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Section 1. GHS Overview
Greenville Health System Overview

Greenville Health System (GHS) is an academic health system that is the largest not-for-profit health care delivery system in South Carolina and is committed to medical excellence through research, patient care and education. GHS offers patients an innovative network of clinical integration, expertise and technologies through its eight medical campuses, tertiary medical center, research and education facilities, community hospitals, physician practices and numerous specialty services throughout the Upstate. The 1,358-bed system is home to 16 medical residency and fellowship programs, and comprises more than 15,000 employees. GHS also is home to the University of South Carolina School of Medicine Greenville, a joint effort of USC and GHS. The system also has a peer-reviewed medical journal, GHS Proceedings. This semi-annual publication appears primarily online and includes unpublished original research, review articles, case studies, editorials and book reviews. Its mission is to provide high-quality publications on healthcare innovation and delivery.

GHS has adopted a regional organizational model, with each region wielding much autonomy over how services are delivered there. The model supports smaller work units that can promote innovation and collaboration at and across all levels of the system. GHS has four geographic regions: Central, Eastern, Southern and Western, each led by a physician-administrator dyad. This structure reflects a commitment to becoming a fully integrated, clinician-run organization focused on patient-centered care, as the dyad team is responsible for understanding the unique clinical needs of the region and managing GHS resources effectively and efficiently to meet those needs. In addition to the physician-administrator team, a second dyad consists of a close tie between the doctor and a nurse executive; this dyad is responsible for developing interprofessional practice.

GHS is part of the not-for-profit South Carolina Health Company. Greenville Health System Chief Executive Officer Michael C. Riordan and Palmetto Health Chief Executive Officer Charles D. Beaman, Jr. serve as Co-CEOs of the health company. Senior leadership reports to the Co-CEOs and is referred to as our Executive Cabinet. The new health company has the scale, scope and resources required to address the critical health issues of the people it serves. As a mission-driven organization committed to caring for urban, suburban and rural community members, the new company brings together the strengths of both systems to improve the patient experience, advance clinical quality and increase access to care, while addressing rising health care costs.

Greenville Health System by the Numbers (2017 data)

- 8 Medical campuses
- Total of 1,1518 licensed beds
- Nine residency programs with a total of 222 physician residents
- Seven fellowship programs with a total of 13 fellows
- Approximately 385 medical students
- Approximately 1,058 employed physicians
- Approximately 4,198 registered nurses
- Approximately 15,493 employees
- Over 900 volunteers
Our Facilities

Greenville Memorial Medical Campus: Includes Greenville Memorial Hospital, Children's Hospital, Roger C. Peace Hospital–Rehabilitation, and Marshall I. Pickens Hospital–Behavioral Health.

Greer Medical Campus: For more than 60 years, Greer Medical Campus has delivered patient- and family-centered care that personalizes, humanizes and demystifies the healthcare experience to our neighbors in and around Greer, Taylors and western Spartanburg County. The campus houses three major facilities: Greer Memorial Hospital (58 beds); a residential community, Cottages at Brushy Creek (144 beds); and Greer Medical Office Buildings.

Simpsonville Medical Campus (Hillcrest Memorial Hospital): Through the Simpsonville campus, residents of Fountain Inn, Gray Court, Laurens, Mauldin, and Simpsonville have access to the complete range of health services offered by Greenville Health System. Specializing in short stay and outpatient surgical procedures, Hillcrest Memorial Hospital offers the latest technology and an experienced surgical team. (43 beds)

North Greenville Hospital: Located in Travelers Rest, SC, North Greenville Hospital is a 45-bed facility designated for adult long term acute care (LTACH). Long Term Acute Care is for patients 17 and over who require an extended hospital stay of 14 days or more. Long Term Acute Care is not the same as sub-acute or nursing home care. Rather, it is a hospital where patients with complex medical conditions can receive additional care until they are ready to go home.

Patewood Medical Campus: Patewood Memorial Hospital (36 beds) provides a location for those patients having elective inpatient surgery, and provides a family-centered care in a short stay surgical hospital. The campus also includes an outpatient surgery center, primary care offices, children’s outpatient center, and other various outpatient laboratory and imaging services.

Laurens County Memorial Hospital: Acute care, general medical and surgical hospital in Clinton, SC (87 beds)

Oconee Medical Center: Acute care, general medical and surgical hospital in Seneca, SC (169 beds)

Greenville Memorial Medical Campus Services

Greenville Memorial Hospital (GMH)
A 710-bed regional referral and academic center. GMH was granted Magnet designation from the American Nurses Credentialing Center. Magnet is the highest level of recognition an organization can receive for high-quality nursing.

Children’s Hospital
With 150 board-certified doctors representing more than 30 pediatric sub-specialties, the Children’s Hospital is the only one dedicated to caring for children in upstate South Carolina, western North Carolina, and northeastern Georgia. Whether it is a rare form of cancer, diabetes, or a learning disability, our specially trained team delivers innovative, compassionate care in a child-friendly setting. And with many inpatient and outpatient services not available elsewhere in the region, we treat over 80,000 infants, children, and adolescents a year. Our experience and expertise, technology and scope of services--that's what sets the Children's Hospital apart.

Neonatal Intensive Care Unit (NICU)
With a Level III Neonatal Intensive Care Unit (NICU), Greenville Hospital System offers the region’s largest, most advanced level of specialty care for premature or critically ill infants. The 80-bed NICU at GHS Children's Hospital cares for more than 800 infants each year. As part of the state’s premier perinatal center, we’re ready every day—all day—with the latest technology and monitoring equipment
specially designed for tiny babies. In addition, our on-site neonatal doctors are available around the clock and backed by the area’s largest number of pediatric subspecialists to serve the 750 babies treated here annually. And when it’s time to bring babies home, our Children’s Hospital is one of the few nationwide with a program to teach parents how to care for children with special needs. The NICU has provided care for sick babies in our region for more than 20 years.

**Pediatric Intensive Care Unit (PICU)**
Critically ill infants, children and adolescents up to age 18 receive constant care, sophisticated monitoring and specialized therapies in our Pediatric Intensive Care Unit (PICU) at Children's Hospital of Greenville Health System (GHS). The PICU at GHS Children's Hospital centers around twelve ICU beds located in a separate unit on the fifth floor of the Children's Hospital tower. The PICU team includes four in-house, American-board-certified pediatric critical care physicians as well as in-house pediatric resident physicians.

**GHS Heart & Vascular Institute**
The institute is composed of board certified physicians, certified physician extenders, certified nurses and technicians who offer state-of-the-art care in the fields of adult and pediatric cardiology, cardiac and vascular surgery, and vascular and endovascular medicine. The area’s only non-invasive vascular lab and the area’s only vascular medicine specialty practice provide a wide array advanced circulatory diagnostic services. Five cardiac catheterization labs and separate electrophysiology and pacing labs offer the most extensive cardiac and vascular diagnostic services in the state. GHS Division of Cardiothoracic Surgery offers a wide breadth of procedures, including use of the latest techniques, prostheses and quality care protocols.

**Orthopedic Services**
Greenville Health System has formed a partnership with Steadman Hawkins Clinic of the Carolinas, a leader in orthopedic care. With one of the finest sports medicine programs in the region, our experts provide a full range of state-of-the-art services. Multi-disciplinary teams of orthopedic specialists, some among the nation’s most experienced, deliver high-quality care to weekend warriors as well as to famous athletes. From sports conditioning to non-invasive treatment options and the latest rehabilitation techniques, we help people of all ages and from all walks of life. Offices are located across the Upstate.

**Emergency Trauma Center**
Greenville Health System provides the most extensive emergency services in the Upstate, including a regional referral center for the most severe injuries and illnesses. Emergency services are provided by a team of board-certified emergency medicine physicians supported by specially trained nursing staff and emergency technicians. Emergency services include the following: The only Level I Trauma Center in Greenville; the Upstate’s only Children’s Emergency Center; Greenville's only Chest Pain Center to provide special care and observation for potential heart attack victims; the Upstate’s only Pediatric Intensive Care Unit to treat the most severe injuries and illnesses in children; and Greenville’s only Level III Neonatal Intensive Care Unit (NICU) for the highest level of care for critically ill newborns. GMH is verified as a Level I Adult Trauma Center and Level II Pediatric Trauma Center by the American College of Surgeons. This achievement recognizes dedication to providing optimal care for injured patients. National verification is voluntary and a step above state designation; GMH has been a state-designated Level 1 Adult Trauma Center since 1998.

**Academic Medical Programs**
Residency programs in the Greenville Health System Division for Academic Services offer primary care experience as well as specialty and sub-specialty rotations found in university programs. Residents receive a broad-based education – with a personal touch--from attending faculty and community physicians. While volume, technology, professional expertise, and research are important, personal care and customer service are emphasized as well.

GHS Medical Residency & Fellowship Programs:
- Emergency Medicine
- Family Medicine
- General Surgery
• Internal Medicine
• Medicine-Pediatrics
• Obstetrics-Gynecology
• Orthopaedic Surgery
• Pediatrics
• Psychiatry
• Child & Adolescent Psychiatry Fellowship
• Colon & Rectal Surgery Fellowship
• Developmental/Behavioral Pediatrics
• Maternal-Fetal Medicine Fellowship
• Minimally Invasive Surgery
• Orthopaedic Sports Medicine Fellowship
• Orthopaedic Total Joint Arthroplasty Fellowship
• Primary Care Sports Medicine
• Vascular Surgery
Mission and Vision Statement

Mission

Heal compassionately. Teach innovatively. Improve constantly.

Vision

Transform health care for the benefit of the people and communicates we serve.

Values

Together we serve with integrity, respect, trust and openness.
GHS' Commitment of Excellence uses evidence based leadership practices to help reach our goals for continued success. Each star in the logo represents a pillar – people, service, quality, growth, finance or academics. Pillars help us think about and organize the work we do at GHS. Commitment to Excellence builds on our strong foundation of service excellence and patient and family centered care. “Hardwiring” these practices throughout our team will make GHS an even better place to work, practice medicine and receive care.

**Pillars**

**People** – Sustain strong employee commitment

**Service** – Improve patient satisfaction

**Quality** – Improve clinical quality and safety

**Growth** – Achieve budgeted net revenue

**Finance** – Achieve budgeted operating margin

**Academics** – Strengthen academic affiliations
Standards of Behavior

At Greenville Hospital System, we hold ourselves accountable to high standards of behavior. These standards are observable, measurable and apply system-wide to all departments and roles, clinical or non-clinical.

**Compassion** guides our interactions with patients, families, other customers, vendors and co-workers. In addition to following all other policies, as an integral member of the GHS team, we demonstrate compassion by exhibiting the standards of behavior listed below in our day-to-day activities.

**Together, we will:**

- C **ommunicate** professionally.
- O **bserving** good hand hygiene.
- M **aintain** clean and quiet surroundings.
- P **rotect** privacy and confidentiality.
- A **ssist** patients, families and other customers.
- S **mile and greet** everyone.
- S **ecure** a safe environment.
- I **dentify** ourselves and wear our name badges.
- O **ffer support** and demonstrate teamwork to co-workers.
- N **ote problems** and take responsibility to solve them.
- I **dentify** ourselves and wear our name badges.
- O **ffer support** and demonstrate teamwork to co-workers.
- N **ote problems** and take responsibility to solve them.
Commitment to Positive Employee Relations

GHS is committed to understanding and protecting the interests of its most valued resource its employees. To accomplish this objective requires developing and maintaining constructive and positive relationships in all areas of personal interaction. To provide a work environment that encourages employees to perform effectively and efficiently, GHS strives to fulfill the following responsibilities:

- Ensure that employment decisions and continued relations are free from preferential treatment and/or discrimination
- Establish two-way communication through which employees are given the opportunity to be heard, feel free to ask questions and seek discussion, and receive honest, thoughtful responses to concerns and recommendations
- Maintain competitive salary ranges and employee benefit programs
- Provide opportunities for advancement by making positions available to qualified internal candidates
- Provide work conditions that are as safe and healthy as possible and promote employee health and wellness
- Monitor and utilize the most appropriate equipment, materials/supplies, and services
- Encourage personal and professional growth and recognize accomplishments
- Value each individual's unique talents, abilities, and contributions to the GHS healthcare team and honor special achievements

At the same time, each employee can contribute to establishing and maintaining a positive work environment by meeting these responsibilities and expectations:

- Demonstrate dependability, accuracy, pride, and loyalty in performing daily responsibilities
- Strive to exceed the expectations of our patients, their families, and other customers
- Exhibit courteous conduct and a neat, professional appearance
- Practice sensitive, honest communications and confidentiality when appropriate
- Respond to, and be supportive of, change in a continually evolving healthcare environment
- Observe safety, infection control, and employee health regulations and requirements
- Meet organizational and job-specific educational requirements
- Respect the values, beliefs, attitudes, and expectations of others
- Communicate openly, ask questions, and voice concerns to improve the system
- Continuous attention to these responsibilities results in a positive relationship between GHS and its community of employees. Organizational and individual needs can best be met through a close working relationship based on trust, a genuine spirit of teamwork, open communication, and enthusiasm
Employee Benefits

Health Insurance: GHS Value Health Plan
- Administered by Blue Cross Blue Shield (BCBSSC), a Preferred Provider Organization (PPO)
- Available to full-time and part-time employees and eligible dependents
- The preferred provider network is through the GHS Network (myHealthFirst); outside Greenville county preferred provider network is through BCBSSC (800) 922-1185 or www.SouthCarolinaBlues.com
- A higher benefit is paid for using “preferred providers” and in some cases, no benefit is paid for services obtained outside the preferred provider network
- Newly hired employees have a thirty-one day waiting period before coverage is effective

Prescription Drug Benefit Summary
- Administered by Envision Rx Options
- Participants of the Greenville Hospital System health plan have flexibility and convenience when utilizing their prescription drug benefit by filling their prescription either via mail-order, at participating pharmacies, or at GHS Upstate Pharmacy locations.
- Participants of the plan will save money by filling prescriptions at GHS Upstate Pharmacy locations or via mail-order.

Dental Plan
- Administered by BCBSSC
- Available to full-time and part-time employees and their eligible dependents
- Newly hired employees have a thirty-one day waiting period before coverage is effective
- The dental plan, administered by BCBSSC, lets you receive care from any certified dental provider. However, if your dentist is in the BCBSSC network, you will not have to pay charges over the BCBSSC reimbursement amount (reasonable and customary).

Vision Plan
- Administered by VSP
- Available to all employees and members of their immediate family

GHS Retirement Savings Plan
- 403(b) Plan
  - At GHS, all employees are automatically enrolled in the 403(b) Retirement Savings Plan. Your initial contribution is approximately 3% of your eligible earnings. Newly hired employees are enrolled approximately 30 days after their first paycheck. Your contributions are deducted from your paycheck before federal and state taxes.
  - You can opt out or make changes to your contribution amount at any time. Call Prudential Customer Service at 1-877-777-2100. If you opt out of automatic enrollment, but still want to contribute to the 403(b) Plan, you must contribute a minimum of 1% of your eligible earnings. IRS rules determine the maximum contribution limit.
You also may be able to contribute to the Roth option. Roth contributions are deducted after federal and state taxes. GHS may match your contributions to the 403(b) Plan. The match amount will depend on GHS’ financial performance during the previous fiscal year. The matching contribution is vested immediately.

- **401(a) Plan**
  - All GHS employees are enrolled in the 401(a) Plan. GHS makes an annual employer contribution of 3% of your eligible earnings. If you have contributed to the 403(b) plan, any matching contribution also is made to this account. The Employer Contribution has a three-year vesting schedule. This means that you must work at least 1,000 hours in each of the three plan years before you are vested.

**Group Basic Life and Accidental Death and Dismemberment (AD&D) Insurance**

- Basic life insurance helps provide financial protection by promising to pay a benefit in the event of an eligible member’s covered death. This insurance coverage can help your family members meet daily expenses, maintain their standard of living, pay off debt, secure your children’s education and more in the event of your passing.
- An AD&D policy pays benefits to your beneficiaries if your cause of death is an accident. Additionally, it also pays you benefits for the loss of limbs because of an accident.
- Full-time employees are automatically enrolled in a Basic Life and AD&D plan. This coverage is equal to two times base annual salary (maximum $500,000).
- Coverage is effective the first day of the month following 30 days of employment or the first day of the month following change to an eligible status.
- The imputed value of group life insurance greater than $50,000 appears on your pay stub as IMP LIFE. Such an amount is considered taxable income.

**Short- and Long-term Disability Insurance**

- Full-time employees are automatically enrolled in a Short- and Long-term Disability plan that is 100% employer paid.

**Stipend**

- PGY-1 $21.00/hour ($43,680/yr)
- PGY-2 $22.00/hour ($45,760/yr)

**Other Benefits**

- Please consult the benefits website for the most up-to-date, comprehensive information [https://mybensite.com/greenvillehr/](https://mybensite.com/greenvillehr/)
Section 2. Department of Pharmacy Overview
Mission Statement

To collaborate with other healthcare providers in order to improve patient outcomes through optimal medication management

Vision Statement

1. Improve the efficiency, safety, and quality of patient care through:
   - Expansion of pharmacy clinical services
   - Proficient use of pharmacy automation and technology
   - Pharmacy education and research programs

2. Provide a challenging and enriching work environment for our staff
Pharmacy Scope of Services

The Department of Pharmacy strives to offer high quality patient care and education to patients and healthcare providers. The pharmacy follows a decentralized model, supports clinical patient care rounding services, and participates in organizational and departmental support programs.

Distributive Inpatient Services
- Unit-based drug distribution system (Omnicell Medication Dispensing System)
- Computerized pharmacy operation and patient information system (Epic)
- USP <797> compliant cleanroom for sterile compounding
- Decentralized pharmacy service with four satellite pharmacies
- Specialized pediatric pharmacy within The Children's Hospital
- Specialized pharmacy within the Marshall I. Pickens Hospital
- Services provided 24 hours/day, 365 days/year

Distributive Outpatient Services
- Upstate Retail Pharmacy
  - 9 locations: GMMC, Eastside, Cross Creek, Center for Family Medicine, Greer, IMA, Boiling Springs, Seneca, and Oconee
- Cancer Centers of the Carolinas Infusion Centers
  - 8 locations: Farris, Grove Commons, Eastside, Greer, Spartanburg, Clinton, Easley, and Seneca

Pharmacy Automation
- Omnicell Medication Dispensing System
- Talyst Carousels
- Talyst Autopharm inventory and workflow management
- Pharmacy Keeper medication tracking
- BAXA EM 2400 automated TPN compounder with ABACUS software

Clinical Services
- Clinical rounding with teaching services including - internal medicine, cardiology, medical critical care, surgical critical care, cardiovascular surgery critical care, neurocritical care, hospitalist service, infectious diseases, neonatal intensive care, pediatric intensive care, pediatric hematology/oncology, psychiatry, family medicine, emergency medicine, and ambulatory care
- Drug Information service

Residency Programs
- PGY2 Critical Care – This residency program is designed to optimize clinical patient care and education skills. Experience will be gained through literature evaluation and application, direct patient care, educational programs, and precepting.
- PGY1 Pharmacy Practice – This residency program serves to advance the individual's understanding of pharmacy operations, clinical patient care skills, knowledge, and application of the literature. Residents also gain experience in educating others through lectures, presentations, and precepting.

Academic Affiliation
- Onsite campus for the University of South Carolina College of Pharmacy P3 academic year
- Major rotation site for IPPE and APPE rotations from Palmetto Experiential Education Partnership and Presbyterian College of Pharmacy
- Onsite School of Medicine – University of South Carolina – Greenville
- Onsite School of Nursing – Clemson University
Section 3. ASHP Residency Accreditation Overview
ASHP Regulations on Accreditation of Pharmacy Residencies

I. Introduction

ASHP believes that postgraduate residency programs are the best source of highly qualified pharmacy manpower and that it has an obligation to support residencies through the development of standards and a program of accreditation. To ensure adherence to the principles and philosophy of such standards, ASHP administers an accreditation program. For purposes of accreditation, a pharmacy residency is considered to be a postgraduate program of organized education and training that meets the requirements of applicable standards set forth and approved by ASHP and, as applicable, its partners in residency program development.

II. Definitions (Accreditation Status)

A. **Accreditation**: the act of granting approval to a postgraduate residency program after the program has met set requirements and has been reviewed and evaluated through an official process [document review, site survey, review and evaluation by the Commission on Credentialing (COC)]. An approved program is in an “ASHP-accredited” status.

B. **Pre-candidate**: the status that may be granted to a program that has submitted a completed application indicating intent to seek “candidate” status. Programs may be in a pre-candidate status for no more than two iterations of the Resident Matching Program (RMP). One of the purposes of this status is to assist the program in recruiting a resident through participation in the RMP. If a program in pre-candidate status is not successful in recruiting a resident within two iterations of the RMP, the status may be extended for one additional iteration of the RMP. By the conclusion of this status, the program must have submitted an application for accreditation or this designation will be removed and not granted to the same program again. Programs in this status must submit an application for accreditation when training of the first resident begins.
C. **Candidate:** the status granted to a program that has a resident(s) in training, has applied to ASHP for accreditation, and is awaiting the official site survey, and review and evaluation by the COC.

D. **Conditional accreditation:** the status granted to a program that is not in substantial compliance with the applicable accreditation standard, as usually evidenced by the degree of severity of non-compliance and/or partial compliance findings. Programs must remedy identified problem areas and may undergo a subsequent on-site survey at the discretion of the COC.

### III. Definitions (Program Personnel)

A. **Preceptor:** an expert pharmacist who gives practical experience and training to a pharmacy resident. Preceptors have responsibility for the evaluation of resident performance.

B. **Residency program director (RPD):** the pharmacist responsible for direction, conduct, and oversight of the residency program. In a multiple-site residency, the residency program director is a pharmacist designated in a written agreement between the sponsoring organization and all of the program sites.

C. **Site coordinator:** an individual in a multiple-site residency program who is designated to oversee and coordinate the program’s implementation at an individual site that is used for more than 25% of the learning experiences. This individual may also serve as a preceptor in the program. A site coordinator must:

1. be a licensed pharmacist who meets the criteria identified in the appropriate pharmacy residency accreditation standard;
2. implement and adhere to the appropriate residency accreditation standards, regulations and guidance documents in conjunction with the residency program director;
3. practice at the site at least ten hours per week;
4. have the ability to teach effectively in a clinical or administrative practice environment; and
5. have the ability to direct and monitor residents’ and preceptors’ activities at the site with the RPD’s direction.

D. **Designee**

   1. An individual designated by the RPD to perform duties as allowed by the standard.

### IV. Definitions (Sponsorship and Residency Program Site)

A. **Sponsoring Organization:** A hospital, health-system, college of pharmacy,
corporation or other business entity that assumes ultimate responsibility for coordinating and administering the residency program. The sponsoring organization is charged with ensuring that residents’ experiences are educationally sound and are conducted in a quality practice environment. The sponsoring organization is also responsible for submitting the accreditation application and ensuring periodic evaluations of the program are conducted. If several organizations share responsibility for the financial and management aspects of the residency (e.g., school of pharmacy, health-system, individual site), the organizations must mutually designate one organization as the sponsoring organization. The sponsoring organization may or may not provide financial support. This relationship must be agreed to in writing and signed by all parties (i.e., affiliation agreement) and comply with the Standard 5 of the applicable residency accreditation standard.

B. **Site:** the actual practice location where the residency training experience occurs.

C. **Single-site residency:** In a single-site residency, a minimum of 60% of the resident’s training program occurs at the main practice site; however, residents may spend time in learning experiences off-site as long as they do not exceed 25% of the residency program at any other site.

   a. As adapted to community-based programs, in a single-site residency, a minimum of 40% of the resident’s training program occurs at the designated home-base site within one organization. If more than 25% of the remainder of the residency is conducted at one different site, the program will be considered a multiple-site program.

D. **Multiple-site residency:** a residency structure in which multiple organizations or practice sites are involved in the residency program and does not meet the definition for a single site residency program.

   a. To conduct a multiple-site residency there must be a compelling reason for offering the training in a multiple-site format (that is, the program is improved substantially in some manner). For example:

      1. RPD has expertise, however the site needs development (for example, site has a good variety of patients, and potentially good preceptors, however the preceptors may need some oversight related to the residency program; or services need to be more fully developed);
      2. quality of preceptorship is enhanced by adding multiple sites;
      3. increased variety of patients/disease states to allow wider scope of patient interactions for residents;
      4. increased administrative efficiency to develop more sites to handle more residents across multiple sites/geographic areas;
      5. synergy of the multiple sites increases the quality of the overall program;
6. allows the program to meet all of the requirements (that could not be done in a single site alone); and
7. ability to increase the number of residents in a quality program.

b. A multiple-site residency program conducted in multiple hospitals that are part of a health-system that is considering CMS pass-through funding should conduct a thorough review of 42CFR413.85 and have a discussion with the finance department to ensure eligibility for CMS funding.

c. In a multiple-site residency program, a sponsoring organization must be identified to assume ultimate responsibility for maintaining authority and responsibility for the program’s quality. This includes:
   1. designating a single residency program director (RPD);
   2. establishing a common residency purpose statement to which all residents at all sites are trained;
   3. assuring a core program structure and consistent required learning experiences;
   4. assuring the core required learning experiences are comparable in scope, depth, and complexity for all residents, if home based at separate sites;
   5. assuring a uniform evaluation process and common evaluation tools are used across all sites;
   6. assuring there are consistent requirements for successful completion of the program;
   7. designating a site coordinator to oversee and coordinate the program’s implementation at each site that is used for more than 25% of the learning experiences in the program (for one or more residents); and,
   8. assuring the program has an established, formalized approach to communication that includes at a minimum the RPD and site coordinators to coordinate the conduct of the program across all sites.

d. Programs that are managed by one corporate entity but are separated by distances requiring independent site surveys are considered to be separate residency programs and are therefore not multi-site.

V. Definitions (Survey Team)

A. **Lead Surveyor**: an expert pharmacist designated by ASHP’s Director, Residency Accreditation Services, who coordinates and conducts the accreditation site survey in conjunction with a practitioner surveyor.

B. **Practitioner Surveyor**: a pharmacist who is a subject matter expert and is typically an experienced residency program director in the residency area being surveyed (i.e., PGY1 or PGY2) who is trained to assist the lead surveyor in conducting an
VI. Authority

The program for accreditation of postgraduate residency programs is established by authority of the Board of Directors of ASHP and is implemented by the COC. All matters of policy relating to the accreditation of programs will be submitted for approval to the ASHP Board of Directors. The COC shall review and evaluate applications and site survey reports submitted, and shall be authorized to take action on all applications for accreditation in accordance with the policies and procedures set forth herein. The minutes of the COC shall be submitted to the Board of Directors for review and action as appropriate.

VII. Accreditation Procedures

The accreditation program shall be conducted as a service of ASHP to any organization voluntarily requesting evaluation of its residency program.

A. Application

a. Application forms are available on the ASHP website (www.ashp.org). The application must be signed by the residency program director, the pharmacist executive of the practice site, and the sponsoring organization’s administrator. Applications should be submitted, along with the supporting documents specified in the application instructions, to ASHP’s Accreditation Services Office (asd@ashp.org) or mailed to ASHP, 4500 East West Highway, Suite 900, Bethesda, MD 20814. A duplicate copy should be retained for the applicant’s files.

b. The Vice President, Accreditation Services Office, or designee will acknowledge receipt of the application, and review it for completeness and to make a preliminary judgment about conformance to the basic requirements of the applicable accreditation standard(s). If the program fails to meet the criteria of the accreditation standard(s) in some fundamental way, the Vice President or designee will notify the signatories of the application accordingly and advise that the application has not been accepted.

c. From the time an organization’s application for pre-candidate status or for accreditation has been accepted by the Vice President, Accreditation Services Office, or designee, the program will be in either a pre-candidate or candidate status, respectively.

d. Application for accreditation (candidate status) may be made as soon as a resident has begun training, but not sooner.
e. Application for pre-candidate status may be made at any time prior to a resident beginning training.

B. Initial Site Survey

a. An accreditation survey team shall be assembled to conduct a site survey of the program, the organization and the pharmacy services. The survey team shall generally consist of at least two individuals, the lead surveyor and the ASHP-designated practitioner surveyor.

b. Upon the selection of the survey team, surveyors and programs must disclose potential conflict(s) of interest to ASHP’s Vice President, Accreditation Services Office, who shall take appropriate actions to manage any conflict(s).

c. For an initial site survey and at a mutually acceptable time (but not prior to the eighth month of the first residency year) ASHP will send the survey team to review the residency program, organization, and pharmacy services. Instructions for preparation for the site survey (e.g., list of documents to be made available to the survey team and suggested itinerary for the surveyors) will be sent to the residency program director well in advance of the site survey.

d. Records (to include, residents’ applications, residents’ acceptance letters, residents’ plans, all evaluations, residents’ projects, and copies of certificates) for residents trained by an ASHP-accredited program must be maintained and available to the survey team for review. These records may be maintained electronically, as long as they can be easily accessed, if requested by the survey team.

e. For multiple-site residency programs, the survey team will determine which sites will be visited during the site survey.

f. A current resident or immediate past resident must be available during the accreditation survey.

g. After concluding its site survey evaluation, the survey team will present a verbal report of its findings to the organization’s administrator, residency program director, and pharmacist executive.

C. Scheduling of Reaccreditation Site Surveys

a. Sites with single programs:
   Reaccreditation survey visits will be scheduled within 12 months of the 6-year anniversary of the original site survey.
b. Sites with multiple programs that submit a new program application:
   1. If the application is submitted within 3 years of the most recent survey visit,
      the survey will be scheduled per normal scheduling procedures (i.e., within
      the first year of the program’s existence) with the survey itinerary to be
determined by the lead surveyor assigned to the program. Subsequent site
survey visits for the organization will be scheduled to accommodate review of
all programs at the site during a single survey visit. Every effort will be made to
schedule the combined survey such that no program will be reviewed for
reaccreditation earlier than 3 years after their initial accreditation date or 3
years beyond the normal 6-year accreditation cycle.

   2. If the application is submitted greater than 3 years after the most recent
survey visit, the survey visit will include a review of the new program and all
existing programs during a single visit.

D. The Survey Report and Follow-up

   a. Following the site survey, the survey team will prepare a written report, citing areas
of noncompliance, partial compliance, and consultative recommendations. The
written report will be sent to the residency program director, pharmacist executive,
and organization’s administrator within approximately 30 days of the survey.

   b. The program must prepare and submit to ASHP, within 75 days of the end of the
survey, an action plan and supporting documentation outlining how the program
will address areas of noncompliance and partial compliance. This action plan will be
signed by the residency program director, pharmacist executive, and the
organization’s administrator.

   c. Any written comments and supporting documentation that individuals from the
program wish to make regarding the accuracy of the survey report must be
submitted to the Vice President, Accreditation Services Office, within 10 business
days of receiving the report. Comments regarding the report’s accuracy must set
forth the specific reasons for the disagreement with the survey report.

   d. The program’s residency accreditation application file, the surveyors’ report, and
written comments received from the program in response to the surveyors’ findings
will be reviewed by the COC. Typically, programs surveyed between May 15 and
November 30 will be reviewed and evaluated at the following March meeting of the
COC, and those surveyed between December 1 and May 15 will be reviewed and
evaluated at the following August COC meeting.

   e. Notice of action taken regarding accreditation status will be sent to the residency
program director, pharmacist executive, and organization’s administrator, as soon
as the Board of Directors has reviewed and accepted the COC meeting minutes. The report will indicate that ASHP has acted either (a) to accredit the program for a period not to exceed 6 years, (b) to accredit conditionally, or (c) to withhold accreditation. Additional reports to monitor compliance with accreditation standards may be requested at this time.

E. **Accreditation**

a. The COC will not recommend accreditation of a program until it has been in operation for one year and has had at least one graduate.

b. If accreditation is granted, it shall be retroactive to the date on which ASHP’s Vice President, Accreditation Services Office, received a valid and complete application for candidate status.

c. Failure of the program to submit reports as requested may result in accreditation being withheld.

d. A program granted accreditation will continue in an accredited status until the COC recommends further action.

e. A certificate of accreditation will be issued to a program that has become accredited. However, the certificate remains the property of ASHP and shall be returned to ASHP when accreditation is withdrawn or the program is discontinued.

f. Once the program is accredited, any reference by the program to accreditation by ASHP in residency promotional materials (e.g., catalogs, bulletins, web sites, or other form of publicity) and formal program documents including certificates must include the following statement: The (*residency program type, such as PGY-1 Pharmacy Residency*) conducted by (*organization name, city, and state*) is accredited by ASHP. Programs accredited by ASHP in partnership with other associations, must include the following statement: The (*residency program type, such as PGY-1 Pharmacy Residency*) conducted by (*organization name, city, and state*) is accredited by ASHP, in partnership with (*association name*). The appropriate ASHP accredited logo may be used in conjunction with the above statements. Refer to the ASHP website for current instructions on logo use.

VIII. **Continuing Accreditation**

A. ASHP regards evaluation of accredited residency programs as a continuous process; accordingly, the COC shall request that directors of accredited programs submit periodic written status reports to assist the COC in evaluating the continued conformance of individual programs to the applicable accreditation standard(s).
Written reports shall be required from program directors at least every 3 years. To maintain accreditation, programs must comply with all requests from ASHP for written reports.

B. Directors of accredited programs (and also those in the accreditation process: pre-candidate and candidate) must submit written notification of substantive changes to the residency program to ASHP's Vice President, Accreditation Services Office, within 30 days of the change. Substantive changes include changes to leadership (e.g. changes in residency program director or pharmacist executive), content and construct of the program, and organizational ownership and accreditation. Residency program directors of multiple-site programs must get approval from ASHP's Accreditation Services Office prior to adding or removing a site. Directors of accredited programs must submit written notification of any adverse change in licensure or accreditation statuses with organizations or agencies including, but not limited to, TJC, DNV-GL, BOP, DOH, NCQA, URAQ, CMS, FDA, DEA, etc. Any substantive change in the organization of a program may be considered justification for re-evaluation of the program and/or a site survey.

