need to be repeated/remediated. The overall score assigned is not a mathematical average since there is no objective formula to define what combination of criteria constitutes a satisfactory performance; it is up to the evaluator to make that determination. After collaboration, the rotation preceptor and the program director will make the final decision on repeating or remediating the exercise. Examples of remediation include assignment of relevant readings, topic discussion with preceptor, or revision of the written handout.

All evaluations must be completed in a face-to-face discussion held between the resident and preceptor/program director within five business days of the completion of each rotation or assignment. It is important to complete the evaluations in a timely fashion to assure that the information contained within the evaluation is timely and accurate. Completed evaluations must be returned to the resident for inclusion in the Residency Notebook. If the completion of an evaluation must be delayed to allow completion of requirements or due to schedule problems, please communicate this to the program director.

RESIDENCY AND PRECEPTOR QUALITY PROGRAM

In order to ensure the continued quality of the residency program, both new and experienced preceptors must seek to improve their teaching skills. At the same time, the residency program is obligated to ensure the continuity of the learning experience for all residents in the program. This is accomplished through the Preceptor Assessment and Development Strategy. Some elements of this policy are described below.

1. Preceptor/site evaluations

The resident must evaluate the quality of each rotation, including the preceptor’s performance as a teacher and mentor. Information documented in the Preceptor/Site Evaluation (See “Evaluations”) will be cataloged and used by the program directors to ensure consistency in achievement of minimum rotation requirements, effectiveness of teaching and suitability of rotation sites. Also, trends in preceptorship requiring modification, either related to the program or an individual preceptor, can be identified and
addressed by the program director and/or the Residency Advisory Committee. At least annually, the program directors will assess the effectiveness of each preceptor and site and, if necessary, discuss options for improving the rotation experience.

2. Minimum rotation requirements

The Residency Advisory Committee has identified a set of rotation standards that must be achieved for every rotation. The consistent achievement or failure to achieve these standards may be used in assessing the suitability of a given rotation:

a) **Orientation to the rotation site** should be performed by the preceptor at the outset of the rotation and should include elements that are integral to the resident’s performance (i.e., introduction to team members, location of patients, location of references, time and location of conferences/meetings).

b) **Expectations of the resident** should be addressed in a face-to-face discussion between the preceptor and the resident at the beginning of the rotation. Expectations are delineated in each Learning Experience Description.

c) **Execution of the rotation** will follow the Learning Experience Description, unless significant variability is required by external circumstances. Such circumstances should be documented in the rotation evaluation.

d) **Five days of modeling** (i.e., rounding with the resident, if applicable), which might vary according to resident experience and comfort level as discussed between resident and preceptor. The expected time periods for preceptor modeling, coaching, and facilitation are delineated in each Learning Experience Description.

e) At least 4 scheduled topic discussions conducted between the resident and preceptor.

f) **A minimum of 8 patient care discussions**, although consistent patient care discussions throughout the learning experience is encouraged and expected.

g) **All evaluations will be completed and reviewed in a face-to-face meeting between preceptor and resident within five business days of the completion date.** This includes the final rotation evaluation. In the case of presentation evaluations, the preceptor from whose rotation the topic content was drawn (or their designee) is responsible for collecting and reviewing the evaluations with the resident.

3. Continuing preceptor education

Preceptors will use the following learning opportunities to promote their professional development:

a) Resident presentations

b) Pharmacotherapy Self-Assessment Program continuing education (for BPS-certified practitioners)

c) Other methods of self-learning including, but not limited to, literature review, preparation of presentations and teaching- and practice-based learning

d) SLU medical or surgical conferences

e) Local and national meetings in their area(s) of practice

4. New preceptor development (see Preceptor Assessment and development strategy – below)

a) Local and national preceptor development meetings

b) On-site orientation to the program and expectations by program directors

c) Assistance with setting up rotations for new preceptors, peer review of new learning experience description

d) Assignment of preceptor mentor
Preceptor Assessment and Development Strategy for SSM Health Saint Louis University Hospital PGY1 Pharmacy Residency and PGY2 Critical Care Residency Programs

PURPOSE:
To outline how the SSM Health Saint Louis University Hospital residency program director (RPD) will determine if prospective residency preceptors meet the standards set forth by this residency program and/or the American Society of Health-System Pharmacists (ASHP) Residency Accreditation Standard.

To establish a policy and procedure for preceptor development and improvement in accordance with the ASHP accreditation standards.

To define strategies for ongoing program improvement and to define a plan of action to ensure a high level of competency for all pharmacists involved as residency preceptors.

POLICY:
The Saint Louis University Hospital Pharmacy Residency Program will evaluate and select potential preceptors as well as maintain preceptor development and improvement in accordance with ASHP standards.

RESPONSIBILITY:
The RPD is responsible to select residency preceptors based on standards set forth and reassess preceptors for continued adherence to these standards.

The RPD, with support from pharmacy management, is responsible for providing preceptors with the opportunity for development of knowledge and skills related to serving as an effective preceptor. It is the responsibility of each individual preceptor to participate in opportunities offered.

Overall responsibility for residency program quality improvement is with the RPD and the Residency Advisory Committee (RAC).

PROCEDURES:

2. The ASHP Accreditation Standards for PGY1 (Standard 3.5) and PGY2 (Standard 3.5) Residency Programs establish that a residency program should undergo continual program evaluation and improvement.

   a. The RPD evaluates potential preceptors based on their desire to teach and their aptitude for teaching (as differentiated from formal didactic instruction). The RPD shall evaluate the current preceptor list annually to determine if listed preceptors maintain the desire and aptitude to precept residents. Desire will be determined based on subjective information and evaluations from current residents involved with each preceptor. Aptitude is based on each preceptor’s current privileging status with the hospital (active license, etc.), meeting of eligibility and qualification criteria set forth in the ASHP Accreditation Standard for PGY1 (Standard 4.6, 4.8.a-f) and PGY2 (Standard 4.6 a-b, 4.8 a-f) Pharmacy Residency Programs, along with participation in preceptor development activities and evaluation of preceptors from current and previous residents. The RPD has the authority to add or remove preceptors from the preceptor list at any time at his/her discretion. Based on this assessment, the RPD will confirm reappointment of each
qualified preceptor and update the current preceptor roster list before the start of the new residency year. If qualifications are no longer being met, the RPD will assign a mentor and follow the new preceptor appointment process as defined in the manual.

b. The RPD provides preceptors with opportunities to enhance their teaching skills. It is the responsibility of the RPD to determine which activities will be offered for preceptor development. For presentations, or other group educational activities, preceptors will be required to sign in to the program, remain for the entire program, and complete all the necessary activities for credit. For suggested personal activities (articles, online seminars, etc.), the honor system will be used. The RPD should provide at least two activities per residency year. The activities may include, but are not limited to:
   • An overview by the RPD (or preceptor, if applicable) of the highlights of the National Pharmacy Preceptors Conference
   • A preceptor development activity hosted by the St. Louis College of Pharmacy
   • A formal presentation on a preceptor development topic chosen by the Preceptor of the Year or RAC

c. The RPD utilizes a plan for improving the quality of preceptor instruction based on an assessment of residents’ written evaluation of preceptor performance and other sources. The RPD will use a format supported by ASHP to evaluate preceptor performance and overall rotation experience. Any issues identified by the RPD in any of these evaluations will be addressed by the RPD with the included parties. Any issues brought to the RPD’s attention in addition to official evaluations will be handled in the same manner.

d. At least annually, the RPD will consider overall program changes based on evaluations, observations, and other information obtained in resident exit interview.

Per section 2a:
The RPD will review the current preceptor list at least annually. The RPD will conduct an exit interview with each resident upon separation from the program. Any information received from this interview, along with information received from evaluations, observations, and other sources will be considered by the RPD for potential program changes. Issues regarding preceptor performance, rotation dissatisfaction, etc. will be discussed with the involved parties by the RPD. The RPD may add or remove preceptors or rotations from the program at any time at his/her discretion.

e. At the end of the residency year, a member of pharmacy management will solicit the input of the residents through the use of an evaluation tool to determine a Preceptor of the Year. A preceptor cannot receive this distinction two consecutive years.

**ACTION:**
The Saint Louis University Hospital residency program will provide activities, opportunities, and resources for preceptor orientation, development, and improvement.

1. Required activities:
   a. Initial preceptor assessment (ability to meet preceptor criteria) will be done during pharmacist position interviews and during orientation.
   b. New preceptor orientation will be completed prior to taking a resident on rotation (new preceptor orientation will occur when a new clinical pharmacist is ready to take residents on rotation, or when new clinical pharmacy specialists are hired). Specifically, new preceptors will:
      i. Be appointed a “preceptor mentor” (will be the most recent Preceptor of the Year, unless circumstances prevent this individual from serving in this capacity).
ii. Be provided an overview of the residency program (i.e., goals, structure, policies, resident responsibilities, preceptor responsibilities) by the RPD
iii. Complete a checklist prior to taking a resident on rotation
   1. Attend/complete at least one preceptor development session/activity
   2. Develop a rotation calendar (with input from preceptor mentor)
   3. Develop a learning experience description (with input from preceptor mentor) that is reviewed and approved by the RAC
   4. Observe at least one resident feedback session led by preceptor mentor
   5. Submit to RPD the ASHP Preceptor Academic and Professional Record

c. Attendance at 75% of Residency Advisory Committee meetings
d. Active participation in residency interviews and/or selection process
e. Completion and submission to the department clinical manager and/or RPD the ASHP Preceptor Academic and Professional Record by June 1 of each year
   https://www.ashp.org/Professional-Development/Residency-Information/Residency-Program-Directors/Residency-Accreditation/Applying-for-Accreditation
f. Completion and submission to the RPD a Preceptor Self-Assessment Form by June 1 of each year
g. Submission to RPD of at least one residency research project idea and seminar topic by June 1 of each year
h. Participation (as a presenter or attendee) at scheduled preceptor development sessions

2. Encouraged activities:
   a. Participating in and facilitating informal preceptor development discussions at scheduled residency advisory committee meetings (e.g. generational gap presentation, leadership presentation, pharmacy topic video, presentation of clinical pearls, preceptor development articles)
   b. Attending local, state, and national programs and bringing information back to share with other preceptors
   c. Participating in training offered by affiliated colleges of pharmacy on preceptor development issues
   d. Actively pursuing scholarship activities in a variety of areas, such as formal presentations, participating as a journal reviewer, writing and submitting publications, performing research
   e. Acquire board certification, fellow status, etc. for formal recognition by peers as a model practitioner
   f. Actively seeking out training for self-improvement in the development of skills as a preceptor

3. Preceptor resources:
   a. ASHP Mentoring and Preceptor Development: https://www.ashp.org/New-Practitioner/New-Practitioners-Forum/Resources/Mentoring-and-Preceptor-Development
   b. American College of Clinical Pharmacy (ACCP): www.accp.com
   c. ACCP Teaching and Learning Certificate Program
   d. ACCP Pharmacotherapy Self-Assessment Continuing Education
   e. ACCP Teaching and Learning Resources
   f. ACCP Guideline Standards of Practice for Clinical Pharmacists
   g. ACCP White Paper: Development of Student Professionalism
   h. ACCP White Paper: Value of Conducting Residency Training
   i. ACCP White Paper: Quality Experiential Education
   j. American Pharmaceutical Association (APhA)
      https://www.pharmacist.com/
ST. LOUIS COLLEGE OF PHARMACY RESIDENT EDUCATION ACADEMY (REA)

SSM Health Saint Louis University Hospital pharmacy residents are required to participate in the Resident Education Academy certificate program at the Saint Louis College of Pharmacy. Residents from many St. Louis area residency sites meet to discuss abilities-based education. The purpose of the workshops is to understand the knowledge, skills, and attitudes necessary to promote student-centered, assessment-driven learning and to use abilities-based education to achieve desired ability outcomes. After completion of the course in the fall, residents will apply these concepts in a didactic teaching setting at St. Louis College of Pharmacy. REA is optional for PGY2 residents who have already completed a teaching certificate program.

ST. LOUIS COLLEGE OF PHARMACY SEMINAR

A formal seminar presentation at St. Louis College of Pharmacy is required during the residency. The formal seminar is an opportunity to develop speaking skills and a presentation that may be used in future job interviews. The resident may choose a topic in any clinical or professional practice area based on the resident’s interests. Topics are preferred to be in a clinical area where a current controversial issue exists and must be approved by the residency program director.

The resident will be assigned a preceptor as a faculty mentor to assist them in preparing a 30-40 minute PowerPoint presentation, which will be followed by a 5-10 minute period of questions and answers. Prepared handouts are required.

Residents should plan ahead and allow appropriate time for the following:

1. Selection of seminar topic
2. Research using PubMed and other resources
3. Preparation of handout and PowerPoint slide presentation

Prior to the scheduled date of the presentation, the resident must present his/her formal seminar to the preceptors for constructive criticism. Revisions and subsequent presentations are at the discretion of the program director, mentor and resident. Documents for completion of the residency seminar can be found here: https://stlcop.edu/practice/ce/deliver-cpe.html

TEACHING OPPORTUNITIES THROUGH ST. LOUIS COLLEGE OF PHARMACY

The St. Louis College of Pharmacy offers a variety of teaching opportunities for pharmacy residents. Opportunities may exist for didactic lectures, discussion group leadership, and student preceptorship.