C. The COC will evaluate the credentials of each new residency program director using the requirements outlined in the applicable accreditation standard(s), and ASHP will notify the new program director of the results of the evaluation.

D. When requested annually, residency program directors must provide ASHP's Vice President, Accreditation Services Office, a list of names of residents who have completed the program's requirements that year. This list must be provided through ASHP-approved technology systems (i.e., PharmAcademic).

E. Unless exempted by the COC, all postgraduate year one and postgraduate year two residency programs in pre-candidate, candidate, conditional accreditation, or accredited status must participate in the Resident Matching Program conducted by ASHP. The COC may make recommendations regarding exemptions to this requirement.

F. All programs in the accreditation process must use ASHP-approved technology systems to support and maintain the application process (i.e., PhORCAS) and residency program management (i.e., PharmAcademic).

IX. Reaccreditation

A. Accredited programs will be re-examined by site survey every 6 years. Schedule adjustments may be made in order to accommodate the addition of new programs. (See Section VII.C.)
B. Records (to include, residents’ applications, residents’ acceptance letters, residents’ plans, all evaluations, residents’ projects, and copies of signed and dated certificates) for residents trained by an ASHP-accredited program since the last site survey (i.e., up to six years) must be maintained and available to the survey team for review. These records may be maintained electronically, as long as they can be easily accessed, if requested by the survey team.

C. A current resident or a recent past resident must be available on site during the reaccreditation survey.

D. ASHP may accredit the program for a period not to exceed 6 years, award conditional accreditation, or withdraw accreditation.

E. The COC, on behalf of ASHP, may request written reports at any time between the 6-year site survey intervals. Failure of the program to submit reports as requested may result in reaccreditation being delayed or withheld, conditional accreditation, or withdrawal of accreditation.

X. Quality Improvement

Following a site survey, ASHP’s Vice President, Accreditation Services Office, will send the program director a thank-you letter and will provide a mechanism to evaluate the site survey team and process. This is an opportunity for the residency program director and pharmacist executive to provide feedback on the survey process and information for quality improvement of the accreditation process. Programs may submit constructive verbal or written comments to ASHP at any time (see paragraph VII.A.a. above, for address).

XI. Accreditation Fees

A. An application fee shall be established by ASHP and shall be assessed to the program at the time of application for pre-candidate or candidate status.

B. An annual accreditation fee, established by ASHP, shall be assessed for accredited residency programs and those programs in a pre-candidate, candidate, or conditional status. The annual fee is based on a calendar year. This fee begins as soon as a program has filed an application for accreditation (it will be prorated for the first year, based on the number of months remaining in the calendar year, from point of application). The fee schedule is posted on the ASHP web site.

C. When there are multiple residents in a program and they are home-based (i.e., where a resident spends the majority of the year) in separate sites, or if a residency is conducted at multiple sites (sites where residents spend greater than 25% of the program time at one other site), the program will be assessed one-half of the annual fee for one program for each of the additional sites -- in addition to the base fee.
D. Programs that are managed by one corporate entity but are separated by distances requiring independent site surveys are considered to be separate residency programs and will be assessed annual fees separately.

XII. Withdrawal of Accreditation

A. Accreditation of a program may be withdrawn by ASHP for any of the reasons stated below.

1. Accredited programs that no longer meet the requirements of the applicable accreditation standard(s) shall have accreditation withdrawn. In the event that an accreditation standard is revised, all accredited programs will be expected to meet the revised standard within 1 year.

2. Inactive programs:
   a. For sites with one residency program: accredited programs without a resident in training for a period of three consecutive years shall have accreditation withdrawn at the beginning of the fourth year. Annual accreditation fees must be paid.
   b. For sites with more than one residency program: a program may remain vacant up to five years and maintain accredited status provided the residency program director for the program without a resident in training remains the same, the organization maintains at least one other ASHP-accredited program actively training residents during this time, and the program pays their annual fees. If the program director does not remain the same, the program shall have accreditation withdrawn at the beginning of the fourth year.

3. A program makes false or misleading statements about the status, condition, or category of its accreditation.

4. An accredited program fails to submit periodic written status reports as required or requested.

5. An accredited program that is required to participate in the Resident Matching Program and fails to do so. ASHP may grant exceptions to the requirement to participate in the Resident Matching Program.

6. A program that fails to submit appropriate annual accreditation fees as invoiced.

B. ASHP shall not withdraw accreditation without first notifying the residency program director of the specific reasons. The program shall be granted an appropriate period of time to correct the deficiencies.

C. Withdrawal of program accreditation may occur at any point during the residency year.
D. The program shall have the right to appeal the final decision of ASHP.

E. If accreditation is withdrawn, to regain accreditation the program may submit a new application and must undergo re-evaluation.

F. Programs may voluntarily withdraw from the accreditation process and/or forfeit accreditation at any time by notifying the Vice President, Accreditation Services Office, in writing. When notified, the Vice President, Accreditation Service Office, will report these programs to the COC and the ASHP Board.

XIII. Appeal of Decision

A. **Notification of intent to appeal.** In the event that a program is not accredited, is not reaccredited, is placed in a conditional status, or if accreditation is withdrawn, the residency program director, the pharmacist executive, or the organization’s administrator (hereafter referred to as the appellants) may appeal the decision to an appeal board on the grounds that the accreditation decision was arbitrary, prejudiced, biased, capricious, or based on incorrect application of the standard(s) to the program. An appellant must notify the Vice President, Accreditation Services Office, of the program’s intent to appeal, by registered or certified mail, within 10 business days after receipt of the notice. The appellant must state clearly the grounds upon which the appeal is being made. The appellant shall then have an additional 30 days to prepare for its presentation to an appeal board.

B. **Appeal board.** On receipt of an appeal notice, the Vice President, Accreditation Services Office, shall contact the ASHP General Counsel. The office of the ASHP General Counsel will proceed to constitute an *ad hoc* appeal board. The appeal board shall consist of one member of ASHP’s Board of Directors, to be appointed by the President of ASHP, who shall serve as Chair and two program directors of accredited pharmacy residency programs, neither of whom is a member of the COC, one to be recommended by the appellant and one by the Chair of the COC. The President of ASHP will appoint a health care administrator in an *ex officio*, nonvoting capacity. The General Counsel of ASHP shall serve as Secretary of the appeal board. The Vice President, Accreditation Services Office, shall represent the COC at the hearing in an *ex officio*, nonvoting capacity. As soon as recommendations for appointments to the appeal board have been made, ASHP General Counsel will contact all parties to confirm their appointment and the hearing date. The ASHP General Counsel will immediately forward copies of all of the written documentation considered by the COC in rendering its decision to the ASHP Board of Directors. ASHP General Counsel will send the documentation to the appeal board members.

C. **Potential conflict of interest.** All members of the appeal board will complete an ASHP “Disclosure Report” form regarding professional and business interests prior to
formal appointment to the appeal board. The appeal board Chair will take appropriate action to manage potential conflicts.

D. The hearing. The appeal board shall be convened in no less than 30 days and no more than 60 days from the date of receipt of an appeal notice by the Vice President, Accreditation Services Office. ASHP General Counsel shall notify appellants and appeal board members, at least 30 days in advance, of the date, time, and place of the hearing. The program filing the appeal may be represented at the hearing by one or more appropriate officials and shall be given the opportunity at such hearing to present written, or written and oral, evidence and arguments intended to refute or overcome the findings and decision of the COC. The appeal board shall advise the appellant organization of the appeal board’s decision, by registered or certified mail, within 10 business days of the date of the hearing. The decision of the appeal board shall be final and binding on both the appellant and ASHP.

E. Appeal board expenses. The appellant shall be responsible for all expenses incurred by its own representatives at the appeal board hearing and shall pay all reasonable travel, living, and incidental expenses incurred by its appointee to the appeal board. Expenses incurred by the board member, COC-selected program director, and health care administrator shall be borne by ASHP.

Approved by the ASHP Board of Directors on April 12, 2018.
Developed by the ASHP Commission on Credentialing March 5, 2018.
Supersedes the previous regulations on accreditation approved on September 29, 2017.
Introduction

Purpose of this Standard: the ASHP Accreditation Standard for Postgraduate Year Two (PGY2) Pharmacy Residency Programs (hereinafter the Standard) establishes criteria for systematic training of pharmacists in advanced areas of pharmacy practice. Its contents delineate the accreditation requirements for PGY2 residencies, which build upon the foundation provided through completion of an accredited pharmacy degree program and an ASHP-accredited postgraduate year one (PGY1) pharmacy residency program.

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 or other advanced practice settings. 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.

Application of the Standard: the requirements serve as the basis for evaluating PGY2 pharmacy residency programs for accreditation, both foreign and domestic.

PGY2 pharmacy residencies are offered in a variety of practice environments and may focus on specific practice areas, patient populations, and/or disease states. Therefore, a corresponding set of educational goals and objectives has been developed for many of the practice settings and areas of practice (e.g., critical care, drug information, geriatrics, oncology, health-system pharmacy administration, ambulatory care). Each takes into account the unique elements of the practice site and the focused area of practice. To structure the PGY2 residency, the program must use the set of educational goals and objectives that best correspond to the practice site and the focused area of practice. These educational goals and objectives must be used with this Standard, and the appropriate selection and use of them will be evaluated in site surveys for accreditation.

Throughout the Standard use of the auxiliary verbs will and must implies an absolute requirement, whereas use of should and may denotes a recommended guideline.

The Standard describes the criteria used in evaluation of practice sites that apply for accreditation. The accreditation program is conducted under the authority of the ASHP Board of Directors and is supported through formal partnerships with several other pharmacy associations. The ASHP Regulations on Accreditation of Pharmacy Residencies describes the policies governing the accreditation program and procedures for seeking accreditation.
Overview of the Standards for PGY2 Pharmacy Residencies

Standard 1: Requirements and Selection of Residents
PGY2 residents must be pharmacists having sufficiently broad knowledge, skills, attitudes, and abilities in pharmacy practice necessary for further professional development at an advanced level of pharmacy practice.

Standard 2: Responsibilities of the Program to the Resident
It is important that pharmacy residency programs provide an exemplary environment for residents’ learning. This area indicates policies that must be in place to help protect residents and organizations during unusual situations that may arise with residency programs (e.g., extended leaves, dismissal, duty hours).

Standard 3: Design and Conduct of the Residency Program
It is important that residents’ training enables them to achieve the purpose, goals, and objectives of the residency program. Residents should develop into more mature, clinically competent, and independent practitioners able to address patients’ needs. Proper design and implementation of programs helps ensure successful residency programs.

Standard 4: Requirements of the Residency Program Director and Preceptors
The residency program director (RPD) and preceptors are critical to the residency program’s success and effectiveness. Their qualifications and skills are crucial. Therefore, the RPD and preceptors will be professionally and educationally qualified pharmacists who are committed to providing effective training of residents and being exemplary role models for residents.

Standard 5: Requirements of the Site Conducting the Residency Program
It is important that residents learn to incorporate best practices into their future roles; therefore, the organization conducting the residency must meet accreditation standards, regulatory requirements, and other United States of America-applied standards and will have sufficient resources to achieve the purposes of the residency program.

Standard 6: Pharmacy Services
When pharmacy facilities and services provide the learning environment where residents are trained, it is important that they train in exemplary environments. Residents’ expectations as they leave residency programs should be to strive for exemplary pharmacy services to improve patient care outcomes. Pharmacy’s role in providing effective leadership, quality improvement efforts, appropriate organization, staffing, automation, and collaboration with others to provide safe and effective medication-use systems are reviewed in this section. This section encourages sites to continue to improve and advance pharmacy services and should motivate the profession to continually improve patient care outcomes.
**Standard 1: Requirements and Selection of Residents**

1.1 The applicant must be participating in, or have completed, an ASHP-accredited PGY1 pharmacy residency program or one in the ASHP accreditation process (i.e., one with candidate or preliminary accreditation status).

1.2 The RPD or designee must evaluate the qualifications of applicants to pharmacy residencies through a documented and formal procedure based on predetermined criteria, which includes an assessment of applicants’ ability to achieve the educational goals and objectives selected for the program.

1.3 The predetermined criteria and procedure used to evaluate applicants’ qualifications must be used by all involved in the evaluation and ranking of applicants.

1.4 Applicants to pharmacy residencies should be graduates or candidates for graduation of an accredited pharmacy degree program (or one in process of pursuing accreditation) or have a Foreign Pharmacy Graduate Equivalency Committee (FPGEC) certificate from the National Association of Boards of Pharmacy (NABP). At a minimum, the program must be a five-year pharmacy degree program.

1.5 Applicants to pharmacy residencies must be licensed or eligible for licensure (or equivalent designation for the country conducting the residency, e.g., registered) in the state, country, or jurisdiction in which the program is conducted.

1.6 Consequences of residents’ failure to obtain appropriate licensure (or equivalent process) either prior to or within 60 days after the start date of the residency must be addressed in written policy of the residency program.

1.7 Requirements for successful completion and expectations of the residency program must be documented and provided to applicants invited to interview, including policies for professional, family, and sick leave; consequences of any such leave on residents’ ability to complete the residency program; and for dismissal from the residency program.

1.7.a. These policies must be reviewed with residents and be consistent with the organization’s human resources policies.

**Standard 2: Responsibilities of the Program to the Resident**

2.1 Programs must be a minimum of 12 months and a full-time practice commitment or equivalent.

2.1.a. Nontraditional residency programs must describe the program’s design and length used to meet the required educational competency areas, goals, and objectives.

2.2 Programs must comply with the *ASHP Duty-Hour Requirements for Pharmacy Residencies*.

2.3 All programs in the ASHP accreditation process must adhere to the *Rules for the ASHP Pharmacy Resident Matching Program*, unless exempted by the ASHP Commission on Credentialing.

2.4 The RPD must ensure that residents who are accepted into the program are provided with a letter outlining their acceptance to the program.
2.4.a. Information on the pre-employment requirements for the organization (e.g., licensure and human resources requirements, such as drug testing, criminal record check) and other relevant information (e.g., benefits, stipend) must be provided.

2.4.b. Acceptance by residents of these terms and conditions, requirements for successful completion, and expectations of the residency program must be documented prior to the beginning of the residency.

2.5 The residency program must provide qualified preceptors to ensure appropriate training, supervision, and guidance to all residents to fulfill the requirements of the standards.

2.6 The residency program must provide residents an area in which to work, references, an appropriate level of relevant technology (e.g., clinical information systems, workstations, databases), access to extramural educational opportunities (e.g., a pharmacy association meeting, a regional residency conference), and sufficient financial support to fulfill the responsibilities of the program.

2.7 The RPD will award a certificate of residency only to those who complete the program’s requirements.

2.7.a. Completion of the program’s requirements must be documented.

2.8 The certificate provided to residents who complete the program’s requirements must be issued in accordance with the provisions of the ASHP Regulations on Accreditation of Pharmacy Residencies, and signed by the RPD and the chief executive officer of the organization or an appropriate executive with ultimate authority over the residency.

2.8.a. Reference must be made in the certificate of residency that the program is accredited by ASHP.

2.9 The RPD must maintain the program’s compliance with the provisions of the current version of the ASHP Regulations on Accreditation of Pharmacy Residencies throughout the accreditation cycle.

Standard 3: Design and Conduct of the Residency Program

3.1 Residency Purpose and Description

3.1.a. The residency program must be designed and conducted in a manner that supports residents in achieving the following purpose and the required educational competency areas, goals, and objectives described in the remainder of the standards.

3.1.b. 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 or other advanced practice settings. 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.
3.2 Competency Areas, Educational Goals, and Objectives

3.2.a. The program’s educational goals and objectives must support achievement of the residency’s purpose.

3.2.b. At the beginning of the resident’s program, RPDs must document an individualized set of program competency areas, educational goals, and educational objectives for each resident. In doing so, PGY2 residencies in advanced areas of pharmacy practice must draw upon the program competency areas, educational goals, and educational objectives that have been developed by ASHP specifically for that practice area (e.g., critical care, drug information, geriatrics, oncology, ambulatory care). RPDs may establish additional program competency areas, educational goals, and educational objectives that reflect the site’s strengths.

For PGY2 residencies in advanced areas of clinical pharmacy practice for which ASHP has not developed a complete set of competency areas, educational goals, and educational objectives (Program Competency Areas, Educational Goals, and Educational Objectives for Postgraduate Year Two (PGY2) Residencies in an Advanced Area of Pharmacy Practice) is available. This generic set of advanced clinical practice goals and objectives is provided as a required framework for programs that must develop their own Standard-mandated, area-specific, complete set of program competency areas, educational goals, and educational objectives. Also, RPDs for programs in nonclinical practice areas lacking ASHP-developed program competency areas, educational goals, and educational objectives must develop a complete set for their residencies. In both cases, RPDs must provide ASHP’s Accreditation Service Office their complete set of program competency areas, educational goals, and educational objectives at the time of application. These competency areas, educational goals, and educational objectives must be reviewed by the ASHP Commission on Credentialing before the application for accreditation status will be accepted.

3.2.c. Programs may select additional competency areas for all residents to complete. Elective competency areas may be selected for specific residents only.

3.3 Resident Learning

3.3.a. Program Structure

3.3.a.(1) A written description of the structure of the program (the designation of types, lengths, and sequence of learning experiences) must be documented formally.

3.3.a.(1)(a) The description must include required learning experiences and the length of time for each experience.

3.3.a.(1)(b) Elective experiences must also be listed in the program’s design.

3.3.a.(2) The educational goals and objectives, including those for residents’ projects, will be assigned for teaching to a learning experience or a sequence of learning experiences to allow sufficient practice for their achievement by residents.

3.3.a.(3) The program’s structure must facilitate achievement of the program’s educational goals and objectives.

3.3.b. Orientation

RPDs must orient residents to the residency program.
3.3.c. Learning Experiences
3.3.c.(1) Learning experience descriptions must be documented and include the following:
   3.3.c.(1)(a) a general description, including the practice area and the roles of pharmacists in the practice area;
   3.3.c.(1)(b) expectations of residents;
   3.3.c.(1)(c) educational goals and objectives assigned to the learning experience;
   3.3.c.(1)(d) for each objective, a list of learning activities that will facilitate achievement; and,
   3.3.c.(1)(e) a description of evaluations that must be completed by preceptors and residents.

3.3.c.(2) Preceptors must orient residents to their learning experience using the learning experience description.

3.3.c.(3) During learning experiences, preceptors will use the four preceptor roles as needed based on residents’ needs.

3.4 Evaluation
3.4.a. The extent of residents’ progression toward achievement of the program’s required educational goals and objectives must be evaluated.

3.4.b. Initial assessment
   3.4.b.(1) At the beginning of the residency, the RPD in conjunction with preceptors must assess each resident’s entering knowledge and skills related to the educational goals and objectives.
   3.4.b.(2) The results of residents’ initial assessments must be documented by the program director or designee in each resident’s development plan by the end of the orientation period and taken into consideration when determining residents’ learning experiences, learning activities, evaluations, and other changes to the program’s overall plan.

3.4.c. Formative (ongoing, regular) Assessment
   3.4.c.(1) Preceptors must provide ongoing feedback to residents about how they are progressing and how they can improve that is frequent, immediate, specific, and constructive.
   3.4.c.(2) Preceptors must make appropriate adjustments to residents’ learning activities in response to information obtained through day-to-day informal observations, interactions, and assessments.

3.4.d. Summative Evaluation
   3.4.d.(1) At the end of each learning experience, residents must receive, and discuss with preceptors, verbal and written assessment on the extent of their progress toward achievement of assigned educational goals and objectives, with reference to specific criteria.
   3.4.d.(2) For learning experiences greater than or equal to 12 weeks in length, a documented summative evaluation must be completed at the 3-, 6-, and 12-month points.
   3.4.d.(3) If more than one preceptor is assigned to a learning experience, all preceptors must provide input into residents’ evaluations.
3.4.d.(4) For preceptors-in-training, both the preceptor-in-training and the preceptor advisor/coach must sign evaluations.
3.4.d.(5) Residents must complete and discuss at least one evaluation of each preceptor at the end of the learning experience.
3.4.c.(6) Residents must complete and discuss an evaluation of each learning experience at the end of the learning experience.

3.4.e. Residents’ Development Plans
3.4.e(1) Each resident must have a development plan documented by the RPD or designee.
3.4.e.(2) On a quarterly basis, the RPD or designee must assess residents’ progress and determine if the development plan needs to be adjusted.
3.4.e.(3) The development plan and any adjustments must be documented and shared with all preceptors.

3.5 Continuous Residency Program Improvement
3.5.a. The RPD, residency advisory committee (RAC), and pharmacy executive must engage in an ongoing process of assessment of the residency program including a formal annual program evaluation.
3.5.b. The RPD or designee must develop and implement program improvements activities to respond to the results of the assessment of the residency program, if needed.
3.5.c. The residency program’s continuous quality improvement process must evaluate whether residents fulfill the purpose of a PGY2 pharmacy residency program through graduate tracking.
3.5.c.(1) Information tracked must include employment upon completion of PGY2 residency training and may include changes in employment, board certification, surveys of past graduates, or other applicable information.

Standard 4: Requirements of the Residency Program Director and Preceptors

4.1 Program Leadership Requirements
4.1.a. Each residency program must have a single RPD who must be a pharmacist from a practice site involved in the program or from the sponsoring organization.
4.1.b. The RPD may delegate, with oversight, the administrative duties/activities for the conduct of the residency program to one or more individuals (e.g., residency program coordinator).
4.1.c. For residencies conducted by more than one organization (e.g., two organizations in a partnership) or residencies offered by a sponsoring organization (e.g., a college of pharmacy, hospital) in cooperation with one or more practice sites:
4.1.c.(1) A single RPD must be designated in writing by responsible representatives of each participating organization.
4.1.c.(2) The agreement must include definition of the following:
        4.1.c.(2)(a) responsibilities of the RPD; and,
        4.1.c.(2)(b) RPD’s accountability to the organizations and/or practice site(s).
4.2 Residency Program Directors’ Eligibility
RPDs must be licensed pharmacists (or equivalent designation for the country conducting the residency, e.g., registered) with demonstrated expertise in the chosen area of advanced practice, as substantiated by all of the following: (a.) an ASHP-accredited PGY2 residency in the advanced practice area, followed by a minimum of three years of practice experience or equivalent in the advanced practice area (i.e., five years of practice experience in the advanced area with demonstrated mastery of the knowledge, skills, attitudes, and abilities expected of one who has completed a PGY2 residency); (b.) board certification in the specialty when certification is offered in that specific advanced area of practice; and, (c.) maintenance of an active practice in the respective advanced practice area.

4.3 Residency Program Directors’ Qualifications
RPDs serve as role models for pharmacy practice, as evidenced by the following:
4.3.a. leadership within the pharmacy department or within the organization, through a documented record of improvements in and contributions to pharmacy practice;
4.3.b. demonstrating ongoing professionalism and contribution to the profession; and
4.3.c. representing pharmacy on appropriate drug policy and other committees of the pharmacy department or within the organization.

4.4 Residency Program Leadership Responsibilities
RPDs serve as organizationally authorized leaders of residency programs and have responsibility for the following:
4.4.a. activities of a RAC that provides guidance for residency program conduct and related issues;
4.4.b. oversight of the progression of residents within the program and documentation of completed requirements;
4.4.c. implementing use of criteria for appointment and reappointment of preceptors;
4.4.d. evaluation, skills assessment, and development of preceptors in the program;
4.4.e. creating and implementing a preceptor development plan for the residency program;
4.4.f. continuous residency program improvement in conjunction with the RAC; and,
4.4.g. working with pharmacy administration to ensure ongoing support of the program.

4.5 Appointment or Selection of Residency Program Preceptors
4.5.a. Organizations shall allow RPDs to appoint and develop pharmacists to become preceptors for the program.
4.5.b. RPDs shall develop and apply criteria for preceptors consistent with those required by the Standard.

4.6 Pharmacist Preceptors’ Eligibility
Pharmacist preceptors must be licensed (or equivalent designation for the country conducting the residency, e.g., registered) pharmacists who:
4.6.a. have completed an ASHP-accredited PGY2 residency followed by a minimum of one year of pharmacy practice in the advanced practice area; or,
4.6.b. without completion of an ASHP-accredited PGY2 residency, have three or more years of practice in the advanced area.
4.7 Preceptors’ Responsibilities
Preceptors serve as role models for learning experiences. They must
4.7.a. contribute to the success of residents and the program;
4.7.b. provide learning experiences in accordance with Standard 3;
4.7.c. participate actively in the residency program’s continuous quality improvement processes;
4.7.d. demonstrate practice expertise and preceptor skills and strive to continuously improve;
4.7.e. adhere to residency program and department policies pertaining to residents and services; and,
4.7.f. demonstrate commitment to advancing the residency program and pharmacy services.

4.8 Preceptors’ Qualifications
Preceptors must demonstrate the ability to precept residents’ learning experiences by meeting one or more qualifying characteristics in all of the following five areas:
4.8.a. ability to precept residents’ learning experiences by use of clinical teaching roles (i.e., instructing, modeling, coaching, facilitating) at the level required by residents;
4.8.b. ability to assess residents’ performance;
4.8.c. recognition in the area of pharmacy practice for which they serve as preceptors;
4.8.d. an established, active practice in the area for which they serve as preceptor;
4.8.e. maintenance of continuity of practice during the time of residents’ learning experiences; and,
4.8.f. ongoing professionalism, including a personal commitment to advancing the profession.

4.9 Preceptors-in-Training
4.9.a. Pharmacists new to precepting who do not meet the qualifications for residency preceptors in sections 4.6, 4.7, and 4.8 above (also known as preceptors-in-training) must
4.9.a.(1) be assigned an advisor or coach who is a qualified preceptor; and,
4.9.a.(2) have a documented preceptor development plan to meet the qualifications for becoming a residency preceptor within two years.

4.10 Nonpharmacist preceptors
When nonpharmacists (e.g., physicians, physician assistants, certified nurse practitioners) are utilized as preceptors,
4.10.a. the learning experience must be scheduled after the RPD in consultation with preceptors agree that residents are ready for independent practice; and,
4.10.b. a pharmacist preceptor works closely with the nonpharmacist preceptor to select the educational goals and objectives for the learning experience.

Standard 5: Requirements of the Sponsoring Organization and Practice Site(s) Conducting the Residency Program

5.1 As appropriate, residency programs must be conducted only in practice settings that have sought and accepted outside appraisal of facilities and patient care practices. The external appraisal must be conducted by a recognized organization appropriate to the practice setting.

5.2 Residency programs must be conducted only in those practice settings where staff is committed to seek excellence in patient care as evidenced by substantial compliance with professionally developed and United States of America-applied practice and operational standards.
5.3 Two or more practice sites, or a sponsoring organization working in cooperation with one or more practice sites (e.g., college of pharmacy, health system), may offer a pharmacy residency.

5.3.a. Sponsoring organizations must maintain authority and responsibility for the quality of their residency programs.

5.3.b. Sponsoring organizations may delegate day-to-day responsibility for the residency program to a practice site; however, the sponsoring organization must ensure that the residency program meets accreditation requirements.

5.3.b.(1) Some method of evaluation must be in place to ensure the purpose of the residency and the terms of the agreement are being met.

5.3.c. A mechanism must be documented that designates and empowers an individual to be responsible for directing the residency program and for achieving consensus on the evaluation and ranking of applicants for the residency.

5.3.d. Sponsoring organizations and practice sites must have signed agreement(s) that clearly define the responsibilities for all aspects of the residency program.

5.3.e. Each of the practice sites that provide residency training must meet the requirements set forth in Standard 5.2 and the pharmacy’s service requirements in Standard 6.

5.4 Multiple-site residency programs must be in compliance with the ASHP Accreditation Policy for Multiple-Site Residency Programs.  

**Standard 6: Pharmacy Services**

The most current edition of the ASHP Best Practices for Health-System Pharmacy, available at www.ashp.org, and, when necessary, other pharmacy association guides to professional practice and other relevant standards (e.g., NIOSH, OSHA, EPA) that apply to specific practices sites will be used to evaluate any patient care sites or other practice operations providing pharmacy residency training.

6.1 Pharmacist Executive

The pharmacy must be led and managed by a professional, legally qualified pharmacist.

6.2 The pharmacy must be an integral part of the healthcare delivery system at the practice site in which the residency program is offered, as evidenced by the following:

6.2.a. the scope and quality of pharmacy services provided to patients at the practice site is based upon the mission of the pharmacy department and an assessment of pharmacy services needed to provide care to patients served by the practice site;

6.2.b. the practice site includes pharmacy in the planning of patient care services;

6.2.c. the scope of pharmacy services is documented and evidenced in practice and quality measures;

6.2.d. pharmacy services extend to all areas of the practice site in which medications for patients are prescribed, dispensed, administered, and monitored;

6.2.e. pharmacists are responsible for the procurement, preparation, distribution, and control of all medications used; and,

6.2.f. pharmacists are responsible for collaborating with other health professionals to ensure safe medication-use systems and optimal drug therapy.
6.3 The pharmacist executive must provide effective leadership and management for the achievement of short- and long-term goals of the pharmacy and the organization for medication-use and medication-use policies.

6.4 The pharmacist executive must ensure that the following elements associated with a well-managed pharmacy are in place (as appropriate to the practice setting):
   6.4.a. a pharmacy mission statement;
   6.4.b. a well-defined pharmacy organizational structure;
   6.4.c. current policies and procedures which are available readily to staff participating in service provision;
   6.4.d. position descriptions for all categories of pharmacy personnel, including residents;
   6.4.e. procedures to document patient care outcomes data;
   6.4.f. procedures to ensure medication-use systems (ordering, dispensing, administration, and monitoring) are safe and effective;
   6.4.g. procedures to ensure clinical pharmacy services are safe and effective; and,
   6.4.h. a staff complement that is competent to perform the duties and responsibilities assigned (e.g., clinical and distributive services).

6.5 Pharmacy leaders must ensure pharmacy’s compliance with
   6.5.a. all applicable contemporary federal, state, and local laws, codes, statutes, and regulations governing pharmacy practice unique to the practice site; and,
   6.5.b. current practice standards and guidelines of the United States of America.

6.6 The medication distribution system must include the following components (as applicable to the practice setting):
   6.6.a. effective use of personnel (e.g., pharmacy technicians);
   6.6.b. a unit-dose drug distribution service;
   6.6.c. an intravenous admixture and sterile product service;
   6.6.d. a research pharmacy including an investigational drug service;
   6.6.e. an extemporaneous compounding service;
   6.6.f. a system for handling hazardous drugs;
   6.6.g. a system for the safe use of all medications (e.g., drug samples, high alert, look-alike/sound-alike, emergency preparedness programs, medical emergencies);
   6.6.h. a secure system for the use of controlled substances;
   6.6.i. a controlled floor-stock system for medications administered;
   6.6.j. an outpatient drug distribution service including a patient assessment and counseling area; and,
   6.6.k. a system ensuring accountability and optimization for the use of safe medication-use system technologies.

6.7 The following patient care services and activities are provided by pharmacists in collaboration with other healthcare professionals to optimize medication therapy for patients:
   6.7.a. membership on interdisciplinary teams in patient care areas;
   6.7.b. prospective participation in the development of individualized medication regimens and treatment plans;
   6.7.c. implementation and monitoring of treatment plans for patients;
   6.7.d. identification and responsibility for resolution of medication-related problems;
   6.7.e. review of the appropriateness and safety of medication prescriptions/orders;
6.7.f. development of treatment protocols, care bundles, order sets, and other systematic approaches to therapies involving medications for patients;

6.7.g. participation as a provider of individual and population-based patient care services and disease state management, initiating and modifying drug therapy, based on collaborative practice agreements or other treatment protocols;

6.7.h. a system to identify appropriately trained and experienced pharmacists and ensure quality care is provided, including when pharmacists are practicing under collaborative practice agreements (e.g., complete credentialing and privileging for pharmacists providing patient care service);

6.7.i. documentation of significant patient care recommendations and resulting actions, treatment plans, and progress notes in the appropriate section of patients’ permanent medical records;

6.7.j. medication administration consistent with laws, regulations, and practice site policy;

6.7.k. disease prevention and wellness promotion programs (e.g., smoking cessation, immunization);

6.7.l. a system to ensure and support continuity-of-care during patient care transitions; and,

6.7.m. drug use policy activities including, but not limited to, the following (as applicable to the practice setting):

6.7.m.(1) developing and maintaining an evidence-based formulary;

6.7.m.(2) educating healthcare providers on timely medication-related matters and medication policies;

6.7.m.(3) development and monitoring of evidence-based medication-use guidelines, policies, and order sets;

6.7.m.(4) managing adverse drug event monitoring, resolution, reporting, and prevention programs; and,

6.7.m.(5) managing selection, procurement, storage, and dispensing of medications used within the organization.

6.8 The pharmacy practice must have personnel, facilities, and other resources to carry out a broad scope of pharmacy services (as applicable to the practice setting). The pharmacy’s

6.8.a. facilities are designed, constructed, organized, and equipped to promote safe and efficient work;

6.8.b. professional, technical, and clerical staff complement is sufficient and diverse enough to ensure that the department can provide the level of service required by all patients served; and,

6.8.c. resources can accommodate the training of the current and future workforce (e.g., residents, students, technicians).

6.9 Continuous Quality Improvement

6.9.a. Pharmacy department personnel must engage in an ongoing process to assess the quality of pharmacy services.

6.9.b. Pharmacy department personnel must develop and implement pharmacy services improvement initiatives to respond to assessment results.

6.9.c. The pharmacy department’s assessment and improvement process must include assessing and developing skills of the pharmacy department’s staff.
6.10 Pharmacy services must be provided to all patients of the organization (or practice) that are in the PGY2 residency’s practice area. Additional considerations are (as applicable to the practice setting):

6.10.a. A sufficient patient population (both in terms of the number of patients and the variety of disease states) must be available in all areas required for instruction in the PGY2 residency program.

6.10.b. Pharmacists providing advanced practice services must be essential members of interdisciplinary teams in the patient care areas associated with the residency program.