LICENSED REQUIREMENTS FOR PHARMACY RESIDENTS/DISTRIBUTIVE SERVICES

Technician Licensure in Missouri:
Residents cannot report for work or training without a valid pharmacist, technician, or intern license. New residents NOT LICENSED AS A PHARMACIST IN ANY STATE BY JULY 1 must apply for a Missouri technician or intern license. Residents must have a valid pharmacist license by the start of patient care rotations and should begin pursuing a Missouri pharmacist license as soon as possible after they receive their ASHP Resident Matching Program results.

Pharmacist Licensure in Missouri:
Pharmacy residents have the following options to become a licensed pharmacist in the state of Missouri:

1. **Pharmacist License by EXAMINATION**
   a) Testing is by appointment at participating centers
   b) Must take 2 examinations: NAPLEX (or NAPLEX score transfer) and Missouri MPJE

2. **Pharmacist License by RECIPROCITY**
   a) Resident must be licensed in another state that grants reciprocity
   b) Must take Missouri MPJE

3. **Temporary Pharmacist License**
   a) Resident must be licensed in another state
   b) Allows pharmacists who are licensed in another state to practice in Missouri, but only in approved locations and circumstances (non-Missouri pharmacist in postgraduate training)

Residents must also obtain a Certificate of Medication Therapeutic Plan authority issued by the Missouri Board of Pharmacy. [http://pr.mo.gov/boards/pharmacy/IMTSAPP.pdf](http://pr.mo.gov/boards/pharmacy/IMTSAPP.pdf)

Residents must submit their Pharmacist License application and Medication Therapy Certificate application to the Missouri Board of Pharmacy by June 1 and be prepared to produce evidence of timely submission to the residency program director upon request. Residents must be licensed in Missouri as a pharmacist by August 1 unless granted an extension by the program director. Residents not licensed by September 1 are subject to termination.

For an examination application and instructions contact the Missouri Board of Pharmacy by phone at (573) 751-0091 or visit their website at [http://pr.mo.gov/pharmacists-forms.asp](http://pr.mo.gov/pharmacists-forms.asp)

Pharmacist licensing frequently asked questions: [http://pr.mo.gov/boards/pharmacy/Pharmacist%20Licensing%20FAQ.pdf](http://pr.mo.gov/boards/pharmacy/Pharmacist%20Licensing%20FAQ.pdf)

Please contact the residency program director with any questions or problems as soon as possible.

**PHARMACY RESIDENT WORK ASSIGNMENTS WHILE AWAITING MISSOURI LICENSURE**

A resident who is a graduate of an ACPE-accredited college of pharmacy but has not yet received a Missouri pharmacist license may perform only work assignments not restricted by statute or regulation. The following activities may NOT be performed by a pharmacy resident pending Missouri licensure.

A resident awaiting licensure:
- May NOT verify physician orders in electronic medical record
- May NOT enter orders as a pharmacist in electronic medical record
- May NOT check completed new unit dose medications for correct contents and sign on the "pharmacist" line
- May NOT check completed IV’s and IVPB’s and sign on the "pharmacist" line
- May NOT sign for controlled substance deliveries and issuance or other paper work for scheduled medications
- May NOT prepare oncology chemotherapy
- May NOT check crash carts and operating room case carts and sign on the "pharmacist" line
- May NOT enter or check outpatient prescriptions
- May NOT place chart notes without co-signature from another licensed pharmacist

Independent staffing will begin once the resident has successfully completed hospital and department orientation. Residents will receive ongoing evaluation of their performance as a staff pharmacist by the RPD and other pharmacists assigned to the resident’s shifts.
RECRUITMENT AND SELECTION OF RESIDENTS

SSM Health Saint Louis University Hospital recruits pharmacy residents through meeting contacts and referrals as well as through the Residency Showcase and Personnel Placement Service (PPS) available at the ASHP Midyear Meeting. At Midyear, the program director, current residents, and preceptors in attendance participate in the recruitment of candidates for the residency program. The SSM Health Saint Louis University Hospital Pharmacy Residency participates in the Pharmacy Resident Matching Program through ASHP.

Residency candidates must submit a letter of intent, a copy of their curriculum vitae, an academic transcript and three letters of recommendation via the Pharmacy Online Residency Centralized Application Service (PhORCAS) by the application deadline in order to be considered for an on-site interview. Residency applicants meeting the following criteria may be deemed ineligible for an on-site interview:

- All residency application materials not received by the application deadline
- GPA < 2.7
- Missing information from application
- Past due date
- Application contains 3 letters of recommendation with a recommendation with “reservation” or below
- Application contains 1 letter of recommendation (or more) with a recommendation with “Do Not Recommend”
- 2 Grades of C+ or lower on clerkship or 1 “FAIL”
- 5 or more errors on CV

The number of candidates invited on-site will not exceed 16 (PGY1 program) or 4 (PGY2 program) unless an exception is granted by the program director. The above criteria are applicable after the passing of the application deadline and only when the number of applicants exceeds the maximum allowable for the program. If, after application of all criteria listed above, the number of eligible candidates still exceeds the maximum, the program director will rank the candidates using the Candidate Evaluation Form. An invitation for a one-day, on-site interview will be extended to the top candidates as determined by the program director under advisement from members of the Residency Advisory Committee.

Following completion of all candidate interviews, members of the Residency Advisory Committee participate in the ranking of candidates for each residency program. These rankings and any interviewer comments are reviewed by the program director, who will determine the final rank order of candidates for each residency program. The final rank list for each respective program is submitted to the ASHP Resident Matching Program. All discussions regarding resident selection must be kept strictly confidential amongst the preceptors.

EARLY COMMITMENT PROCESS FOR PGY2 PROGRAMS

Current PGY1 residents are eligible for early commitment to a PGY2 program at Saint Louis University Hospital without participating in the ASHP Resident Matching Program. Each PGY1 resident interested in early commitment to a PGY2 program will be evaluated using the following process:

1. Each eligible and interested resident must submit a letter of intent and curriculum vitae to the director of the PGY2 program of interest by November 1 or as otherwise communicated by the PGY2 program director during the residency year.
2. The program director may schedule the candidate(s) for an abbreviated interview before departure for the Midyear meeting in December.
3. After the interview, the Residency Advisory Committee will meet to discuss and, if necessary, rank the internal candidates. The program director may early commit a resident for the following academic year. Both individuals will sign the letter of agreement (downloadable from: https://natmatch.com/ashprmp/ecp.html) and the program will pay the necessary fees to the National...
Matching Service.
4. All discussions regarding resident selection must be kept strictly confidential amongst the preceptors. This is particularly important when two or more residents are interviewing for the same position.

RESIDENCY PROGRAM CERTIFICATE

Upon successful completion of all program requirements and compliance with all conditions of the residency program, Saint Louis University Hospital will award the resident a certificate indicating successful completion of the residency program. All of the following criteria must be satisfied to successfully complete the program:

1. Satisfactory completion of all rotations as determined by the primary preceptor for the rotation. A score of “3” indicates that the resident has met the minimum expectations for the criterion being evaluated and denotes satisfactory progress of the resident.
2. Completion of the required number of journal clubs and formal case presentations. All must be deemed satisfactory by the program director and the preceptor of the rotation on which the journal club or presentation is given (refer to “Evaluations” section).
3. Completion of a residency research project that is approved by the program director and submission of a formal write-up in manuscript format.
4. Completion of the seminar presentation and, if required by the program director, the Abilities-Based Education Workshops offered at the St. Louis College of Pharmacy.
5. Submission of a Resident Poster for presentation at the ASHP Midyear Clinical Meeting.
6. Completion of all other assignments (e.g. formulary reviews, longitudinal projects, MUEs, CQI projects, etc.)
7. Completion of all forms in PharmAcademic and/or residency notebook.
8. Within each program, the resident must complete the following:
   a. “Achieved for Residency” 100% of goals and objectives within Competency Area R1
   b. “Achieved for Residency” 85% of goals and objectives within the remaining competency areas
      i. Progress towards achieving these goals and objectives will be reviewed quarterly with the RPD
      ii. If not meeting anticipated progression, an action plan will be discussed between the RPD and resident and documented in the development plan
   c. All other goals must have satisfactory progress

Residents who fail to complete all program requirements and/or do not comply with all conditions of the residency program shall not be awarded a certificate of completion.

DISMISSAL OF RESIDENTS

Performance Management (refer to SSM Health Human Resources)
You are expected to meet facility performance expectations and standards of your job. If your performance or conduct does not meet facility expectations and standards, the facility will use a positive performance management and progressive corrective action approach whenever possible to motivate you to participate directly in the resolution of such situations. We believe that such an approach fosters your understanding of and commitment to correct a performance or conduct problem and increases the likelihood of a satisfactory resolution. However, circumstances may arise which make it inadvisable or inappropriate to follow the general Performance Management and progressive corrective action procedures. When circumstances warrant, facility management may decide, in its sole discretion, that some or all of the steps in the Performance Management process should not be followed and that immediate corrective action, including termination of employment is necessary. Employment with the company or any of its facilities is at will, and either you or the facility may terminate the employment relationship at any time with or without notice.

Generally, the Performance Management process involves an initial informal counseling, followed by more formal counseling including suspension, and/or decision-making leave, if necessary, if performance has not improved. If
you have any questions regarding the Performance Management process, please speak to your supervisor or your facility Human Resources Representative.

Specifically, meeting assignment and project deadlines is an important standard of job performance. If, at any time, a resident fails to meet a deadline, the preceptor involved should collaborate with the program director to develop a plan of action. After the first offense, the resident will be counseled by the program director on the importance of meeting deadlines and pulled from rotations to complete the assigned work, if necessary. After the second offense, a written warning will be placed in their permanent employment record in human resources. Subsequent offenses will proceed according to HR policy using positive performance management and progressive corrective action (as stated above).

Episodes of gross misconduct including (but not limited to) grossly inappropriate or unethical behavior, intentional review or manipulation of privileged information or violation of hospital compliance may be punishable by immediate termination.

Resignation and Separation of Employment (refer to SSM Health Human Resources)

Separation of employment, either voluntary or involuntary, is an inevitable part of personnel activity within an organization. It is the policy of the facility to approach each employee termination with fairness, both to the employee and the facility. Since employment with the facility is based on mutual consent, both the employee and the facility have the right to terminate employment at will, with or without cause, at any time.

All accrued, vested benefits that are due and payable at termination will be paid. Some benefits may be continued at your expense if you choose. You will be notified in writing of the benefits that may be continued and the terms, conditions and limitations of such continuation. Your final pay will be distributed in accordance with applicable state law.

In the case of voluntary separation of employment, non-exempt employees, if at all possible, are expected to notify their supervisor two (2) weeks in advance of their last expected day of work. Those employees with management responsibilities are expected, if at all possible, to give four (4) weeks’ notice.

Please be sure to keep us informed of any address changes within the following year after you leave the facility. This will ensure proper and timely handling of forms such as W-2s.

VACATION AND EXCUSED ABSENCES

Pharmacy residents receive 7.2 hours per pay period of paid time off (PTO) and may take vacation time under the following conditions:

1. The resident is eligible to use vacation after 30 days of employment. All Human Resources policies apply; detailed information pertaining to policies may be obtained by contacting Human Resources.

2. Requests for vacation or time off must be submitted electronically to the rotation preceptor, the program director, and pharmacy manager at least 30 days in advance for approval. The resident will work with his/her preceptor and the program director to ensure that alternative arrangements to meet program requirements are made to accommodate the absence. Exceptions may be granted at the discretion of the rotation preceptor and the program director.

4. Residents may trade “staffing” days with other pharmacy residents to secure specific days off; however, residents may not request off on staffing days without an approved trade. Exceptions may be granted for required off-site residency responsibilities.

5. Vacation time should be used to schedule job interviews in the last two to three months of the residency; therefore the resident should save at least five (5) vacation days for interviewing and traveling.
6. No more than two vacation days are allowed on any one rotation. Residents are encouraged to block out single days during the week or around weekends to avoid compromising the quality of rotations. Exceptions may be granted at the discretion of the rotation preceptor and the program director.

7. Vacation time accrued as a resident is retained if the resident continues employment as a pharmacist at SSM Health Saint Louis University Hospital. Otherwise, accrued vacation time not used during the residency will be paid at completion of the residency. (Residents in the past have used their accrued vacation time payout for moving expenses).

EXTENDED LEAVE

Extended leave is defined as a resident missing at least 50% or three weeks of a rotation, whichever is less. At the time the absence is taken, the resident should submit written evidence of the medical necessity of an extended absence. Strategies for make-up may include rearranging the resident’s schedule or, at the discretion of the program director, extending the training period for up to one month. For absences exceeding 6 weeks, termination may be considered.