6.10.c. Pharmacists providing advanced practice pharmacy services must participate in the development of treatment protocols, critical pathways, order sets, and other systems approaches involving medications for patients on involved services.

6.10.d. For patients of involved advanced practice services, pharmacists must engage in collaborative practice agreements with other providers and should be authorized to manage patients following collaborative practice agreements, treatment protocols, critical pathways; and,

6.10.e. Pharmacists providing advanced practice pharmacy services must participate prospectively in the development of individualized treatment plans for patients of involved services.
Glossary

**Assessment.** Measurement of progress on achievement of educational objectives.

**Certification.** A voluntary process by which a nongovernmental agency or an association grants recognition to an individual who has met certain predetermined qualifications specified by that organization. This formal recognition is granted to designate to the public that the individual has attained the requisite level of knowledge, skill, or experience in a well-defined, often specialized, area of the total discipline. Certification usually requires initial assessment and periodic reassessments of the individual’s qualifications.

**Clinical pharmacist.** Clinical pharmacists work directly with physicians, other health professionals, and patients to ensure that the medications prescribed for patients contribute to the best possible health outcomes. Clinical pharmacists practice in healthcare settings where they have frequent and regular interactions with physicians and other health professionals, contributing to better coordination of care. *(American College of Clinical Pharmacy).*

**Competency area.** Category of residency graduates’ capabilities.

**Complex condition.** Patients with complex conditions are those who are being treated with high-risk medications, high numbers of medications, and/or have multiple disease states.

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

**Educational 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.

**Evaluation.** Judgment regarding quality of learning.

**Formative assessment.** Ongoing feedback to residents regarding their progress on achievement of educational objectives for the purpose of improving learning.

**Interdisciplinary team.** A team composed of members from different professions and occupations with varied and specialized knowledge, skills, and methods. The team members integrate their observations, bodies of expertise, and spheres of decision making to coordinate, collaborate, and communicate with one another in order to optimize care for a patient or group of patients. *(Institute of Medicine. Health professions education: a bridge to quality. Washington, DC: The National Academy Press; 2001.)*

**Multiple-site residency.** A residency site structure in which multiple organizations or practice sites are involved in the residency program. Examples include programs in which residents spend greater than 25% of the program away from the sponsoring organization/main site at another single site; or there are multiple residents in a program, and they are home-based in separate sites.
1. To run a multiple-site residency, there must be a compelling reason for offering the training in a multiple-site format (that is, the program is improved substantially in some manner). For example:
   a. An RPD has expertise; however, the site needs development (e.g., site has a good variety of patients and potentially good preceptors, but the preceptors may need some oversight related to the residency program, or services need to be more fully developed);
   b. The quality of preceptorship is enhanced by adding multiple sites;
   c. An increased variety of patients/disease states allows wider scope of patient interactions for residents;
   d. Increased administrative efficiency develops more sites that can handle more residents across multiple sites/geographic areas;
   e. Synergy of the multiple sites increases the quality of the overall program;
   f. Training ensures the program meets all of the requirements (that could not be done in a single site alone); and,
   g. There is the ability to increase the number of residents in a quality program.

2. A multiple-site residency program conducted in multiple hospitals that are part of a health system that is considering CMS pass-through funding should conduct a thorough review of 42CFR413.85 and have a discussion with the finance department to ensure eligibility for CMS funding.

3. In a multiple-site residency program, a sponsoring organization must be identified to assume ultimate responsibility for coordinating and administering the program. This includes the following:
   a. designating a single RPD;
   b. establishing a common residency purpose statement to which all residents at all sites are trained;
   c. ensuring a program structure and consistent required learning experiences;
   d. ensuring the required learning experiences are comparable in scope, depth, and complexity for all residents, if home based at separate sites;
   e. ensuring a uniform evaluation process and common evaluation tools are used across all sites;
   f. ensuring there are consistent requirements for successful completion of the program;
   g. designating a site coordinator to oversee and coordinate the program’s implementation at each site that is used for more than 25% of the learning experiences in the program (for one or more residents); and,
   h. ensuring the program has an established, formalized approach to communication that includes at a minimum the RPD and site coordinators to coordinate the conduct of the program across all sites.

**Nontraditional residency:** Residency program that meets requirements of a 12-month residency program in a different timeframe.

**Pharmacist executive.** The person who has ultimate responsibility for the residency practice site/pharmacy in which the residency program is conducted. (In some settings, this person is referred to, for example, as the director of pharmacy, the pharmacist-in-charge, the chief of pharmacy services.) In a multiple-site residency, a sponsoring organization must be identified to assume ultimate responsibility for coordinating and administering the program.

**Preceptor.** An expert pharmacist who gives practical experience and training to a pharmacy resident. Preceptors have responsibility for the evaluation of residents’ performance.
Preceptor-in-training. Pharmacists who are new to precepting residents who have not yet met the qualification for a preceptor in an accredited program. Through coaching and a development plan, they may be a preceptor for a learning experience and become full preceptors within two years.

Residency program director. The pharmacist responsible for direction, conduct, and oversight of the residency program. In a multiple-site residency, the RPD is a pharmacist designated in a written agreement between the sponsoring organization and all of the program sites.

Resident’s development plan. Record of modifications to a resident’s program based on the resident’s learning needs.

Self-evaluation. A process of reflecting on one’s learning progress and/or performance to determine strengths, weaknesses, and actions to address them.

Service commitments. Clinical and operational practice activities, which may be defined in terms of the number of hours, types of activities, and a set of educational goals and objectives.

Single-site residency. A residency site structure in which the practice site assumes total responsibility for the residency program. In a single-site residency, the majority of the resident’s training program occurs at the site; however, the resident may spend assigned time in short elective learning experiences off-site.

Site. The actual practice location where the residency experience occurs.

Site coordinator. A preceptor in a multiple-site residency program who is designated to oversee and coordinate the program’s implementation at an individual site that is used for more than 25% of the learning experiences. This individual may also serve as a preceptor in the program. A site coordinator must
1. be a licensed pharmacist who meets the minimum requirements to serve as a preceptor (meets the criteria identified in Principle 5.9 of the appropriate pharmacy residency accreditation standard);
2. practice at the site at least 10 hours per week;
3. have the ability to teach effectively in a clinical practice environment; and,
4. have the ability to direct and monitor residents’ and preceptors’ activities at the site (with the RPD’s direction).

Sponsoring organization. The organization assuming ultimate responsibility for the coordination and administration of the residency program. The sponsoring organization is charged with ensuring that residents’ experiences are educationally sound and are conducted in a quality practice environment. The sponsoring organization is also responsible for submitting the accreditation application and ensuring periodic evaluations are conducted. If several organizations share responsibility for the financial and management aspects of the residency (e.g., school of pharmacy, health system, and individual site), the organizations must mutually designate one organization as the sponsoring organization.

Staffing. See Service commitments.

Summative evaluation. Final judgment and determination regarding quality of learning.
References


Approved by the ASHP Board of Directors, April 7, 2017. Developed by the ASHP Commission on Credentialing. This Standard replaces the previous ASHP Standard for International Postgraduate Year Two (PGY2) Residency Programs approved by the AHSP Board of Directors September 22, 2016 and the ASHP Standard for Postgraduate Year Two (PGY2) Residency Programs approved by the ASHP Board of Directors September 22, 2016. This accreditation standard takes effect immediately.

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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).

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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.

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.
  o Suboptimal medication regimen (e.g., dose, dosage form, duration, schedule, route of administration, method of administration).
  o Medication toxicity requiring medication therapy modifications.
  o Abnormal lab values requiring medication therapy modifications.
  o Therapeutic duplication.
  o Adverse drug or device-related events or the potential for such events.
  o Clinically significant drug–drug, drug–disease, drug–nutrient, drug–DNA test interaction, drug–laboratory test interaction, or the potential for such interactions.
  o Use of harmful social, recreational, nonprescription, nontraditional, or other medication therapies.
  o Patient not receiving full benefit of prescribed medication therapy.
  o Problems arising from the financial impact of medication therapy on the patient.
  o Patient lacks understanding of medication therapy.
  o Patient not adhering to medication regimen and root cause (e.g., knowledge, recall, motivation, financial, system).
  o Patient assessment needed
  o 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:
  o Relevant patient-specific information, including culture and preferences.
  o The goals of other interprofessional team members.
  o The patient’s disease state(s).
  o Medication-specific information.
  o Best evidence, including clinical guidelines and the most recent literature
Effectively interprets new literature for application to patient care
- Ethical issues involved in the patient’s care.
- Quality-of-life issues specific to the patient.
- End of life issues, when needed.
- Integration of all the above factors influencing the setting of goals.

- Designs/redesigns regimens that:
  - Are appropriate for the disease states being treated.
  - Reflect:
    - Clinical experience
    - The therapeutic goals established for the patient.
    - The patient’s and caregiver’s specific needs.
    - Consideration of:
      - Any pertinent pharmacogenomic or pharmacogenetic factors.
      - Best evidence.
      - Pertinent ethical issues.
      - Pharmacoeconomic components (patient, medical, and systems resources).
      - Patient preferences, culture, and/or language differences.
      - Patient-specific factors, including physical, mental, emotional, and financial factors that might impact adherence to the regimen.
      - Drug shortages.
  - Adhere to the health system’s medication-use policies.
  - Follow applicable ethical standards.
  - Address wellness promotion and lifestyle modification.
  - Support the organization’s or patient’s insurance formulary.
  - Address medication-related problems and optimize medication therapy.
  - Engage the patient through education, empowerment, and promotion of self-management.

- Designs/redesigns monitoring plans that:
  - Effectively evaluate achievement of therapeutic goals.
  - Ensure adequate, appropriate, and timely follow-up.
  - Establish parameters that are appropriate measures of therapeutic goal achievement.
  - Reflect consideration of best evidence.
  - Select the most reliable source for each parameter measurement.
  - Have appropriate value ranges selected for the patient.
  - Have parameters that measure efficacy.
  - Have parameters that measure potential adverse drug events.
  - Have parameters that are cost-effective.
  - Have obtainable measurements of the parameters specified.
  - Reflects consideration of compliance.
  - Anticipates future drug-related problems.
  - When applicable, reflects preferences and needs of the patient.
  - Plan represents the highest level of patient care.

Objective R1.1.6: (Applying) Ensure implementation of therapeutic regimens and monitoring plans (care plans) for 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:
  o Identifying, clarifying, verifying, and correcting any medication order errors.
  o Considering complete patient-specific information.
  o Identifying existing or potential drug therapy problems.
  o Determining an appropriate solution to an identified problem.
  o Securing consensus from the prescriber for modifications to therapy.
  o 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 calibrating equipment.
  o Ensures intravenous solutions are appropriately concentrated, without incompatibilities; stable; and appropriately stored.
  o Adhering to appropriate safety and quality assurance practices.
  o Preparing labels that conform to the health system’s policies and procedures, as appropriate.
  o Ensuring that medication has all necessary and appropriate ancillary labels.
  o Inspecting the final medication before dispensing for accuracy, as appropriate.
• When dispensing medication products:
  o Follows the organization’s policies and procedures.
  o 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:
  o Blood factor products.
  o Anticoagulant reversal agents.
  o 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.
• Consulti 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.
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.
  - Manpower/staffing.
  - Staff scheduling and contingencies.
  - Staff qualifications.
  - Assesses and develops educational opportunities for critical care service line staff.
- Helps develop plans that address departmental needs.
  - Orientation.
Training and supervision.

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

Competency Area E1: Academia

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

Objective E1.1.1: (Understanding) Demonstrates understanding of key elements of the academic environment and faculty roles within it.
Criteria:
• Accurately describes 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.
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.

Approved by the ASHP Commission on Credentialing on August 15, 2016. Endorsed by the ASHP Board of Directors on September 23, 2016. Developed by the ASHP Commission on Credentialing in collaboration with the American College of Clinical Pharmacy (ACCP) and Society of Critical Care Medicine (SCCM). The design group comprised specialty practitioners and ASHP staff: Heidi Clarke, Pharm.D., Pharmacy Clinical Manager/ICU Clinical Specialist, Residency Program Director, PGY-2 Critical Care, Baptist Hospital of Miami; Amy L. Dzierba, Pharm.D., FCCM, BCPS, New York-Presbyterian Hospital, Department of Pharmacy, Pharmacy Residency Program Director, Post-Graduate Year 2, Critical Care; Ishaq Lat, Pharm.D., FCCM, FCCP, BCPS, Associate Director, Clinical Services, Pharmacist, Critical Care, Department of Pharmacy, Rush University Medical Center; Steven E. Pass, Pharm.D., FCCM, FCCP, FASHP, BCPS, Associate Professor and Vice Chair of Residency Programs, Texas Tech University Health Sciences Center, School of Pharmacy; Christopher M. Scott, Pharm.D., BCPS, FCCM, FASHP, Associate Vice President of Pharmacy and Respiratory Care, Eskenazi Health, Indianapolis, IN; Pamela L. Smithburger, PharmD, MS, BCPS, Associate Professor of Pharmacy & Therapeutics, Program Director, PGY2 Critical Care Pharmacy Residency, Clinical Specialist, MICU UPMC, School of Pharmacy, University of Pittsburgh; Bruce A. Nelson, R.Ph., M.S., Director, Operations, Accreditation Services Office, ASHP; Naomi M. Schultheis, M.Ed., Director, Standards Development and Training, Accreditation Services Office, ASHP.

This document replaces a set of educational goals and objectives for critical care pharmacy residencies approved by the ASHP Board of Directors on April 18, 2007. The contribution of reviewers is gratefully acknowledged.

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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.
Appendix

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
    2. Peripheral nerve stimulators
    3. 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.
Section 4. GHS PGY2 Critical Care Residency Program Overview
PGY-2 Critical Care Residency Program
Description of Global Requirements

PGY2 Program Purpose
The PGY2 Critical Care Residency at GHS is a one-year program designed to train pharmacists to practice pharmaceutical care at the highest level of competency within a critical care setting. Residents will gain expertise through direct patient care in various critical care environments, primary literature evaluation and application, participation in educational programs, research and publication opportunities, and student preceptorship. GHS is committed to the resident’s continuous personal and professional growth, tailoring training experiences to the resident’s needs. Upon completion of the program, the resident will have the skill set necessary to be a leader in critical care as a clinical pharmacy specialist, affiliate clinical pharmacy faculty of a college of pharmacy, and eligible for board certification.

Learning Experience Structure
7 required core rotations of one calendar month each

Core Rotations
Orientation
Critical Care Teaching Service/Pulmonary Teaching Service
Surgery Critical Care
Pediatric Intensive Care or Neonatal Intensive Care
Antimicrobial Stewardship
Neurocritical Care
Cardiovascular Intensive Care

Elective Experiences
Emergency Medicine
Medicine Critical Care (With Emergency Department Medical Residents)
Bone Marrow Transplant
Acute Pain Management
Adult Infectious Disease Consult
Academia

Longitudinal Experiences
Staffing – order entry and unit based
Clinical On-Call/Pharmacokinetics Services
Clinical Research (to be presented at the Southeastern Residency Conference – SERC)
Preceptorship
Teaching Certificate Program (Offered by Presbyterian College of Pharmacy) – If not previously completed
Medication use evaluation (MUE)
Pharmacy and Therapeutics Committee drug monograph
Committee Involvement (Intensive Care Unit Quality Assurance Committee plus one additional committee)

Other Experiences
Residency orientation program
Formal seminar presentation
Manuscript acceptable for publication
University of South Carolina School of Pharmacy P4 Grand Rounds evaluation
University of South Carolina School of Pharmacy P3 Acute Care Therapeutics lecture
University of South Carolina School of Pharmacy P3 Clinical Assessment labs
University of South Carolina School of Medicine Greenville M2 pharmacology lectures
Presbyterian College of Pharmacy lectures
Family medicine presentation
EPIC order set development and revision
Recruitment efforts
Additional experiences as deemed valuable
Pharmacy Residency Program
Residency Advisory Committee (RAC)

The Residency Advisory Committee is established in accordance with the American Society of Health-Systems Pharmacists (ASHP) Accreditation Standard for Postgraduate Year One (PGY1) and Postgraduate Year Two (PGY2) Pharmacy Residency Programs.

Committee Purposes
The purpose of the RAC is to serve as the primary decision making body and advisory board for the residency program.

Committee Goals, Responsibilities, and Functions
In conjunction with the Residency Program Directors (RPDs), the RAC shall:
1. Ensure program compliance with ASHP accreditation standards
2. Maintain, review and approve the yearly residency manual
3. Provide guidance for program conduct
4. Maintain educational learning experiences of the program, consistent with current ASHP competency areas, goals, and objectives (Resident Learning System, RLS)
5. Oversight of resident progression (and related documentation of completed requirements) within the program, including corrective action plans and dismissals as necessary
6. Establish program application requirements, procedures, and review processes for resident selection and recruitment
7. Provide oversight of the criteria and methods for appointment, evaluation and development of preceptors
8. Create and implement a preceptor development plan
9. Conduct an annual program evaluation
10. Maintain continuous quality assurance and improvement
11. Communicate program decisions to residents, preceptors, and the Department of Pharmacy

Membership
The RAC is comprised of the following members:
- Lucy Crosby, RPD
- Alyson Ghizzoni-Burns
- Bethany Lynch
- Jessica Odom
- Kristin Welborn
- Doug Furmanek, PGY2 RPD and ex officio

Meetings and Minutes
The RAC will meet, at a minimum, quarterly, but more frequently as called by the RPD. Meeting minutes will be maintained by the RPDs.
Section 5. Policies and Procedures
PGY-2 Pharmacy Residency Program
Professional Practice Requirements

Licensure
All residents within the Department of Pharmacy must be licensed by the South Carolina Board of Pharmacy. It is preferred that licensure be obtained by August 31st. In the event licensure is not obtained by August 31, the resident’s eligibility to remain in the program will be determined as follows:

- If the resident has not passed his/her licensure examination first attempt (NAPLEX or MPJE), he/she will be given 1 additional attempt to pass.
  - If a passing score is obtained on the second attempt by the resident AND licensure is obtained within 90 days of the residency start date: The resident may graduate on schedule.
  - If a passing score is obtained on the second attempt by the resident BUT licensure is not obtained within 90 days of the residency start date: The residency year will be extended accordingly.
- If the resident does NOT obtain a passing score on the second attempt of either examination: The resident will be dismissed from the program, and his/her employment status will change to “pharmacy intern.” The candidate may re-apply for the next residency class if so desired.

Questions regarding licensure should be addressed to:
South Carolina Board of Pharmacy
PO Box 11927
Columbia, SC 29211-1927
(803) 896-4700

ID Badges
Photo identification cards are issued during orientation and should be displayed prominently while residents are on the hospital premises. These cards provide access to parking facilities and certain areas of the institution. The cards also provide access to the library after hours. Identification cards are not to be loaned or transferred. The Badge Office is responsible for issuing replacement cards should your original become lost or inoperative. There is a charge for replacing lost or stolen cards.

Keys
Residents will be assigned department access keys for the resident office (#18) and pharmacy satellites (#22). In the event a key is lost, the resident must file a police report with Engineering.

Office Space
Residents of the Department of Pharmacy are allocated office space in the hospital. Each resident will have a desk complete with computer and telephone access. One phone within the office will be dedicated for time and attendance (clocking in).

Computer Access
Residents are provided a password to access GHS-related clinical and non-clinical applications and email. This logon and password are assigned by the Information Services department and will work on any computer that is on the hospital network. Email should be checked no less than daily as this will serve as a primary mode of communication for meetings, notifications, etc. Residents will be given remote access in order to access email and other medical databases off-campus. Computers and other electronic devices should remain locked while idle/not in use to prevent disclosure of protected health information.

Printing Privileges
Printers are located in the resident office, Pharmacy Administration area, Clinical Pharmacy office area, and in the Memorial campus library.
Photocopy Privileges
Copiers are located in the residency office, Pharmacy Administration area, Clinical Pharmacy office area, and in the Memorial campus library.

Presentation Equipment
The Greenville Health System has audio/visual access for presentations as needed.
Appearance / Dress Code

Employees are expected to dress in an appropriate manner while working at GHS. Personal appearance shall support patient care, create a healthy and safe environment, and not offend patients, visitors, or other employees. The department of pharmacy follows the GHS policy “S-104-06: Personal Appearance, Dress, and Uniform Policy”. Please reference this policy for a list of specific standards that apply throughout GHS. Employees whose appearance does not meet hospital or department standards may be required to change clothes or to address other appearance issues. Failure to follow these guidelines may result in disciplinary action up to and including termination of employment.

Residents may wear appropriate scrub attire when in the staffing model on weekends and holidays only.

Lab coats should be worn at any time in a direct patient care area, unless prohibited by the specific unit (e.g. NICU).

Harassment

It is the policy of GHS to foster a work environment which is free from any form of intimidation, such as bullying behaviors, harassment, or discrimination based on race, ethnicity, color, religion, sex, age, national origin, political belief, marital status, uniformed service, veteran status, sexual orientation, gender identity or expression, or physical or mental disability, as well as any other form of harassment prohibited by federal, state, or local law, regulation, or ordinance. Harassing conduct in the workplace, whether physical or verbal, lawful or unlawful, and including harassing or discriminatory slurs, jokes or degrading comments, are strictly prohibited.

If you believe that you have been harassed, you should immediately report the incident to your supervisor, the Human Resources Coordinator assigned to your area, the Corporate Compliance Department, any member of management, or call the Compliance Hot Line at 1-888-243-3611. A thorough investigation of the facts will be made and the issue resolved as quickly as possible.

Any act or threat of retaliation or revenge resulting from a complaint filed in good faith will not be tolerated by GHS. All information obtained during the process of filing a harassment complaint will be handled with sensitivity and discretion.

Please reference the following policy for additional information - S-104-11 Harassment

Workplace Violence

GHS is committed to maintaining a safe, healthy, and efficient working environment where employees, patients, patient family and visitors, and invitees of GHS are free from the threat of workplace violence. In keeping with this policy, GHS prohibits any employee from engaging in any act, either on company premises, or during the performance of work-related duties:

- Threatens the safety of an employee and/or customer
- Affects or threatens to affect the health, life, or well-being of an employee and/or customer negatively
- Results in or threatens to result in damage to GHS, employee, or customer property
Such acts include, but are not limited to:

- Threatening, intimidating, coercing, harassing, assaulting, or committing battery upon an employee or customer
- Sexually harassing an employee or customer
- Carrying open or concealed weapons into on company property
- Allowing unauthorized persons access to the building or restricted or sensitive areas without management permission
- Using, duplicating, or possessing keys to GHS buildings or offices without authorization
- Stealing, or attempting to steal, GHS property, an employee, or customer
- Damaging, or attempting to damage, property of GHS, an employee, or customer

All employees are encouraged to take an active role in creating a safe work environment at GHS. Employees should report any act of workplace violence to their supervisor or Security immediately.

Please reference the following policy for additional information - S-104-05 Workplace Violence

**Personal Business / Telephone Calls/ Internet/ Mail**

While you are at work, receiving personal visitors, the transaction of personal business, and the use of telephones, electronic mail, or the Internet for private purposes is not appropriate. When it occasionally becomes necessary for personal telephone usage, it must not detract from your work or limit the availability of telephone service for business purposes. In no case may the telephone be used to place or accept private long-distance calls charged to GHS. The receipt and mailing of personal mail also is not appropriate. The GHS mail service is not staffed to handle personal mail of GHS staff.

GHS is committed to providing an environment that encourages the use of computers and electronic information as essential tools to support its mission. It is the responsibility of each employee to ensure that this technology is used for proper business purposes and in a manner that does not compromise the confidentiality of proprietary or other sensitive information.

Please reference the following policy for additional information – Policy 9010 Personal Use of Telephone/Internet at Work

**E-mail Procedures**

GHS provides authorized users with electronic communication tools, including an e-mail system. Please refer to the “S-104-09 Electronic Mail (E-mail)” policy for general examples of acceptable and unacceptable uses of the GHS e-mail system. Any employee who violates this policy may be subject to corrective action, up to and including termination. Others that may violate this policy may be subject to loss of e-mail privileges at GHS and additional administrative or legal action as appropriate.

For tips on appropriate email etiquette, please reference the following policy appendix - S-104-09.A1 E-mail Etiquette
Telephone and Voice Mail Procedures

All information stored in, transmitted by, or received through GHS’ telephonic systems is the property of GHS and is intended only for job-related purposes. Authorized representatives of GHS may monitor the use of GHS’ telephonic systems that may include the interception and monitoring of oral communications and voice mail from time to time to ensure that such use is consistent with GHS’ policies and interests.

All voice mail messages are the property of GHS. Employee voice mail communications are not considered private, despite any such designation either by the sender or the recipient. GHS reserves the right to monitor its voice mail system, including an employee’s voice mailbox, at its discretion in the ordinary course of business. Please note that in certain situations, GHS may be compelled to access and disclose messages sent over its voice mail system. The existence of passwords and “message delete” functions do not restrict or eliminate GHS’ ability or right to access voice mail communications. Employees shall not share a voice mail password, provide voice mail access to an unauthorized user, or access another user’s voice mail without authorization. Employees shall not post, display, or make easily available any information, including, but not limited to, passwords, that may allow unauthorized users access to confidential information. Offensive, demeaning, or disruptive messages are prohibited. This includes, but is not limited to, messages that are inconsistent with GHS’ policies concerning equal employment opportunity and harassment.

Cell Phones and Smartphones

In an effort to maintain a safe environment for patients, visitors, and employees by minimizing unnecessary distractions, it is the policy of GHS to limit the use of personal cell phones and other portable communication devices during worked time. Cell phones and other portable communication devices should never be used in any way that would distract from patient care or customer service.

Personal cell phone use should be limited to bare minimum. Use may be allowed if attempting to use electronic drug information resources for patient care in the case that hospital computers are unavailable for use.

Use of Bluetooth devices of any nature or earbuds (headphones) for any reason are prohibited. These devices create a barrier to communication with other employees or patients in the hospital.

Use of cell phone cameras is included in the policy “S-50-03 Releasing Information to the Media” and other policies that specify that patients may only be photographed for officially approved uses and must provide written consent before being photographed.

Please reference the following policy for additional information – Policy 8027 Cellphones/ Smartphones

Internet Procedures

- GHS’ network, including its connection to the Internet, is intended only for business-related purposes. Any unauthorized use of the Internet is strictly prohibited. Unauthorized use includes, but is not limited to, connecting to, posting, or downloading pornographic material; engaging in inappropriate use of instant messaging, computer “hacking” and
other related activities; and/or attempting to disable or compromise the security of information contained on GHS' computers.

• GHS recognizes that from time to time employees may need to use the Internet or e-mail for personal needs during break periods and before or after work. These occasions should be kept to a minimum and should not be excessive, unreasonable, or interfere with the performance of an employee's job duties.

• Internet messages should be treated as non-confidential. Anything sent through the Internet passes through a number of computer systems, all with different levels of security. The confidentiality of messages may be compromised at any point along the way unless the messages are encrypted.

• Because postings placed on the Internet may specifically identify the message as coming from GHS, make certain before posting such information that they reflect the standards and policies of GHS. Under no circumstances shall information of a confidential, sensitive, or otherwise proprietary nature be placed on the Internet.

• Subscriptions to news groups and mailing lists are permitted when the subscriptions are for a work-related purpose. Any other subscriptions are prohibited.

• Information posted or viewed on the Internet may constitute published material. Therefore, reproduction of information posted or otherwise available over the Internet may be done only by express permission of the author or copyright holder.

• Unless the previous approval of management has been obtained, users may not establish Internet or other external network connections that could allow unauthorized individuals to gain access to the GHS' systems and information. These connections include the establishment of hosts with public modem dial-ins, World Wide Web home pages, and File Transfer Protocol (FTP).

• All files downloaded from the Internet must be checked for possible computer viruses. If the employee is uncertain whether his/her virus-checking software is current, the Information Services Help Desk representative must be consulted before downloading.

• Offensive, demeaning, or disruptive messages are prohibited. This includes, but is not limited to, messages that are inconsistent with GHS' policies concerning equal employment opportunity and harassment.

• Employees are prohibited from downloading and installing software on to GHS owned computers. This includes, but is not limited to, installing or downloading games, screen savers, music, file sharing utilities, and any other program that might interfere with the normal business operation of the computer.

Social Media

Common sense is the best guide should individuals decide to post information in any way relating to GHS. Employees should contact their supervisor, Human Resources, or the Office of Corporate Integrity if they are unsure about any particular posting. For instance, if you are writing about GHS operations where you have responsibility and your posting could be construed by a reader as being made on behalf of GHS, you should make sure your supervisor is comfortable with your taking that action.

Employees should be mindful that their actions on the Internet have consequences. GHS reserves the right to discipline or terminate the employment of any person whose actions on the Internet result in a disruption of their coworkers' ability to perform their job duties or compromises the integrity of GHS as a professional, compassionate, trustworthy healthcare organization who treats all patients with respect and dignity, regardless of their race, sex, color, religion, creed, ability to pay, political views, or other characteristics.

Please reference the following policy for additional information – S-104-12 Social Media and Social Networking
Time & Attendance

The GHS Time and Attendance System provides for the secure and electronic recording of clocked transactions, correcting errors, recording paid time off and other non-clocked pays, and approving employee time and attendance data for payroll processing.

Residents who are scheduled to work a shift must clock-in at the start of the shift. This clock-in will follow the tardiness guidelines as outlined above. Residents who are not working a scheduled shift are required to clock-in during the day. A missed clock-in for the day counts as one missed clock transaction. Residents are subject to random audits for tardiness and early departures. Non-compliance with clocking in may result in disciplinary action.

Procedure to clock in:

- Only use an appropriate departmental Time and Attendance phone to clock in
  - Central Pharmacy – 2 Phones: just inside the front door; on the back of the column near the VC4 carousel
  - Resident office – middle desk on right side of room
  - 2nd floor/OR – On the OR side near the hood
  - 4th floor – left side of the room between the two workstations
  - 5th floor – in the "pit" on the bedside table
  - Peds – at the technician workstation
  - MIPH
- At an appropriate departmental Time and Attendance phone, dial the Time and Attendance number
  - Some phones will automatically dial
  - Others require you to press the feature button (or Fx) button and the speed dial number assigned (usually 3)
- You will be prompted to enter a 10 digit ID number
  - Enter your employee ID number and the last 5 digits of your SSN
- You will be prompted to enter a clock code
  - Press 1
- If done correctly you will hear “Clock-in accepted”

Please reference the following policy for additional information – Policy 8026 Time and Attendance

Resident Call-Outs

There is a designated “Administrator on Call” to handle all staff call-outs, 24 hours a day, 7 days a week. The Administrator on Call phone number is 864-361-4564.

The procedure for residents to call out is to:
1. Call the Administrator on Call number and speak to person on call. Answer questions, such as why you’re calling out (sick vs FMLA), where you are scheduled to work that day, and anticipated duration of leave (ie, fever during flu season)
2. Call RPD office phone and relay the same info above (okay to leave message)
3. Notify preceptor via phone or email if you are on rotation that day

Your absence will be marked “PTU” on the schedule. Any time away from work that is recorded as PTU will result in an occurrence of an unscheduled absence and may result in disciplinary action.
Disciplinary Action / Dismissal Policy

The policies and procedures of the Greenville Hospital System are established to provide a work environment that facilitates productivity and satisfactory working relationships while promoting the delivery of high-quality healthcare and customer service. Employee disciplinary action may be necessary when established standards of behavior are not followed. An effective disciplinary action is not punitive. Instead, the disciplinary action should emphasize correcting the problem while maintaining the employee's dignity and self-respect. However, there may be an occasion when the behavior involved requires immediate discharge. The Greenville Health System reserves the right to determine whether immediate discharge is appropriate.

Dismissal of the pharmacy practice resident may occur if any of the following conditions exist:

- Any violation of the GHS organization policy for dismissal (see organization and department policy)
- Exhibiting inappropriate behavior
  - Recklessly providing information to healthcare providers without confirmation from preceptors (written or verbal)
  - Prescribing medications without the approval of the resident/attending physician
  - Providing false patient care information when presenting patients to either the program director, preceptor, or other healthcare team member
- Failure to thrive in the residency program
  - Unable to complete projects and patient care responsibilities in a timely manner, affecting the quality of care patients receive
  - Does not take individual responsibility for their work
- If the resident is unable to meet the terms and conditions of the residency program

Requirements for Residency Certificate

- To be granted a certificate, the resident must:
  - Achieve 85% assigned residency objectives as determined by RAC
  - Satisfactorily complete all rotations as determined by RAC
  - Satisfactorily complete all major assignments, projects, and presentations as outlined in the residency notebook/orientation materials
- The Residency Advisory Committee (RAC) may consider extenuating circumstances in deciding whether or not to grant a residency certificate to an individual.
- Residents who are terminated from employment due to disciplinary action will not receive a residency certificate.
Duty Hours
Prior to July 2013, accredited residency programs were required to follow the duty hour standards of the Accreditation Council for Graduate Medical Education (ACGME). However, effective July 1, 2013, programs are required to comply with the Pharmacy Specific Duty Hours Requirements for the ASHP Accreditation Standard for Pharmacy Residencies approved in April 2012. The GHS Pharmacy Residency Programs (PGY-1 and PGY-2) adhere to those standards. For the complete regulations, refer to the Duty Hours Appendix in the ASHP Accreditation Standard document. In summary:

- Duty hours are limited to 80-hours per week, averaged over four weeks. Moonlighting, both internal and external, counts toward the weekly limit. In addition, program directors must ensure that external and internal moonlighting does not interfere with the resident's achievement of the program's educational goals and objectives.
- One day in seven free from all patient care and educational obligations, averaged over four weeks.
- Adequate rest between duty periods: Residents should have 10 hours free of duty between scheduled duty, and must have at a minimum 8 hours between scheduled duty periods.
- A 16-hour limit on continuous duty time, with an additional period up to two hours permitted for transitions of care or educational activities.
- In-house call no more than once every three nights, averaged over four weeks.

Staffing Obligations
Pharmacy residents will staff every third weekend. The primary function of the pharmacy residency program is education of the resident. The staffing component should serve to enhance the resident's education and staffing obligations should not compromise the welfare of the resident or patients. The service obligations of the residents should not detract from the primary mission of education. Staffing will follow the Duty Hours requirements as stated above.