HOLIDAYS

SSM Health Saint Louis University Hospital recognizes the following holidays:

- New Year’s Day*
- Labor Day
- Memorial Day
- Thanksgiving Day*
- Independence Day
- Christmas Day*
- Thanksgiving Day

*Denotes major holidays

Residents are expected to help provide staffing coverage of the main holidays (Thanksgiving, Friday after Thanksgiving Day, Christmas Eve, Christmas Day, New Year’s Eve and New Year’s Day); the number and exact days will be determined based on scheduling of other department pharmacists. Residents will be scheduled off for the week in between the Christmas and New Year’s holidays as well as all other recognized holidays. Residents may trade holiday coverage with other pharmacy employees under general scheduling rules to secure specific days or holidays off. All time off during holidays are paid out of the employee’s PTO account.

ILLNESS REPORTING

Should a resident be unable to work because of illness or need for medical care, he/she must notify his/her rotation preceptor, program director, and pharmacy manager, and pharmacy scheduler prior to the regular starting time. If notification in writing is not possible, information regarding the nature of the absence, duration of time to be missed and any other pertinent dates, times and locations should be communicated verbally and documented at the first opportunity. These guidelines apply to both on-site and off-site rotations and for illnesses occurring mid-workday.

Missing time during a scheduled residency assignment or other professional deadline is discouraged, but if it is unavoidable, the deadline or assignment date will be moved to the resident’s first day back on rotation. Exceptions may be granted at the discretion of the program director. All hospital and pharmacy department policies regarding illness reporting apply and notification and documentation must be made pursuant to these policies.

DUTY HOURS

Programs must comply with the current duty hour standards as set forth by ASHP [http://www.ashp.org/DocLibrary/Residents/Pharmacy-Specific-Duty-Hours.pdf]. Duty hours are defined as all clinical and academic activities related or unrelated to the residency program. Duty hours must be limited to 80 hours per week, averaged over a 4-week period, inclusive of all in-house call and home call activities and moonlighting. Residents must be provided with 1 day in 7 free from all educational and clinical responsibilities.
averaged over a 4-week period. Residents should have 10 hours free of duty between scheduled duty, and must have at a minimum 8 hours between scheduled duty periods. Residents are responsible for tracking, documenting and ensuring they are in compliance with duty hour requirements and will attest to this quarterly via a PharmAcademic attestation.

Duty periods:
Duty periods for PGY1 residents must not exceed 16 hours. PGY2 residents and above may be scheduled for up to 24 hours of continuous duty in the hospital, but must not be assigned additional clinical responsibilities after 24 hours of continuous duty.

Moonlighting:
Moonlighting must not interfere with the resident’s ability to satisfactorily meet the goals and objectives of the residency program (as assessed by the program director). Time spent by residents in internal and external moonlighting must be counted toward the 80-hour maximum weekly limit. PGY1 residents may not be employed in medical-related work outside of Saint Louis University Hospital for the duration of their residency year. PGY2 residents may maintain outside medical-related work provided: 1) the resident works no more than 8 hours per week; 2) outside shifts do not occur on days that the resident provides services to Saint Louis University Hospital and 3) outside employment are not otherwise in violation of the ASHP Duty Hours standard. The program director may, at any time and without notice, prohibit the resident from moonlighting if his/her assessment indicates that resident performance is being compromised or the moonlighting arrangement is in violation of this policy or the ASHP Duty Hours standard. PGY1 and PGY2 residents may pick up additional shifts within Saint Louis University Hospital (internal moonlighting) so long as it does not affect resident performance or exceed the duty hour limit. Residents are responsible for tracking duty hours and must attest quarterly that duty hours have not been exceeded. Additional shifts (internal moonlighting) will be compensated at the standard pharmacist rate. PGY1 residents are limited to a maximum of 16 hours in a 4 week period.

EMPLOYEE ASSISTANCE PROGRAM

Residency can be a difficult period for a pharmacy resident both at work and in personal life. As employees of SSM Health, pharmacy residents are provided with resources free of charge to manage personal and work-life issues through the Employee Assistance Program (EAP). Pharmacy residents may utilize these confidential resources at any time by calling 866-615-3045 or by visiting guidanceresources.com. Web ID: SSMHEALTH. More information is available by contacting Human Resources.

RESIDENT BURNOUT

Burnout is increasingly recognized as a serious problem affecting the well-being of health care professionals, with negative consequences affecting the individual as well as patient safety. Burnout has been defined as a cumulative stress reaction resulting in physical, emotional, and/or mental exhaustion, along with a decreased sense of achievement and depersonalization/lack of empathy. Pharmacy residents are particularly susceptible to burnout due to the stress of becoming a new pharmacist, combined with the multiple responsibilities and projects required of them throughout the program. In an attempt to assess for burnout and ensure overall well-being in their role as a pharmacy resident, the RPD will assess the resident stress levels and coping abilities at least quarterly during evaluations. Some strategies taken by the RPD and RAC to prevent and identify burnout include:

- During orientation residents are assigned a peer mentor (manual pg 26 & 29)
- PGY2 critical care resident serves as a peer mentor to the PGY1 residents
- Guidance on different time management techniques
- Encouragement of work/life balance and personal care
- Confirmation of compliance with duty hour standards (manual pg 21-22)
- RPDs solicit preceptor feedback during monthly RAC meetings regarding residents’ ability to manage rotational responsibilities in addition to other assigned tasks
• During orientation residents are informed that Employee Assistance Program (EAP) is available as employees of the hospital

PARKING

Pharmacy residents are assigned parking on a surface lot during the week (Monday thru Friday) or, if available, the parking garage across from the hospital. Pharmacy residents are able to park in the covered garage across from the hospital on weekends and after 1pm on weekdays if their regular parking assignment is on a surface lot. There may be a fee taken out of the resident's paycheck for parking depending on parking lot location.

MIDYEAR TRAVEL REIMBURSEMENT

Residents are expected to attend the ASHP Midyear meeting held in December with the program directors to assist in the resident recruitment process. ASHP Midyear travel expenses and meeting registration will be coordinated with the RPD and Pharmacy Director. Residents will work with the RPD to establish an appropriate flight itinerary and hotel accommodations based on the compliment of pharmacy staff attending the meeting. If residents are requested to provide the necessary monetary funds to secure travel arrangements and/or meeting registration, he/she will be responsible to obtain the appropriate expense documentation and submit these expenses within 1 week of the meeting.

PROFESSIONAL ORGANIZATION INVOLVEMENT

In addition to attending the ASHP Midyear meeting, residents are encouraged to become involved and active members in professional organizations on a local, state, and national level. Local educational speaker events can also be useful. Involvement is important to developing a professional network and achievement of professional goals.

Local: StLSHP (St. Louis Society of Health System Pharmacists), GCCP (Gateway College of Clinical Pharmacy)

State: MSHP (Missouri Society of Health-System Pharmacists)

National: ASHP (American Society of Health System Pharmacists)*, ACCP (American College of Clinical Pharmacy), SCCM (Society of Critical Care Medicine)

*Membership by residents required
Program Director

**Stacy Revelle, Pharm.D., BCPS**
Emergency Medicine Pharmacy Clinical Specialist
Saint Louis University Hospital
3635 Vista Ave. at Grand Blvd
St. Louis, MO 63110
Pager: 314.491.5422  Speed: 11125
Phone: 314.268.5956

Residency Coordinator

**Julia Alexander, Pharm.D., BCPS**
Trauma Critical Care Pharmacy Clinical Specialist
Saint Louis University Hospital
3635 Vista Ave. at Grand Blvd
St. Louis, MO 63110
Pager: 314.419.8404  Speed: 10349
Phone: 314.268.7157
MISSION STATEMENT

PGY1 Program Purpose: To build on the Doctor of Pharmacy (Pharm.D.) education and outcomes to contribute to the development of clinical pharmacists responsible for medication-related care of patients with a wide range of conditions, eligible for board certification, and eligible for postgraduate year two (PGY2) pharmacy residency training.

COMPETENCY AREAS, GOALS, AND OBJECTIVES OF RESIDENCY PROGRAM

The residency program is executed according to the ASHP Accreditation Standard https://www.ashp.org/-/media/assets/professional-development/residencies/docs/pgy1-accreditation-standard-2016.ashx?la=en and the accompanying competency areas, goals, and objectives (Appendix A) for postgraduate year one (PGY1) pharmacy residencies. Competency areas are categories of the residency graduates’ capabilities. Educational goals are defined as a broad statement of abilities, whereas educational objectives are defined as observable, measurable statements describing what residents will be able to do as a result of participating in the residency program. The required competency areas, including all of the goals and objectives under them, must be included in all programs; programs may also choose to add one or more of the additional competency areas. The required competency areas are:

- R1: Patient Care
- R2: Advancing Practice and Improving Patient Care
- R3: Leadership and Management
- R4: Teaching, Education, and Dissemination of Knowledge

Learning Experience Descriptions (available in PharmAcademic) specify which goals and objectives will be taught and evaluated.

PRACTICE RESPONSIBILITIES

The resident provides complete pharmacy services in coordination and cooperation with Pharmacy Service professionals and support staff. These are consistent with policies and procedures for operations and clinical practice and meet all the requirements and obligations of pharmacists on staff.

The resident shall actively participate in rotation activities including team meetings, rounds, and other interdisciplinary conferences that occur on the services of his/her rotations. The rotation preceptor shall be responsible for identifying these opportunities and ensuring the resident effectively participates.

The resident shall identify therapeutic issues and problems and shall develop and give presentations seminars to the medical, nursing, and pharmacy staffs addressing those issues. The resident is encouraged to seek opportunities to educate other ancillary health care practitioners, such as physician’s assistants, nurse practitioners, physical therapists, occupational therapists, respiratory therapists, and speech therapists on subjects relating to pharmacology and medication usage.

MEDICATION MANAGEMENT AND PATIENT SAFETY

An important function of the pharmacist is to oversee the medication management process and ensure that medications are used in a way that maximizes patient safety. To this end, PGY1 Pharmacy residents may serve as active participants on key committees that oversee medication management, including the Pharmacy, Therapeutics, Nutrition and Transfusion (PTNT) Committee, Medication Safety Committee and other committees at various times throughout the year. Committee service is a longitudinal experience and will be assigned by the program director based on institutional, departmental and resident need. Responsibilities may include, but are
not limited to, taking minutes, preparing handouts or presentations, and leading initiatives, and are subject to change based on need.

**RESIDENCY ADVISOR**

Each resident is assigned a program advisor from the available preceptors at the beginning of the residency program. The resident’s advisor will 1) help the resident meet the requirements for successful completion of the residency program and 2) advise the resident and facilitate execution of his/her career plan. Meetings are at the discretion of the resident and he/she may contact the residency program director and request the assignment of an alternative preceptor to serve as his/her advisor.

**RESIDENCY MANUAL**

A copy of the *Residency Manual* shall be provided to each resident outlining the requirements of the residency program. Residents must make themselves knowledgeable of all program requirements. Feedback from each residency class will be incorporated into the annual revision of the *Residency Manual*. Corrections, additions, or other changes to the *Residency Manual* should be addressed to the residency program director.

**RESIDENCY RESEARCH PROJECT**

The resident shall, with the guidance and supervision of appropriate preceptors, develop and complete a residency research project. The project shall be written using a format and style consistent with publication in a professional journal (including project subject, background, methods, results, and conclusions). The project is expected to be submitted for publication in a professional journal by the end of the academic year. The resident also must meet the deadline set forth by ASHP for resident poster submission to the Midyear Clinical Meeting. A detailed listing of dates and deadlines will be provided to residents in July.

Residents will be scheduled a week in December to work on their research project. In addition to time allotted for research activities the week in December, residents are encouraged to use the resident recruitment interview days in January/February to work on research project.

**RESIDENCY NOTEBOOK**

Each resident MUST maintain a Residency Notebook as a complete record of the resident’s program activities. The resident should begin to keep this ongoing notebook of activities from the first day of the program. At the conclusion of the residency training program, the program retains the original notebook. Completion of this record is a requirement for successful completion of the program.

The residency program notebook shall include the following items completed during the residency:

1. Curriculum Vitae
2. Completed Resident Development Plans
3. A record of all educational in-services and seminars presented
   a) Outlines
   b) Evaluations
   c) Attendance sheets
4. Residency Project
   a) Data collection form
   b) IRB submission
   c) Final written report
   d) Copy of poster
5. St. Louis College of Pharmacy Seminar presentation with evaluations
6. St. Louis College of Pharmacy Resident Teaching Workshop assignments
7. Formulary reviews, MUE, written drug information responses or other completed assignments
MISSION STATEMENT

ASHP PGY2 Program Purpose:
PGY2 pharmacy residency programs build on Doctor of Pharmacy (Pharm.D.) education and PGY1 pharmacy residency programs to contribute to the development of clinical pharmacists in specialized areas of practice. PGY2 residencies provide residents with opportunities to function independently as practitioners by conceptualizing and integrating accumulated experience and knowledge and incorporating both into the provision of patient care that improves medication therapy. Residents who successfully complete an accredited PGY2 pharmacy residency are prepared for advanced patient care, academic, or other specialized positions, along with board certification, if available.