Duty Hour Calculation (6/22/15): Assuming an average of 10 hr days M-F and 8 hours of staffing every third weekend and averaging over 4 weeks.

$$\frac{\left[\left((10 \text{hrs} \times 5 \text{ days}) \times 4 \text{ weeks}\right) + (8 \text{hrs} \times 2 \text{ days for staffing weekend})\right]}{4 \text{ weeks}} = 54 \text{ hrs/week}$$

22 days on duty out of 30 averages to 1.9 days off every 7 days

Internal Staffing: Extra Shifts/Overtime/“Freelance”
Residents are permitted to pick up extra/overtime shifts beginning in the second half of the year (January through June) under the following conditions:

1. The duty hours restrictions set forth by ASHP are not violated as a result of the extra shift
2. The resident is in good standing with the residency responsibilities
3. The program director (RPD) has authorized the resident to cover the shift
4. The shift does not conflict with a clinical rotation or normally scheduled workday
5. The available shift is in an area the resident is trained to work

Residents do not get overtime-freelance pay, they get pharmacist base pay. A Secondary job code must be completed prior to the overtime shift. The resident may not submit PTO from a rotation in order to pick up an extra shift that same week.

External Employment Policy
The residency program is considered to be the primary employment of each resident. The responsibilities of the resident do not coincide with the normal 9:00 AM to 5:00 PM scheduled forty hour work week. In many instances, odd hours of coverage (i.e. weekends, evenings) are necessary to insure high quality of pharmacy services at Greenville Hospital System. Fluctuations in workload, cross coverage, change of service, unusual service demands or patient loads, on-call, etc, may all dictate the hours of resident service.
External employment, if sought, should be carefully chosen to accommodate variation in service responsibilities to GHS. Working additional hours for GHS is considered outside employment. All outside employment must be approved by the Residency Program Director. Successful completion of the residency program is a function of successful completion of all the program’s requirements, which dictate the primary schedule of the resident. Practice, teaching and service requirements take precedence over scheduling for external employment.
Resident Paid Time Off (PTO)

Paid Time Off (PTO) is compensation for time away from work during regularly scheduled hours. PTO is accrued for the purposes of vacation, holidays, illness, and approved GHS leaves of absence.

Accrual of PTO begins upon hire and is accrued at a rate of 7.69 hours per pay period. Although PTO is accrued at the same rate as hospital employees, it is important to remember that the residency is an educational program. In order to complete all residency requirements, it will be impossible for all accrued PTO to be granted.

Each resident will be approved for up to 15 days of paid time off (PTO) for the entire year, none of which can be taken in the last 2 weeks of the program. These days include all vacation, sick leave, interview days, and meetings beyond required meeting attendance. Time off for job interviews must be taken as PTO.

If the 15 days of PTO need to be exceeded, the resident may be expected to make these up on weekends through staffing or through extension of the residency program. This will be determined by the RPD in conjunction with RAC.

All PTO requests must be submitted in advance as follows:

- Block PTO requests (greater than 3 scheduled adjacent work days) must be submitted a minimum of 2 months in advance of the date(s) needed for PTO
- Non-blocked PTO requests (less than or equal to 3 scheduled adjacent work days) must be submitted a minimum of 1 month in advance of date needed for PTO

Upcoming for August 2018, a new PTO request software will be going live (Qagenda). Training and instructions will be given at an upcoming staff meeting.

Requests for PTO are made using the Resident PTO Request form. All applicable sections of the form must be completed.

- The completed form should first be submitted to the affected rotation preceptor for initial approval. The request may be approved or denied based on the ability to achieve rotation objectives. Vacation days should be limited to a maximum of two days per rotation whenever possible. If more than two PTO days are required, the rotation may need to be extended in order to achieve rotation objectives.
- Once the preceptor has approved and signed the PTO request, the PTO form should be submitted to the residency program director (RPD). The RPD will grant PTO based on clinical coverage, departmental staffing needs, resident precepting requirements, committee responsibilities, and appropriate progress on projects and presentations.
- The residents will be allowed to take a maximum of 40 hours of PTO in one month. Situations that require the resident to be off more that 40 hours in any given month will be reviewed on a case by case basis and may be approved at the discretion of the RPD.

GHS observes seven holidays: New Year's Day, Martin Luther King Day, Memorial Day, Independence Day (July 4), Labor Day, Thanksgiving Day, and Christmas Day. Residents are required to work one major holiday (Thanksgiving, Christmas, or New Years) and one minor holiday (Martin Luther King, Memorial Day, or Labor Day).

Residents not scheduled to work a holiday may choose to either (1) use PTO if they wish to observe the holiday or (2) come in to work. For holidays that fall on a weekday and the resident wishes to work, the rotation preceptor should be consulted to see if clinical service coverage is
required. The resident may use the extra time as an “office day” only if the rotation preceptor approves.

**Educational/Professional Leave (EDU)**

Educational Leave (EDU) is compensation for time away from work (daily duties) required for residency-related business (for example, attendance at professional meetings). For all EDU leave, a PTO request form should be completed with the reason as “Professional.” The same process applies as the PTO process above.

If the EDU leave falls during a period in which the resident is scheduled on call, the preceptor backup is to be notified that he/she will be taking primary call. A plan for primary call handoff shall be discussed at that time.

**Operation Shift Switches**

Residents may trade operational shifts (weekends/holidays) among themselves in order to get time off for a weekend. A PTO request form should be completed in the section “Operations Shift Changes.” Both the scheduled resident and covered resident should sign the form.

**Extended Leave**

If the resident needs to be off for an extended period due to a FMLA qualifying event (Refer to GHS FMLA Policy), then an individualized plan will be developed to assure that the residency requirements are successfully met prior to completion of the residency. The extended leave may result in the residency being extended by an equivalent amount of time.
GHS Pharmacy Department
Resident – Leave / Paid Time Off / Operations Shift Change Request

Name: _______________________________  Date Submitted:__________________

PTO Reason:
Professional / EDU event: ______________________________________________________
PTO (circle reason): holiday, vacation, FMLA, jury duty, other ______________________
Operations / Staffing shift change only

Dates:
Non-Block Time (list dates requested) _____________________________________________
Block Time: _______________________ through _______________________

Do these dates include operations shifts?  Yes (complete below)  No

<table>
<thead>
<tr>
<th>Date</th>
<th>Shift</th>
<th>Location</th>
<th>Person Scheduled</th>
<th>Person Covering</th>
<th>Coveree’s Initials</th>
</tr>
</thead>
</table>

Are you on call?  No  Yes -- coverage to switch to __________________________

Are you on a rotation(s):  Yes (complete below)  No

<table>
<thead>
<tr>
<th>Rotation</th>
<th>Date</th>
<th>Preceptor</th>
<th>Preceptor Signature</th>
</tr>
</thead>
</table>

Clinical service coverage: _____________________________________________

Number of days off rotation/Number of days on rotation = _______/______ (______ %)

Are you precepting students:  Yes (complete below)  No

<table>
<thead>
<tr>
<th>Date</th>
<th>Student</th>
<th>Service</th>
<th>Person Covering</th>
<th>Coveree’s Initials</th>
</tr>
</thead>
</table>

Are you on committees that will meet while you are away:  Yes (complete below)  No

<table>
<thead>
<tr>
<th>Date</th>
<th>Committee</th>
<th>Pertinent Pharmacy Issues</th>
<th>Person Covering</th>
<th>Coveree’s Initials</th>
</tr>
</thead>
</table>

Employee Signature            RPD approval            Date
Section 6. Clinical Rotations
Goals and Objectives for PGY2 Critical Care Teaching Service Rotation

Preceptor:
Kristin Welborn, PharmD, BCPS
Clinical Pharmacy Specialist, Critical Care
Office Phone: (864) 455-5336
Email: kwelborn2@ghs.org

Rotation Description:
The Pulmonary Critical Care Teaching Service (PCCTS) is a multi-disciplinary teaching service consisting of a pulmonary/critical care board certified attending physician, internal medicine residents, medical students, a clinical pharmacy, and a respiratory therapist. The average daily patient census for the PCCTS team is 15-20 patients, with most patients receiving mechanical ventilation. Disease states range from COPD exacerbations, community and hospital acquired pneumonias, drug overdoses, acute neurological events to sepsis resulting from various infections, pulmonary embolus, adult respiratory distress syndrome, as well as many other disease states.

Preceptor Responsibilities:
• Serve as a role model in the provision of pharmaceutical care
• Augment the resident's current understanding of commonly encountered ICU disease states
• Help establish an evidence-based approach to the provision of pharmacotherapy to critically ill patients
• Strengthen the resident’s written and verbal communication skills
• Provide prompt and effective feedback to ensure a valuable learning experience

Experiential Requirement: Completion of PGY1 ASHP-Accredited Residency Program

Disease States / Population Exposed:
Common disease states in which the resident will be expected to gain proficiency through literature review, topic discussion, and/or direct patient care experience including, but not limited to:

- Acidosis/alkalosis
- Acute COPD exacerbation
- Acute renal failure/continuous renal replacement therapy
- Acute respiratory distress syndrome/acute lung injury
- Acute upper and lower gastrointestinal bleeding
- Adrenal insufficiency
- Anemia of critical illness
- Critical illness polyneuropathy
- Delirium/agitation and sedation/analgesia in critically-ill patients
- Diabetic ketoacidosis
- Disseminated intravascular coagulation (DIC)
- Drug overdoses and toxicology
- Drug-induced blood dyscrasias
- Drug-induced kidney disease
- Drug-induced liver diseases
- Drug-induced pulmonary diseases
- DVT/PE prophylaxis (including sequential compression devices)
- Endocrine disorders (thyroid storm, hyperparathyroid states)
- Fluid and electrolytes
- Hepatorenal syndrome
- Intensive insulin therapy
The resident is expected to understand the pharmacotherapy related to any disease states encountered on rotation within this setting. The preceptor will be available for consultation and topic discussions. Resident learning is predicated not only on the above responsibilities but upon acceptance of personal responsibilities and dedication to direct patient care and team service.

**Rotation Goals/Objectives (See RLS objectives associated with below RLS goals):**

The goals selected to be taught and evaluated during this learning experience include:

**Competency Area R1: Patient Care**
- 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.
  - Objective R1.1.2 (Applying) Interact effectively with critically ill patients, family members, and caregivers.
  - Objective R1.1.3: (Analyzing) Collect information on which to base safe and effective medication therapy for critically ill patients.
  - Objective R1.1.4: (Analyzing) Analyze and assess information on which to base safe and effective medication therapy for critically ill patients.
  - Objective R1.1.5: (Creating) Design, or redesign, safe and effective patient-centered therapeutic regimens and monitoring plans (care plans) for critically ill patients.
  - 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.
  - Objective R1.1.7: (Applying) For critically ill patients, document direct patient care activities appropriately in the medical record, or where appropriate.
  - Objective R1.1.8: (Applying) Demonstrate responsibility to critically ill patients for patient outcomes.
- 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.

**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 R2.1.3: (Applying) Participate in the review of medication event reporting and monitoring related to care for critically ill patients.

**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.
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.

Goal R3.2: Demonstrate management skills in the provision of care for critically ill patients.
  o Objective R3.2.2: (Applying) Manage one’s own critical care practice effectively.

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).

Rotation Activities:
The activities assigned to this rotation reflect the activities a pharmacist working in an ICU environment are expected to perform. These activities were also selected to help the resident work toward achieving the goals assigned to the learning experience. The table below demonstrates the relationship between the activities the resident will perform and the goals/objectives assigned to the learning experience.

<table>
<thead>
<tr>
<th>Activity</th>
<th>RLS Objectives Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Active participation/interaction in daily ICU rounds and with other allied health professionals</td>
<td>R1.1.1, R1.1.2, R1.1.3, R1.1.4, R1.1.5, R1.1.6, R3.1.1</td>
</tr>
<tr>
<td>• Work collaboratively with the healthcare team in a collegial manner in the best interest of the patient</td>
<td></td>
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<tr>
<td>• Provide pharmacotherapy recommendations and drug information to the team</td>
<td></td>
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<tr>
<td>• Develop and maintain an effective and comprehensive patient monitoring form to identify potential pharmacotherapy interventions</td>
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<tr>
<td>• Analyze the patient medical record / medication profiles to address any specific adjustments to disease state or drug-drug interactions</td>
<td></td>
</tr>
<tr>
<td>• Design, recommend, monitor, and re-evaluate patient-specific therapeutic regimens that incorporate the principles of evidence-based medicine</td>
<td></td>
</tr>
<tr>
<td>• Document direct patient-care activities appropriately in the patient’s medical record (i.e. medication history, pharmacokinetic monitoring)</td>
<td>R1.1.7, R2.1.3</td>
</tr>
<tr>
<td>• Complete event reports for medication errors</td>
<td></td>
</tr>
<tr>
<td>• Ensure continuity of care as patients are admitted to the ICU and are transferred to different levels of care throughout the medical center by communicating outgoing plans and follow up to the covering service PharmD</td>
<td>R1.1.1, R1.1.8, R1.2.1</td>
</tr>
<tr>
<td>• Be a patient advocate in all senses; address issues with other consultant physicians if necessary and resolve problems with pharmacotherapy in a timely manner</td>
<td></td>
</tr>
<tr>
<td>• Prepare and write-up at least one advanced drug information question as applicable to patient care experiences encountered</td>
<td>R3.2.2, R4.1</td>
</tr>
<tr>
<td>• Attend and actively participate in student journal clubs and presentations</td>
<td></td>
</tr>
<tr>
<td>• Prepare and deliver one journal club to clinical staff and students when applicable</td>
<td></td>
</tr>
<tr>
<td>• Provide formal presentation on a pharmacotherapy topic in the context of a patient case when applicable</td>
<td></td>
</tr>
<tr>
<td>• Provide in-service education to physicians, nurses, and other health care practitioners</td>
<td></td>
</tr>
<tr>
<td>• Perform weekly topic discussions with preceptor</td>
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<tr>
<td>• Lead topic discussions when requested by preceptor</td>
<td></td>
</tr>
</tbody>
</table>
• Review guidelines and literature for disease states that are new or unfamiliar

• Manage time effectively to fulfill practice responsibilities – cover all required service patients, be prompt and prepared for all patient / topic discussions, complete all assignments

| R3.1.1, R3.2.2 |

• Regularly self-assess performance and make adjustments as needed to meet goals/expectations of the rotation
• Complete formative and summative self-evaluations in a timely fashion

| R3.1.2 |

Preceptor Interaction:

• On the first day of rotation, the resident will receive a calendar of dates/times for specific meetings/discussions/evaluations that have been scheduled and/or dates/times preceptor is not available
• Preceptor will be available most mornings to discuss patient interventions
• Preceptor will be available most afternoons for patient presentations and topic discussions

Communication:

• Daily/PRN meetings: Residents are expected to be prepared to discuss patients or topics during these times
• Email: Residents are expected to read emails at a minimum of 3 times per day (beginning, middle, and end of workday). Preferred for non-urgent issues and questions.
• Office phone: Appropriate for non-urgent questions
• Personal phone number: Provided to resident at time of learning experience for urgent / emergency situations pertaining to patient care or on-call questions that arise after hours

Expected Progression of Resident Responsibility on Rotation:
(Length of time spent in each phase will be customized based upon resident’s abilities and timing of learning experience during the training year)

• Day 1: Preceptor will review learning activities, expectations, and calendar with resident. Preceptor will define expectations for learning activities.
• Day 2-3: Resident will be responsible for beginning work-up on all census patients and begin presenting to preceptor daily. Preceptor will attend and participate in team rounds with resident and model pharmacist’s role on the health care team.
• Remainder of Week 1 – Week 4: Resident is expected to work independently on rotation learning activities, be responsible for all patients admitted to the service, provide pharmacotherapy recommendations serving as the primary pharmacist on the ICU team, and be prepared for all topic and patient discussions. The preceptor will no longer attend rounds, but will facilitate the resident as the pharmacist on the team.

Evaluation Strategy:

• PharmAcademic will be used for documenting scheduled evaluations. For ALL evaluations in PharmAcademic, the resident and preceptor will independently complete the assigned evaluation and save as a draft. The resident and preceptor will then compare and discuss the evaluations. This discussion will provide feedback both on performance of the activities and the accuracy of the resident’s self-assessment skills. Evaluations will be signed in PharmAcademic following this discussion.
• **Formative evaluations:** These evaluations are intended to provide feedback to residents on a specific activity, not as an overall generalized evaluation of performance.

• **Midpoint evaluations:** These scheduled evaluations are intended to provide generalized feedback at the half-way point of the experience. Specific, criteria based comments should be included to provide the resident with information they can use to improve performance in the remaining time spent in the learning experience.

• **Summative evaluations:** These evaluations summarize the resident's performance at the conclusion of the experience. Specific, criteria based comments should be included to provide the resident with information they can use to improve performance in subsequent learning experiences.

<table>
<thead>
<tr>
<th>Evaluation Type</th>
<th>Description</th>
<th>Who</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formative + Formative Self</td>
<td>Advanced Drug Information Question</td>
<td>Preceptor &amp; Resident</td>
<td>Following final write-up submission</td>
</tr>
<tr>
<td>Formative + Formative Self</td>
<td>In-service Evaluation</td>
<td>Preceptor &amp; Resident</td>
<td>Following in-service</td>
</tr>
<tr>
<td>Formative + Formative Self</td>
<td>Presentations</td>
<td>Preceptor &amp; Resident</td>
<td>Following presentations</td>
</tr>
<tr>
<td>Summative + Summative Self</td>
<td>Midpoint Evaluation</td>
<td>Preceptor &amp; Resident</td>
<td>End of week 2</td>
</tr>
<tr>
<td>Summative + Summative Self</td>
<td>Final Evaluation</td>
<td>Preceptor &amp; Resident</td>
<td>End of learning experience</td>
</tr>
<tr>
<td>Preceptor, Learning Experience Evaluation</td>
<td>Preceptor, Learning Experience Evaluation</td>
<td>Resident</td>
<td>End of learning experience</td>
</tr>
</tbody>
</table>
Goals and Objectives for PGY-2 Surgery Trauma ICU Rotation

Preceptor:
Kimberly Clark, PharmD, BCCCP
Clinical Pharmacy Specialist, Critical Care
Office Phone: (864) 455-7033
Email: kbclark@ghs.org

Rotation Description:
Throughout the critical care clinical rotation, the resident will have the opportunity to provide pharmaceutical care to critically ill patients on the Surgery Critical Care Teaching Service (SCCTS) at Greenville Memorial Hospital. The SCCTS is a multidisciplinary team consisting of a general surgery/critical care board certified attending physician, an upper-level surgical resident, a surgical intern, medical students, and a pharmacist. The SCCTS is often consulted to manage neurosurgical, general surgery, trauma, and vascular patients who require intubation. In addition to the above patient populations, a variety of other medicine ICU patient disease states will be encountered while on the rotation.

Preceptor Responsibilities:
• Serve as a role model in the provision of pharmaceutical care
• Augment the resident’s current understanding of commonly encountered ICU disease states
• Help establish an evidence-based approach to the provision of pharmacotherapy to critically ill patients
• Strengthen the resident’s written and verbal communication skills
• Provide prompt and effective feedback to ensure a valuable learning experience

Disease States / Population Exposed:
Common disease states in which the resident will be expected to gain proficiency through literature review, topic discussion, and/or direct patient care experience including, but not limited to:

- Acute aortic dissection
- Colloid/crystalloid resuscitation
- Complicated intra-abdominal infections
- Damage control surgery
- Deep vein thromboembolism prophylaxis in trauma
- EEG or bispectral monitoring for level of sedation
- Glycemic control
- Hypertensive emergencies and urgencies
- Ileus and fistulas
- Intracranial pressure management
- Invasive and non-invasive hemodynamic monitoring
- Necrotizing fasciitis
- Neurogenic shock
- Neuroleptic malignant syndrome
- Neuromuscular blockade
- Opioid tolerance, withdrawal, and addiction
- Organ donation
- Pain, sedation, and delirium management
- Pancreatitis and cholecystitis
- Peripheral nerve stimulators
- Pneumothorax, hemothorax, and chest tubes
- Shock syndromes
- Spinal cord injury
- Substance abuse/ETOH withdrawal
- Surgical prophylaxis & wound infections
- Syndrome of inappropriate anti-diuretic hormone, central diabetes insipidus, and cerebral salt-wasting
- Trauma work-up & ICU scoring systems
- Traumatic brain injury
- Ventriculostomies
- Various other patient-specific topics
The resident is expected to understand the pharmacotherapy related to any disease states encountered on rotation within this setting. The preceptor will be available for consultation and topic discussions. Resident learning is predicated not only on the above responsibilities but upon acceptance of personal responsibilities and dedication to direct patient care and team service.

Rotation Goals/Objectives (See RLS objectives associated with below RLS goals):
The goals selected to be taught and evaluated during this learning experience include:

**Competency Area R1: Patient Care**
- 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.
  - Objective R1.1.2 (Applying) Interact effectively with critically ill patients, family members, and caregivers.
  - Objective R1.1.3: (Analyzing) Collect information on which to base safe and effective medication therapy for critically ill patients.
  - Objective R1.1.4: (Analyzing) Analyze and assess information on which to base safe and effective medication therapy for critically ill patients.
  - Objective R1.1.5: (Creating) Design, or redesign, safe and effective patient-centered therapeutic regimens and monitoring plans (care plans) for critically ill patients.
  - Objective R1.1.6: (Applying) Analyze and assess information on which to base safe and effective medication therapy for critically ill patients.
  - Objective R1.1.7: (Creating) Design, or redesign, safe and effective patient-centered therapeutic regimens and monitoring plans (care plans) for critically ill patients.
  - Objective R1.1.8: (Applying) Demonstrate responsibility to critically ill patients for patient outcomes.
- 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.

**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 R2.1.3: (Applying) Participate in the review of medication event reporting and monitoring related to care for critically ill patients.

**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.
  - 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.
- Goal R3.2: Demonstrate management skills in the provision of care for critically ill patients.
  - Objective R3.2.2: (Applying) Manage one’s own critical care practice effectively.

**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).
**Rotation Activities:**

The activities assigned to this rotation reflect the activities a pharmacist working in an ICU environment are expected to perform. These activities were also selected to help the resident work toward achieving the goals assigned to the learning experience. The table below demonstrates the relationship between the activities the resident will perform and the goals/objectives assigned to the learning experience.

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<th>Activity</th>
<th>RLS Objectives Covered</th>
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<tbody>
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<td>• Active participation/interaction in daily ICU rounds and with other allied health professionals</td>
<td>R1.1.1, R1.1.2, R1.1.3, R1.1.4, R1.1.5, R1.1.6, R3.1.1</td>
</tr>
<tr>
<td>• Provide pharmacotherapy recommendations and drug information to the team</td>
<td></td>
</tr>
<tr>
<td>• Develop and maintain an effective and comprehensive patient monitoring form to identify potential pharmacotherapy interventions</td>
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<td>• Analyze the patient medical record / medication profiles to address any specific adjustments to disease state or drug-drug interactions</td>
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<td>• Design, recommend, monitor, and re-evaluate patient-specific therapeutic regimens that incorporate the principles of evidence-based medicine</td>
<td></td>
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<tr>
<td>• Document direct patient-care activities appropriately in the patient’s medical record (i.e. medication history, pharmacokinetic monitoring)</td>
<td>R1.1.7, R2.1.3</td>
</tr>
<tr>
<td>• Complete event reports for medication errors</td>
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<tr>
<td>• Ensure continuity of care as patients are admitted to the ICU and are transferred to different levels of care throughout the medical center by communicating outgoing plans and follow up to the covering service PharmD</td>
<td>R1.1.1, R1.1.8, R1.2.1</td>
</tr>
<tr>
<td>• Prepare and write-up at least one advanced drug information question</td>
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<td>• Attend and actively participate in student journal clubs and presentations</td>
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<td>• Provide in-service education to physicians, nurses, and other health care practitioners</td>
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<tr>
<td>• Perform weekly topic discussions with preceptor</td>
<td>R3.2.2, R4.1</td>
</tr>
<tr>
<td>• Lead topic discussions when requested by preceptor</td>
<td></td>
</tr>
<tr>
<td>• Participation in MUE/ICU process improvement when applicable</td>
<td></td>
</tr>
<tr>
<td>• Review guidelines and literature for disease states that are new or unfamiliar</td>
<td></td>
</tr>
<tr>
<td>• Manage time effectively to fulfill practice responsibilities – cover all required service patients, be prompt and prepared for all patient / topic discussions, complete all assignments</td>
<td>R3.1.1, R3.2.2</td>
</tr>
<tr>
<td>• Regularly self-asses performance and make adjustments as needed to meet goals/expectations of the rotation</td>
<td>R3.1.2</td>
</tr>
<tr>
<td>• Complete formative and summative self-evaluations in a timely fashion</td>
<td></td>
</tr>
</tbody>
</table>

**Preceptor Interaction:**

- On the first day of rotation, the resident will receive a calendar of dates/times for specific meetings/discussions/evaluations that have been scheduled and/or dates/times preceptor is not available
- Preceptor will be available most mornings to discuss patient interventions
- Preceptor will be available most afternoons for patient presentations and topic discussions

**Communication:**

- Daily/PRN meetings: Residents are expected to be prepared to discuss patients or topics during these times
- Email: Residents are expected to read emails at a minimum of 3 times per day (beginning, middle, and end of workday). Preferred for non-urgent issues and questions.
- Office phone: Appropriate for non-urgent questions
- Personal phone number: Provided to resident at time of learning experience for urgent / emergency situations pertaining to patient care or on-call questions that arise after hours
Expected Progression of Resident Responsibility on Rotation:
(Length of time spent in each phase will be customized based upon resident’s abilities and timing of learning experience during the training year)

- Day 1: Preceptor will review learning activities, expectations, and calendar with resident. Preceptor will define expectations for learning activities.
- Day 2-3: Resident will be responsible for beginning work-up on all census patients and begin presenting to preceptor daily. Preceptor will attend and participate in team rounds with resident and model pharmacist’s role on the health care team.
- Remainder of Week 1 – Week 4: Resident is expected to work independently on rotation learning activities, be responsible for all patients admitted to the service, provide pharmacotherapy recommendations serving as the primary pharmacist on the ICU team, and be prepared for all topic and patient discussions. The preceptor will no longer attend rounds, but will facilitate the resident as the pharmacist on the team.

Evaluation Strategy:

- PharmAcademic will be used for documenting scheduled evaluations. For ALL evaluations in PharmAcademic, the resident and preceptor will independently complete the assigned evaluation and save as a draft. The resident and preceptor will then compare and discuss the evaluations. This discussion will provide feedback both on performance of the activities and the accuracy of the resident’s self-assessment skills. Evaluations will be signed in PharmAcademic following this discussion.
- **Formative evaluations**: These evaluations are intended to provide feedback to residents on a specific activity, not as an overall generalized evaluation of performance.
- **Midpoint evaluations**: These scheduled evaluations are intended to provide generalized feedback at the half-way point of the experience. Specific, criteria based comments should be included to provide the resident with information they can use to improve performance in the remaining time spent in the learning experience.
- **Summative evaluations**: These evaluations summarize the resident’s performance at the conclusion of the experience. Specific, criteria based comments should be included to provide the resident with information they can use to improve performance in subsequent learning experiences.

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</tr>
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<td>Final Evaluation</td>
<td>Preceptor &amp; Resident</td>
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</tr>
<tr>
<td>Preceptor, Learning Experience Evaluation</td>
<td>Preceptor, Learning Experience Evaluation</td>
<td>Resident</td>
<td>End of learning experience</td>
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</tbody>
</table>
Goals and Objectives for PGY-2 Cardiovascular ICU Rotation

Preceptor:
Lyndsay Gormley, PharmD
Clinical Pharmacy Specialist, Critical Care
Office Phone: (864) 455-5521
Cell: (716) 566-0386
Email: lgormley@ghs.org

Rotation Description:
The goal of the Cardiovascular Rotation is to provide the resident opportunities to build upon knowledge and skills acquired during their PGY1/PGY2 years and apply them in direct patient care activities in the ICU setting. This is a multidisciplinary team consisting of a pulmonary/critical care board certified attending physician, nurse practitioner, and a pharmacist. This experience will expose the resident to the essential roles of the pharmacist in the ICU that may include optimization of medication use through interaction with the team, order review, drug therapy monitoring, monitoring the use of high-risk medications, medication preparation and dispensing, providing of drug information, and obtaining medication histories.

Preceptor Responsibilities:
- Orient resident to the unit and rotation
- Help the resident to acquire basic and advanced knowledge in the management of common urgent/emergent medical problems
- Facilitate an evidence-based approach in creating pharmacotherapy plans for critically ill patients
- Strengthen the resident’s written and verbal communication skills
- Foster a collaboration between the resident and the health care team
- Provide prompt and effective feedback to augment the learning experience

Disease States/Population Exposed:
Common disease states in which the resident will be expected to gain proficiency through literature review, topic discussion, and/or direct patient care experience including, but not limited to:
- CABG/bypass machine
- ECMO
- Heart Failure
- Arrhythmias
- Post-operative Afib
- Aortic dissections
- Vasoplegia syndrome
- Pulmonary embolism/VTE
- Cardiogenic shock
- ACS: STEMI/Non-STEMI/Angina
- Hypertensive emergency and urgency
- Anticoagulants and reversal agents
- Acidosis/alkalosis
- Acute agitation
- Acute respiratory failure
- Acute renal failure
- Empiric management of infectious disease
- Fluid and electrolyte abnormalities
- Pain, sedation, and delirium management
- Substance abuse/ETOH withdrawal
The resident is expected to understand the pharmacotherapy related to any disease states encountered on rotation within this setting. The preceptor will be available for consultation and topic discussions. Resident learning is predicted not only on the above responsibilities but upon acceptance of personal responsibilities and dedication to direct patient care and team service.

**Rotation Goals/Objectives (See RLS objectives associated with below RLS goals):**

The goals selected to be taught and evaluated during this learning experience include:

**Competency Area R1: Patient Care**
- 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.
  - Objective R1.1.2: (Applying) Interact effectively with critically ill patients, family members, and caregivers.
  - Objective R1.1.3: (Analyzing) Collect information on which to base safe and effective medication therapy for critically ill patients.
  - Objective R1.1.4: (Analyzing) Analyze and assess information on which to base safe and effective medication therapy for critically ill patients.
  - Objective R1.1.5: (Creating) Design, or redesign, safe and effective patient-centered therapeutic regimens and monitoring plans (care plans) for critically ill patients.
  - Objective R1.1.6: (Applying) Ensure implementation of therapeutic regimens and monitoring plans (care plans) for critically ill patients.
  - Objective R1.1.7: (Applying) For critically ill patients, document direct patient care activities appropriately in the medical record, or where appropriate.
  - Objective R1.1.8: (Applying) Demonstrate responsibility to critically ill patients for patient outcomes.

- 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.

**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 R2.1.3: (Applying) Participate in the review of medication event reporting and monitoring related to care for critically ill patients.

**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.
  - 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.

- Goal R3.2: Demonstrate management skills in the provision of care for critically ill patients.
  - Objective R3.2.2: (Applying) Manage one’s own critical care practice effectively.

**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).
**Rotation Activities:**
The activities assigned to this rotation reflect the activities a pharmacist working in an Emergency Department environment are expected to perform. These activities were also selected to help the resident work toward achieving the goals assigned to the learning experience. The table below demonstrates the relationship between the activities the resident will perform and the goals/objectives assigned to the learning experience.

<table>
<thead>
<tr>
<th>Activity</th>
<th>RLS Objectives Covered</th>
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<tbody>
<tr>
<td>• Engage in daily ICU rounds with the team</td>
<td>R1.1.1</td>
</tr>
<tr>
<td>• Participate in all clinical pharmacy consults including antibiotic selection and dosing, anticoagulation management and toxicology</td>
<td>R1.1.2</td>
</tr>
<tr>
<td>• Evaluate drug therapy for assigned patients and make recommendations to the team to identify, prevent and resolve drug related problems</td>
<td>R1.1.3</td>
</tr>
<tr>
<td>• Provide concise, applicable, comprehensive, and timely responses to requests for drug information from patients and health care providers</td>
<td>R1.1.4</td>
</tr>
<tr>
<td>• Review patients' profile (including PMH, FH, SH, laboratory values, medication history) to determine effective and appropriate pharmacotherapy to assigned patients</td>
<td>R1.1.5, R2.1.3, R3.1.1</td>
</tr>
<tr>
<td>• Ensure continuity of care as patients are admitted to the to and from the ICU by communicating outgoing plans and follow-up to the covering service PharmD</td>
<td>R1.1.1, R1.1.2, R1.2.1</td>
</tr>
<tr>
<td>• Document direct patient-care activities appropriately in the patient's medical record (i.e. medication history, pharmacokinetic monitoring)</td>
<td>R1.1.7</td>
</tr>
<tr>
<td>• Provide in-service education to physicians, nurses, and other practitioners</td>
<td>R1.1.1</td>
</tr>
<tr>
<td>• Perform weekly topic discussions with preceptor</td>
<td>R2.1.1</td>
</tr>
<tr>
<td>• Lead topic discussions when requested by preceptor</td>
<td>R2.2.1</td>
</tr>
<tr>
<td>• Prepare and write-up advanced drug information questions</td>
<td>R4.1.1</td>
</tr>
<tr>
<td>• Participation in MUE and/or quality/process improvement when applicable</td>
<td>R4.1.2</td>
</tr>
<tr>
<td>• Review guidelines and literature for disease states that are new or unfamiliar</td>
<td>R3.1.2</td>
</tr>
<tr>
<td>• Participate in medication event reporting and monitoring</td>
<td>R2.1.4</td>
</tr>
<tr>
<td>• Regularly self-assess performance and make adjustments as needed to meet goals/expectations of the rotations</td>
<td>R3.1.2</td>
</tr>
<tr>
<td>• Complete formative and summative self-evaluations in a timely fashion</td>
<td>R3.2.2</td>
</tr>
<tr>
<td>• Demonstrate effective workload and time-management skills</td>
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</table>

**Preceptor Interaction:**
- On the first day of rotation, the resident will receive a calendar of dates/times for specific meetings/discussions/evaluations that have been scheduled and/or dates/times preceptor is not available
- Preceptor will be available most mornings to discuss patient interventions
- Preceptor will be available most afternoons for patient presentations and topic discussions
Communication:

- Daily/PRN meetings: Residents are expected to be prepared to discuss patients or topics during these times.
- Email: Residents are expected to read emails at a minimum of 3 times per day (beginning, middle, and end of workday). Preferred for non-urgent issues and questions.
- Office phone: Appropriate for non-urgent questions.
- Personal phone number: Provided to resident at time of learning experience for urgent / emergency situations pertaining to patient care or on-call questions that arise during or after hours.