COMPETENCY AREAS, GOALS, AND OBJECTIVES OF PGY2 CRITICAL CARE RESIDENCY PROGRAM

The residency program is executed according to the ASHP Accreditation Standard https://www.ashp.org/-/media/assets/professional-development/residencies/docs/pgy2-residency-accreditation-standard-June2017.ashx?la=en&hash=6AB9A9CCAC47929779FB5B9240D4490B2250FCD6 and the accompanying educational competency areas, goals, and objectives (Appendix B) for postgraduate year two (PGY2) pharmacy residencies in critical care. Competency areas are broad categories of the residency graduates’ capabilities. Educational goals are defined as a broad statement of abilities, whereas educational objective achievement is determined by assessment of the resident’s ability to perform the associated educational activities listed for each objective and overarching goal. The required competency areas, including all of the goals and objectives under them, must be included in all programs; programs may also choose to add one or more of the elective outcomes. The required educational outcomes are:

R1: Patient Care
R2: Advancing Practice and Improving Patient Care
R3: Leadership and Management
R4: Teaching, Education, and Dissemination of Knowledge

Learning Experience Descriptions (available in PharmAcademic) specify which goals and objectives will be taught and evaluated.

PRACTICE RESPONSIBILITIES

The resident provides complete pharmacy services in coordination and cooperation with pharmacy professionals and support staff. These are consistent with policies and procedures for operations and clinical practice and meet all the requirements and obligations of pharmacists on staff.

The resident shall actively participate in rotation activities including team meetings, rounds, and other interdisciplinary conferences that occur on the services of his/her rotations. The resident and preceptor shall be responsible for identifying these opportunities and ensuring the resident effectively participates.

The resident shall identify therapeutic issues and shall develop and give presentations seminars to the medical, nursing, and pharmacy staffs addressing those issues. The resident is encouraged to seek opportunities to educate other ancillary health care practitioners, such as physician's assistants, nurse practitioners, physical therapists, occupational therapists, respiratory therapists, and speech therapists on subjects relating to pharmacology and medication usage.

The resident must ensure coverage of all the ASHP critical care residency areas of emphasis list; this can be
accomplished either through didactic discussions, reading assignments, case presentations, written assignments, and direct patient care experience. The resident will keep track of coverage on the provided tool, and it should be up to date for each quarterly evaluation.

MEDICATION MANAGEMENT/OUTCOMES AND PATIENT SAFETY

An important function of the pharmacist is to oversee the medication management process and ensure that medications are used in a way that maximizes patient safety. To this end, pharmacy residents are active participants on key committees that oversee medication management. Critical care residents will serve on the Critical Care Committee, which oversees respiratory and critical care practice, as well as the Critical Care Shared Governance Council for the department of pharmacy, for the entire residency year. Responsibilities may include, but are not limited to, taking minutes, preparing handouts or presentations, and leading initiatives and are subject to change. PGY2 residents will be expected to participate in the data collection for hospital specified patient outcomes including but not limited to PAD (Pain, Agitation, Delirium) adherence and VTE metrics; the preceptor mentor on these committees and/or RPD will assign the resident specific VTE or medication safety events and/or time periods for PAD data collection.

RESIDENCY ADVISOR

Each resident is assigned a program advisor from the available preceptors at the beginning of the residency program. The resident’s advisor will 1) help the resident meet the requirements for successful completion of the residency program and 2) advise the resident and facilitate execution of his/her career plan. Meetings are at the discretion of the resident and he/she may contact the residency program director and request the assignment of an alternative preceptor to serve as his/her advisor.

RESIDENCY MANUAL

A copy of the Residency Manual shall be provided to each resident outlining the requirements of the residency program. Residents must make themselves knowledgeable of all program requirements. Feedback from each residency class will be incorporated into the annual revision of the Resident’s Manual. Corrections, additions, or other changes to the Residency Manual should be addressed to the residency program director.

RESIDENCY RESEARCH PROJECT

The resident shall, with the guidance and supervision of appropriate preceptors, develop and complete a residency research project. The project shall be written using a format and style consistent with publication in a professional journal (including project subject, background, methods, results, and conclusions). The project is expected to be submitted for publication in a professional journal by the end of the academic year. The resident also must meet the deadline set forth by ASHP for resident poster submission to the Midyear Clinical Meeting. A detailed listing of dates and deadlines will be provided to residents in July.

Residents will be scheduled a week in December to work on their research project. In addition to time allotted for research activities the week in December, residents are encouraged to use the resident recruitment interview days in January/February to work on research project.

VIRTUAL RESIDENCY NOTEBOOK

Each resident must maintain a Virtual Residency Notebook as a complete record of the resident’s program activities. This can be completed by uploading files into PharmAcadmic. At the conclusion of the residency-training program, the program maintain the virtual notebook. Completion of this record is a requirement for successful completion of the program.

The virtual residency program notebook shall include the following items completed during the residency:
1. Curriculum Vitae
2. Completed Residency Development Plans
3. A record of all educational in-services and seminars presented
   a) Outlines
   b) Evaluations
   c) Attendance sheets
4. Residency Project
   a) Data collection form
   b) IRB submission
   c) Final written report
   d) Copy of poster
5. St. Louis College of Pharmacy Seminar presentation with evaluations
6. St. Louis College of Pharmacy Resident Teaching Workshop assignments, if applicable
7. Formulary reviews, MUE, written drug information responses or other completed assignments
8. ASHP critical care areas of emphasis list
Appendix A

REQUIRED COMPETENCY AREAS, GOALS, AND OBJECTIVES FOR POSTGRADUATE YEAR ONE (PGY1) PHARMACY RESIDENCIES

Introduction

The competency areas, goals, and objectives are for use with the ASHP Accreditation Standard for Postgraduate Year One (PGY1) Pharmacy Residency Programs. The first four competency areas are required and the others are elective.

The required competency areas, including all of the goals and objectives falling under them, must be included in all programs. Programs may add one or more additional competency areas. Programs selecting an additional competency area are not required to include all of the goals and objectives in that competency area. In addition to the potential additional competency areas contained in this document, programs are free to create their own additional competency areas with associated goals and objectives. Each of the goals falling under the program’s selection of program competency areas (required and additional) must be evaluated at least once during the residency year. In addition, elective competency areas may be selected for specific residents only.

Each of the 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.\(^\text{62}\)

Competency Area: Categories of the residency graduates’ capabilities.

Competency areas fall into one of three categories:

- **Required**: Four competency areas are required (all programs must include them and all their associated goals and objectives).
- **Additional**: Competency area(s) other than the four areas required for all program that programs may select to add as required for their specific residency program.
- **Elective**: Competency area(s) selected optionally for specific resident(s).

Educational Goals (Goal): Broad statement of abilities.

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

Criteria: Examples intended to help preceptors and residents identify specific areas of successful skill development or needed improvement in residents’ work.

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Competency Area R1: Patient Care

Goal R1.1: In collaboration with the health care team, provide safe and effective patient care to a diverse range of patients, including those with multiple co-morbidities, high-risk medication regimens, and multiple medications following a consistent patient care process.

Objective R1.1.1: (Applying) Interact effectively with health care teams to manage patients’ medication therapy.
Criteria:
• Interactions are cooperative, collaborative, communicative, 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 to take responsibility for their health.
• Demonstrates cultural competence.

Objective R1.1.3: (Analyzing) Collect information on which to base safe and effective medication therapy.
Criteria:
• Collection/organization methods are efficient and effective.
• Collects relevant information about medication therapy, including:
  o History of present illness.
  o Relevant health data that may include past medical history, health and wellness information, biometric test results, and physical assessment findings.
  o Social history.
  o Medication history including prescription, non-prescription, illicit, recreational, and non-traditional therapies; other dietary supplements; immunizations; and allergies.
  o Laboratory values.
  o Pharmacogenomics and pharmacogenetic information, if available.
  o Adverse drug reactions.
  o Medication adherence and persistence.
  o Patient lifestyle habits, preferences and beliefs, health and functional goals, and socioeconomic factors that affect access to medications and other aspects of care.
• Sources of information are the most reliable available, including electronic, face-to-face, and others.
• Recording system is functional for subsequent problem solving and decision making. Clarifies information as needed.
• Displays understanding of limitations of information in health records.

Objective R1.1.4: (Analyzing) Analyze and assess information on which to base safe and effective medication therapy.
Criteria:
• Includes accurate assessment of patient’s:
  o health and functional status
  o risk factors
  o health data
  o cultural factors
  o health literacy
  o access to medications
- Immunization status
- Need for preventive care and other services when appropriate
- Other aspects of care as applicable.

- Identifies medication therapy problems, including:
  - Lack of indication for medication.
  - Medical conditions for which there is no medication prescribed.
  - Medication prescribed or continued inappropriately for a particular medical condition.
  - Suboptimal medication regimen (e.g., dose, dosage form, duration, schedule, route of administration, method of administration).
  - Therapeutic duplication.
  - Adverse drug or device-related events or potential for such events.
  - Clinically significant drug-drug, drug-disease, drug-nutrient, drug-DNA test interaction, drug-laboratory test interaction, or 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 R1.1.5: (Creating) Design or redesign safe and effective patient-centered therapeutic regimens and monitoring plans (care plans).

Criteria:
- Specifies evidence-based, measurable, achievable therapeutic goals that include consideration of:
  - Relevant patient-specific information including culture and preferences.
  - The goals of other interprofessional team members.
  - The patient's disease state(s).
  - Medication-specific information.
  - Best evidence.
  - Ethical issues involved in the patient's care.
  - Quality-of-life issues specific to the patient.
  - Integration of all the above factors influencing the setting of goals.

- Designs/redesigns regimens that:
  - Are appropriate for the disease states being treated.
  - Reflect:
    - The therapeutic goals established for the patient
    - The patient's and caregiver's specific needs
    - Consideration of:
      - Any pertinent pharmacogenomic or pharmacogenetic factors.
      - 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.

• Designs/redesigns monitoring plans that:
  o Effectively evaluate achievement of therapeutic goals.
  o Ensure adequate, appropriate, and timely follow-up.
  o Establish parameters that are appropriate measures of therapeutic goal achievement.
  o Reflect consideration of best evidence.
  o Select the most reliable source for each parameter measurement.
  o Have appropriate value ranges selected for the patient.
  o Have parameters that measure efficacy.
  o Have parameters that measure potential adverse drug events.
  o Have parameters that are cost-effective.
  o Have obtainable measurements of the parameters specified.
  o Reflects consideration of compliance.
  o If for an ambulatory patient, includes strategy for ensuring patient returns for needed follow-up visit(s).
  o When applicable, reflects preferences and needs of the patient.

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

Criteria:

• Effectively recommends or communicates patients’ regimens and associated monitoring plans to relevant members of the healthcare team.
  o Recommendation is persuasive.
  o Presentation of recommendation accords patient’s right to refuse treatment.
  o If patient refuses treatment, pharmacist exhibits responsible professional behavior.
  o Creates an atmosphere of collaboration.
  o Skillfully defuses negative reactions.
  o Communication conveys expertise.
  o Communication is assertive not aggressive.
  o Where the patient has been directly involved in the design of the plans, communication reflects previous collaboration appropriately.

• Ensures recommended plan is implemented effectively for the patient, including ensuring that the:
  o Therapy corresponds with the recommended regimen.
  o Regimen is initiated at the appropriate time.
  o Medication orders are clear and concise.
  o Activity complies with the health system’s policies and procedures.
  o Tests correspond with the recommended monitoring plan.
  o Tests are ordered and performed at the appropriate time.

• Takes appropriate action based on analysis of monitoring results (redesign regimen and/or monitoring plan if needed).

• Appropriately initiates, modifies, discontinues, or administers medication therapy as authorized.

• Responds appropriately to notifications and alerts in electronic medical records and other information systems which support medication ordering processes (based on patient weight, age, gender, co-morbid conditions, drug interactions, renal function, hepatic function, etc.).

• Provides thorough and accurate education to patients, and caregivers, when appropriate, including information on medication therapy, adverse effects, compliance, appropriate use, handling, and medication administration.

• Addresses medication- and health-related problems and engages in preventive care strategies, including vaccine administration.

• Schedules follow-up care as needed to achieve goals of therapy.
Objective R1.1.7: (Applying) Document direct patient care activities appropriately in the medical record or where appropriate.
Criteria:
- Selects appropriate direct patient-care activities for documentation.
- Documentation is clear.
- Written in time to be useful
- Follows the health system’s policies and procedures, including that entries are signed, dated, timed, legible, and concise.

Objective R1.1.8: (Applying) Demonstrate responsibility to patients.
Criteria:
- Gives priority to patient care activities.
- Plans prospectively.
- Routinely completes all steps of the medication management process.
- Assumes responsibility for medication therapy outcomes.
- Actively works to identify the potential for significant medication-related problems.
- Actively pursues all significant existing and potential medication-related problems until satisfactory resolution is obtained.
- Helps patients learn to navigate the health care system, as appropriate.
- Informs patients how to obtain their medications in a safe, efficient, and most cost-effective manner.
- Determines barriers to patient compliance and makes appropriate adjustments.