Expected Progression of Resident Responsibility on Rotation:
(Length of time spent in each phase will be customized based upon resident’s abilities and timing of learning experience during the training year)

- Day 1: Preceptor will review learning activities, expectations, and calendar with resident. Preceptor will define expectations for learning activities.
- Day 2-3: Resident will be responsible for beginning work-up on all census patients and begin presenting to preceptor daily. Preceptor will model pharmacist’s role on the health care team.
- Remainder of Week 1 – Week 4: Resident is expected to work independently on rotation learning activities, be responsible for all patients admitted to the service, provide pharmacotherapy recommendations serving as the primary pharmacist on the team, and be prepared for all topic and patient discussions. The preceptor will no longer attend rounds, but will facilitate the resident as the pharmacist on the team.

Evaluation Strategy:

- PharmAcademic will be used for documenting scheduled evaluations. For ALL evaluations in PharmAcademic, the resident and preceptor will independently complete the assigned evaluation and save as a draft. The resident and preceptor will then compare and discuss the evaluations. This discussion will provide feedback both on performance of the activities and the accuracy of the resident’s self-assessment skills. Evaluations will be signed in PharmAcademic following this discussion.
- Formative evaluations: These evaluations are intended to provide feedback to residents on specific activities, not as an overall generalized evaluation of performance.
- Midpoint evaluations: These scheduled evaluations are intended to provide generalized feedback at the half-way point of the experience. Specific, criteria based comments should be included to provide the resident with information they can use to improve performance in the remaining time spent in the learning experience.
- Summative evaluations: These evaluations summarize the resident’s performance at the conclusion of the experience. Specific, criteria based comments should be included to provide the resident with information they can use to improve performance in subsequent learning experiences.

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</table>
Resident Goals and Objectives for Neurocritical Care Rotation (PGY-2)

Preceptor:
Michael J. Wagner, PharmD
Clinical Pharmacy Specialist, Critical Care
Phone: (864) 455-5176
E-mail: mwagner6@ghs.org

Rotation Description:
The Neurocritical Care service at Greenville Memorial Hospital is a multi-disciplinary teaching service consisting of neurointensivists, nurse practitioners, a clinical pharmacy specialist, and medical students/interns/residents. This clinical rotation will provide exposure to various neurological disease states including acute ischemic stroke, intracerebral hemorrhage, status epilepticus, meningitis, intracranial hypertension, toxic encephalopathy, cerebral venous sinus thrombosis, and neuromuscular emergencies. Residents will be responsible for designing and monitoring drug regimens for these critically ill patients. Other services provided by the resident may include researching drug information for the team as requested, pharmacokinetic evaluation / dosing, and patient education as needed.

Preceptor Responsibilities:
• Serve as a role model in the provision of pharmaceutical care
• Augment the resident’s current understanding of commonly encountered ICU disease states
• Help establish an evidence-based approach to the provision of pharmacotherapy to critically ill patients
• Strengthen the resident’s written and verbal communication skills
• Provide prompt and effective feedback to ensure a valuable learning experience

Experiential Requirement: Completion of PGY-1 ASHP-Accredited Residency Program

Disease States/Patient Populations Exposed To:
• Acidosis/alkalosis
• Acute renal failure
• Adrenal insufficiency
• Anemia of critical illness
• Aneurysmal subarachnoid hemorrhage
• Appropriate use of antibiotics and antifungal agents
• Brain/Spinal abscess
• Brain tumors
• Contrast-induced nephropathy
• Delirium/agitation and sedation/analgesia in critically ill patients
• DVT/PE prophylaxis
• Fluid and electrolytes
• Hemorrhagic stroke
• Hemodynamic monitoring and mechanical ventilation
• Hypertensive Crisis
• Inotropes/vasopressors
• Intensive insulin therapy
• Intracranial hypertension
• Ischemic Stroke
• Meningitis/ventriculitis/encephalitis
• Myasthenia Gravis
• Neuromuscular blockade
• Neuroleptic malignant syndrome
• Nosocomial/ventilator associated pneumonia
• Parenteral and enteral nutrition
• Sepsis and other shock states
• Status Epilepticus and other seizures
• Stress ulcer prophylaxis and upper gastrointestinal bleed
• Syndrome of inappropriate anti-diuretic hormone, diabetes insipidus, and cerebral salt-wasting
• Various other patient-specific topics
Rotation Goals/Objectives (See RLS objectives associated with below RLS goals):
The goals selected to be taught and evaluated during this learning experience include:

**Competency Area R1: Patient Care**
- 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.
  - Objective R1.1.2 (Applying) Interact effectively with critically ill patients, family members, and caregivers.
  - Objective R1.1.3: (Analyzing) Collect information on which to base safe and effective medication therapy for critically ill patients.
  - Objective R1.1.4: (Analyzing) Analyze and assess information on which to base safe and effective medication therapy for critically ill patients.
  - Objective R1.1.5: (Creating) Design, or redesign, safe and effective patient-centered therapeutic regimens and monitoring plans (care plans) for critically ill patients.
  - Objective R1.1.6: (Applying) Ensure implementation of therapeutic regimens and monitoring plans (care plans) for critically ill patients.
  - Objective R1.1.7: (Applying) For critically ill patients, document direct patient care activities appropriately in the medical record, or where appropriate.
  - Objective R1.1.8: (Applying) Demonstrate responsibility to critically ill patients for patient outcomes.
- 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.

**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 R2.1.3: (Applying) Participate in the review of medication event reporting and monitoring related to care for critically ill patients.

**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.
  - 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.
- Goal R3.2: Demonstrate management skills in the provision of care for critically ill patients.
  - Objective R3.2.2: (Applying) Manage one’s own critical care practice effectively.

**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).

**Rotation Activities:**
The activities assigned to this rotation reflect the activities a pharmacist working in an ICU environment are expected to perform. These activities were also selected to help the resident work toward achieving the goals assigned to the learning
experience. The table below demonstrates the relationship between the activities the resident will perform and the goals/objectives assigned to the learning experience.

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<td>• Active participation/interaction in daily ICU rounds and with other</td>
<td>R1.1.1, R1.1.2, R1.1.3, R1.1.4, R1.1.5, R1.1.6, R3.1.1</td>
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<tr>
<td>allied health professionals</td>
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<td>• Provide pharmacotherapy recommendations and drug information to the</td>
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<td>team</td>
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<tr>
<td>• Develop and maintain an effective and comprehensive patient monitoring</td>
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<td>form to identify potential pharmacotherapy interventions</td>
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<td>• Analyze the patient medical record / medication profiles to address</td>
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<tr>
<td>any specific adjustments to disease state or drug-drug interactions</td>
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<td>• Design, recommend, monitor, and re-evaluate patient-specific</td>
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<tr>
<td>therapeutic regimens that incorporate the principles of evidence-based</td>
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<td>medicine</td>
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<tr>
<td>• Document direct patient-care activities appropriately in the patient’s</td>
<td>R1.1.7, R2.1.3</td>
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<tr>
<td>medical record (i.e. medication history, pharmacokinetic monitoring)</td>
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<tr>
<td>• Complete event reports for medication errors</td>
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<tr>
<td>• Ensure continuity of care as patients are admitted to the ICU and are</td>
<td>R1.1.1, R1.1.8, R1.2.1</td>
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<td>transferred to different levels of care throughout the medical center by</td>
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<td>communicating outgoing plans and follow up to the covering service</td>
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<td>PharmD</td>
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<tr>
<td>• Attend and actively participate in student journal clubs and</td>
<td>R3.2.2, R4.1</td>
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<td>presentations</td>
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<tr>
<td>• Provide in-service education to physicians, nurses, and other</td>
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<td>health care practitioners</td>
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<td>unfamiliar</td>
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<tr>
<td>• Manage time effectively to fulfill practice responsibilities – cover</td>
<td>R3.1.1, R3.2.2</td>
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<tr>
<td>all required service patients, be prompt and prepared for all patient /</td>
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<tr>
<td>topic discussions, complete all assignments</td>
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<tr>
<td>• Regularly self-asses performance and make adjustments as needed to</td>
<td>R3.1.2</td>
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<tr>
<td>meet goals/expectations of the rotation</td>
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<tr>
<td>• Complete formative and summative self-evaluations in a timely fashion</td>
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</tbody>
</table>

**Preceptor Interaction:**

- On the first day of rotation, the resident will receive a calendar of dates/times for specific meetings/discussions have been scheduled and/or preceptor is not available.
- All meetings, including journal clubs and topic discussions, must be scheduled with preceptor in advance via Outlook Calendar requests.
- Preceptor will schedule midpoint and final evaluations.

**Communication:**

- Daily/PRN meetings: Residents are expected to be prepared to discuss patients or topics during these times.
- Email: Preferred for majority of communications, including routine, non-urgent issues and problems. Residents are expected to read emails at a minimum of 3 times per day (beginning, middle, and end of workday).
- Office phone: Appropriate for non-urgent questions.
- Pager: Residents to page preceptor for urgent / emergency situations pertaining to patient care.
- Personal phone number: Provided to resident at time of learning experience for emergency issues or on-call questions that arise after hours.

Last Update 5/16/15
Expected Progression of Resident Responsibility on Rotation:

(Length of time spent in each phase will be customized based upon resident’s abilities and timing of learning experience during the training year)

- Day 1: Preceptor will review learning activities, rotation expectations, and calendar with resident
- Week 1: Resident will be responsible for beginning work-up on all census patients and begin presenting to preceptor daily. Preceptor will define expectations for presentations, attend and participate in team rounds with resident, and model pharmacist’s role on the health care team.
- Week 2 – Week 3: Resident is expected to work independently on rotation learning activities, be responsible for all patients admitted to the service, provide pharmacotherapy recommendations serving as the primary pharmacist on the ICU team, and be prepared for all topic and patient discussions. The preceptor will no longer attend rounds DAILY, but will check in on rounds 3 X a week to support the resident as the pharmacist on the team.
- Week 4: Resident is expected to work independently on rotation learning activities, be responsible for all patients admitted to the service, provide pharmacotherapy recommendations serving as the primary pharmacist on the ICU team, and be prepared for all topic and patient discussions. The preceptor will no longer attend rounds, but will facilitate the resident as the pharmacist on the team.

Evaluation Strategy:

- PharmAcademic will be used for documenting scheduled evaluations. For ALL evaluations in PharmAcademic, the resident and preceptor will independently complete the assigned evaluation and save as a draft. The resident and preceptor will then compare and discuss the evaluations. This discussion will provide feedback both on performance of the activities and the accuracy of the resident’s self-assessment skills. Evaluations will be signed in PharmAcademic following this discussion.
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Rotation Goals and Objectives for PGY-2
Antimicrobial Stewardship Program Rotation

Preceptor:
Carmen M. Faulkner-Fennell, PharmD, BCPS (AQ-ID)
Clinical Pharmacy Specialist, Antimicrobial Stewardship Program
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Rotation Description:
The Adult Antimicrobial Stewardship Program (ASP) rotation is a one month clinical rotation, offered year round by the GHS Department of Pharmacy Services. The GHS Antimicrobial Stewardship Program focuses on providing optimal antimicrobial therapy for all patients at GHS. Appropriate pharmacotherapy of infectious diseases is stressed. The major goal for the critical care resident is to learn principles of antimicrobial therapy that can be applied to any future practice areas. To facilitate the learning process, the critical care resident should identify a few personal educational goals related to antimicrobial stewardship one week prior to the rotation beginning.

Preceptor Responsibilities:
• Serve as a role model in the provision of pharmaceutical care
• Augment the resident’s current understanding of commonly encountered antimicrobial stewardship issues
• Help establish an evidence-based approach to the provision of pharmacotherapy to patients requiring antimicrobial stewardship
• Strengthen the resident’s written and verbal communication skills
• Provide prompt and effective feedback to ensure a valuable learning experience

Disease States/Patient Populations Exposed To:
The Adult Antimicrobial Stewardship rotation primarily deals with an inpatient population suffering from infectious diseases. Common disease states in which the critical care resident will be expected to gain proficiency through literature review, topic discussion, and/or direct patient care experience including, but not limited to:

- Antimicrobial susceptibility testing and interpretation
- Principles of antimicrobial stewardship
- Meningitis/Encephalitis
- Bacteremia/Endocarditis
- Catheter related infections
- Respiratory infections
- Febrile neutropenia
- Fungal infections
- Viral infections
- Urinary tract infections
- Intra-abdominal infections
- Clostridium difficile infections

The critical care resident is expected to understand the pharmacotherapy related to any disease states encountered on rotation within this setting. The preceptor is available for consultation and topic discussions through the communication methods outlined below. Resident learning is predicated not only on the above responsibilities but upon acceptance of personal responsibilities and dedication to direct patient care and project management.

Rotation Goals & Objectives (See RLS objectives associated with below RLS goals):
The goals selected to be taught and evaluated during this learning experience include:

Competency Area R1: Patient Care
• Goal R1.1: In collaboration with the health care team, provide comprehensive medication management to critically ill patients following a consistent patient care process.
  o Objective R1.1.1: (Applying) Interact effectively with health care teams to manage critically ill patients’ medication therapy.
  o Objective R1.1.3: (Analyzing) Collect information on which to base safe and effective medication therapy for critically ill patients.
  o Objective R1.1.4: (Analyzing) Analyze and assess information on which to base safe and effective medication therapy for critically ill patients.
Objective R1.1.5: (Creating) Design, or redesign, safe and effective patient-centered therapeutic regimens and monitoring plans (care plans) for critically ill patients.

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.

Objective R1.1.7: (Applying) For critically ill patients, document direct patient care activities appropriately in the medical record, or where appropriate.

Objective R1.1.8: (Applying) Demonstrate responsibility to critically ill patients for patient outcomes.

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.

Objective R2.1.3: (Applying) Participate in the review of medication event reporting and monitoring related to care for critically ill patients.

Objective R2.1.4: (Analyzing) Identify opportunities for improvement of the medication-use system related to care for critical care patients

Rotation Activities:
The activities assigned to this rotation reflect the activities that antimicrobial stewardship pharmacists are expected to perform. These activities were also selected to help the critical care resident work toward achieving the goals assigned to the learning experience. The table below demonstrates the relationship between the activities the resident will perform and the goals/objectives assigned to the learning experience.

<table>
<thead>
<tr>
<th>Activity</th>
<th>RLS Objectives Covered</th>
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</thead>
</table>
| Attend and participate in all required meetings with and topic discussion with preceptor and other personnel | R1.1.1  
| R1.1.3                                                                  |
| Active participation/interaction in Antimicrobial Stewardship Rounds and with other allied health professionals | R1.1.4  
| R1.1.5                                                                  |
| Prioritize patient care responsibilities with regard to time management with other rotation and outside the rotation responsibilities. | R1.1.6  
| R1.1.7                                                                  |
| Triage, research, and respond to drug information questions from the healthcare team in regards to patient care. | R1.1.8  
| R2.1.3                                                                  |
| Identify, evaluate, and interpret medical literature when responding to pharmacotherapy/drug information inquiries. | R2.1.4  
| Accurately gather, organize, and analyze patient specific information for those identified as needing AST review utilizing AST reports and lists as available in EPIC. Discuss antimicrobial stewardship-related problems and interventions with preceptor daily. | |
| Obtain information from medical record including laboratory data, diagnostic tests, vital signs, physician’s orders, progress notes, and consult notes. | |
| Demonstrate respect for patients, patient family members and other health care professionals. | |
| Show assertiveness and independence by undertaking self-directed responsibilities and articulating personal viewpoint. | |
| Participate in any preparations required for Board of Pharmacy, DHEC, or Joint Commission visits as needed. | |
| Participate in additional departmental quality improvement projects, including MUE, formulary reviews, etc. as assigned. | |
| Appropriately and accurately determines, investigates, reports, tracks and trends adverse drug events, medication errors and efficacy concerns using accepted institutional resources and programs | |
- Prepare and present an agenda item at a bi-monthly Antimicrobial Subcommittee Meeting as opportunities are available
- Attend and actively participate by asking questions in student clinical pearl presentations
- Provide in-service education to physicians, nurses, pharmacists and other health care practitioners when available
- Analyze the patient medical record / medication profiles to address any antimicrobial stewardship interventions that are needed
- Design, recommend, monitor, and re-evaluate patient-specific therapeutic regimens that incorporate the principles of evidence-based medicine
- Actively provide recommendations to clinicians with preceptor direction during ASP rounds or independently during AST review
- Assess the appropriateness of the patient’s antimicrobial regimen based on indications for use, MOA, safety, efficacy, accessibility, cost and compliance.
- Document direct patient-care activities appropriately in EPIC and the patient’s medical record via Antimicrobial Stewardship iVents and progress notes as needed
- Attend the Antimicrobial Subcommittee meeting or the Infection Prevention meeting (which ever meets during the rotation month)
- Attend and participate when opportunities available any other ASP related meetings as deemed a valuable learning experience by the preceptor
- Attend at least one ASP committee meeting at a GHS facility as available
- Write one to two Antimicrobial Stewardship Corner ~250 word articles for the monthly Medical Staff Times newsletter as assigned
- Complete the assigned facility associated C.diff case reviews for the GMH campus and other campuses as assigned
- Other: projects deemed valuable by the preceptor (MUE, data collection for ongoing projects, formal drug information question write-up, formulary reviews for Antimicrobial Subcommittee and P & T, 20-30 minute in-service to a medical team and/or pharmacy staff. Critical care residents are assigned 2-3 other projects based on size and scope.
- Actively participate in ASP topic discussions with preceptor
- Attend resident and student journal clubs as available and be prepared to ask questions. It is expected that articles are read prior to the presentations (Residents)
- Lead assigned topic discussions when pharmacy practice residents or students are on rotation
- Supervise/oversee/co-precept pharmacy practice residents or students as needed

### Preceptor Interaction:
- On the first day of rotation or prior, the critical care resident will receive dates/times for specific meetings/discussions have been scheduled and/or preceptor is not available.
- All meetings, including topic discussions, must be scheduled with preceptor in advance via Outlook Calendar requests.
- Preceptor will schedule midpoint and final evaluations
- Patient care questions can be discussed with the preceptor on a scheduled and PRN basis

### Communication:
- Daily/PRN meetings: Residents are expected to prioritize questions/projects to discuss during these times
- Email: Preferred for majority of communications, including routine, non-urgent issues and problems. Residents are expected to read emails at a minimum of 3 times per day (beginning, middle, and end of workday)
- Office phone: Appropriate for non-urgent questions
- Pager: Residents to page preceptor for urgent / emergency situations pertaining to patient care.
- Personal phone number: Provided to resident at time of learning experience for emergency issues and other communication as discussed with the preceptor. Any texts regarding patient information should be sent via Telmediq.
Expected Progression of Resident Responsibility on Rotation:

(Length of time spent in each phase will be customized based upon resident’s abilities and timing of learning experience during the training year)

- **Day 1:** Preceptor will review learning activities, expectations, assignments, and important dates with resident. Outlook will be utilized appropriately to schedule time with the preceptor.

- **Week 1:** Resident will be responsible for reviewing the positive blood culture list, the stewardship navigator patients, and begin the retrospective reviews of the facility associated C.diff cases on the GMH campus. The urine culture list and other patient lists will be added to the resident review as proficiency is demonstrated. Preceptor will define expectations for presentations, projects and assignments, and attend ASP rounds as available with the resident, and model/facilitate pharmacist’s role in the setting of ASP.

- **Week 2 – Week 4:** Resident is expected to work independently on rotation learning activities, be responsible for reviewing the ASP lists as assigned, provide pharmacotherapy recommendations serving as the primary pharmacist on the ASP, and be prepared for all topic and patient discussions. The preceptor will no longer attend ASP rounds, but will facilitate the resident as the primary ASP pharmacist. The resident will schedule times/rooms for all topic discussions the week prior to the discussion.

**Code of Conduct:**

- All projects, monographs, etc. completed for the rotation will be submitted to the preceptor in an editable format
- Deadlines for all projects and assignments will be discussed and set by the resident and preceptor. Residents should seek feedback PRIOR to the due date at a minimum of 2 working days for the preceptor
- Mobile phones are permitted for professional use while rounding, during meetings, etc, however social texting, social media, shopping, etc are not permitted. Place phones on silent or vibrate when in meetings

**Evaluation Strategy:**

- PharmAcademic will be used for documenting scheduled evaluations. For ALL evaluations in PharmAcademic, the resident and preceptor will independently complete the assigned evaluation and save as a draft. The resident and preceptor will then compare and discuss the evaluations. This discussion will provide feedback both on performance of the activities and the accuracy of the resident’s self-assessment skills. Evaluations will be signed in PharmAcademic following this discussion.

  - **Formative evaluations:** These evaluations are intended to provide feedback to residents on a specific activity, not as an overall generalized evaluation of performance.

  - **Midpoint evaluations:** These scheduled evaluations are intended to provide generalized feedback at the half-way point of the experience. Specific, criteria based comments should be included to provide the resident with information they can use to improve performance in the remaining time spent in the learning experience.

  - **Summative evaluations:** These evaluations summarize the resident’s performance at the conclusion of the experience. Specific, criteria based comments should be included to provide the resident with information they can use to improve performance in subsequent learning experiences.

<table>
<thead>
<tr>
<th>Evaluation Type</th>
<th>Description</th>
<th>Who</th>
<th>When</th>
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<tbody>
<tr>
<td>Formative + Formative Self</td>
<td>Projects and Assignments</td>
<td>Preceptor &amp; Resident</td>
<td>Throughout the project process</td>
</tr>
<tr>
<td>Formative + Formative Self</td>
<td>Presentations</td>
<td>Preceptor &amp; Resident</td>
<td>Following presentations</td>
</tr>
<tr>
<td>Summative + Summative Self</td>
<td>Midpoint Evaluation</td>
<td>Preceptor &amp; Resident</td>
<td>End of week 2</td>
</tr>
<tr>
<td>Summative + Summative Self</td>
<td>Final Evaluation</td>
<td>Preceptor &amp; Resident</td>
<td>End of learning experience</td>
</tr>
<tr>
<td>Preceptor, Learning Experience Evaluation</td>
<td>Preceptor, Learning Experience Evaluation</td>
<td>Resident</td>
<td>End of learning experience</td>
</tr>
</tbody>
</table>
Goals and Objectives for PGY-2 Pediatric ICU Rotation

Preceptor:
Heather N. Hughes, PharmD
Clinical Pharmacy Specialist, Pediatrics
Phone: (864) 455-3733
E-mail: hnhughes@ghs.org

Rotation Description: The Children’s Hospital at Greenville Hospital System University Medical Center includes a 12 bed Level I pediatric intensive care unit (PICU). The unit’s medical staff is composed of 5 Pediatric Intensivists and pediatric medical residents, medicine-pediatric residents, and medical students. The patient population is diverse. Patient populations not covered at Greenville Hospital System University Medical Center include cardiovascular surgery, burns, and transplantation. The Pediatric Intensive Care Unit (PICU) rotation gives the student an opportunity to provide pharmaceutical care to critically ill children at Greenville Memorial Hospital. The resident will design, monitor, and evaluate evidence-based patient specific therapies for PICU patients. Emphasis is also placed on providing other clinical pharmacy services such as drug information and in-services to medical residents/students, pharmacokinetic dosing, medication management review, patient/parent education, and literature review as needed.

Preceptor Responsibilities:
• Serve as a role model in the provision of pharmaceutical care
• Augment the resident’s current understanding of commonly encountered PICU disease states
• Help establish an evidence-based approach to the provision of pharmacotherapy to critically ill patients
• Strengthen the resident’s written and verbal communication skills
• Provide prompt and effective feedback to ensure a valuable learning experience

Potential Topics/Disease States for Discussion:
• Abstinence Syndrome (iatrogenic and Neonatal)
• Acidosis/alkalosis
• Acute renal failure/continuous renal replacement therapy
• Acute respiratory distress syndrome
• Acute upper and lower gastrointestinal bleeding
• Adrenal insufficiency
• Anemia of critical illness
• Agitation and sedation/analgesia in critically ill patients
• Aminoglycoside / Vancomycin Pharmacokinetics
• Community Acquired Pneumonia
• Congenital Heart Disease
• Developmental Pharmacokinetics
• Diabetic ketoacidosis
• Disseminated intravascular coagulation (DIC)
• Drug overdoses and toxicology (APAP, ASA, TCAs / PPG)
• Fluid and electrolytes
• Hepatorenal syndrome
• Meningitis
• Neuromuscular blockade in children
• Parenteral and enteral nutrition
• Pediatric Advanced Life Support
• Pulmonary Hypertension
• RSV
• Shock and related problems
  • Anaphylactic
  • Cardiogenic
  • Hypovolemic/hemorrhagic
  • Septic
• Sickle Cell Crisis
• Status asthmaticus
• Status epilepticus
• Various other patient-specific topics
Rotation Goals/Objectives (See RLS objectives associated with below RLS goals):
The goals selected to be taught and evaluated during this learning experience include:

Competency Area R1: Patient Care
- 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 pediatric patients’ medication therapy.
  - Objective R1.1.2: (Applying) Interact effectively with critically ill pediatric patients, family members, and caregivers.
  - Objective R1.1.3: (Analyzing) Collect information on which to base safe and effective medication therapy for critically ill pediatric patients.
  - Objective R1.1.4: (Analyzing) Analyze and assess information on which to base safe and effective medication therapy for critically ill pediatric patients.
  - Objective R1.1.5: (Creating) Design, or redesign, safe and effective patient-centered therapeutic regimens and monitoring plans (care plans) for critically ill pediatric patients.
  - Objective R1.1.6: (Applying) Ensure implementation of therapeutic regimens and monitoring plans (care plans) for critically ill pediatric patients.
  - Objective R1.1.7: (Applying) For critically ill pediatric patients, document direct patient care activities appropriately in the medical record, or where appropriate.
  - Objective R1.1.8: (Applying) Demonstrate responsibility to critically ill pediatric patients for patient outcomes.
- 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 pediatric patients.

Competency Area R2: Advancing Practice and Improving Patient Care
- Goal R2.1: Demonstrate ability to manage formulary and medication-use processes for critically ill pediatric patients, as applicable to the organization.
  - Objective R2.1.3: (Applying) Participate in the review of medication event reporting and monitoring related to care for critically ill pediatric patients.

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 pediatric patients.
  - Objective R3.1.2: (Applying) Apply a process of ongoing self-evaluation and personal performance improvement in the provision of care for critically ill pediatric patients.
- Goal R3.2: Demonstrate management skills in the provision of care for critically ill pediatric patients.
  - Objective R3.2.2: (Applying) Manage one’s own critical care practice effectively.

Competency Area R4: Teaching, Education, and Dissemination of Knowledge
- Goal R4.1: Provide effective medication and practice-related education to critically ill pediatric patients, caregivers, health care professionals, students, and the public (individuals and groups).
The activities assigned to this rotation reflect the activities a pharmacist working in a PICU environment are expected to perform. These activities were also selected to help the resident work toward achieving the goals assigned to the learning experience. The table below demonstrates the relationship between the activities the resident will perform and the goals/objectives assigned to the learning experience.

<table>
<thead>
<tr>
<th>Activity</th>
<th>RLS Objectives Covered</th>
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<tbody>
<tr>
<td>• Active participation/interaction in daily PICU rounds and with other</td>
<td>R1.1.1, R1.1.2, R1.1.3,</td>
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<td>allied health professionals</td>
<td>R1.1.4, R1.1.5, R1.1.6,</td>
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<tr>
<td>• Provide pharmacotherapy recommendations and drug information to the</td>
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<tr>
<td>team</td>
<td>R3.1.1</td>
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<tr>
<td>• Develop and maintain an effective and comprehensive patient monitoring</td>
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<td>form to identify potential pharmacotherapy interventions</td>
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<td>• Analyze the patient medical record / medication profiles to address</td>
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<td>any specific adjustments to disease state or drug-drug interactions</td>
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<td>• Design, recommend, monitor, and re-evaluate patient-specific</td>
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<td>therapeutic regimens that incorporate the principles of evidence-based</td>
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<td>medicine</td>
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<td>• Document direct patient-care activities appropriately in the patient's</td>
<td>R1.1.7, R2.1.3</td>
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<tr>
<td>medical record (i.e. medication history, pharmacokinetic monitoring)</td>
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<tr>
<td>• Complete event reports for medication errors</td>
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<td>• Ensure continuity of care as patients are admitted to the PICU and</td>
<td>R1.1.1, R1.1.8, R1.2.1</td>
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<td>are transferred to different levels of care throughout the medical</td>
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<td>center by communicating outgoing plans and follow up to the covering</td>
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<td>pharmacist</td>
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<tr>
<td>• Prepare and write-up at least one advanced drug information question</td>
<td>R3.2.2, R4.1</td>
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<tr>
<td>• Attend and actively participate in student journal clubs and</td>
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<td>presentations</td>
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<td>• Provide in-service education to physicians, nurses, and other health</td>
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<td>care practitioners</td>
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<tr>
<td>• Perform weekly topic discussions with preceptor</td>
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<td>• Lead topic discussions when requested by preceptor</td>
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<td>• Participation in MUE/ICU process improvement when applicable</td>
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<td>• Review guidelines and literature for disease states that are new or</td>
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<td>unfamiliar</td>
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<tr>
<td>• Manage time effectively to fulfill practice responsibilities –</td>
<td>R3.1.1, R3.2.2</td>
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<tr>
<td>cover all required service patients, be prompt and prepared for all</td>
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<tr>
<td>patient / topic discussions, complete all assignments</td>
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<tr>
<td>• Regularly self-assess performance and make adjustments as needed</td>
<td>R3.1.2</td>
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<td>to meet goals/expectations of the rotation</td>
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<tr>
<td>• Complete formative and summative self-evaluations in a timely fashion</td>
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**Preceptor Interaction:**
- On the first day of rotation, the resident will receive a calendar of dates/times for specific meetings/discussions/evaluations that have been scheduled and/or dates/times preceptor is not available
- Preceptor will be available most mornings to discuss patient interventions
- Preceptor will be available most afternoons for patient presentations and topic discussions

**Communication:**
- Daily/PRN meetings: Residents are expected to be prepared to discuss patients or topics during these times
- Email: Residents are expected to read emails at a minimum of 3 times per day (beginning, middle, and end of workday). Preferred for non-urgent issues and questions.
- Office phone: Appropriate for non-urgent questions
- Personal phone number: Provided to resident at time of learning experience for urgent / emergency situations pertaining to patient care or on-call questions that arise after hours
Meeting Requirements:
- Preceptor topic discussions
- Resident/students journal clubs and formal presentations
- Pediatric Grand Rounds (Friday 7:30 AM)
- Pediatric Noon Conference (Daily at 12:30 PM) deemed valuable by the preceptor
- Other meetings deemed valuable by the preceptor

Other Resident Requirements:
- (1) Formal Pediatric Critical Care journal club
- (1) 30-minute formal presentation on a pharmacotherapy topic in the context of a patient case
- (1) 15-minute formal in-service to the healthcare team/pharmacy staff on a pharmacotherapy topic
- Review and update of the Critical Care Primary Literature Database
- Participation in MUE/PICU process improvement when applicable
- Participation with student experiential training when applicable
- Other requirements deemed valuable by the preceptor

Expected Progression of Resident Responsibility on Rotation:
(Length of time spent in each phase will be customized based upon resident’s abilities and timing of learning experience during the training year)

- Day 1: Preceptor will review learning activities, expectations, and calendar with resident. Preceptor will define expectations for learning activities.
- Day 2-5: Resident will be responsible for beginning work-up on all census patients and begin presenting to preceptor daily. Preceptor will attend and participate in team rounds with resident and model pharmacist’s role on the healthcare team.
- Week 2 – Week 4: Resident is expected to work independently on rotation learning activities, be responsible for all patients admitted to the service, provide pharmacotherapy recommendations serving as the primary pharmacist on the PICU team, and be prepared for all topic and patient discussions. The preceptor will no longer attend rounds, but will facilitate the resident as the pharmacist on the team.

Evaluation Strategy:
- PharmAcademic will be used for documenting scheduled evaluations. For ALL evaluations in PharmAcademic, the resident and preceptor will independently complete the assigned evaluation and save as a draft. The resident and preceptor will then compare and discuss the evaluations. This discussion will provide feedback both on performance of the activities and the accuracy of the resident’s self-assessment skills. Evaluations will be signed in PharmAcademic following this discussion.
- Formative evaluations: These evaluations are intended to provide feedback to residents on a specific activity, not as an overall generalized evaluation of performance.
- Midpoint evaluations: These scheduled evaluations are intended to provide generalized feedback at the half-way point of the experience. Specific, criteria based comments should be included to provide the resident with information they can use to improve performance in the remaining time spent in the learning experience.
- Summative evaluations: These evaluations summarize the resident’s performance at the conclusion of the experience. Specific, criteria based comments should be included to provide the resident with information they can use to improve performance in subsequent learning experiences.