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

Objective R1.2.1: (Applying) Manage transitions of care effectively.
Criteria:
- Effectively participates in obtaining or validating a thorough and accurate medication history.
- Conducts medication reconciliation when necessary.
- Participates in thorough medication reconciliation.
- 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.

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

Objective R1.3.1: (Applying) Prepare and dispense medications following best practices and the organization’s policies and procedures.
Criteria:
- Correctly interpret appropriateness of a medication order before preparing or permitting the distribution of the first dose, including:
  - Identifying, clarifying, verifying, and correcting any medication order errors.
  - Considering complete patient-specific information.
  - Identifying existing or potential drug therapy problems.
  - Determining an appropriate solution to an identified problem.
Securing consensus from the prescriber for modifications to therapy.
Ensuring that the solution is implemented.
• Prepares medication using appropriate techniques and following the organization's policies and procedures and applicable professional standards, including:
  o When required, accurately calibrates equipment.
  o Ensuring solutions are appropriately concentrated, without incompatibilities, stable, and appropriately stored.
  o Adheres to appropriate safety and quality assurance practices.
  o Prepares labels that conform to the health system's policies and procedures.
  o Medication contains all necessary and/or appropriate ancillary labels.
  o Inspects the final medication before dispensing.
• When dispensing medication products:
  o Follows the organization's policies and procedures.
  o Ensures the patient receives the medication(s) as ordered.
  o Ensures the integrity of medication dispensed.
  o Provides any necessary written and/or verbal counseling.
  o Ensures the patient receives medication on time.
• Maintains accuracy and confidentiality of patients’ protected health information (PHI).
• Obtains agreement on modifications to medication orders when acting in the absence of, or outside, an approved protocol or collaborative agreement.

Objective R1.3.2: (Applying) Manage aspects of the medication-use process related to formulary management.
Criteria:
• Follows appropriate procedures regarding exceptions to the formulary, if applicable, in compliance with policy.
• Ensures non-formulary medications are dispensed, administered, and monitored in a manner that ensures patient safety.

Objective R1.3.3: (Applying) Manage aspects of the medication-use process related to oversight of dispensing.
Criteria:
• When appropriate, follows the organization’s established protocols.
• Makes effective use of relevant technology to aid in decision-making and increase safety.
• Demonstrates commitment to medication safety in medication-use process.
• Effectively prioritizes work load and organizes work flow.
• Checks accuracy of medications dispensed, including correct patient identification, medication, dosage form, label, dose, number of doses, expiration dates, and properly repackaged and relabeled medications, including compounded medications (sterile and nonsterile).
• Checks the accuracy of the work of pharmacy technicians, clerical personnel, pharmacy students, and others according to applicable laws and institutional policies.
• Promotes safe and effective drug use on a day-to-day basis.

Competency Area R2: Advancing Practice and Improving Patient Care

Ideally, objectives R2.1.1-R2.1.5 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.

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

Objective R2.1.1 (Creating) Prepare a drug class review, monograph, treatment guideline, or protocol.
Criteria:
- Displays objectivity.
- Effectively synthesize information from the available literature.
- Applies evidenced-based principles.
- Consults relevant sources
- Considers medication-use safety and resource utilization.
- Uses the appropriate format.
- Effectively communicates any changes in medication formulary, medication usage, or other procedures to appropriate parties.
- Demonstrates appropriate assertiveness in presenting pharmacy concerns, solutions, and interests to internal and external stakeholders.

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

Objective 2.1.3: (Analyzing) Identify opportunities for improvement of the medication-use system.
Criteria:
- Appropriately identifies problems and opportunities for improvement and analyzes relevant background data.
- Accurately evaluates or assists in the evaluation of data generated by health information technology or automated systems to identify opportunities for improvement.
- Uses best practices to identify opportunities for improvements.
- When needed, makes medication-use policy recommendations based on a review of practice (e.g., National Quality Measures, ISMP alerts, Joint Commission Sentinel Alerts).
- Demonstrates appropriate assertiveness in presenting pharmacy concerns, solutions, and interests to internal and external stakeholders.

Objective 2.1.4: (Applying) Participate in medication event reporting and monitoring.
Criteria:
- Effectively uses currently available technology and automation that supports a safe medication-use process.
- Appropriately and accurately determines, investigates, reports, tracks and trends adverse drug events, medication errors and efficacy concerns using accepted institutional resources and programs.

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

Objective R2.2.1: (Analyzing) Identify changes needed to improve patient care and/or the medication-use systems.
Criteria:
- Appropriately identifies problems and opportunities for improvement and analyzes relevant background data.
- Determine an appropriate topic for a practice-related project of significance to patient care.
- Uses best practices or evidence based principles to identify opportunities for improvements.
- Accurately evaluates or assists in the evaluation of data generated by health information technology or automated systems to identify opportunities for improvement.

Objective R2.2.2: (Creating) Develop a plan to improve the patient care and/or medication-use system.
Criteria:
• Steps in plan are defined clearly.
• Applies safety design practices (e.g., standardization, simplification, human factors training, lean principles, FOCUS-PDCA, other process improvement or research methodologies) appropriately and accurately
• Plan for improvement includes appropriate reviews and approvals required by department or organization, and includes meeting the concerns of all stakeholders.
• Applies evidence-based principles, if needed.
• Develops a sound research or quality improvement question realistic for time frame, if appropriate.
• Develops a feasible design for a project that considers who or what will be affected by the project.
• Identifies and obtains necessary approvals, (e.g., IRB, funding) for a practice-related project.
• Uses appropriate electronic data and information from internal information databases, external online databases, and appropriate internet resources, and other sources of decision support, as applicable
• Plan design is practical to implement and is expected to remedy or minimize the identified opportunity for improvement.

Objective R2.2.3: (Applying) Implement changes to improve patient care and/or the medication-use system.
Criteria:
• Follows established timeline and milestones.
• Implements the project as specified in its design.
• Collects data as required by project design.
• Effectively presents plan to appropriate audience (e.g., accurately recommends or contributes to recommendation for operational change, formulary addition or deletion, implementation of medication guideline or restriction, or treatment protocol implementation).
• Plan is based upon appropriate data.
• Gains necessary commitment and approval for implementation
• Effectively communicates any changes in medication formulary, medication usage, or other procedures to appropriate parties.
• Demonstrates appropriate assertiveness in presenting pharmacy concerns, solutions, and interests to external stakeholders.
• Change is implemented fully.

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

Objective R2.2.5: (Creating) Effectively develop and present, orally and in writing, a final project report.
Criteria:
• Outcome of change are reported accurately to appropriate stakeholders(s) and policy making bodies according to department or organizational processes.
• Report includes implications for changes to/improvement in pharmacy practice.
• Report uses an accepted manuscript style suitable for publication in the professional literature.
• Oral presentations to appropriate audiences within the department, organization, or to external audiences use effective communication and presentation skills and tools (e.g., handouts, slides) to convey points successfully.

Competency Area R3: Leadership and Management
Goal R3.1: Demonstrate leadership skills.

Objective R3.1.1: (Applying) Demonstrate personal, interpersonal, and teamwork skills critical for effective leadership.
Criteria:
- Demonstrates effective time management.
- Manages conflict effectively.
- Demonstrates effective negotiation skills.
- Demonstrates ability to lead interprofessional teams.
- Uses effective communication skills and styles.
- Demonstrates understanding of perspectives of various health care professionals.
- Effectively expresses benefits of personal profession-wide leadership and advocacy.

Objective R3.1.2: (Applying) Apply a process of 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).

Goal R3.2: Demonstrate management skills.

Objective R3.2.1: (Understanding) Explain factors that influence departmental planning.
Criteria:
- Identifies and explains factors that influence departmental planning, including:
  - 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 R3.2.2 (Understanding) Explain the elements of the pharmacy enterprise and their relationship to the healthcare system.
Criteria:
- Identifies appropriate resources to keep updated on trends and changes within pharmacy and healthcare.
- Explains changes to laws and regulations (e.g. value-based purchasing, consumer-driven healthcare, reimbursement models) related to medication use.
- Explains external quality metrics and how they are developed, abstracted, reported, and used (e.g., Risk Evaluation and Mitigation Strategy).
- Describes the governance of the healthcare system and leadership roles.

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

Objective R3.2.4: (Applying) Manage one’s own practice effectively.
Criteria:
• Accurately assesses successes and areas for improvement (e.g., staffing projects, teaching) in managing one’s own practice.
• Makes accurate, criteria-based assessments of one’s own ability to perform practice tasks.
• Regularly integrates new learning into subsequent performances of a task until expectations are met.
• Routinely seeks applicable new learning opportunities when performance does not meet expectations.
• Demonstrates effective workload management and time management skills.
• Assumes responsibility for personal work quality and improvement.
• Is well prepared to fulfill responsibilities (e.g., patient care, project, management, meetings).
• Sets and meets realistic goals and timelines.
• Demonstrates awareness of own values, motivations, and emotions.
• Demonstrates enthusiasm, self-motivation, and “can-do” approach.
• Strives to maintain a healthy work-life balance.
• Works collaboratively within the organization’s political and decision-making structure.
• Demonstrates pride in, and commitment to, the profession through appearance, personal conduct, planning to pursue board certification, and pharmacy association membership activities.
• Demonstrates personal commitment to and adheres to organizational and departmental policies and procedures.

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

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

Objective R4.1.1: (Applying) Design effective educational activities.
Criteria:
• Accurately defines learning needs (e.g., level, such as healthcare professional vs patient, and their learning gaps) of audience (individuals or groups).
• Defines educational objectives that are specific, measurable, at a relevant learning level (e.g., applying, creating, evaluating), and that address the audiences’ defined learning needs.
• Plans use of teaching strategies that match learner needs, including active learning (e.g., patient cases, polling).
• Selects content that is relevant, thorough, evidence-based (using primary literature where appropriate), and timely, and reflects best practices.
• Includes accurate citations and relevant references, and adheres to applicable copyright laws.

Objective R4.1.2: (Applying) Use effective presentation and teaching skills to deliver education.
Criteria:
• Demonstrates rapport with learners.
• Captures and maintains learner/audience interest throughout the presentation.
• Implements planned teaching strategies effectively.
• Effectively facilitates audience participation, active learning, and engagement in various settings (e.g., small or large group, distance learning).
• Presents at appropriate rate and volume and without distracting speaker habits (e.g., excessive “ah’s” and “um’s”).
• Body language, movement, and expressions enhance presentations.
• Summarizes important points at appropriate times throughout presentations.
• Transitions smoothly between concepts.
• Effectively uses audio-visuals and handouts to support learning activities.

Objective R4.1.3: (Applying) Use effective written communication to disseminate knowledge.
Criteria:
• Writes in a manner that is easily understandable and free of errors.
• Demonstrates thorough understanding of the topic.
• Notes appropriate citations and references.
• Includes critical evaluation of the literature and advancement in knowledge or summary of what is currently known on the topic.
• Develops and uses tables, graphs, and figures to enhance reader’s understanding of the topic when appropriate.
• Writes at a level appropriate for the reader (e.g., physicians, pharmacists, other health care professionals, patients, public).
• Creates one’s own work and does not engage in plagiarism.

Objective R4.1.4: (Applying) Appropriately assess effectiveness of education.
Criteria:
• Selects assessment method (e.g., written or verbal assessment or self-assessment questions, case with case-based questions, learner demonstration of new skill) that matches activity.
• Provides timely, constructive, and criteria-based feedback to learner.
• If used, assessment questions are written in a clear, concise format that reflects best practices for test item construction.
• Determines how well learning objectives were met.
• Plans for follow-up educational activities to enhance/support/ensure goals were met, if needed.
• Identifies ways to improve education-related skills.
• Obtains and reviews feedback from learners and others to improve their effectiveness.

Goal R4.2: Effectively employ appropriate preceptors’ roles when engaged in teaching (e.g., students, pharmacy technicians, or other health care professionals).

Objective R4.2.1: (Analyzing) When engaged in teaching, select a preceptors’ role that meets learners’ educational needs.
Criteria:
• Identifies which preceptor role is applicable for the situation (direct instruction, modeling, coaching, facilitating).
  o Selects direct instruction when learners need background content.
  o Selects modeling when learners have sufficient background knowledge to understand skill being modeled.
  o Selects coaching when learners are prepared to perform a skill under supervision.
  o Selects facilitating when learners have performed a skill satisfactorily under supervision.

Objective R4.2.2: (Applying) Effectively employ preceptor roles, as appropriate.
Criteria:
• Instructs students, technicians, or others, as appropriate.
• Models skills, including “thinking out loud,” so learners can “observe” critical thinking skills.
• Coaches, including effective use of verbal guidance, feedback, and questioning, as needed.
• Facilitates, when appropriate, by allowing learner independence when ready and using indirect monitoring of performance.

Approved by the Commission on Credentialing of the American Society of Health-System Pharmacists on March 8, 2015. This is the document referenced in the ASHP Accreditation Standard for Postgraduate Year One (PGY1) Pharmacy Residency Programs approved on September 19, 2014, and is intended to be used in conjunction with that Standard.