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<tbody>
<tr>
<td>Formative + Formative Self</td>
<td>Advanced Drug Information Question</td>
<td>Preceptor &amp; Resident</td>
<td>Following final write-up submission</td>
</tr>
<tr>
<td>Formative + Formative Self</td>
<td>In-service Evaluation</td>
<td>Preceptor &amp; Resident</td>
<td>Following in-service</td>
</tr>
<tr>
<td>Formative + Formative Self</td>
<td>Presentations</td>
<td>Preceptor &amp; Resident</td>
<td>Following presentations</td>
</tr>
<tr>
<td>Summative + Summative Self</td>
<td>Midpoint Evaluation</td>
<td>Preceptor &amp; Resident</td>
<td>End of week 2</td>
</tr>
<tr>
<td>Summative + Summative Self</td>
<td>Final Evaluation</td>
<td>Preceptor &amp; Resident</td>
<td>End of learning experience</td>
</tr>
<tr>
<td>Preceptor, Learning Experience</td>
<td>Preceptor, Learning Experience Evaluation</td>
<td>Resident</td>
<td>End of learning experience</td>
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</table>
Goals and Objectives for PGY-2 Neonatal ICU Rotation

Preceptor:
Bethany Lynch, PharmD
Office: (864) 455-1315
E-mail: blynch2@ghs.org

Rotation Description:
This rotation in the neonatal intensive care unit (NICU) is designed to teach the resident how to provide pharmaceutical care services for neonatal patients by applying basic drug principles and critical thinking skills. The rotation will focus on the neonatal disease states commonly seen at our institution and specific issues related to neonatal drug therapy and therapeutic monitoring. Residents will develop clinical skills while actively participating in the pharmacist’s role in this specialized health care team. Each resident will be expected to interact and integrate services with all members of the healthcare team. By the end of the rotation, residents will have greatly increased their knowledge of pharmacotherapeutic principles specific to the neonatal population.

Preceptor Responsibilities:
- Serve as a role model in the provision of pharmaceutical care
- Augment the resident’s current understanding of commonly encountered neonatal ICU disease states
- Help establish an evidence-based approach to the provision of pharmacotherapy to critically ill patients
- Strengthen the resident’s written and verbal communication skills
- Provide prompt and effective feedback to ensure a valuable learning experience

Disease States / Population Exposed:
Common disease states in which the resident will be expected to gain proficiency through literature review, topic discussion, and/or direct patient care experience including, but not limited to:

- Adrenal insufficiency/vasopressor refractory hypotension
- Anemia of Prematurity
- Apnea with bradycardia
- Bronchopulmonary dysplasia
- Cholestasis
- Congenital birth defects
- Congenital diaphragmatic hernia
- Congenital heart disease
- Cytomegalovirus
- Drugs and breastfeeding/pregnancy
- Gastroesophageal reflux
- Gastrochisis
- Group B streptococcus
- Herpes simplex virus
- Hypoxic ischemic encephalopathy
- Immunizations/vaccines
- Intraventricular hemorrhage/periventricular leukomalacia
- Hyperglycemia/Hypoglycemia
- Jaundice/Kernicterus
- Meconium aspiration syndrome
- Meningitis
- Necrotizing Enterocolitis
- Neonatal Abstinence Syndrome (NAS)
- Neonatal nutrition (enteral/parenteral)
- Neonatal hepatic/renal impairment
- Obstetrical emergencies
- Patent ductus arteriosus
- Persistent pulmonary hypertension
- Pharmacokinetics/Pharmacodynamics
- Prematurity (risks, severity, outcomes)
- Respiratory distress syndrome
- Retinopathy of prematurity
- Seizures
- Sepsis (early/late)
- Short bowel syndrome
The resident is expected to understand the pharmacotherapy related to any disease states encountered on rotation within this setting. The preceptor will be available for consultation and topic discussions. Resident learning is predicated not only on the above responsibilities but upon acceptance of personal responsibilities and dedication to direct patient care and team service.

Rotation Goals/Objectives

**Competency Area R1: Patient Care**
- 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.
  - Objective R1.1.2: (Applying) Interact effectively with critically ill patients, family members, and caregivers.
  - Objective R1.1.3: (Analyzing) Collect information on which to base safe and effective medication therapy for critically ill patients.
  - Objective R1.1.4: (Analyzing) Analyze and assess information on which to base safe and effective medication therapy for critically ill patients.
  - Objective R1.1.5: (Creating) Design, or redesign, safe and effective patient-centered therapeutic regimens and monitoring plans (care plans) for critically ill patients.
  - 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.
  - Objective R1.1.7: (Applying) For critically ill patients, document direct patient care activities appropriately in the medical record, or where appropriate.
  - Objective R1.1.8: (Applying) Demonstrate responsibility to critically ill patients for patient outcomes.

- 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.

**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 R2.1.3: (Applying) Participate in the review of medication event reporting and monitoring related to care for critically ill patients.

**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.
  - 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.

- Goal R3.2: Demonstrate management skills in the provision of care for critically ill patients.
  - Objective R3.2.2: (Applying) Manage one’s own critical care practice effectively.

**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).
Rotation Activities:
The activities assigned to this rotation reflect the activities a pharmacist working in ICU environment are expected to perform. These activities were also selected to help the resident work toward achieving the goals assigned to the learning experience. The table below demonstrates the relationship between the activities the resident will perform and the goals/objectives assigned to the learning experience. Differentiations in levels of involvement of students compared to residents will be indicated in parentheses beside the activity.

<table>
<thead>
<tr>
<th>Activity</th>
<th>RLS Objectives Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Active participation/interaction in daily ICU rounds and with other allied health professionals</td>
<td>R1.1.1, R1.1.2, R1.1.3, R1.1.4, R1.1.5, R1.1.6, R3.1.1</td>
</tr>
<tr>
<td>• Provide pharmacotherapy recommendations and drug information to the team</td>
<td></td>
</tr>
<tr>
<td>• Develop and maintain an effective and comprehensive patient monitoring form to identify potential pharmacotherapy interventions</td>
<td></td>
</tr>
<tr>
<td>• Analyze the patient medical record / medication profiles to address any specific adjustments to disease state or drug – drug interactions</td>
<td></td>
</tr>
<tr>
<td>• Design, recommend, monitor, and re-evaluate patient-specific therapeutic regimens that incorporate the principles of evidence-based medicine</td>
<td></td>
</tr>
<tr>
<td>• Document direct patient-care activities appropriately in Pharmacy One Source and the patient’s medical record</td>
<td>R1.7, R2.1.3</td>
</tr>
<tr>
<td>• Ensure continuity of care as patients are admitted to the ICU and are transferred to different levels of care throughout the medical center by communicating outgoing plans and follow up to the covering service PharmD</td>
<td>R1.1.1, R1.1.8, R1.2.1</td>
</tr>
<tr>
<td>• Prepare and write-up at least one advanced drug information question</td>
<td></td>
</tr>
<tr>
<td>• Attend and actively participate in student journal clubs and presentations</td>
<td></td>
</tr>
<tr>
<td>• Provide in-service education to physicians, nurses, and other health care practitioners</td>
<td></td>
</tr>
<tr>
<td>• Perform weekly topic discussions with preceptor</td>
<td>R3.2.2, R4.1</td>
</tr>
<tr>
<td>• Lead topic discussions when requested by preceptor</td>
<td></td>
</tr>
<tr>
<td>• Participation in NICU process improvement when applicable</td>
<td></td>
</tr>
<tr>
<td>• Review guidelines and literature for disease states that are new or unfamiliar</td>
<td></td>
</tr>
<tr>
<td>• Manage time effectively to fulfill practice responsibilities – cover all required service patients, be prompt and prepared for all patient / topic discussions, complete all assignments (Students and Residents)</td>
<td>R3.1.1, R3.2.2</td>
</tr>
<tr>
<td>• Regularly self-asses performance and make adjustments as needed to meet goals/expectations of the rotation</td>
<td>R3.1.2</td>
</tr>
<tr>
<td>• Complete formative and summative self-evaluations in a timely fashion</td>
<td></td>
</tr>
</tbody>
</table>

Preceptor Interaction:
• On the first day of rotation, the resident will receive a calendar of dates/times for specific meetings/discussions have been scheduled and/or preceptor is not available.
• All meetings, including journal clubs and topic discussions, must be scheduled with preceptor in advance via Outlook Calendar requests
• Preceptor will schedule midpoint and final evaluations

Communication:
• Daily/PRN meetings: Residents are expected to be prepared to discuss patients or topics during these times
• Email: Preferred for majority of communications, including routine, non-urgent issues and problems. Residents are expected to read emails at a minimum of 3 times per day (beginning, middle, and end of workday)
• Office phone: Appropriate for non-urgent questions
• Pager: Residents to page preceptor for urgent / emergency situations pertaining to patient care
• Personal phone number: Provided to resident at time of learning experience for emergency issues or on-call questions that arise after hours
Expected Progression of Resident Responsibility on Rotation:

*Length of time spent in each phase will be customized based upon resident’s abilities and timing of learning experience during the training year*

- Day 1: Preceptor will review learning activities, expectations, and calendar with resident
- Week 1: Resident will be responsible for beginning work-up on all census patients and begin presenting to preceptor daily. Preceptor will define expectations for presentations, attend and participate in team rounds with resident, and model pharmacist’s role on the health care team.
- Week 2 – Week 4: Resident is expected to work independently on rotation learning activities, be responsible for all patients admitted to the service, provide pharmacotherapy recommendations serving as the primary pharmacist on the ICU team, and be prepared for all topic and patient discussions. The preceptor will no longer attend rounds, but will facilitate the resident as the pharmacist on the team.

Evaluation Strategy:

- PharmAcademic will be used for documenting scheduled evaluations. For ALL evaluations in Resitrak, the resident and preceptor will independently complete the assigned evaluation and save as a draft. The resident and preceptor will then compare and discuss the evaluations. This discussion will provide feedback both on performance of the activities and the accuracy of the resident’s self-assessment skills. Evaluations will be signed in Resitrak following this discussion.
- Formative evaluations: These evaluations are intended to provide feedback to residents on a specific activity, not as an overall generalized evaluation of performance.
- Midpoint evaluations: These scheduled evaluations are intended to provide generalized feedback at the half-way point of the experience. Specific, criteria based comments should be included to provide the resident with information they can use to improve performance in the remaining time spent in the learning experience.
- Summative evaluations: These evaluations summarize the resident’s performance at the conclusion of the experience. Specific, criteria based comments should be included to provide the resident with information they can use to improve performance in subsequent learning experiences.

<table>
<thead>
<tr>
<th>Evaluation Type</th>
<th>Description</th>
<th>Who</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formative + Formative Self</td>
<td>Journal Club Evaluation</td>
<td>Preceptor &amp; Resident</td>
<td>Following journal club presentation</td>
</tr>
<tr>
<td>Formative + Formative Self</td>
<td>In-service Evaluation</td>
<td>Preceptor &amp; Resident</td>
<td>Following in-service</td>
</tr>
<tr>
<td>Formative + Formative Self</td>
<td>Presentations</td>
<td>Preceptor &amp; Resident</td>
<td>Following presentations</td>
</tr>
<tr>
<td>Summative + Summative Self</td>
<td>Midpoint Evaluation</td>
<td>Preceptor &amp; Resident</td>
<td>End of week 2</td>
</tr>
<tr>
<td>Summative + Summative Self</td>
<td>Final Evaluation</td>
<td>Preceptor &amp; Resident</td>
<td>End of learning experience</td>
</tr>
<tr>
<td>Preceptor, Learning Experience Evaluation</td>
<td>Preceptor, Learning Experience Evaluation</td>
<td>Resident</td>
<td>End of learning experience</td>
</tr>
</tbody>
</table>
Goals and Objectives for PGY2 Emergency Medicine Critical Care Rounding Rotation

Preceptor:
Lyndsay Gormley, PharmD
Clinical Pharmacy Specialist, Critical Care
Office Phone: (864) 455-5521
Cell: (716) 566-0386
Email: lgormley@ghs.org

Rotation Description:
The goal of the Medicine Critical Care Rotation is to provide the resident opportunities to build upon knowledge and skills acquired during their PGY1/PGY2 years and apply them in direct patient care activities in the ICU setting. This is a multidisciplinary team consisting of a pulmonary/critical care board certified attending physician, emergency department residents, and a pharmacist. This experience will expose the resident to the essential roles of the pharmacist in the ICU that may include optimization of medication use through interaction with the team, order review, drug therapy monitoring, monitoring the use of high-risk medications, medication preparation and dispensing, providing of drug information, and obtaining medication histories.

Preceptor Responsibilities:
• Orient resident to the unit and rotation
• Help the resident to acquire basic and advanced knowledge in the management of common urgent/emergent medical problems
• Facilitate an evidence-based approach in creating pharmacotherapy plans for critically ill patients
• Strengthen the resident’s written and verbal communication skills
• Foster a collaboration between the resident and the health care team
• Provide prompt and effective feedback to augment the learning experience

Disease States/Population Exposed:
Common disease states in which the resident will be expected to gain proficiency through literature review, topic discussion, and/or direct patient care experience including, but not limited to:
• Pulmonary embolism/VTE
• Sepsis/septic shock
• Status epilepticus
• Diverticulitis and antibiotics involved
• ACS: STEMI/Non-STEMI/Angina
• Upper and lower GI bleeds
• Trauma alerts and ATLS
• Hypertensive emergency and urgency
• Anticoagulants and reversal agents
• Acidosis/alkalosis
• Acute agitation
• Acute respiratory failure
• Acute renal failure
• Animal bites
• Anticoagulation reversal
• Empiric management of infectious disease
• Fluid and electrolyte abnormalities
• Headaches
• DKA/HHS
• Rapid sequence intubation
• Stroke
• Toxicology
• Colloid/crystalloid resuscitation
• Neuromuscular blockade
• Pain, sedation, and delirium management
• Substance abuse/ETOH withdrawal
• Trauma
The resident is expected to understand the pharmacotherapy related to any disease states encountered on rotation within this setting. The preceptor will be available for consultation and topic discussions. Resident learning is predicted not only on the above responsibilities but upon acceptance of personal responsibilities and dedication to direct patient care and team service.

**Rotation Goals/Objectives (See RLS objectives associated with below RLS goals):**
The goals selected to be taught and evaluated during this learning experience include:

**Competency Area R1: Patient Care**
- 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.
  - Objective R1.1.2 (Applying) Interact effectively with critically ill patients, family members, and caregivers.
  - Objective R1.1.3: (Analyzing) Collect information on which to base safe and effective medication therapy for critically ill patients.
  - Objective R1.1.4: (Analyzing) Analyze and assess information on which to base safe and effective medication therapy for critically ill patients.
  - Objective R1.1.5: (Creating) Design, or redesign, safe and effective patient-centered therapeutic regimens and monitoring plans (care plans) for critically ill patients.
  - Objective R1.1.6: (Applying) Ensure implementation of therapeutic regimens and monitoring plans (care plans) for critically ill patients.
  - Objective R1.1.7: (Applying) For critically ill patients, document direct patient care activities appropriately in the medical record, or where appropriate.
  - Objective R1.1.8: (Applying) Demonstrate responsibility to critically ill patients for patient outcomes.
- 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.

**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 R2.1.3: (Applying) Participate in the review of medication event reporting and monitoring related to care for critically ill patients.

**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.
  - 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.
- Goal R3.2: Demonstrate management skills in the provision of care for critically ill patients.
  - Objective R3.2.2: (Applying) Manage one's own critical care practice effectively.

**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).
Rotation Activities:
The activities assigned to this rotation reflect the activities a pharmacist working in an Emergency Department environment are expected to perform. These activities were also selected to help the resident work toward achieving the goals assigned to the learning experience. The table below demonstrates the relationship between the activities the resident will perform and the goals/objectives assigned to the learning experience.

<table>
<thead>
<tr>
<th>Activity</th>
<th>RLS Objectives Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Engage in daily ICU rounds with the team</td>
<td>R1.1.1</td>
</tr>
<tr>
<td>• Participate in all clinical pharmacy consults including antibiotic selection and dosing, anticoagulation management and toxicology</td>
<td>R1.1.2, R1.1.3</td>
</tr>
<tr>
<td>• Evaluate drug therapy for assigned patients and make recommendations to the team to identify, prevent and resolve drug related problems</td>
<td>R1.1.4</td>
</tr>
<tr>
<td>• Provide concise, applicable, comprehensive, and timely responses to requests for drug information from patients and health care providers</td>
<td>R1.1.5</td>
</tr>
<tr>
<td>• Review patients’ profile (including PMH, FH, SH, laboratory values, medication history) to determine effective and appropriate pharmacotherapy to assigned patients</td>
<td>R1.1.6, R1.1.7</td>
</tr>
<tr>
<td>• Ensure continuity of care as patients are admitted to the to and from the ICU by communicating outgoing plans and follow-up to the covering service PharmD</td>
<td>R1.1.1</td>
</tr>
<tr>
<td>• Document direct patient-care activities appropriately in the patient’s medical record (i.e. medication history, pharmacokinetic monitoring)</td>
<td>R1.1.2, R1.2.1</td>
</tr>
<tr>
<td>• Provide in-service education to physicians, nurses, and other practitioners</td>
<td>R1.1.1</td>
</tr>
<tr>
<td>• Perform weekly topic discussions with preceptor</td>
<td>R.2.1.1</td>
</tr>
<tr>
<td>• Lead topic discussions when requested by preceptor</td>
<td>R.2.2.3</td>
</tr>
<tr>
<td>• Prepare and write-up advanced drug information questions</td>
<td>R4.1.1</td>
</tr>
<tr>
<td>• Participation in MUE and/or quality/process improvement when applicable</td>
<td>R4.1.2</td>
</tr>
<tr>
<td>• Review guidelines and literature for disease states that are new or unfamiliar</td>
<td></td>
</tr>
<tr>
<td>• Participate in medication event reporting and monitoring</td>
<td>R2.1.4</td>
</tr>
<tr>
<td>• Regularly self-assess performance and make adjustments as needed to meet goals/expectations of the rotations</td>
<td>R3.1.2</td>
</tr>
<tr>
<td>• Complete formative and summative self-evaluations in a timely fashion</td>
<td>R3.2.2</td>
</tr>
<tr>
<td>• Demonstrate effective workload and time-management skills</td>
<td></td>
</tr>
</tbody>
</table>

Preceptor Interaction:
- On the first day of rotation, the resident will receive a calendar of dates/times for specific meetings/discussions/evaluations that have been scheduled and/or dates/times preceptor is not available.
- Preceptor will be available most mornings to discuss patient interventions.
- Preceptor will be available most afternoons for patient presentations and topic discussions.
Communication:

- Daily/PRN meetings: Residents are expected to be prepared to discuss patients or topics during these times.
- Email: Residents are expected to read emails at a minimum of 3 times per day (beginning, middle, and end of workday). Preferred for non-urgent issues and questions.
- Office phone: Appropriate for non-urgent questions.
- Personal phone number: Provided to resident at time of learning experience for urgent / emergency situations pertaining to patient care or on-call questions that arise during or after hours.

Expected Progression of Resident Responsibility on Rotation:

(Length of time spent in each phase will be customized based upon resident’s abilities and timing of learning experience during the training year)

- Day 1: Preceptor will review learning activities, expectations, and calendar with resident. Preceptor will define expectations for learning activities.
- Day 2-3: Resident will be responsible for beginning work-up on all census patients and begin presenting to preceptor daily. Preceptor will model pharmacist’s role on the health care team.
- Remainder of Week 1 – Week 4: Resident is expected to work independently on rotation learning activities, be responsible for all patients admitted to the service, provide pharmacotherapy recommendations serving as the primary pharmacist on the team, and be prepared for all topic and patient discussions. The preceptor will no longer attend rounds, but will facilitate the resident as the pharmacist on the team.

Evaluation Strategy:

- PharmAcademic will be used for documenting scheduled evaluations. For ALL evaluations in PharmAcademic, the resident and preceptor will independently complete the assigned evaluation and save as a draft. The resident and preceptor will then compare and discuss the evaluations. This discussion will provide feedback both on performance of the activities and the accuracy of the resident’s self-assessment skills. Evaluations will be signed in PharmAcademic following this discussion.
- Formative evaluations: These evaluations are intended to provide feedback to residents on specific activities, not as an overall generalized evaluation of performance.
- Midpoint evaluations: These scheduled evaluations are intended to provide generalized feedback at the half-way point of the experience. Specific, criteria based comments should be included to provide the resident with information they can use to improve performance in the remaining time spent in the learning experience.
- Summative evaluations: These evaluations summarize the resident’s performance at the conclusion of the experience. Specific, criteria based comments should be included to provide the resident with information they can use to improve performance in subsequent learning experiences.

<table>
<thead>
<tr>
<th>Evaluation Type</th>
<th>Description</th>
<th>Who</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formative + Formative Self</td>
<td>Advanced Drug Information Question</td>
<td>Preceptor &amp; Resident</td>
<td>Following final write-up submission</td>
</tr>
<tr>
<td>Formative + Formative Self</td>
<td>In-service Evaluation</td>
<td>Preceptor &amp; Resident</td>
<td>Following in-service</td>
</tr>
<tr>
<td>Formative + Formative Self</td>
<td>Presentations</td>
<td>Preceptor &amp; Resident</td>
<td>Following presentations</td>
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</tr>
<tr>
<td>Summative + Summative Self</td>
<td>Midpoint Evaluation</td>
<td>Preceptor &amp; Resident</td>
<td>End of week 2</td>
</tr>
<tr>
<td>Summative + Summative Self</td>
<td>Final Evaluation</td>
<td>Preceptor &amp; Resident</td>
<td>End of learning experience</td>
</tr>
<tr>
<td>Preceptor, Learning Experience Evaluation</td>
<td>Preceptor, Learning Experience Evaluation</td>
<td>Resident</td>
<td>End of learning experience</td>
</tr>
</tbody>
</table>
Adult Infectious Diseases Consult Service PGY-2 Rotation Goals and Objectives

Rotation Description:
The Adult Infectious Diseases Consult Service is a four-week clinical rotation, offered year round by the GHS Department of Pharmacy Services. This specialty rotation deals with an inpatient population suffering from a variety of infectious diseases. Pharmacotherapy of infectious diseases is stressed. The major goal for the resident is to learn principles of antimicrobial therapy that can be applied to any future practice areas in critical care. The resident is responsible for the Infectious Diseases Consult service consisting of an ID attending, nurse practitioners, and medical residents and/or students on certain months. Tailoring individual learning goals is an important aspect. To facilitate the learning process, the resident should identify a few personal educational goals one week prior to the rotation beginning.

Experiential Requirement: Completion of PGY-1 ASHP-Accredited Residency Program

Preceptor:
Sarah Withers, PharmD, MS, BCPS
Clinical Pharmacy Specialist, Infectious Diseases
Phone: (864) 455-6651
Email: swithers@ghs.org

Disease States/Patient Populations Exposed To:
The Adult Infectious Diseases Consult Service rotation deals with an inpatient population suffering from infectious diseases. Common disease states in which the resident will be expected to gain proficiency through literature review, topic discussion, and/or direct patient care experience including, but not limited to:

- Acute renal failure/continuous renal replacement therapy
- Endocarditis/Vascular infections
- Osteomyelitis
- Central nervous system infections
- Bacteremia/Sepsis/SIRS
- Catheter related infections
- Respiratory infections
- Febrile neutropenia
- Invasive fungal infections
- Viral infections
- HIV/AIDS
- Opportunistic infections
  - Pneumocystis jiroveci pneumonia (PJP/PCP)
  - Mycobacterium avium complex (MAC)
  - Cryptococcal meningitis
  - Toxoplasmosis
  - Cytomegalovirus (CMV)
- Urinary tract infections
- Sexually transmitted diseases (STDs)
- Intra-abdominal infections

The resident is expected to understand the pharmacotherapy related to any disease states encountered on rotation within this setting. The preceptor will be available for consultation and topic discussions. Resident learning is predicated not only on the above responsibilities but upon acceptance of personal responsibilities and dedication to direct patient care and team service.

Rotation Goals/Objectives: The goals selected to be taught and evaluated during this learning experience include:

Competency Area R1: Patient care

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.
Objective R1.1.2: (Applying) Interact effectively with critically ill patients, family members, and caregivers.
Objective R1.1.3: (Analyzing) Collect information on which to base safe and effective medication therapy for critically ill patients.
Objective R1.1.4: (Analyzing) Analyze and assess information on which to base safe and effective medication therapy for critically ill patients.
Objective R1.1.5: (Creating) Design, or redesign, safe and effective patient-centered therapeutic regimens and monitoring plans (care plans) for critically ill patients.
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.
Objective R1.1.7: (Applying) For critically ill patients, document direct patient care activities appropriately in the medical record, or where appropriate.
Objective R1.1.8: (Applying) Demonstrate responsibility to critically ill patients for patient outcomes.
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.

**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 R2.1.3: (Applying) Participate in the review of medication event reporting and monitoring related to care for critically ill patients.

**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.
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.

**Goal R3.2:** Demonstrate management skills in the provision of care for critically ill patients.
Objective R3.2.2: (Applying) Manage one’s own critical care practice effectively.

**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.

**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.

**Rotation Activities:**
The activities assigned to this rotation reflect the activities a pharmacist working in the inpatient infectious diseases environment are expected to perform. These activities were also selected to help the resident work toward achieving the goals assigned to the learning experience. The table below demonstrates the relationship between the activities the resident will perform and the goals/objectives assigned to the learning experience. Differentiations in levels of involvement of students compared to residents will be indicated in parentheses beside the activity.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Objectives Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Attend and participate in Monday morning check-out rounds at the Infectious Diseases Office in the Memorial Medical Office Building (MMOB) (Students &amp; Residents)</td>
<td>R1.1.1, R1.1.3, R1.1.4, R1.1.5, R1.1.6, R1.1.7, R1.1.8, R1.3.1, R1.3.2, R1.3.3, R3.1.1, R3.2.2, R4.2.1, R4.2.2, E2.1.1</td>
</tr>
<tr>
<td>• Active participation/interaction in Infectious Diseases Consult Service Rounds and with other allied health professionals (Students &amp; Residents)</td>
<td></td>
</tr>
<tr>
<td>• Actively provide recommendations to Infectious Diseases Physicians and allied health professionals when formal rounding is not available (Residents)</td>
<td></td>
</tr>
<tr>
<td>• Provide pharmacotherapy recommendations and drug information to the team (Residents)</td>
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</tr>
<tr>
<td>• Develop and maintain an effective and comprehensive patient monitoring form to identify potential pharmacotherapy interventions (Students &amp; Residents)</td>
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<tr>
<td>• Analyze the patient medical record / medication profiles to address any specific adjustments to disease state or drug – drug interactions (Students &amp; Residents)</td>
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</tr>
<tr>
<td>• Design, recommend, monitor, and re-evaluate patient-specific therapeutic regimens that incorporate the principles of evidence-based medicine (Students &amp; Residents – residents are more independent in recommendations)</td>
<td>R1.1.3, R1.1.4, R1.1.5, R1.1.6, R1.1.7, R1.3.1, R1.3.3, R2.1.3, R3.2.2, R4.1.3</td>
</tr>
<tr>
<td>• Document direct patient-care activities appropriately in the patient’s medical record (Residents)</td>
<td></td>
</tr>
<tr>
<td>Task</td>
<td>Reference Numbers</td>
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<tr>
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<tr>
<td>Ensure continuity of care as patients are admitted to the hospital and are transferred to different levels of care throughout the medical center by communicating outgoing plans and follow up to the covering service PharmD (Residents)</td>
<td>R1.1.2, R1.1.6, R1.1.7, R1.2.1, R1.3.2, R3.1.1, R3.2.2, E2.1.1</td>
</tr>
<tr>
<td>Prepare and present an agenda item at a bi-monthly Antimicrobial Subcommittee Meeting as opportunities are available (Residents)</td>
<td>R1.1.1, R1.3.3, R2.1.1, R3.1.1, R3.2.1, R4.1.1, R4.1.2, R4.1.3, R4.1.4, R4.2.1, R4.2.2, E2.1.1</td>
</tr>
<tr>
<td>Attend and actively participate in student clinical pearl presentations and journal clubs (Students &amp; Residents)</td>
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<tr>
<td>Provide in-service education to physicians, nurses, and other health care practitioners when available (Residents)</td>
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<tr>
<td>Perform topic discussions with preceptor (Students &amp; Residents)</td>
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<tr>
<td>Lead assigned topic discussions (Residents)</td>
<td></td>
</tr>
<tr>
<td>Participation in MUE/AST process improvement when applicable (Students &amp; Residents)</td>
<td></td>
</tr>
<tr>
<td>Manage time effectively to fulfill practice responsibilities – cover all required service patients, be prompt and prepared for all patient / topic discussions, complete all assignments (Students &amp; Residents)</td>
<td>R1.1.1, R1.1.3, R1.1.7, R1.1.8, R1.3.1, R3.1.1, R3.1.2, R3.2.1, R3.2.2</td>
</tr>
<tr>
<td>Attend the Antimicrobial Subcommittee meeting or the Infection Prevention meeting (which ever meets during the rotation month) (Residents &amp; Students)</td>
<td>R1.3.1, R1.3.2, R1.3.3, R2.1.1, R2.1.2, R2.1.4, R3.2.1</td>
</tr>
<tr>
<td>Other: special projects deemed valuable by the preceptor (MUE, data collection, formal drug information question write-up, formulary reviews for Antimicrobial Subcommittee and P &amp; T, 20-30 minute in-service to the medical team and/or pharmacy staff, SHORT article on an infectious disease pharmacotherapy &quot;pearl&quot;. ) (Residents are assigned 1-3 other projects and Students are assigned 1 other project)</td>
<td></td>
</tr>
</tbody>
</table>

**Preceptor Interaction:**

- On the first day of rotation, the resident will receive a calendar of dates/times for specific meetings/discussions have been scheduled and/or preceptor is not available.
- All meetings, including topic discussions, must be scheduled with preceptor in advance via Outlook Calendar requests
- Preceptor will schedule midpoint and final evaluations
- Patient care questions can be discussed with the preceptor on a PRN basis

**Communication:**

- Daily/PRN meetings: Residents are expected to prioritize questions/projects to discuss during these times
- Email: Preferred for majority of communications, including routine, non-urgent issues and problems. Residents are expected to read emails at a minimum of 3 times per day (beginning, middle, and end of workday)
- Office phone: Appropriate for non-urgent questions
- Personal phone number: Provided to resident at time of learning experience for emergency issues or on-call questions that arise after hours

**Expected Progression of Resident Responsibility on Rotation:**

(Length of time spent in each phase will be customized based upon resident's abilities and timing of learning experience during the training year)

- **Day 1:** Preceptor will review learning activities, expectations, and calendar with resident
- **Week 1:** Resident will be responsible for beginning work-up on all census patients and begin presenting to preceptor daily. Preceptor will define expectations for presentations, attend and participate in check-out rounds with resident, and model pharmacist's role on the health care team.
- **Week 2 – Week 4:** Resident is expected to work independently on rotation learning activities, be responsible for all patients admitted to the service, provide pharmacotherapy recommendations serving as the primary pharmacist on the Adult Inpatient Infectious Diseases Consult Service, and be prepared for all topic and patient discussions. The preceptor will no longer attend rounds, but will facilitate the resident as the pharmacist on the team.
Evaluation Strategy:

- PharmAcademic will be used for documenting scheduled evaluations. For ALL evaluations in PharmAcademic, the resident and preceptor will independently complete the assigned evaluation and save as a draft. The resident and preceptor will then compare and discuss the evaluations. This discussion will provide feedback both on performance of the activities and the accuracy of the resident’s self-assessment skills. Evaluations will be signed in PharmAcademic following this discussion.

- **Formative evaluations:** These evaluations are intended to provide feedback to residents on a specific activity, not as an overall generalized evaluation of performance.

- **Midpoint evaluations:** These scheduled evaluations are intended to provide generalized feedback at the half-way point of the experience. Specific, criteria based comments should be included to provide the resident with information they can use to improve performance in the remaining time spent in the learning experience.

- **Summative evaluations:** These evaluations summarize the resident’s performance at the conclusion of the experience. Specific, criteria based comments should be included to provide the resident with information they can use to improve performance in subsequent learning experiences.

<table>
<thead>
<tr>
<th>Evaluation Type</th>
<th>Description</th>
<th>Who</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formative + Formative Self</td>
<td>Project Assignments</td>
<td>Preceptor &amp; Resident</td>
<td>Throughout the project process</td>
</tr>
<tr>
<td>Formative + Formative Self</td>
<td>Presentations</td>
<td>Preceptor &amp; Resident</td>
<td>Following presentations</td>
</tr>
<tr>
<td>Summative + Summative Self</td>
<td>Midpoint Evaluation</td>
<td>Preceptor &amp; Resident</td>
<td>End of week 2</td>
</tr>
<tr>
<td>Summative + Summative Self</td>
<td>Final Evaluation</td>
<td>Preceptor &amp; Resident</td>
<td>End of learning experience</td>
</tr>
<tr>
<td>Preceptor, Learning Experience Evaluation</td>
<td>Preceptor, Learning Experience Evaluation</td>
<td>Resident</td>
<td>End of learning experience</td>
</tr>
</tbody>
</table>
Hematologic Malignancies/Adult Oncology Rotation Syllabus

Preceptor
Christopher Campen
Clinical Pharmacist Hematologic Malignancies/Stem Cell Transplant
Greenville Health System
Department of Pharmacy
65 International Drive
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Cell : 520-488-4353
Email : ccampen@ghs.org

Rotation Description
The Bone Marrow Transplant rotation is an elective option for PGY-2 residents. The resident will have the opportunity to participate in direct patient care on the Leukemia/Stem Cell Transplant clinical service at Greenville Memorial Hospital. This rotation involves the provision of direct pharmaceutical care to patients with a variety of hematologic malignancies including, but not limited to, leukemia, lymphoma, and multiple myeloma.