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Appendix B

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

Introduction
The competency areas, goals, and objectives are for use with the ASHP Accreditation Standard for Postgraduate Year Two (PGY2) Pharmacy Residency Programs. The first four competency areas described herein are required, and the others are elective.
The required competency areas and all of the goals and objectives they encompass must be included in all programs. Programs may add one or more additional competency areas. Programs selecting an additional competency area are not required to include all of the goals and objectives in that competency area. In addition to the potential additional competency areas described in this document, programs are free to create their own additional competency areas with associated goals and objectives. Each of the goals encompassed by the program’s selected program competency areas (required and additional) must be evaluated at least once during the residency year. In addition, elective competency areas may be selected for specific residents only.
Each of the objectives listed in this document has been classified according to educational taxonomy (cognitive, affective, or psychomotor) and level of learning. An explanation of the taxonomies is available elsewhere.1
Competency areas for PGY1 pharmacy residencies are available on the ASHP website. PGY2 competency areas, goals, and objectives in critical care pharmacy are differentiated from those from PGY1 by specialization and the expectation of PGY2 residents for greater work competence and proficiency.

Definitions
Competency Areas: Categories of the residency graduates’ capabilities.
Competency areas are classified into one of three categories:
Required: Four competency areas are required (all programs must include them and all their associated goals and objectives).
Additional (for program): Competency area(s) that residency programs may choose to use (in addition to the four required areas) to meet program-specific program needs.
Elective (for specific residents): Competency area(s) selected optionally for specific resident(s).
Educational Goals (Goal): Broad statement of abilities.
Educational Objectives: Observable, measurable statements describing what residents will be able to do as a result of participating in the residency program.
Criteria: Examples that describe competent performance of educational objectives. 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 ASHP Accreditation Standard for Postgraduate Year Two (PGY2) Pharmacy Residency Programs requires that learning activities be specified for each educational objective in learning experience descriptions. Activities are what residents will do to learn and practice the skills described in objectives. Activities are the answer to the question, “What can residents do in the context of this
learning experience that will provide the kind of experiences necessary to achieve the educational objective?” (Compare and contrast activities with criteria by referring to the definition of criteria immediately above.) Specified activities should match the Bloom’s Taxonomy learning level stated in parentheses before each objective.

Example:

Objective R1.1.2: (Applying) Interact effectively with patients, family members, and caregivers. 
Learning activity: Provide education to patients regarding proper medication use and administration, adherence, and possible adverse drug effects for all new medications initiated during clinic appointments.
Criteria:
• Interactions are respectful and collaborative.
• Uses effective communication skills.
• Shows empathy.
• Empowers patients to take responsibility for their health.
• Demonstrates cultural competence.

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

Competency Area R1: Patient Care
(See the appendix for additional specific requirements.)

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

Objective R1.1.1: (Applying) Interact effectively with health care teams to manage critically ill patients’ medication therapy.

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

Objective R1.1.2: (Applying) Interact effectively with critically ill patients, family members, and caregivers.
Criteria:
• Interactions are respectful and collaborative.
• Maintains accuracy and confidentiality of patients’ protected health information.
• Uses effective (e.g., clear, concise, accurate) communication skills.
• Shows empathy.
• Empowers patients, family members, and caregivers regarding the patient’s well-being and health outcomes.
• Demonstrates cultural competence.
• Communicates with family members to obtain patient information when patients are unable to provide the information.
• Communicates with patient and family about initiation and changes of patient therapies.
• Demonstrates advocacy for caregivers.

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

Criteria:
• Collection/organization methods are efficient and effective.
• Collects relevant information about medication therapy, including:
  o History of present illness. - Relevant health data that may include past medical history, health and wellness information, biometric test results, and physical assessment findings.
  o Social history.
  o Medication history, including prescription, non-prescription, illicit, recreational, and non-traditional therapies; other dietary supplements; immunizations; and allergies.
  o Patient assessment (examples include, but are not limited to, physiologic monitoring, laboratory values, microbiology results, diagnostic imaging, procedural results, and scoring systems (e.g., RASS, CAM-ICU)
  o Pharmacogenomics and pharmacogenetic information, if available.
  o Adverse drug reactions.
  o Medication adherence and persistence. - Patient lifestyle habits, preferences and beliefs, health and functional goals, and socioeconomic factors that affect access to medications and other aspects of care.
• Sources of information are the most reliable sources available, including electronic, face-to-face, and others.
• Recording system is functional for subsequent problem solving and decision making.
• Clarifies information as needed.
• Displays understanding of limitations of information in health records.
• Poses appropriate questions as needed.

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

Criteria:
• Includes accurate assessment of patient’s:
  o Health and functional status.
  o Risk factors.
  o Health data.
  o Cultural factors.
  o Health literacy.
  o Access to medications.
  o Immunization status.
  o Need for preventive care and other services, when appropriate.
  o Other aspects of care, as applicable.
• Identifies medication therapy problems, including:
  o Lack of indication for medication.
  o Medical conditions for which there is no medication prescribed.
  o Medication prescribed or continued inappropriately for a particular medical condition.
- Suboptimal medication regimen (e.g., dose, dosage form, duration, schedule, route of administration, method of administration).
- Medication toxicity requiring medication therapy modifications.
- Abnormal lab values requiring medication therapy modifications.
- Therapeutic duplication.
- Adverse drug or device-related events or the potential for such events.
- Clinically significant drug–drug, drug–disease, drug–nutrient, drug–DNA test interaction, drug–laboratory test interaction, or the potential for such interactions.
- Use of 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).
- Patient assessment needed
- Discrepancy between prescribed medications and established care plan for the patient.
- Prioritize a critically ill patient’s health care needs.

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

**Criteria:**
- Specify evidence-based, measurable, achievable therapeutic goals that include consideration of:
  - Relevant patient-specific information, including culture and preferences.
  - The goals of other interprofessional team members.
  - The patient’s disease state(s).
  - Medication-specific information.
  - Best evidence, including clinical guidelines and the most recent literature.
  - Effectively interprets new literature for application to patient care.
  - Ethical issues involved in the patient’s care.
  - Quality-of-life issues specific to the patient.
  - End of life issues, when needed.
  - Integration of all the above factors influencing the setting of goals.
- Designs/redesigns regimens that:
  - Are appropriate for the disease states being treated.
  - Reflect:
    - Clinical experience
    - The therapeutic goals established for the patient.
    - The patient’s and caregiver’s specific needs.
    - Consideration of:
      - Any pertinent pharmacogenomic or pharmacogenetic factors.
      - Best evidence.
      - Pertinent ethical issues.
      - Pharmacoeconomic components (patient, medical, and systems resources).
      - Patient preferences, culture, and/or language differences.
      - Patient-specific factors, including physical, mental, emotional, and financial factors that might impact adherence to the regimen.
• Drug shortages.
  o Adhere to the health system’s medication-use policies.
  o Follow applicable ethical standards.
  o Address wellness promotion and lifestyle modification.
  o Support the organization’s or patient’s insurance formulary.
  o Address medication-related problems and optimize medication therapy.
  o Engage the patient through education, empowerment, and promotion of self-management.
• Designs/redesigns monitoring plans that:
  o Effectively evaluate achievement of therapeutic goals.
  o Ensure adequate, appropriate, and timely follow-up.
  o Establish parameters that are appropriate measures of therapeutic goal achievement.
  o Reflect consideration of best evidence.
  o Select the most reliable source for each parameter measurement.
  o Have appropriate value ranges selected for the patient.
  o Have parameters that measure efficacy.
  o Have parameters that measure potential adverse drug events.
  o Have parameters that are cost-effective.
  o Have obtainable measurements of the parameters specified.
  o Reflects consideration of compliance.
  o Anticipates future drug-related problems.
  o When applicable, reflects preferences and needs of the patient.
  o Plan represents the highest level of patient care.

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

**Criteria:**
• Effectively recommends or communicates patients’ regimens and associated monitoring plans to relevant members of the health care team.
  o Poses appropriate questions as needed.
  o Recommendation is persuasive.
  o Presentation of recommendation accords patient’s right to refuse treatment.
  o If patient refuses treatment, pharmacist exhibits responsible professional behavior.
  o Creates an atmosphere of collaboration.
  o Skillfully defuses negative reactions.
  o Communication conveys expertise.
  o Communication is assertive but not aggressive.
  o Where the patient has been directly involved in the design of the plans, communication reflects previous collaboration appropriately.
• Ensures recommended plan is implemented effectively for the patient, including ensuring that the:
  o Plan represents the highest level of patient care.
  o Therapy corresponds with the recommended regimen.
  o Regimen is initiated at the appropriate time.
  o Patient receives their medication as directed.
  o Medications in situations requiring immediacy are effectively facilitated.
  o Medication orders are clear and concise.
  o Activity complies with the health system’s policies and procedures.
  o Tests correspond with the recommended monitoring plan.
  o Tests are ordered and performed at the appropriate time.
• Takes appropriate action based on analysis of monitoring results (redesign regimen and/or monitoring plan if needed).
• Appropriately initiates, modifies, discontinues, or administers medication therapy as authorized.
• Responds appropriately to notifications and alerts in electronic medical records and other information systems that support medication ordering processes (based on factors such as patient weight, age, gender, comorbid conditions, drug interactions, renal function, and hepatic function).
• Provides thorough and accurate education to patients and caregivers, when appropriate, including information on medication therapy, adverse effects, compliance, appropriate use, handling, and medication administration.
• Addresses medication- and health-related problems and engages in preventive care strategies, including vaccine administration.
• Schedules follow-up care as needed to achieve goals of therapy.

Objective R1.1.7: (Applying) For critically ill patients, document direct patient care activities appropriately in the medical record, or where appropriate.
Criteria:
• Accurately and concisely communicates drug therapy recommendations to healthcare professionals representing different disciplines.
• Appropriately documents patient/caregiver communication and all relevant direct patient care activities in a timely manner.

Objective R1.1.8: (Applying) Demonstrate responsibility to critically ill patients for patient outcomes.
Criteria:
• Gives priority to patient care activities.
• Routinely ensures all steps of the medication management process.
• Assumes responsibility for medication therapy outcomes.
• Actively works to identify the potential for significant medication-related problems.
• Actively pursues all significant existing and potential medication-related problems until satisfactory resolution is obtained.
• Ensures appropriate transitions of care.
• Communicates with patients and family members/caregivers about their medication therapy.
• Determines barriers to patient compliance and makes appropriate adjustments.

Goal R1.2: Ensure continuity of care during transitions of critically ill patients between care settings.
Objective R1.2.1: (Applying) Manage transitions of care effectively for critically ill patients.
Criteria:
• Participates in thorough medication reconciliation when necessary.
• When appropriate, follows up on identified drug-related problems, additional monitoring, and education in a timely and caring manner.
• Provides accurate, pertinent, and timely follow-up information when patients transfer to another facility, level of care, pharmacist, or provider, as appropriate.
• Takes appropriate and effective steps to help avoid unnecessary hospital admissions and/or readmissions.
• Provides appropriate information to other pharmacists in transitions to mitigate medication therapy problems.
Goal R1.3: Manage and facilitate delivery of medications to support safe and effective drug therapy for critically ill patients.

Objective R1.3.1: (Applying) Facilitate delivery of medications for critically ill patients following best practices and local organization policies and procedures.

Criteria:

- Correctly interprets appropriateness of a medication order before preparing or permitting the distribution of the first dose, including:
  - Identifying, clarifying, verifying, and correcting any medication order errors.
  - Considering complete patient-specific information.
  - Identifying existing or potential drug therapy problems.
  - Determining an appropriate solution to an identified problem.
  - Securing consensus from the prescriber for modifications to therapy.
  - Ensuring that the solution is implemented.

- Prepares medication using appropriate techniques and following the organization's policies and procedures and applicable professional standards, including:
  - When required, accurately calibrating equipment.
  - Ensuring intravenous solutions are appropriately concentrated, without incompatibilities; stable; and appropriately stored.
  - Adhering to appropriate safety and quality assurance practices.
  - Preparing labels that conform to the health system's policies and procedures, as appropriate.
  - Ensuring that medication has all necessary and appropriate ancillary labels.
  - Inspecting the final medication before dispensing for accuracy, as appropriate.

- When dispensing medication products:
  - Follows the organization's policies and procedures.
  - Ensures the patient receives the medication(s) as ordered.
  - Ensures the integrity of medication dispensed.
  - Provides any necessary written and/or verbal counseling for the patient and support/education for relevant interdisciplinary staff (e.g. nursing, respiratory therapy).
  - Ensures the patient receives medication on time.

- Maintains accuracy and confidentiality of patients' protected health information.

- Obtains agreement on modifications to medication orders when acting in the absence of, or outside, an approved protocol or collaborative agreement.

- Ensures appropriate dosing, preparation, and dispensing the following types of medications:
  - Blood factor products.
  - Anticoagulant reversal agents.
  - Medications used in emergency response, cardiac arrest, stroke response.

- Assesses appropriate stock of automatic dispensing cabinets.

- References appropriate literature resources to ensure use of proper practices regarding compatibility, fluid overload, and concentrations.

Objective R1.3.2: (Applying) Manage aspects of the medication-use process related to formulary management for critically ill patients.

Criteria:

- Follows appropriate procedures regarding exceptions to the formulary, if applicable, in compliance with policy.

- Ensures non-formulary medications are evaluated, dispensed, administered, and monitored in a manner that ensures patient safety.
Objective R1.3.3: (Applying) Facilitate aspects of the medication-use process for critically ill patients.
Criteria:
- Makes effective use of technology to aid in decision-making and increase safety.
- Demonstrates commitment to medication safety.
- Effectively prioritizes workload and organizes workflow.
- Checks accuracy of medications dispensed, including correct patient identification, medication, dosage form, label, dose, number of doses, and expiration dates.
- When needed, checks for proper repackaging and relabeling medications, including compounded medications (sterile and nonsterile).
- Promotes safe and effective drug use on a day-to-day basis.

Competency Area R2: Advancing Practice and Improving Patient Care

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

Objective R2.1.1: (Creating) Prepare or revise a drug class review, monograph, treatment guideline, or protocol related to care of critically ill patients, including proposals for medication-safety technology improvements.
Criteria:
- Displays objectivity.
- Effectively synthesizes information from the available literature.
- Applies evidenced-based principles.
- Consults relevant sources.
- Considers medication-use safety and resource utilization.
- Uses the appropriate format.
- Effectively communicates any changes in medication formulary, medication usage, or other procedures to appropriate parties.
- Demonstrates appropriate assertiveness and timeliness in presenting pharmacy concerns, solutions, and interests to internal and external stakeholders.
- When appropriate, may include proposals for medication-safety technology improvements.

Objective R2.1.2: (Evaluating) Participate in a medication-use evaluation related to care for critically ill patients. (Guidance: This should not be the major project but may be part of the project.)
Criteria:
- Uses evidence-based principles to develop criteria for use.
- Demonstrates a systematic approach to gathering data.
- Accurately analyzes data gathered.
- Demonstrates appropriate confidence and assertiveness in presenting pharmacy concerns, solutions, and interests to internal and external stakeholders.
- Implements approved changes, as applicable.

Objective R2.1.3: (Applying) Participate in the review of medication event reporting and monitoring related to care for critically ill patients.
Criteria:
• Effectively uses currently available technology and automation that supports a safe medication-use process.
• Appropriately and accurately determines, investigates, reports, tracks, and trends adverse drug events, medication errors, and efficacy concerns using accepted institutional resources and programs.

**Objective 2.1.4: (Analyzing) Identify opportunities for improvement of the medication-use system related to care for critical care patients.**
Criteria:
• Identifies problems and opportunities for improvement and analyzes relevant background data.
• Evaluates data generated by health information technology or automated systems to identify opportunities for improvement.
• Utilizes best practices to identify opportunities for improvements.
• When needed, makes medication-use policy recommendations based on a review of practice standards, guidelines, and other evidence (e.g., National Quality Measures, Institute for Safe Medication Practices alerts, Joint Commission sentinel alerts.)

**Goal R2.2: Demonstrate ability to conduct a quality improvement or research project.**
Ideally, objectives R2.2.1-R2.2.6 will be addressed through residents working on one quality improvement or research project; however, if this is not possible, all objectives must be addressed by the end of the residency year and can be addressed through work on more than one initiative. In addition, residents must complete a medication-use evaluation.

**Objective R2.2.1: (Analyzing) Identify and/or demonstrate understanding of a specific project topic to improve care of critically ill patients or a topic for advancing the pharmacy profession or critical care pharmacy.**
Criteria:
• Appropriately identifies or understands problems and opportunities for improvement or research projects.
• Conducts a comprehensive literature search and draws appropriate conclusions.
• Determines an appropriate research question or topic for a practice-related project of significance to patient care that can realistically be addressed in the desired time frame.
• Uses best practices or evidence-based principles to identify opportunities for improvements.
• Accurately evaluates or assists in the evaluation of data generated by health information technology or automated systems to identify opportunities for improvement.

**Objective R2.2.2: (Creating) Develop a plan or research protocol for a practice quality improvement or research project for the care of critically ill patients or a topic for advancing the pharmacy profession or critical care pharmacy.**
Criteria:
• Develops specific aims, selects an appropriate study design, and develops study methods to answer the research question(s).
• Applies safety design practices (e.g., standardization, simplification, human factors training, lean principles, FOCUS-PDCA, other process improvement or research methodologies) appropriately and accurately.
• Plan for improvement includes appropriate reviews and approvals required by department or organization and addresses the concerns of all stakeholders.
• Applies evidence-based and/or basic pharmacoeconomic principles, if needed.
• Develops a feasible design for a prospective or retrospective clinical or outcomes analysis project that considers who or what will be affected by the project.
• Identifies and obtains necessary approvals, (e.g., IRB, quality review board, funding) and responds promptly to feedback or reviews for a practice-related project.
• Acts in accordance with the ethics of research on human subjects, if applicable.
• Implements the project as specified in its design.
• Plan design is practical to implement and is expected to remedy or minimize the identified challenge or deficiency.

Objective 2.2.3: (Evaluating) Collect and evaluate data for a practice quality improvement or research project for the care of critically ill patients or for a topic for advancing the pharmacy profession or critical care pharmacy.
Criteria:
• Collects the appropriate types of data as required by project design.
• Uses appropriate electronic data and information from internal information databases, external online databases, appropriate Internet resources, and other sources of decision support, as applicable.
• Uses appropriate methods for analyzing data in a prospective and retrospective clinical, humanistic, and/or economic outcomes analysis.
• Develops and follows an appropriate research or project timeline.
• Correctly identifies need for additional modifications or changes to the project.
• Applies results of a prospective or retrospective clinical, humanistic, and/or economic outcomes analysis to internal business decisions and modifications to a customer’s formulary or benefit design as appropriate.
• Uses continuous quality improvement (CQI) principles to assess the success of the implemented change, if applicable.
• Considers the impact of the limitations of the project or research design on the interpretation of results.
• Accurately and appropriately develops plan to address opportunities for additional changes.

Objective 2.2.4: (Applying) Implement a quality improvement or research project to improve care of critically ill patients or for a topic for advancing the pharmacy profession or critical care pharmacy.
Criteria:
• Plan is based on appropriate data.
• Effectively presents plan (e.g., accurately recommends or contributes to recommendation for operational change, formulary addition or deletion, implementation of medication guideline or restriction, or treatment protocol implementation) to appropriate audience.
• Demonstrates appropriate assertiveness in presenting pharmacy concerns, solutions, and interests to external stakeholders.
• Gains necessary commitment and approval for implementation.
• Follows established timeline and milestones.
• Effectively communicates any changes in medication formulary, medication usage, or other procedures to appropriate parties.
• Outcome of change is evaluated accurately and fully.
Objective R2.2.5: (Evaluating) Assess changes or need to make changes to improve care for critical care patients or a topic for advancing the pharmacy profession or critical care pharmacy.

Criteria:
- Evaluate data and/or outcome of project accurately and fully.
- Includes operational, clinical, economic, and humanistic outcomes of patient care, if applicable.
- Uses continuous quality improvement (CQI) principles to assess the success of the implemented change, if applicable.
- Correctly identifies need for additional modifications or changes based on outcome.
- Accurately assesses the impact of the project, including its sustainability (if applicable).
- Accurately and appropriately develops plan to address opportunities for additional changes.

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

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

Competency Area R3: Leadership and Management

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

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

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

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

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

Goal R3.2: Demonstrate management skills in the provision of care for critically ill patients.

Objective R3.2.1: (Applying) Contribute to critical care pharmacy departmental management.
Criteria:
• Helps identify and define significant departmental needs.
  o Manpower/staffing.
  o Staff scheduling and contingencies.
  o Staff qualifications.
  o Assesses and develops educational opportunities for critical care service line staff.
• Helps develop plans that address departmental needs.
  o Orientation.
  o Training and supervision.
  o Effectively participate in, or evaluate, strategic plan.
• Participates effectively on committees or informal work groups to complete group projects, tasks, or goals.
• Participates effectively in implementing changes, using change management and quality improvement best practices and tools, consistent with team, departmental, and organizational goals.

Objective R3.2.2: (Applying) Manage one’s own critical care practice effectively.
Criteria:
• Review and interpret the most recent primary literature.
• Evaluate clinical practice activities for potential contributions to scholarship.
• Accurately assesses successes and areas for improvement (e.g., a need for staffing projects or education) in managing one’s own practice.
• Makes accurate, criteria-based assessments of one’s own ability to perform practice tasks.
• Regularly integrates new learning into subsequent performances of a task until expectations are met.
• Routinely seeks applicable learning opportunities when performance does not meet expectations.
• Demonstrates effective workload and time-management skills.
• Assumes responsibility for personal work quality and improvement.
• Is well prepared to fulfill responsibilities (e.g., patient care, projects, management, meetings).
• Sets and meets realistic goals and timelines.
• Demonstrates awareness of own values, motivations, and emotions.
• Demonstrates enthusiasm, self-motivation, and a “can-do” approach.
• Strives to maintain a healthy work–life balance.
• Works collaboratively within the organization’s political and decision-making structure.
• Demonstrates pride in and commitment to the profession through appearance, personal conduct, planning to pursue board certification.
• Demonstrates pride in and commitment to critical care through membership in professional organizations related to critical care.
• Demonstrates personal commitment to and adheres to organizational and departmental policies and procedures.

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

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

Objective R4.1.1: (Applying) Design effective educational activities related to critical care pharmacy.
Criteria:
• Accurately defines educational needs, including learning styles, with regard to target audience (e.g., individual versus group) and learning level (e.g., health care professional versus patient, student versus PGY1 resident).
• Selects topics of significance to critical care pharmacy as outlined in the appendix.
• Defines educational objectives that are specific, measurable, at a relevant learning level (e.g., applying, creating, evaluating), and address the audiences’ defined learning needs.
• Plans use of teaching strategies that match learner needs, including active learning (e.g., patient cases, polling).
• Selects content that is relevant, thorough, evidence based (using primary literature where appropriate), timely and reflects best practices.
• Includes accurate citations and relevant references and adheres to applicable copyright laws.

Objective R4.1.2: (Applying) Use effective presentation and teaching skills to deliver education related to critical care pharmacy.
Criteria:
• Demonstrates rapport with learners.
• Captures and maintains learner/audience interest throughout the presentation.
• Implements planned teaching strategies effectively.
• Effectively facilitates audience participation, active learning, and engagement in various settings (e.g., small or large group, distance learning).
• Presents at appropriate rate and volume and without exhibiting poor speaker habits (e.g., excessive use of “um” and other interjections).
• Body language, movement, and expressions enhance presentations.
• Summarizes important points at appropriate times throughout presentations.
• Transitions smoothly between concepts.
• Effectively uses audio-visual aids and handouts to support learning activities.

Objective R4.1.3: (Applying) Use effective written communication to disseminate knowledge related to critical care pharmacy.
Criteria:
• Writes in a manner that is easily understandable and free of errors.
• Demonstrates thorough understanding of the topic.
• Notes appropriate citations and references.
• Includes critical evaluation of the literature and knowledge advancements or a summary of what is currently known on the topic.
• Develops and uses tables, graphs, and figures to enhance reader’s understanding of the topic when appropriate.
• Writes at a level appropriate for the target readership (e.g., physicians, pharmacists, other health care professionals, patients, the public).
• Creates one’s own work and does not engage in plagiarism.

Objective R4.1.4: (Applying) Appropriately assess effectiveness of education related to critical care pharmacy.
Criteria:
• Selects assessment method (e.g., written or verbal assessment or self-assessment questions, case with case-based questions, learner demonstration of new skill) that matches activity.
• Provides timely, constructive, and criteria-based feedback to learner.
• If used, assessment questions are written in a clear, concise format that reflects best practices for test item construction.
• Determines how well learning objectives were met.
• Plans for follow-up educational activities to enhance or support learning and (if applicable) ensure that goals were met.
• Identifies ways to improve education-related skills.
• Obtains, reviews, and applies feedback from learners and others to improve effectiveness as an educator.

Goal R4.2: Effectively employ appropriate preceptor roles when engaged in teaching students, pharmacy technicians, or fellow health care professionals in critical care.
Objective R4.2.1: (Analyzing) When engaged in teaching related to critical care, select a preceptor role that meets learners’ educational needs.
Criteria:
• Identifies which preceptor role is applicable for the situation (direct instruction, modeling, coaching, facilitating).
  o Selects direct instruction when learners need background content.
  o Selects modeling when learners have sufficient background knowledge to understand the skill being modeled.
  o Selects coaching when learners are prepared to perform a skill under supervision.
  o Selects facilitating when learners have performed a skill satisfactorily under supervision.