Preceptor Responsibilities:
- Serve as a role model in the provision of pharmaceutical care
- Augment the resident’s current understanding of commonly encountered critically ill states
- Help establish an evidence-based approach to the provision of pharmacotherapy to bone marrow transplant and leukemic patients
- Strengthen the resident’s written and verbal communication skills
- Provide prompt and effective feedback to ensure a valuable learning experience

Rotation Activities
Patient Care
The resident will be expected to provide direct pharmaceutical care for patients on the service through the daily attendance of multidisciplinary rounds, formulation of drug therapy recommendations, and the provision of other drug information as it arises. Assessment of the resident’s ability to appropriately provide pharmaceutical care will be based on specific activities including:

- Building a patient-specific database via computer, chart, rounds, and patient/caregiver input.
- Specifying therapeutic goals for cancer patients.
- Preparing a disease-state and medication-related problem list.
- Designing and modifying patient-specific pharmacotherapeutic regimens.
- Formulating monitoring strategies for the pharmacotherapeutic plan.
- Recommending or communicating the therapeutic plan.
• Determine the presence of medication therapy problems in a cancer patient’s medication regimen.
• Redesigning or modifying pharmacotherapeutic regimens based on evaluation of monitoring data.
• Identify side effect of chemotherapeutic drugs.
• Providing concise, applicable, and timely responses to requests for drug information from caregivers and/or patients.
• Assess the effectiveness of drug information recommendations

**Rotation Goals/Objectives (See RLS objectives associated with below RLS goals):**
The goals selected to be taught and evaluated during this learning experience include:

**Competency Area R1: Patient Care**
- 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.
  - Objective R1.1.2 (Applying) Interact effectively with critically ill patients, family members, and caregivers.
  - Objective R1.1.3: (Analyzing) Collect information on which to base safe and effective medication therapy for critically ill patients.
  - Objective R1.1.4: (Analyzing) Analyze and assess information on which to base safe and effective medication therapy for critically ill patients.
  - Objective R1.1.5: (Creating) Design, or redesign, safe and effective patient-centered therapeutic regimens and monitoring plans (care plans) for critically ill patients.
  - 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.
  - Objective R1.1.7: (Applying) For critically ill patients, document direct patient care activities appropriately in the medical record, or where appropriate.
  - Objective R1.1.8: (Applying) Demonstrate responsibility to critically ill patients for patient outcomes.
- 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.

**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 R2.1.3: (Applying) Participate in the review of medication event reporting and monitoring related to care for critically ill patients.

**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.
  o Objective R3.1.1: (Applying) Demonstrate personal, interpersonal, and teamwork skills critical for effective leadership in the provision of care for critically ill patients.
  o 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.
• Goal R3.2: Demonstrate management skills in the provision of care for critically ill patients.
  o Objective R3.2.2: (Applying) Manage one’s own critical care practice effectively.

**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).

**Rotation Activities:**
The activities assigned to this rotation reflect the activities a pharmacist working with critically ill leukemia and stem cell transplant patients are expected to perform. These activities were also selected to help the resident work toward achieving the goals assigned to the learning experience. The table below demonstrates the relationship between the activities the resident will perform and the goals/objectives assigned to the learning experience.

<table>
<thead>
<tr>
<th>Activity</th>
<th>RLS Objectives Covered</th>
</tr>
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<tbody>
<tr>
<td>• Active participation/interaction in daily leukemia/stem cell transplant rounds and with other allied health professionals</td>
<td>R1.1.1, R1.1.2, R1.1.3, R1.1.4, R1.1.5, R1.1.6, R3.1.1</td>
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<tr>
<td>• Provide pharmacotherapy recommendations and drug information to the team</td>
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<tr>
<td>• Develop and maintain an effective and comprehensive patient monitoring form to identify potential pharmacotherapy interventions</td>
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<tr>
<td>• Analyze the patient medical record / medication profiles to address any specific adjustments to disease state or drug-drug interactions</td>
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<tr>
<td>• Design, recommend, monitor, and re-evaluate patient-specific therapeutic regimens that incorporate the principles of evidence-based medicine</td>
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<tr>
<td>• Document direct patient-care activities appropriately in the patient’s medical record (i.e. medication history, pharmacokinetic monitoring)</td>
<td>R1.1.7, R2.1.3</td>
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<tr>
<td>• Complete event reports for medication errors</td>
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</table>
• Ensure continuity of care between inpatient and outpatient services as patients are admitted to the leukemia/stem cell transplant unit and are transferred to different levels of care throughout the medical center by communicating outgoing plans and follow up to the covering service PharmD

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<tr>
<th>R1.1.1, R1.1.8, R1.2.1</th>
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• Prepare and write-up at least one advanced drug information question
• Attend and actively participate in student journal clubs and presentations
• Provide in-service education to physicians, nurses, and other health care practitioners
• Perform at a minimum weekly topic discussions with preceptor
• Lead topic discussions when requested by preceptor
• Participation in MUE/BMT process improvement when applicable
• Review guidelines and literature for disease states that are new or unfamiliar

<table>
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<tr>
<th>R3.2.2, R4.1</th>
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• Manage time effectively to fulfill practice responsibilities – cover all required service patients, be prompt and prepared for all patient / topic discussions, complete all assignments

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<tr>
<th>R3.1.1, R3.2.2</th>
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• Regularly self-asses performance and make adjustments as needed to meet goals/expectations of the rotation
• Complete formative and summative self-evaluations in a timely fashion

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<th>R3.1.2</th>
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**Evaluations**

Residents will be evaluated using the standard evaluation form for their residency program. Self and site evaluations should be completed by the resident at the appropriate predetermined time points.

• Residents will be provide topics discussions that are of pertinent interest during the rotation in order to facilitate areas of learning that arise during rounds. The resident will also be oriented as to the oncology floors, the role of a clinical pharmacist on a hematological malignancy/stem cell transplant service and clinical research duties of the pharmacist.
• Midpoint evaluations will be completed about halfway through the 4 week rotations. The evaluation will be based on the current progress of the resident on service and the completion of their goals during the rotations.
• The final evaluation will be completed at the end of the 4 week rotation period. The focus will be to evaluate the resident’s growth as a pharmacist in the oncology setting among other healthcare providers.
**Topic Discussions**
A schedule of topic discussions will be prepared at the start of the rotation. The resident should be prepared to conduct and lead approximately one to two topic discussions per week. Suggested readings will be provided, although residents are responsible for performing their own literature searches as necessary for discussions and/or rounds. Topics may include, but not be limited to the following, as the residents background and/or interests permit:

Required reviews
- Neutropenic fever
- Tumor lysis syndrome
- Chemotherapy-induced nausea and vomiting/GI toxicities
- Pain management
- Acute leukemia (AML, APL, ALL)
- Stem Cell Transplant
  - Complications of stem cell transplant including:
    - Chemotherapy related complications/prevention
    - Acute Graft Versus Host Disease – Prevention/Treatment
    - Chronic Graft Versus Host Disease – Prevention/Treatment
    - Infectious complications including bacterial, viral, and fungal
    - Transplant associated thrombotic microangiopathy
    - Veno-occlusive disease
    - Renal complications
    - Iron overload
    - Pulmonary Complications (non-infectious)

The resident will be expected to understand the epidemiology, etiology and risk factors, pathophysiology, clinical presentation, prognosis, and treatments as they relate to the above listed topics.

**Inservice/Project**
The resident will be required to present one inservice to nursing, pharmacy, or the medical team. Additionally, specific projects may be assigned for the education of nursing, pharmacy, and/or medical team.

**Conferences**
All residents will be required to attend the Section of BMT Patient Review Conference held on Tuesdays at 3:30 pm. Monthly heme path board will also occur when possible.

**Cases/Discussions**
The resident will at a minimum be required to present patient cases once a week. The resident will be required to discuss at a minimum 1 disease state or supportive care topic a week.

**Other Activities**
There are ample opportunities to work on case related projects for future studies and/or publications/patient case reports and participate in medical use evaluation of oncology drugs administered in the inpatient setting.
References
Articles provided during the rotation are used as a foundation for learning about hematology and transplant related topics. The reading materials will be provided during rotation for core and accessory topic discussions. Certain article readings will be required early in the rotation to have an understanding of inpatient hematology patient care.

Resident References

Neutropenic Fever

Oncologic Emergencies: Tumor Lysis Syndrome / Hypercalcemia

Chemotherapy-Induced Nausea and Vomiting

Acute Leukemias

Transplant Topics
1. To be supplied
Goals and Objectives for PGY2 Emergency Medicine Rotation

Preceptor:
Lyndsay Gormley, PharmD
Clinical Pharmacy Specialist, Critical Care
Office Phone: (864) 455-5521
Cell: (716) 566-0386
Email: lgormley@ghs.org

Rotation Description:
The goal of the Emergency Department Experience is to provide the resident opportunities to build upon knowledge and skills acquired during their critical care year and apply them in direct patient care activities in the Emergency Department setting. This experience will expose the resident to the essential roles of the pharmacist in the Emergency Trauma Center that may include optimization of medication use through interaction with the Emergency Medicine team, order review, drug therapy monitoring, monitoring the use of high-risk medications, medication preparation and dispensing, providing of drug information, and obtaining medication histories.

Preceptor Responsibilities:
• Orient resident to the unit and rotation
• Help the resident to acquire basic and advanced knowledge in the management of common urgent/emergent medi cal problems
• Facilitate an evidence-based approach in creating pharmacotherapy plans for critically ill patients
• Strengthen the resident’s written and verbal communication skills
• Foster a collaboration between the resident and the health care team
• Provide prompt and effective feedback to augment the learning experience

Disease States/Population Exposed:
Common disease states in which the resident will be expected to gain proficiency through literature review, topic discussion, and/or direct patient care experience including, but not limited to:

- Pulmonary embolism/VTE
- Sepsis/septic shock
- Status epilepticus
- Diverticulitis and antibiotics involved
- ACS: STEMI/Non-STEMI/Angina
- Upper and lower GI bleeds
- Trauma alerts and ATLS
- Hypertensive emergency and urgency
- Anticoagulants and reversal agents
- Acidosis/alkalosis
- Acute agitation
- Acute respiratory failure
- Acute renal failure
- Animal bites
- Anticoagulation reversal
- Empiric management of infectious disease
- Fluid and electrolyte abnormalities
- Headaches
- DKA/HHS
- Rapid sequence intubation
- Stroke
- Toxicology
- Trauma

The resident is expected to understand the pharmacotherapy related to any disease states encountered on rotation within this setting. The preceptor will be available for consultation and topic discussions. Resident learning is predicted not only on the above responsibilities but upon acceptance of personal responsibilities and dedication to direct patient care and team service.
Rotation Goals/Objectives (See RLS objectives associated with below RLS goals):
The goals selected to be taught and evaluated during this learning experience include:

**Competency Area R1: Patient Care**
- 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.
  - Objective R1.1.2 (Applying) Interact effectively with critically ill patients, family members, and caregivers.
  - Objective R1.1.3: (Analyzing) Collect information on which to base safe and effective medication therapy for critically ill patients.
  - Objective R1.1.4: (Analyzing) Analyze and assess information on which to base safe and effective medication therapy for critically ill patients.
  - Objective R1.1.5: (Creating) Design, or redesign, safe and effective patient-centered therapeutic regimens and monitoring plans (care plans) for critically ill patients.
  - Objective R1.1.6: (Analyzing) Analyze and assess information on which to base safe and effective medication therapy for critically ill patients.
  - Objective R1.1.7: (Analyzing) For critically ill patients, document direct patient care activities appropriately in the medical record, or where appropriate.
  - Objective R1.1.8: (Applying) Demonstrate responsibility to critically ill patients for patient outcomes.
- 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.

**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 R2.1.3: (Applying) Participate in the review of medication event reporting and monitoring related to care for critically ill patients.

**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.
  - 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.
- Goal R3.2: Demonstrate management skills in the provision of care for critically ill patients.
  - Objective R3.2.2: (Applying) Manage one’s own critical care practice effectively.

**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).
**Rotation Activities:**
The activities assigned to this rotation reflect the activities a pharmacist working in an Emergency Department environment are expected to perform. These activities were also selected to help the resident work toward achieving the goals assigned to the learning experience. The table below demonstrates the relationship between the activities the resident will perform and the goals/objectives assigned to the learning experience.

<table>
<thead>
<tr>
<th>Activity</th>
<th>RLS Objectives Covered</th>
</tr>
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<tbody>
<tr>
<td>• Attend and participate in all medical and surgical emergencies including cardiac arrest, strokes, traumas and rapid sequence intubation</td>
<td>R1.1.1</td>
</tr>
<tr>
<td>• Obtain medication histories</td>
<td>R1.1.2</td>
</tr>
<tr>
<td>• Participate in all clinical pharmacy consults including antibiotic selection and dosing, anticoagulation management and toxicology</td>
<td>R1.1.3</td>
</tr>
<tr>
<td>• Evaluate drug therapy for assigned patients and make recommendations to the team.</td>
<td>R1.1.4</td>
</tr>
<tr>
<td>• Identify, prevent and resolve drug related problems</td>
<td>R1.1.5</td>
</tr>
<tr>
<td>• Provide concise, applicable, comprehensive, and timely responses for drug information from patients and health care providers</td>
<td>R1.1.6</td>
</tr>
<tr>
<td>• Review patients’ profile (including PMH, FH, SH, laboratory values, medication history) to determine effective and appropriate pharmacotherapy to assigned patients</td>
<td>R1.1.7</td>
</tr>
<tr>
<td>• Ensure continuity of care as patients are admitted to the ICU from the ED by communicating outgoing plans and follow-up to the covering service PharmD</td>
<td>R1.1.8</td>
</tr>
<tr>
<td>• Document direct patient-care activities appropriately in the patient's medical record (i.e. medication history, pharmacokinetic monitoring)</td>
<td>R1.2.1</td>
</tr>
<tr>
<td>• Provide in-service education to physicians, nurses, and other practitioners</td>
<td>R1.1.9</td>
</tr>
<tr>
<td>• Perform weekly topic discussions with preceptor</td>
<td>R2.1.1</td>
</tr>
<tr>
<td>• Lead topic discussions when requested by preceptor</td>
<td>R2.1.2</td>
</tr>
<tr>
<td>• Participation in MUE and/or quality/process improvement when applicable</td>
<td>R4.1.1</td>
</tr>
<tr>
<td>• Review guidelines and literature for disease states that are new or unfamiliar</td>
<td>R4.1.2</td>
</tr>
<tr>
<td>• Review discharge prescriptions for appropriateness and completeness</td>
<td>R1.1.5</td>
</tr>
<tr>
<td>• Provide discharge medication education</td>
<td>R1.1.8</td>
</tr>
<tr>
<td>• Determine if patients will need prior authorization prior to dispensing</td>
<td>R1.2.1</td>
</tr>
<tr>
<td>• Participate in medication event reporting and monitoring</td>
<td>R2.1.4</td>
</tr>
<tr>
<td>• Regularly self-assess performance and make adjustments as needed to meet goals/expectations of the rotations</td>
<td>R3.1.2</td>
</tr>
<tr>
<td>• Complete formative and summative self-evaluations in a timely fashion</td>
<td></td>
</tr>
<tr>
<td>• Demonstrates effective workload and time-management skills</td>
<td>R3.2.2</td>
</tr>
</tbody>
</table>

**Preceptor Interaction:**
- On the first day of rotation, the resident will receive a calendar of dates/times for specific meetings/discussions/evaluations that have been scheduled and/or dates/times preceptor is not available
- Preceptor will be available most mornings to discuss patient interventions
- Preceptor will be available most afternoons for patient presentations and topic discussions
Communication:

- Daily/PRN meetings: Residents are expected to be prepared to discuss patients or topics during these times.
- Email: Residents are expected to read emails at a minimum of 3 times per day (beginning, middle, and end of workday). Preferred for non-urgent issues and questions.
- Office phone: Appropriate for non-urgent questions.
- Personal phone number: Provided to resident at time of learning experience for urgent / emergency situations pertaining to patient care or on-call questions that arise during or after hours.

Expected Progression of Resident Responsibility on Rotation:

*(Length of time spent in each phase will be customized based upon resident’s abilities and timing of learning experience during the training year)*

- Day 1: Preceptor will review learning activities, expectations, and calendar with resident. Preceptor will define expectations for learning activities.
- Day 2-3: Resident will be responsible for beginning work-up on all census patients and begin presenting to preceptor daily. Preceptor will model pharmacist’s role on the health care team.
- Remainder of Week 1 – Week 4: Resident is expected to work independently on rotation learning activities, be responsible for all patients admitted to the service, provide pharmacotherapy recommendations serving as the primary pharmacist on the team, and be prepared for all topic and patient discussions. The preceptor will no longer attend rounds, but will facilitate the resident as the pharmacist on the team.

Evaluation Strategy:

- PharmAcademic will be used for documenting scheduled evaluations. For ALL evaluations in PharmAcademic, the resident and preceptor will independently complete the assigned evaluation and save as a draft. The resident and preceptor will then compare and discuss the evaluations. This discussion will provide feedback both on performance of the activities and the accuracy of the resident’s self-assessment skills. Evaluations will be signed in PharmAcademic following this discussion.
- Formative evaluations: These evaluations are intended to provide feedback to residents on specific activities, not as an overall generalized evaluation of performance.
- Midpoint evaluations: These scheduled evaluations are intended to provide generalized feedback at the half-way point of the experience. Specific, criteria based comments should be included to provide the resident with information they can use to improve performance in the remaining time spent in the learning experience.
- Summative evaluations: These evaluations summarize the resident’s performance at the conclusion of the experience. Specific, criteria based comments should be included to provide the resident with information they can use to improve performance in subsequent learning experiences.

<table>
<thead>
<tr>
<th>Evaluation Type</th>
<th>Description</th>
<th>Who</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formative + Formative Self</td>
<td>Advanced Drug Information Question</td>
<td>Preceptor &amp; Resident</td>
<td>Following final write-up submission</td>
</tr>
<tr>
<td>Formative + Formative Self</td>
<td>In-service Evaluation</td>
<td>Preceptor &amp; Resident</td>
<td>Following in-service</td>
</tr>
<tr>
<td>Formative + Formative Self</td>
<td>Presentations</td>
<td>Preceptor &amp; Resident</td>
<td>Following presentations</td>
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</tr>
<tr>
<td>Summative + Summative Self</td>
<td>Midpoint Evaluation</td>
<td>Preceptor &amp; Resident</td>
<td>End of week 2</td>
</tr>
<tr>
<td>Summative + Summative Self</td>
<td>Final Evaluation</td>
<td>Preceptor &amp; Resident</td>
<td>End of learning experience</td>
</tr>
<tr>
<td>Preceptor, Learning Experience Evaluation</td>
<td>Preceptor, Learning Experience Evaluation</td>
<td>Resident</td>
<td>End of learning experience</td>
</tr>
</tbody>
</table>
Section 7. Evaluation Process
PGY2 Residency Evaluation Process

Evaluation Strategy:
- PharmAcademic will be used for documenting scheduled evaluations. For ALL evaluations in PharmAcademic, the resident and preceptor will independently complete the assigned evaluation and save as a draft. The resident and preceptor will then compare and discuss the evaluations. This discussion will provide feedback both on performance of the activities and the accuracy of the resident's self-assessment skills. Evaluations will be signed in PharmAcademic following this discussion.
- Formative evaluations: These evaluations are intended to provide feedback to residents on a specific activity, not as an overall generalized evaluation of performance.
- Midpoint evaluations: These scheduled evaluations are intended to provide generalized feedback at the half-way point of the experience. Specific, criteria based comments should be included to provide the resident with information they can use to improve performance in the remaining time spent in the learning experience.
- Summative evaluations: These evaluations summarize the resident's performance at the conclusion of the experience. Specific, criteria based comments should be included to provide the resident with information they can use to improve performance in subsequent learning experiences.

Resident's Evaluation of Preceptor and Rotation Experience
Each resident will complete an evaluation of the preceptor and rotation experience at the end of each rotation. If two consecutive months are spent in a single area with the same preceptor, only one preceptor/rotation evaluation need be completed for that rotation.

Preceptor's Evaluation of Resident's Rotation Performance
Each preceptor will complete a criteria-based evaluation of the resident at the end of each rotation. The evaluation is to be discussed with the resident. If more than one consecutive month is spent in a specific area with the same preceptor, only one evaluation form needs to be completed for that rotation. A midpoint evaluation will be completed by the preceptor at the midpoint of the rotation (ex. after two weeks of a one-month rotation and at the end of the first month of a two-month rotation).

Longitudinal Evaluation Process
The following longitudinal activities will be evaluated at least once per quarter: Operations/Staffing Experience, Medication Use Evaluation and Resident Research Project, Resident Presentations, and Participation in the On-Call / Pharmacokinetics Service. The evaluations must be completed in a timely manner to allow adequate time for the Residency Program Director to communicate any feedback and areas for improvement to the resident.

Operations/Staffing/On-Call/Pk
R1.3.1: (Applying) Facilitate delivery of medications for critically ill patients following best practices and local organization policies and procedures.
R1.3.3: (Applying) Facilitate aspects of the medication-use process for critically ill patients.

Medication Use Evaluation & Research Project
R1.1.4: (Analyzing) Analyze and assess information on which to base safe and effective medication therapy for critically ill patients.
R1.1.5: (Creating) Design, or redesign, safe and effective patient-centered therapeutic regimens and monitoring plans (care plans) for critically ill patients.
R1.1.6: (Applying) Ensure implementation of therapeutic regimens and monitoring plans (care plans) for critically ill patients by taking appropriate follow-up actions.
R1.1.7: (Applying) For critically ill patients, document direct patient care activities appropriately in the medical record, or where appropriate.
R1.1.8: (Applying) Demonstrate responsibility to critically ill patients for patient outcomes.
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.

R2.1.2: (Evaluating) Participate in a medication-use evaluation related to care for critically ill patients.

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.

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.

R2.2.3: (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.

R2.2.4: (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.

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.

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.

Presentations

R4.1.1: (Applying) Design effective educational activities related to critical care pharmacy.

R4.1.2: (Applying) Use effective presentation and teaching skills to deliver education related to critical care pharmacy.

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

Residency Progress Reports:
The Residency Program Director (RPD) will review the resident's progress toward achieving program goals and objectives on a quarterly basis, at minimum. The Residency Program Director will provide timely, verbal feedback to the resident and document the information in PharmAcademic. Each resident will review, comment, and co-sign each Residency Progress Report in PharmAcademic.

<table>
<thead>
<tr>
<th>EVALUATION</th>
<th>METHOD</th>
<th>FREQUENCY</th>
<th>RESPONSIBILITY</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td>RESIDENT</td>
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<tr>
<td><strong>ROTATION</strong></td>
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<tr>
<td>Formative + Formative-Self</td>
<td>Specific Activity</td>
<td>Following activity</td>
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<tr>
<td>Rotation Midpoint</td>
<td>RLS Outcomes, Goals &amp; Objectives</td>
<td>Midpoint of Rotation</td>
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<tr>
<td>Summative + Summative-Self</td>
<td>RLS Outcomes, Goals &amp; Objectives</td>
<td>End of Rotation</td>
<td>X</td>
</tr>
<tr>
<td>Preceptor, Learning Experience Evaluation</td>
<td>Likert-scored questions with comments</td>
<td>End of Rotation</td>
<td>X</td>
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<tr>
<td><strong>QUARTERLY</strong></td>
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<tr>
<td>Operations and Staffing</td>
<td>RLS Outcomes, Goals &amp; Objectives</td>
<td>Quarterly</td>
<td>X</td>
</tr>
<tr>
<td>Residency Projects</td>
<td>RLS Outcomes, Goals &amp; Objectives</td>
<td>Quarterly</td>
<td>X</td>
</tr>
<tr>
<td>Resident Presentations</td>
<td>RLS Outcomes, Goals &amp; Objectives</td>
<td>Quarterly</td>
<td>X</td>
</tr>
<tr>
<td>Clinical On-call and Pk</td>
<td>RLS Outcomes, Goals &amp; Objectives</td>
<td>Quarterly</td>
<td>X</td>
</tr>
<tr>
<td><strong>OTHER</strong></td>
<td></td>
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<tr>
<td>Orientation (Pre-Assessment)</td>
<td>Likert-scored questions with comments</td>
<td>End of Orientation</td>
<td>X</td>
</tr>
<tr>
<td>Summary</td>
<td>Narrative and RLS Outcomes, Goals &amp; Objectives</td>
<td>End of Program</td>
<td>X</td>
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<tr>
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</tr>
<tr>
<td>Residency Program (Post-Assessment)</td>
<td>Likert-scored questions with comments</td>
<td>End of Program</td>
<td>X</td>
</tr>
<tr>
<td>R1.1.1: (Applying)</td>
<td>Interact effectively with health care teams to manage critically ill patients’ medication therapy.</td>
<td>DPC</td>
<td>Staffing</td>
</tr>
<tr>
<td>-------------------</td>
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</tr>
<tr>
<td>R1.1.2: (Applying)</td>
<td>Interact effectively with critically ill patients, family members, and caregivers.</td>
<td>TE</td>
<td>T</td>
</tr>
<tr>
<td>R1.1.3: (Analyzing)</td>
<td>Collect information on which to base safe and effective medication therapy for critically ill patients.</td>
<td>TE</td>
<td>T</td>
</tr>
<tr>
<td>R1.1.4: (Analyzing)</td>
<td>Analyze and assess information on which to base safe and effective medication therapy for critically ill patients.</td>
<td>TE</td>
<td>TE</td>
</tr>
<tr>
<td>R1.1.5: (Creating)</td>
<td>Design, or redesign, safe and effective patient-centered therapeutic regimens and monitoring plans (care plans) for critically ill patients.</td>
<td>TE</td>
<td>TE</td>
</tr>
<tr>
<td>R1.1.6: (Applying)</td>
<td>Ensure implementation of therapeutic regimens and monitoring plans (care plans) for critically ill patients by taking appropriate follow-up actions.</td>
<td>TE</td>
<td>TE</td>
</tr>
<tr>
<td>R1.1.7: (Applying)</td>
<td>For critically ill patients, document direct patient care activities appropriately in the medical record, or where appropriate.</td>
<td>TE</td>
<td>TE</td>
</tr>
<tr>
<td>R1.1.8: (Applying)</td>
<td>Demonstrate responsibility to critically ill patients for patient outcomes.</td>
<td>TE</td>
<td>TE</td>
</tr>
<tr>
<td>R1.2.1: (Applying)</td>
<td>Manage transitions of care effectively for critically ill patients.</td>
<td>TE</td>
<td></td>
</tr>
<tr>
<td>R1.3.1: (Applying)</td>
<td>Facilitate delivery of medications for critically ill patients following best practices and local organization policies and procedures.</td>
<td>TE</td>
<td>TE</td>
</tr>
<tr>
<td>R1.3.2: (Applying)</td>
<td>Manage aspects of the medication-use process related to formulary management for critically ill patients.</td>
<td>TE</td>
<td>TE</td>
</tr>
<tr>
<td>R1.3.3: (Applying)</td>
<td>Facilitate aspects of the medication-use process for critically ill patients.</td>
<td>TE</td>
<td>TE</td>
</tr>
<tr>
<td>R2.1.1: (Creating)</td>
<td>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.</td>
<td>TE</td>
<td>TE</td>
</tr>
<tr>
<td>R2.1.2: (Evaluating)</td>
<td>Participate in a medication-use evaluation related to care for critically ill patients.</td>
<td>TE</td>
<td></td>
</tr>
<tr>
<td>R2.1.3: (Applying)</td>
<td>Participate in the review of medication event reporting and monitoring related to care for critically ill patients.</td>
<td>TE</td>
<td>TE</td>
</tr>
<tr>
<td>R2.1.4: (Analyzing)</td>
<td>Identify opportunities for improvement of the medication-use system related to care for critical care patients.</td>
<td>TE</td>
<td></td>
</tr>
<tr>
<td>R2.2.1: (Analyzing)</td>
<td>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.</td>
<td>TE</td>
<td></td>
</tr>
<tr>
<td>R2.2.2: (Creating)</td>
<td>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.</td>
<td>TE</td>
<td></td>
</tr>
<tr>
<td>R2.2.3: (Evaluating)</td>
<td>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.</td>
<td>TE</td>
<td></td>
</tr>
<tr>
<td>R2.2.4: (Applying)</td>
<td>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.</td>
<td>TE</td>
<td></td>
</tr>
<tr>
<td>R2.2.5: (Evaluating)</td>
<td>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.</td>
<td>TE</td>
<td></td>
</tr>
<tr>
<td>R2.2.6: (Creating)</td>
<td>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.</td>
<td>TE</td>
<td></td>
</tr>
<tr>
<td>R3.1.1: (Applying)</td>
<td>Demonstrate personal, interpersonal, and teamwork skills critical for effective leadership in the provision of care for critically ill patients.</td>
<td>TE</td>
<td></td>
</tr>
<tr>
<td>R3.1.2: (Applying)</td>
<td>Apply a process of ongoing self-evaluation and personal performance improvement in the provision of care for critically ill patients.</td>
<td>TE</td>
<td></td>
</tr>
<tr>
<td>R3.2.1: (Applying)</td>
<td>Contribute to critical care pharmacy departmental management.</td>
<td>TE</td>
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<tr>
<td>R3.2.2: (Applying)</td>
<td>Manage one’s own critical care practice effectively.</td>
<td>TE</td>
<td></td>
</tr>
<tr>
<td>R4.1.1: (Applying)</td>
<td>Design effective educational activities related to critical care pharmacy.</td>
<td>TE</td>
<td></td>
</tr>
<tr>
<td>R4.1.2: (Applying)</td>
<td>Use effective presentation and teaching skills to deliver education related to critical care pharmacy.</td>
<td>TE</td>
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</tr>
<tr>
<td>R4.1.3: (Applying)</td>
<td>Use effective written communication to disseminate knowledge related to critical care pharmacy.</td>
<td>TE</td>
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<tr>
<td>R4.1.4: (Applying)</td>
<td>Appropriately assess effectiveness of education related to critical care pharmacy.</td>
<td>TE</td>
<td></td>
</tr>
<tr>
<td>R4.2.1: (Applying)</td>
<td>When engaged in teaching related to critical care, select a preceptor role that meets learners’ educational needs.</td>
<td>TE</td>
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</tr>
<tr>
<td>R4.2.2: (Applying)</td>
<td>Effectively employ preceptor roles, as appropriate, when instructing, modeling, coaching, or facilitating skills related to critical care.</td>
<td>TE</td>
<td></td>
</tr>
</tbody>
</table>
**Resident Evaluations**

**Definitions**
Each rating should have accurate and objective comments documented within the evaluation that provide and explanation for the chosen rating.

<table>
<thead>
<tr>
<th>NI = Needs Improvement</th>
<th>The resident’s level of skill on the goal does not meet the preceptor’s standards of either “Achieved” of “Satisfactory Progress”. This means the resident could not: • Complete tasks or assignments without complete guidance from start to finish, OR • The resident could not gather even basic information to answer general patient care questions, OR • Other unprofessional actions can be used to determine that the resident needs improvement. There was a general lack of improvement over the course of the rotation, despite the preceptor providing formative, documented feedback and attainable action plan (Goals with deficiencies and corresponding activities/actions) This should only be given if the resident did not improve to the level of residency training to date before the end of the rotation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP = Satisfactory Progress</td>
<td>This applies to a goal whose mastery requires skill development in more than one learning experience. In the current experience the resident has progressed at the required rate to attain full mastery by the end of the residency program. This means the resident can: • Perform most activities with guidance but can complete the requirements without significant input from the preceptor. • There is evidence of improvement during the rotation, even if it is not complete mastery of the task. There is a possibility the resident can receive NI on future rotations in the same goal in which SP was received if the resident does not perform at least at the same level as previously noted.</td>
</tr>
<tr>
<td>A = Achieved</td>
<td>The resident has fully mastered the goal for the level of residency training to date. No further instruction or evaluation is required in subsequent learning experiences. This means that the resident has consistently performed the task or expectation without guidance.</td>
</tr>
<tr>
<td>Achieved for the Residency</td>
<td>The preceptors and Program Director will collaborate throughout the residency year to determine if the resident has demonstrated consistency between rotation evaluations of goals and objectives. This means that the resident can consistently perform the task or has fully mastered the goal for the level of residency training to date and performed this task consistently in various rotation experiences. The Program Director, in conjunction with the RAC, has the ability to mark the resident as “achieved for the residency.” This means that the goal/objective will no longer be required to be evaluated in subsequent evaluations, but that any preceptor has the opportunity to provide additional feedback as necessary.</td>
</tr>
</tbody>
</table>
### PGY2 Critical Care Education Tracking Form

<table>
<thead>
<tr>
<th>Topic</th>
<th>Reading</th>
<th>Assignment</th>
<th>Presentation</th>
<th>Patient Care</th>
<th>Date and Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Pulmonary</td>
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<tr>
<td>1. Acute respiratory distress syndrome</td>
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<td>2. Severe asthma exacerbation</td>
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<td>3. Acute COPD exacerbation</td>
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<td>4. Acute pulmonary embolism</td>
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<td>5. Acute pulmonary hypertension</td>
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<td>6. Drug-induced pulmonary diseases</td>
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<td>7. Mechanical ventilation</td>
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<td>8. Chronic severe pulmonary hypertension</td>
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<td>9. Pneumothorax and hemothorax</td>
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<tr>
<td>10. Chest tubes</td>
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<td>11. Cystic fibrosis</td>
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<td>12. Inhaled medication administration</td>
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<td>B. Cardiovascular</td>
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<tr>
<td>1. Advanced cardiac life support</td>
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<tr>
<td>2. Arrhythmias (atrial and ventricular)</td>
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<td>3. Acute decompensated heart failure</td>
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<td>6. Shock syndromes</td>
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<tr>
<td>7. Acute aortic dissection</td>
<td>☐</td>
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<tr>
<td>8. Pericardial tamponade</td>
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<tr>
<td>9. Mechanical devices (e.g. intra-arterial balloon pumps, ECLS, ECMO)</td>
<td>☐</td>
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<tr>
<td>10. Invasive and non-invasive hemodynamic monitoring</td>
<td>☐</td>
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<td>________________</td>
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<tr>
<td>11. PALS</td>
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<td>________________</td>
</tr>
</tbody>
</table>

C. 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 | ☐ | ☐ | ☐ | ☐ | ________________ |

D. Neurology

<p>| 1. Status epilepticus                   | ☐ | ☐ | ☐ | ☐ | ________________ |
| 2. Ischemic stroke                      | ☐ | ☐ | ☐ | ☐ | ________________ |
| 3. Subarachnoid hemorrhage              | ☐ | ☐ | ☐ | ☐ | ________________ |</p>
<table>
<thead>
<tr>
<th>Index</th>
<th>Topic</th>
<th>Discussion</th>
<th>Reading Assignment</th>
<th>Presentation</th>
<th>Patient Care (bold if required)</th>
<th>Date and Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Intracerebral hemorrhage</td>
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<td>5</td>
<td>Critical illness polyneuropathy</td>
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<td>6</td>
<td>Intracranial pressure management</td>
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<td>7</td>
<td>Traumatic brain injury</td>
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<td>8</td>
<td>Spinal cord injury</td>
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<td>9</td>
<td>Central diabetes insipidus</td>
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<td>10</td>
<td>Cerebral Salt Wasting</td>
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<td>11</td>
<td>Encephalopathy in coma</td>
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<tr>
<td>12</td>
<td>EEG or bispectral monitoring for level of sedation</td>
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<td>13</td>
<td>Ventriculostomies</td>
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<td>14</td>
<td>Targeted temperature management/ induced hypothermia</td>
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</tbody>
</table>

E. Gastrointestinal

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

F. Hepatic

1. Acute liver failure
2. Complications of cirrhosis
3. Drug-induced liver toxicity
<table>
<thead>
<tr>
<th>Topic</th>
<th>Discussion</th>
<th>Reading Assignment</th>
<th>Presentation</th>
<th>Patient Care</th>
<th>Date and Initials</th>
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<tbody>
<tr>
<td>G. Dermatology</td>
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<tr>
<td>1. Burns</td>
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<tr>
<td>2. Stevens Johnson syndrome</td>
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<td>3. Toxic epidermal necrolysis</td>
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<td>4. Erythema multiforme</td>
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<td>5. Drug Reaction (or Rash) with Eosinophilia and Systemic Symptoms (DRESS)</td>
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<td>H. Immunology</td>
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<tr>
<td>1. Acute transplant rejection</td>
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<td>2. Graft-versus-host disease</td>
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<td>3. Management of the immunocompromised patient</td>
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<td>4. Acute management of a solid organ</td>
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<td>or bone marrow transplant patient</td>
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<td>5. Medication allergies/desensitization</td>
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<td>I. Endocrine</td>
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<tr>
<td>1. Relative adrenal insufficiency</td>
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<td>2. Hyperglycemic crisis</td>
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<td>3. Glycemic control</td>
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<td>4. Thyroid storm / ICU hypothyroid states</td>
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</tbody>
</table>
### J. 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

### K. Toxicology

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

### L. 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
<table>
<thead>
<tr>
<th>Topic</th>
<th>Reading Assignment</th>
<th>Presentation</th>
<th>Patient Care (bold if required)</th>
<th>Date and Initials</th>
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<tbody>
<tr>
<td>9. Skin and soft-tissue infection</td>
<td>☐</td>
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<td>10. Urinary tract infections</td>
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<td>11. Wound infection</td>
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<td>12. Catheter-related infections</td>
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<tr>
<td>13. Infections in the immunocompromised host</td>
<td>☐</td>
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<td>14. Pandemic diseases</td>
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<td>15. Febrile neutropenia</td>
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<td>16. Acute osteomyelitis</td>
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M. 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
   a. Intravascular devices                                         | ☐                  | ☐            | ☐                              | _______________   |
<table>
<thead>
<tr>
<th>Topic</th>
<th>Discussion</th>
<th>Reading Assignment</th>
<th>Presentation</th>
<th>Patient Care (bold if required)</th>
<th>Date and Initials</th>
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</thead>
<tbody>
<tr>
<td>b. Peripheral nerve stimulators</td>
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<td>c. IV pumps</td>
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</table>
Section 8. Mentoring Guidelines
PGY2 Critical Care Residency Program Advisor Guidelines

Resident Advisor Guidelines

What is the overall goal for the advisement program?
The advisor is the resident's advocate who can be a sounding board for the resident, foster professional development, provide support and encouragement through difficult times, and share in rewarding times in the residency.