Objective R4.2.2: (Applying) Effectively employ preceptor roles, as appropriate, when instructing, modeling, coaching, or facilitating skills related to critical care.
Criteria:
• Accurately assesses the learner’s skill level to determine the appropriate preceptor role for providing practice-based teaching.
• Instructs students, technicians, or others as appropriate.
• Models skills, including “thinking out loud,” so learners can “observe” critical-thinking skills.
• Coaches, including effective use of verbal guidance, feedback, and questioning, as needed.
• Facilitates, when appropriate, by allowing learner independence and using indirect monitoring of performance.
Elective Educational Outcomes, Goals, and Objectives for Postgraduate Year Two (PGY2)
Pharmacy Residencies in Critical Care

Competency Area E1: Academia

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

Objective E1.1.1: (Understanding) Demonstrates understanding of key elements of the academic environment and faculty roles within it.
Criteria:
- Accurately describes variations in the expectations of different colleges/schools of pharmacy for teaching, practice, research, and service, including public versus private colleges/schools of pharmacy and relationships between scholarly activity and teaching, practice, research and service.
- Accurately describes the academic environment, including how the decisions by university and college administration impact the faculty and how outside forces (e.g., change in the profession, funding source, accreditation requirements) impact administrator and faculty roles.
- Accurately described faculty roles and responsibilities.
- Accurately describes the types and ranks of faculty appointments, including the various types of appointments (e.g., non-tenure, tenure-track, and tenured faculty), various ranks of faculty (e.g., instructor, assistant professor, associate professor, full professor), and the role and implications of part-time and adjunct faculty as schools continue to expand and faculty shortages occur, and promotion and tenure process for each type of appointment, including types of activities that are considered in the promotion process and for tenure.
- Accurately explains the role and influence of faculty in the academic environment, including faculty in governance structure (e.g., the faculty senate, committee service) and faculty related to teaching, practice, research, and service roles (e.g., curriculum development and committee service).
- Accurately identifies resources available to help develop academic skills, including the role of academic-related professional organizations (e.g., AACP) and other resources to help develop teaching skills and a teaching philosophy.
- Accurately identifies and describes ways that faculty maintain balance in their roles.
- Accurately describes typical affiliation agreements between a college of pharmacy and a practice site (e.g., health system, hospital, clinic, retail pharmacy).

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

Objective E1.2.1: (Applying) Develop and deliver cases for workshops and exercises for laboratory experiences.
Criteria:
- Identifies the appropriate level of case-based teachings for small group instruction.
- Identifies appropriate exercises for laboratory experiences.
- Provides appropriate and timely feedback to improve performance.
Objective E1.2.2: (Evaluating) Compare and contrast methods to prevent and respond to academic and profession dishonesty and adhere to copyright laws.
Criteria:
- Accurately evaluates physical and attitudinal methods to prevent academic dishonesty.
- Accurately describes methods of responding to incidents of academic dishonesty.
- Accurately explains the role of academic honor committees in cases of academic dishonesty.
- Identifies examples and methods to address unprofessional behavior in learners.
- Accurately describes copyright regulations as related to reproducing materials for teaching purposes.
- Accurately describes copyright regulations as related to linking and citing on-line materials.

Goal E1.3: Develops and practices a philosophy of teaching.
Objective E1.3.1: (Creating) Develop or update a teaching philosophy statement.
Criteria:
- Teaching philosophy includes:
  - Self-reflection on personal beliefs about teaching and learning;
  - Identification of attitudes, values, and beliefs about teaching and learning; and,
  - Illustrates personal beliefs on practice and how these beliefs and experiences are incorporated in a classroom or experiential setting with trainees.
  - If updating, reflect on how one’s philosophy has changed.

Objective E1.3.2: (Creating) Prepare a practice-based teaching activity.
Criteria:
- Develops learning objectives using active verbs and measurable outcomes.
- Plans teaching strategies appropriate for the learning objectives.
- Uses materials that are appropriate for the target audience.
- Organizes teaching materials logically.
- Plans relevant assessment techniques.
- When used, develops examination questions that are logical, well-written, and test the learners’ knowledge rather than their test-taking abilities.
- Participates in a systematic evaluation of assessment strategies (e.g., post-exam statistical analysis) when appropriate.
- Ensures activity is consistent with learning objectives in course syllabus.

Objective E1.3.3: (Applying) Deliver a practice-based educational activity, including didactic or experiential teaching, or facilitation.
Criteria:
- Incorporates at least one active learning strategy in didactic experiences appropriate for the topic.
- Uses effective skills in facilitating small and large groups.
- For experiential activities:
  - Organizes student activities (e.g., student calendar).
  - Effectively facilitates topic discussions and learning activities within the allotted time.
  - Effectively develops and evaluates learner assignments (e.g., journal clubs, presentations, SOAP notes.
  - Effectively assesses student performance.
  - Provides constructive feedback.
Objective E1.3.4: (Creating) Effectively document one's teaching philosophy, skills, and experiences in a teaching portfolio.
Criteria:
- Portfolio includes:
  - A statement describing one's teaching philosophy.
  - Curriculum vitae.
  - Teaching materials including slides and other handouts for each teaching experience.
  - Documented self-reflections on one's teaching experiences and skills, including strengths, areas for improvement, and plans for working on the areas for improvement.
  - Peer/faculty evaluations.
  - Student/learner evaluations.

Competency Area E2: Added Leadership and Practice Management Skills

Goal E2.1: Exhibits additional skills of a practice leader.

Objective E2.1.1: (Applying) Exhibits additional personal skills of a practice leader.
Criteria:
- Establishes sustained active participation in relevant professional associations.
- Speaks clearly and distinctly in grammatically correct English or the alternate primary language of the practice site.
- Use listening skills effectively.
- Uses effective body language when listening to others.
- Effectively uses verbal techniques to enhance listening to others.
- Uses correct grammar, punctuation, spelling, style, and formatting conventions in preparing written communications.
- Considers recipient's preferences to determine the appropriate type of, and medium and organization of communications.
- Communicates in terms appropriate to one's audience.
- Accurately determines audience's needs.
- Explain the importance of assessing the listener's understanding of the message conveyed.
- Accurately assesses and addresses the level of health literacy of a patient.
- Uses sources of patient information that are appropriately adjusted for various levels of health literacy.
- Effectively uses techniques for persuasive communications.
- Applies guidelines for the preparation of statements to be distributed to the media.

Objective E2.1.2: (Creating) Develops and implements an effective proposal for a new critical care pharmacy service.
Criteria:
- Effectively employs clinical, humanistic, and economic outcome strategies to justify critical care pharmacy services, as applicable.
- Appropriately documents outcomes of critical care pharmacy services.
- Employs effective strategies to implements a new critical care pharmacy service.
Competency Area E3: Mass Casualty

Goal E3.1: Participate in the planning and implementation of plans for the management of mass casualty events.

Objective E3.1.2: (Synthesis) Participate in the development or revision of the critical care pharmacy elements of organizational plans for the management of mass casualty events.
Criteria:
• Demonstrates an understanding of the critical care pharmacist’s role in the development of plans for the management of mass casualty events at the organizational, local, state, and national levels.
• Includes essential critical care pharmacy-related components in the organization’s plan for the management of mass casualty events.
• Ensures involvement of appropriate parties in the development of an organization’s plan for the management of mass casualty events.

Objective E3.1.3: (Applying) Exercise skill in the delivery of staff training as specified in the organization’s emergency preparedness plans.
Criteria:
• Staff training appropriately reflects the organization’s emergency preparedness plans.
• Appropriate audience is identified for training.
• Selection of training delivery methods is appropriate to content and audience needs.
• Training is effectively presented.
• Training effectiveness is effectively evaluated.

Objective E3.1.4: (Applying) If needed, provide services and programs as specified in the organization’s emergency preparedness plan.
Criteria:
• Appropriate services and programs are identified.
• Services and programs are adequately provided.
• Services and program are as specified in the organization’s emergency preparedness plan.

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

ASHP Areas of Emphasis PGY2 Critical Care

The resident will demonstrate an understanding of the mechanism of action, pharmacokinetics, pharmacodynamics, pharmacogenomics, pharmacoeconomics, usual regimen (dose, schedule, form, route, and method of administration), indications, contraindications, interactions, adverse reactions, and therapeutics of medications and non-traditional therapies, where relevant, that are applicable to the diseases and conditions and have the ability to design appropriate treatment regimens and treat and assess outcomes.
For some diseases and conditions, direct patient care is required. For other diseases and conditions, a case-based, didactic approach may be substituted. In these cases, the resident will demonstrate understanding of the diseases and condition via didactic instruction, case-based application, simulation, or other appropriate approach.

For these diseases and conditions, the resident will demonstrate an understanding of signs and symptoms, epidemiology, risk factors and etiology, pathogenesis, pathophysiology, clinical course, and a comprehensive pharmacotherapy treatment plan.

In the list, an asterisk (*) indicates that direct patient care is required. The other items are required but may be covered in the case-based, didactic approach described above.

**Pulmonary**
1. *Acute respiratory distress syndrome*
2. *Severe asthma exacerbation*
3. *Acute COPD exacerbation*
4. *Acute pulmonary embolism*
5. *Acute pulmonary hypertension*
6. *Drug-induced pulmonary diseases*
7. *Mechanical ventilation*
8. Chronic severe pulmonary hypertension
9. Pneumothorax and hemothorax
10. Chest tubes
11. Cystic fibrosis
12. Inhaled medication administration

**Cardiovascular**
1. *Advanced cardiac life support*
2. *Arrhythmias (atrial and ventricular)*
3. *Acute decompensated heart failure*
4. *Acute coronary syndromes*
5. *Hypertensive emergencies and urgencies*
6. *Shock syndromes*
7. Acute aortic dissection
8. Pericardial tamponade
9. Mechanical devices (e.g., intra-arterial balloon pumps, ECLS, ECMO)
10. Invasive and non-invasive hemodynamic monitoring
11. PALS

**Renal**
1. *Acute kidney injury*
2. *Acid-base imbalance*
3. *Fluid and electrolyte disorders*
4. *Contrast-induced nephropathy*
5. *Drug-induced kidney diseases*
6. Rhabdomyolysis
7. Syndrome of inappropriate antidiuretic hormone
8. Continuous renal replacement therapies/hemodialysis
Neurology
1. *Status epilepticus
2. *Ischemic stroke
3. *Subarachnoid hemorrhage
4. *Intracerebral hemorrhage
5. *Critical illness polyneuropathy
6. Intracranial pressure management
7. Traumatic brain injury
8. Spinal cord injury
9. Central diabetes insipidus
10. Cerebral salt wasting
11. Encephalopathy in coma
12. EEG or bispectral monitoring for level of sedation
13. Ventriculostomies
14. Targeted temperature management/induced hypothermia

Gastrointestinal
1. *Acute upper and lower gastrointestinal bleeding
2. *Acute pancreatitis
3. Fistulas
4. Ileus
5. Abdominal compartment syndrome

Hepatic
1. *Acute liver failure
2. *Complications of cirrhosis
3. *Drug-induced liver toxicity

Dermatology
1. Burns
2. Stevens-Johnson syndrome
3. Toxic epidermal necrolysis
4. Erythema multiforme
5. Drug Reaction (or Rash) with Eosinophilia and Systemic Symptoms (DRESS)

Immunology
1. Acute transplant rejection
2. Graft-versus-host disease
3. Management of the immunocompromised patient
4. Acute management of a solid organ or bone marrow transplant patient
5. Medication allergies/desensitization

Endocrine
1. *Relative adrenal insufficiency
2. *Hyperglycemic crisis
3. *Glycemic control
4. Thyroid storm/ICU hypothyroid states
Hematology
1. *Acute venothromboembolism
2. *Coagulopathies
3. *Drug-induced thrombocytopenia
4. *Blood loss and blood component replacement
5. Anemia of critical illness
6. Drug-induced hematologic disorders
7. Sickle cell crisis
8. Methemoglobinemia

Toxicology
1. *Toxidromes
2. *Withdrawal syndromes
3. Drug overdose
4. Antidotes/decontamination strategies

Infectious Diseases
1. *CNS infections
2. *Complicated intra-abdominal infections
3. *Pneumonia
4. *Endocarditis
5. *Sepsis
6. *Fever
7. *Antibiotic stewardship
8. *Clostridium difficile associated diarrhea
9. Skin and soft-tissue infection
10. Urinary tract infections
11. Wound infection
12. Catheter-related infections
13. Infections in the immunocompromised host
14. Pandemic diseases
15. Febrile neutropenia
16. Acute osteomyelitis

Supportive Care
1. *Pharmacokinetic and pharmacodynamic alterations in critically ill
2. *Nutrition (enteral, parenteral nutrition, considerations in special patient populations)
3. *Analgesia
4. *Sedation
5. *Delirium
6. *Sleep disturbances
7. *Rapid sequence intubation
8. *Venous thromboembolism prophylaxis
9. *Stress ulcer prophylaxis
10. Pharmacogenomic implications
11. Oncologic emergencies
12. Other devices 1. Intravascular devices
13. Peripheral nerve stimulators
14. IV pumps

**Related Topic**
The resident will be able to describe key landmark events in the evolution of critical care pharmacy as a specialty and summarize the findings from key studies documenting the association of critical care pharmacy services with favorable health care outcomes.