How will advisors be selected?
Each year the RPD will identify preceptors who are willing and able to serve in the capacity of a residency advisor. Managers and supervisors will not be allowed to serve as advisors. The Critical Care Resident should who they would like to be their advisor by September 1st.

Activities of the Advisor:

- Attend and be one of two required evaluators at the resident’s core presentations (seminar, family medicine, preceptor development, etc)
- Monitor the resident’s progress through the Academician Preparation Program (APP). The advisor will initial and sign the requirements form as verification all program components have been completed.
- Provide guidance for the resident on "who do I go to or where do I start with this?"
- Set goals and expectations for the advisor-resident relationship (e.g., what does the resident want/need from the advisor and vice versa)
- Communicate (e.g., by telephone, e-mail or meeting in person) with the resident at least monthly (especially early on as you are getting to know each other) even if there are no critical issues to discuss and formally meet quarterly throughout the year
  - You may need to touch base more frequently as situations dictate
  - Residents should not be pulled from rotation to meet with advisor
  - If the resident is amenable, consider an alternative location and meeting time (e.g., a breakfast, lunch or coffee meeting)
- Encourage the development of open and helpful lines of communication with the advisor and others, especially during difficult times
  - The advisor may need to serve as a liaison between folks that are not communicating well
- Help identify issues or problems early on and provide guidance on problem resolution
  - If appropriate, you are encouraged to loop in the Residency Program Director/Coordinators with the permission of the resident or have the resident speak with the Residency Program Director/Coordinators
- Listen, encourage, and help the resident see the big picture before focusing on details
- Build a strong and trusting relationship
- Consistently provide feedback that is positive and constructive
- Help support the resident in achieving his/her goals and emphasize the importance of balance in the resident's life
- Provide guidance on career counseling (e.g. CV preparation, interviewing tips, PPS description, etc)
- Support the resident by attending his/her presentations, journal clubs, etc.
Activities of the Resident:

- Communicate (e.g., by telephone, e-mail or meeting in person) with the advisor at least monthly (especially early on as you are getting to know each other) even if there are no critical issues to discuss.
- Share experiences, expectations, and professional goals with advisor to enable them to get to know the resident and understand the best ways to support the resident throughout the residency year.
- If at any point in the year, the advisor and resident relationship is not successful, the resident should reach out the RPD for guidance. Residents may identify other mentors throughout the year that can assist in their professional development. However, the named advisor at the beginning of the residency year will remain the mentor on record.
2018 - 2019 Advisor Volunteer List

- Lyndsay Gormley
- Mike Wagner
- Kristin Welborn
Section 9. Clinical On-Call Service
Clinical Pharmacy On-Call Service

Policy:
The Department of Pharmacy will operate a Clinical Pharmacy on-call service for the Greenville Health System. The purpose of this service is to provide 24 hour availability of clinical pharmacy services to all health care professionals and patients of the Health System. The Clinical Pharmacy On-Call service exists to provide consultation on patient specific drug therapy issues. The Clinical Pharmacy On-Call service also reviews non-formulary request from prescribers (see Sharepoint Pharmacy page “Unit Based Pharmacy > Nonformulary Process “ for more details). A pharmacy resident in most cases will serve as the primary clinician on call and a clinical pharmacy specialist will serve as his/her back-up.

Effective August 2015, the Pharmacy Clinical on-call pager has been integrated into the GHS web-paging process, which increases flexibility in making and receiving on-call pages. All on-call queries will be directed to the web paging service “Pharmacy Clinical On-Call,” available 24 hours a day, 365 days a year.

All clinical pharmacy specialists and pharmacy residents will be assigned a mailbox ID number, which will give the option of routing on-call pages to their personal cellular phone. In the event that the primary call person does not have reliable cellular phone service while in the hospital (phone plans other than Verizon), he/she must transfer calls to the on-call cell phone and keep the phone on his/her person while in-house.

Key Phone Numbers/Contacts:

<table>
<thead>
<tr>
<th>GHS Call Center</th>
<th>455-8759</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHS Physician Paging Line</td>
<td>455-9500</td>
</tr>
<tr>
<td>On-Call Mailbox ID</td>
<td>390-0621</td>
</tr>
</tbody>
</table>

Procedure:
The Clinical Pharmacy On-Call Service is a service provided by the Department of Pharmacy, Clinical Services. Effective March 2017, the on-call pharmacist can be reached:

- Electronically, via GHS Web Paging
  - From Plexus, click Apps & References, then Web Paging
  - Click link to send message to a service pager
  - Text search for “Pharmacy”
  - Click checkbox next to “Pharmacy clinical on-call” then click the Message button in right hand corner of page
  - On the next screen, enter data into the required fields and click the Page button

Responsible Persons
Both PGY1 and PGY2 residents, as well as adult in-patient clinical pharmacy specialists will participate in the on call service. Primary call will be taken by pharmacy residents as well as clinical pharmacy specialists. When a resident serves as the primary call, a clinical pharmacy specialist will be assigned as back up call for that individual. It is the responsibility of the
Manager, Clinical Services or his designee to develop the call schedule and distribute to the residents and clinical staff.

**Scheduling**
The assigned pharmacy resident or clinical pharmacy specialist will take call on a weekly basis, rotating call each Monday at 0800. Call will be scheduled to coincide with weekend staffing in most circumstances. PGY1 residents will be scheduled to be on call about once every 6 weeks (every time they staff second shift in Central Pharmacy). PGY2 residents will be regularly integrated into the call schedule for the entire year. Residents will always be assigned to take primary call. Clinical Pharmacy Specialists will be scheduled to be on-call about every 6 weeks and may be assigned as either primary call or back up call.

The on-call schedule will be made available on the Pharmacy Department Sharepoint site. Once the call schedule has been posted, any changes must be arranged between the residents and/or back-ups. Once a change has been agreed upon, the Manager, Clinical Services or his designee must be notified along with the residents and clinical pharmacy specialists involved. The residents should utilize the Resident PTO Request Form to communicate changes among responsible parties.

**Transfer of Call Among Responsible Parties**
On Monday morning at the start of the on-call week, the primary call person (resident or clinical specialist) must contact the **GHS Call Center at 455-8759** to designate the primary contact person/mailbox number.

**Communication Between Primary and Backup**
The resident on-call must contact the backup clinical specialist on the Monday of start of call to (1) confirm the call center has been contacted to update primary call contact; (2) touch base; (3) verify each is the correct call person as designated on the schedule; (4) to specify preferred method of communication for handling calls; (5) arrange for any needed handoffs during the week that may occur (travel to conferences, etc).

**Expectations for Follow-Up**
Both the primary and back-up practitioner must be available 24 hours a day, respond to pages in a timely manner and come to the hospital if necessary. **Pages requesting information for urgent patient specific therapies take priority over other responsibilities including rounds, staffing, meetings, etc.** The expectation is that each call, whether received by the primary or back up practitioner, will be responded to within 15 minutes of receiving the page.

When taking primary call, residents are expected to return the page in a timely manner and gather any additional information needed to provide an appropriate answer for the requestor. **The resident must communicate with his/her back up before any recommendations are given.**

In the event that the back-up clinical pharmacy specialist feels uncomfortable answering a question, then further consultation with another clinical specialist should be obtained.

**Failure of Backup to Respond**
If the back-up clinical pharmacy specialist does not respond to the resident’s call within 15 minutes then the resident should call the back-up practitioner a second time. If the resident is still unable to reach the assigned back-up clinical pharmacy specialist, then the resident should contact the program director.
**Documentation and Quality Assurance**

Each call will be documented on the Clinical Pharmacy On-Call Service Documentation Form. Residents are responsible for completing the forms and submitting to the Clinical Pharmacy Specialist serving as their back up. These forms will then be reviewed and co-signed by the back up practitioner within 24 hours during the week and within 72 hours for weekends and holidays. Once signed these forms should be submitted to the Drug Information Clinical Pharmacy Specialist for review and QA audit.
Clinical Pharmacy On-Call Service
On-Call Documentation Form

Resident/Pharmacist ____________________       Date ________      Time ______ AM/PM

Caller:
Physician _______________________ Pager __________________
Nurse ________________________ Unit ____________________
Pharmacist ____________________ Location _______________
Other _________________________ Phone/Pager____________

Type of Question:  Therapeutic    Kinetics      Formulary     ADR     Nutrition     Drug Shortage    Other ________

Patient Information:
Name ___________________  MR# ______________   Room _______   Allergies ________
Age _____  Sex _____ Ht _______ Wt _______  IBW _______  DWT _______ CrCl _______

Requested Information:

Questions asked:

Information supplied/Calculations/Recommendations/Referrals:

Resources Used:

Total time Involved __________  Note Written?   Yes    No    Follow up required?    Yes    No

Signatures:
Person completing consult _____________________    Faculty back up _____________________

MUST BE SIGNED BY FACULTY BACK UP WITH 24 HOURS ON WEEKDAYS, 72 HOURS ON WEEKENDS
Section 10. Presentation Requirements
## Section 1: Overall Project Management
To be completed by PRESENTATION MENTOR. All needs improvement assessments require comments.

<table>
<thead>
<tr>
<th>Project Management</th>
<th>Achieved</th>
<th>Satisfactory Progress</th>
<th>Needs Improvement</th>
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</thead>
<tbody>
<tr>
<td>Deadlines met as stated in presentation requirements document</td>
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<tr>
<td>Independently completes tasks</td>
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<td>Development of original content</td>
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<td>Incorporates feedback</td>
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## Communication with Mentor

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<tr>
<th>Professionalism</th>
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<tr>
<td>• Style</td>
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<td>• Timeliness</td>
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<td>Receptive to Feedback</td>
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**Section 2: Presentation Evaluation**

To be completed by PRESENTATION EVALUATOR (2 required). All needs improvement assessments require comments. Presentation evaluators must fill out APP presentation evaluation form in addition to this form for inclusion in the resident portfolio.

<table>
<thead>
<tr>
<th></th>
<th>Achieved</th>
<th>Satisfactory Progress</th>
<th>Needs Improvement</th>
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<tbody>
<tr>
<td><strong>Communication</strong></td>
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<tr>
<td>Verbal Communication</td>
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<td>• Introduces self and topic</td>
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<td>• Pace and volume</td>
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<td>• Natural tone</td>
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<td>• Appropriate pronunciations</td>
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<td>• Absence of filler words</td>
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<tr>
<td>• Minimal use of notes</td>
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<tr>
<td>Non-Verbal Communication</td>
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<tr>
<td>• Professional appearance</td>
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<td>• Eye Contact</td>
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<tr>
<td>• Absence of distracting mannerisms</td>
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<tr>
<td><strong>Presentation Content</strong></td>
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<tr>
<td>Objectives match content presented</td>
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<tr>
<td>Information is presented in a clear, organized fashion</td>
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<td>Presents and critically evaluates primary literature</td>
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<tr>
<td>Presents clear, readable representations of applicable trial data</td>
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<td>Effectively summarizes key points of presentation</td>
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<tr>
<td>Makes accurate and definitive conclusions</td>
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<tr>
<td>Content of presentation met the needs of target audience</td>
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<tr>
<td><strong>Audience Engagement</strong></td>
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<td>Demonstrates anticipation and thorough preparation for possible questions</td>
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<td>Answers to questions are concise, accurate, and organized</td>
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<td>Effectively incorporates audience participation</td>
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</table>

GHS PGY1 Presentation Evaluation Form Updated 11/2/2016
### Instructional Materials and Media
Written materials were well-written and a valuable instructional aid
- Slides are clear (i.e. font choice, amount of information per slide)
- Slides flow appropriately
- Slides individually referenced

### Section 3: Overall Comments
To be completed by PRESENTATION EVALUATOR (2 required).
Presentation evaluators must agree if presentation qualifies for APP sign-off, any discrepancies will be handled by the RAC committee.

### Areas for Improvement
Must provide a minimum of THREE

### Strengths of Presentation
Must provide a minimum of THREE

### APP Assessment
- [ ] Presentation meets requirement for APP sign-off
- [ ] Presentation does not meet requirement for APP sign-off
GHS Resident Poster Presentation Guidelines

Basic Information
- Create your posters in Power Point (PP)
- A template is saved for your convenience in the residency manual (Presentation guidelines folder) with the GHS-approved logo and colors. The colors of the poster are non-negotiable, so do not change those.
- Your project mentor(s) must review and approve the final version BEFORE submitting to print
- Vizient/UHC poster board size (11/2/2017): 4’ high x 8’ wide (48” x 96”)
- When complete, save your posters on a flash drive and arrange date/time with Donna to upload and pay for all the posters at one time

Poster Formatting
- Within PP, click the “Design” tab then “Page Setup.” Make sure your slide dimensions are the same as the box below. You want a 2:1 width:height ratio.

- Headings to include: Background, Objective, Study Design, Data Collection, Outcomes, Data Analysis, Clinical Application, References
- Font sizes (use as a general guide):
  - Title: Arial Narrow size 66 (bold)
  - Authors: Arial Narrow size 52 (bold)
  - Section Headings: Arial size 52 (bold)
  - Section Body: Arial size 40
  - References: Arial size 18
  - Disclosure: Arial size 18
- References section: Format your references as full citations, in order of how they are cited on the poster:
Poster Printing

• Order from the website www.makesigns.com
• Click “Scientific posters” header, then “print my poster”
• Select “Paper Scientific Posters” option
• Click the “upload my poster file” button
• Select your poster from the files on your computer/flash drive
• Paper type: Glossy paper scientific poster
• Size (W x H): 72.00” x 36.00” (~ $68 each)
Section 11. Meeting Requirements
PGY-2 Pharmacy Residency Program Meeting Attendance

Longitudinal Committee Membership
As a longitudinal requirement, the PGY2 resident will select one interdisciplinary committee of which he/she will be a member for the entire residency year. By August 31, the resident should select a committee and notify the RPD and pharmacy committee representative. In addition the PGY2 resident will serve on the ICU QA committee. Attendance at all subsequent meetings for both committees is mandatory. The resident may participate on the committee in a variety of ways, including but not limited to: compiling agenda and minutes, presentations, drug information questions, and related projects.

Other Pharmacy Department-related Meetings
Pharmacy residents are required to attend all of the following meetings at GHS:
- Departmental staff meetings in Central
- Clinical staff meetings
- Formal student seminar and clinical pearl presentations
- Pharmacy and Therapeutics Committee when presenting or as required by preceptor
- PGY2 and PGY1 resident recruitment (tours and lunches)
- Additional meetings as assigned by the residency program director

Exceptions and absences for required meetings must be approved in advance by the residency program director.

In addition to the required meetings, additional rotation specific meetings may be required. Exceptions or absences to rotation specific meetings must be approved in advance by the rotation preceptor. Examples of rotation specific meetings include but are not limited to:
- Noon conferences
- Antibiotic Subcommittee of Pharmacy and Therapeutics Committee
- Pediatric Pharmacy and Therapeutics Committee

Professional Meeting Attendance (off-site travel required):
- SCSHP Fall Meeting
  - October 17, 2018 in Columbia, SC
- Vizient Consortium Pharmacy Council & ASHP Midyear Clinical Meeting
  - November 30 – December 5, 2018 in Anaheim, CA
- SERC
  - April 25-26, 2019 in Athens, GA
### Resident Committees (updated June 2018)

<table>
<thead>
<tr>
<th>Committee</th>
<th>Preceptor Member</th>
<th>Meeting Schedule</th>
<th>Level of Involvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute MI Action Team</td>
<td>Vivian Powell</td>
<td>Monthly (2nd Monday)</td>
<td>Projects</td>
</tr>
<tr>
<td>Antimicrobial Task Force (Antibiotic subcommittee of P&amp;T)</td>
<td>Carmen Fennell</td>
<td>Every other month</td>
<td>Agenda, Minutes, Projects, education</td>
</tr>
<tr>
<td>Clinical Knowledge Management Steering Committee</td>
<td>Doug Furmanek</td>
<td>Every other month</td>
<td>Minutes or projects</td>
</tr>
<tr>
<td>Code Committee</td>
<td>Kim Clark</td>
<td>Monthly</td>
<td>Projects</td>
</tr>
<tr>
<td>Evidence Based Advisory Committee</td>
<td>Lyndsay Gormley</td>
<td>Quarterly</td>
<td>Projects</td>
</tr>
<tr>
<td>ICU Quality Assurance</td>
<td>Doug Furmanek</td>
<td>Monthly</td>
<td>Projects</td>
</tr>
<tr>
<td>Medication Performance Improvement</td>
<td>Becky Sawyer</td>
<td>Monthly</td>
<td>Projects, education</td>
</tr>
<tr>
<td>Opioid Stewardship</td>
<td>Doug Furmanek</td>
<td>Monthly</td>
<td>Projects, data collection</td>
</tr>
<tr>
<td>Pain Committee</td>
<td>Doug Furmanek</td>
<td>Monthly-every other month</td>
<td>Minutes, projects, education</td>
</tr>
<tr>
<td>Pharmacy &amp; Therapeutics</td>
<td>Lucy Crosby</td>
<td>Monthly except July and December</td>
<td>Agenda, Minutes, projects, education</td>
</tr>
<tr>
<td>SCIP Committee</td>
<td>Sarah Tennant/Carmen Fennell</td>
<td>Monthly</td>
<td>Projects</td>
</tr>
<tr>
<td>Sepsis Task Force</td>
<td>Kristin Welborn</td>
<td>Quarterly</td>
<td>Project, data collection</td>
</tr>
</tbody>
</table>
P&T Process: Instructions for Residents Submitting Monographs

The GHS Pharmacy & Therapeutics Committee is a SYSTEM-level committee, serving all hospital campuses. The Committee meets on the second Wednesday of every month, except July and December, when there is no meeting.

I. Prepare your monograph: Use the approved GHS template, available on the Clinical Pharmacy Sharepoint site. Save the final version, along with primary literature/supporting evidence in the appropriate month in the Pharmacy & Therapeutics Committee folder on the Clinical Share Drive.

II. Initiate the Formulary Action Form (FAF): Use the approved template, available on the Clinical Pharmacy Sharepoint site. Most, if not all, of the content on the “Clinical” worksheet tab will be your responsibility. Discuss with your preceptor/RPD if you are uncertain about a particular section. You won’t know everything to complete the entire form – the responsibility is shared among the Pharmacy Management Team. Save this document in the appropriate folder on the Clinical Pharmacy Sharepoint site.

III. P&T Call for material email: “3 weeks prior to P&T meeting,” an email will be sent to all clin specs, residents, and pharmacy managers asking for material for the packet. In order for your monograph to be included on the agenda, you must meet this deadline. The dates for Pre and Post P&T will be included as well. These are Skype-able meetings, so your attendance at these is mandatory (as a presenter).

*Final packet materials due 7 days prior to meeting*

IV. Pre P&T [“1-2 weeks prior to P&T; Purpose to inform pharmacy management/Epic Willow of upcoming action items, anticipate future implementation/clinical problems, and share information among various interested clinical groups (adults vs peds, outlying facilities, Zynx, etc)]

- Clinical Pharmacy Sharepoint site: Pharmacy and Therapeutics Committee
- Lucy will bring Pre P&T agenda up on screen and take notes about any upcoming items
- Preliminary issues will be identified
- Completed monograph is preferred, but not mandatory
- Point person should upload FAF to Sharepoint

V. At the Meeting

- Agenda/packet will be displayed on the screen for all members
- Outside hospitals will Skype in
- Present your monograph. Key points:
  - Introduce yourself and the medication
  - State how the formulary request came about (for example, “Requested by Dr. Cancellaro from Anesthesia” or “Several non-formulary requests from Laurens”)
  - State other governing bodies that have approved this request, if applicable (for example, “Approved by Pain Committee”)
  - Present the highlights of your monograph (Goal 5-10 minutes). You do not have to read every single section verbatim. Try to summarize the clinical studies in a few generalized sentences (for example, “A majority of the clinical evidence suggests …” or mentioning numbers needed to treat). Only if the request is controversial (i.e., Pharmacy is going to recommend not adding or heavy restrictions) do you need to get heavy into the data.
  - Conclude by stating your exact recommendation (exactly the way you want it recorded in the minutes). You will need to include which hospitals will stock the medication, considering what kinds of patients are at each facility. For example, “Pharmacy recommends adding medication X to formulary with restriction to Pediatric services only. The medication will be approved for use at all pediatric hospital locations, GMH, Greer, Laurens, and Oconee.”
VI. Post P&T Meeting & Afterwards

- Each presenter should have their formulary action forms as complete as possible.
- Issues will be worked out
- **Go-live dates will be set at this meeting**
Section 12. Research Project Information
GHS Pharmacy Residency Program
Research Coordinator

Contact:
Sarah Withers, PharmD, MS, BCPS
Clinical Pharmacy Specialist, Infectious Diseases
Phone: 455-6651
Email: swithers@ghs.org

Purpose
The Clinical Pharmacy Research Coordinator will serve
- To enhance pharmacy staff, resident, and student knowledge and participation in research
- To align with the mission, vision, and values of Greenville Health System
- To advance the profession of pharmacy

Scope
- The scope of the Clinical Pharmacy Research Coordinator is to oversee, guide, and facilitate research activities to include:
  - Study feasibility assessment.
  - Compliance with Institutional Review Board (IRB) requirements including adherence to data collection and security requirements
  - Compliance with institutional training requirements.

Research Coordinator Responsibilities
- Issue a call for research project ideas on an annual basis and maintain a directory of interested research preceptors and their areas of research interests.
- Establish guidelines/timelines for research projects.
- Provide assistance to preceptors in developing suitable research projects.
- Review and provide feedback to study investigators on research project outlines and research protocols, including evaluation of scientific merit, design, feasibility, relevance to internal/external audiences, resources, and regulatory compliance.
- Make recommendations to the Residency Advisory Committee (RAC) regarding approval of residency research projects.
- Identify and facilitate opportunities for student pharmacist involvement in clinical pharmacy research and coordinate with colleges of pharmacy as needed.
- Review and provide feedback on posters and presentations. Specific feedback shall be provided to pharmacy residents in preparation for Vizient meeting and Southeastern Residency Conference.
- Review and provide feedback on final research report in manuscript format prior to publication.
- Perform an annual assessment of the effectiveness of the resident research process.
- Assess pharmacy staff and residents’ learning needs regarding necessary research skills and facilitate the scheduling of research training sessions to meet these needs and those required by the institution.
- Ensure that investigators maintain a regulatory file including documents such as a project staff list and training updates, all IRB communications, a copy of the protocol, and consent templates (if applicable).
- Review the regulatory file with the project mentor every six months while the study remains active to ensure that research activities are being conducted in accordance with submitted proposals to the IRB.
- Other activities, as needed, to support staff and resident research.
Needs

- Statistical design consultation and software support
  - Currently provided by Jun Wu for residents
  - Explore availability through University of South Carolina for student pharmacist research
- Research design education or lecture series opportunities
  - Explore availability and cost of coursework provided by ASHP or ACCP
  - Education provided by faculty at associated institutions i.e. Presbyterian College, University of South Carolina, and/or School of Medicine

Process:

- Once resident has selected a research topic and research mentor (by July 31), he/she will schedule a meeting with Research Coordinator
  - The research mentor is not required to attend this meeting
  - Resident will present relevant aspects of research study design, including (but not limited to):
    - Brief review of current literature surrounding topic
    - Study objective
    - Inclusion/exclusion criteria, with approximate number of patients
    - Outcome measures
    - Means by which data will be collected
- Research coordinator will identify any areas of clarification needed by the resident and suggested timeline for completion. The resident is expected to incorporate and address this feedback during the research proposal presentation (mid-September)
- Following the research proposal presentation, the Research coordinator will designate each project as either “Meets criteria” or “Fails to meet criteria.”
- Any project that fails to meet criteria will be sent to RAC for discussion. The RAC reserves the right to require a resident to develop a new project if the current project is not expected to meet its objective.
Instructions for CITI Training Course  
(Collaborative Institutional Training Initiative)

All researchers (principal investigators, co-investigators, or other research staff, & students) involved in human subject research at GHS must complete training before a requested study protocol may receive approval and/or before research is conducted. This requirement is satisfied by completion of the CITI Training Course, available online from the CITI web page.

1. Navigate to the URL: https://about.citiprogram.org/en/homepage/
   Here you can register, create your profile, and complete the appropriate modules.
   • Click “Register” if you do not already have an account from a previous institution.
   • Click “Log in” if you already have an account.
   • Either way, you will have to “Affiliate with another institution” and select GHS as an organization affiliation in order to transfer or get credit for modules. GHS is called “Upstate Affiliate Organization (UAO) dba Greenville Health System” in the CITI database.
     o After you pick GHS as an affiliate, the database should merge our institution requirements with what modules you have already completed. It will display any additional modules you need to complete, if any.
       • Curriculum group: Human research
       • Course learner group: Biomedical investigators and key personnel
       • Stage: 1 – basic course

2. Upon completion of the course, keep copies of your Completion Certificates. You will need to upload it into the eIRB system in order to receive IRB approval of your research protocol.

Protocol Submission to the GHS Investigational Review Board (IRB)

The following steps can be taken in order to create your account with eIRB:

1. We will request residents’ eIRB access through ServiceNow (IS HelpDesk) during the first week of orientation
2. First, go to the following URL: http://university.ghs.org/research-protection/
   • This is the home page for the Office of Human Research Protection (OHRP). Here you will find a variety of forms, guidance, and contact information for your convenience as you begin preparing your protocol submission for IRB review.
   • Specific materials available at this website include (but are not limited to) eIRB Instructions, Deadlines, and Forms for Submission, templates, and protocol submission applications.
   • Contact information for the IRB Coordinators is available here also, should you need assistance or have any questions.
   • For ease specifically, OHRP has uploaded some demonstration videos to assist with various functions, such as creating and submitting new studies, amending a study, and uploading documents
3. Log on to the eIRB website: http://eirb.healthsciencesssc.org
4. Select “Greenville Health System” from the institution dropdown option and click continue.
5. Login using your network ID and password and you will be routed to the registration page.
6. Click “Register” link at the bottom right of the screen.
7. Once you have registered, a member of the OHRP staff will receive a notification to validate your account. It may take several days. Email Katie Daniels (kdaniels@ghs.org) or Amanda Goode (agoode@ghs.org) if you have problems.
   • Create your account.
   • Select “Greenville Hospital System” as the institution
   • Indicate “Pharmacy” as the department affiliation
   • Enter as much information as you can
   • It will take a day or two to process your information and get your account activated in the system. You will receive notification via email once your ID has been activated. You are now ready to submit your study.

Last updated 6/20/18 by LC
8. As of 2013, residents (both medical and pharmacy) cannot be listed as Principal Investigators – you must have your project mentor listed in this role. It is probably best if you work together to create the submission.

9. Log in to the eIRB system. If the system does not already take you there, click “My Home” from the navigation choices (top right hand corner of the screen).

10. On the left beige navigation bar, under “My Roles” select “Study Staff.”

11. Click the “New Study” button that appears on the left beige navigation bar.

12. The system will walk you through the required submission information.

13. You may complete the application all at once, or segments at a time by clicking the “save” choice at the top of the screen.

14. You also do not have to complete it in order; you may jump around to different parts.

Another useful URL:
https://hsc.ghs.org/research/research-protection/links/
Dear Jennifer Babin,

We have reviewed your application and an account has been created for you on the eIRB system.

Select the link below to access the eIRB Service:

https://eirb.healthsciencessc.org/HSSC/

Regards,

eIRB Team
Frequently Asked Questions

1. Isn’t comparative effectiveness research just a way of doing QI such that IRB approval is not needed regardless of intent to publish?

   *No. Comparative effectiveness research (CER) is the direct comparison of existing health care interventions (standard of care) to determine which work best for which patients and which pose the greatest benefits and harms. The core question of comparative effectiveness research is which treatment works best, for whom, and under what circumstances.*

2. With QI research can we just assign accepted (standard of care) interventions based on the day of the week without IRB approval?

   Example: Is randomization of standard of care patient interventions Comparative Effectiveness Research (CER) or Quality Improvement (QI)?

   *No. Subjects and/or Patients cannot be randomized to any treatment without IRB oversight and Subject/Patient consent. Randomization cannot be substituted for clinical judgment (e.g. randomization = research; clinical judgment = medical practice)*

3. I am just reviewing charts . . . do I need IRB approval?

   *It depends, if the purpose of the chart review is for quality improvement and internal purposes only, this does not require IRB oversight. If chart review is being done to determine whether a study would be feasible (i.e., are these patients would meet the study inclusion criteria), a prep to research form must be completed and submitted to the IRB, and approval must be received prior to any chart review. If this is a retrospective chart review for the purpose of research and/or publication, IRB oversight is required, and IRB approval must be obtained before charts are reviewed.*
4. I want to survey employees about...? Do I need IRB approval?

All surveys that involve GHS employees, regardless of whether the surveys are anonymous, must be submitted to the IRB via the eIRB module. The GHS Human Resources (HR) department requires review/approval of all surveys involving GHS employees PRIOR to the surveys being sent out. This is done via the eIRB module and Impacted Services (Human Resources) is checked. The surveys may qualify for QI – no IRB Review Required, Exempt review or Expedited review. A determination will be made by the IRB Chair and/or the Medical Director of the Office of Research Compliance and Administration.

5. I have an abstract/poster accepted for presentation at a conference and it involves a QI project with data that I did not previously submit for IRB approval?

IRB approval should have been obtained prior to initiation of the project, or as soon as the intent of the project shifted from internal QI to presentation or publication. If your project does not meet exemption criteria, you should always seek IRB approval prior to submission of any project for publication or presentation.

6. The product representative wants to know about our patients. Can I give them data?

You should not be releasing any PHI in accordance with HIPPA and GHS confidentiality policies. GHS has a Product Evaluation Committee dedicated to the use of new products within the system. Warren Buckley or Carol Tyson are the committee contacts.

7. The product representative wants us to trial this product (approved by FDA) and we have not used this product before and it will involve doing a new procedure on a patient? For nursing; the product may be a new IV catheter, new type of invasive catheter for feeding or drainage, new type of bed, etc. . . .

GHS has a Product Evaluation Committee dedicated to the use of new products within the system. Warren Buckley or Carol Tyson are the committee contacts.
8. We want to use this XXXX product but this would be “off label use” of the product?

   *No IRB approval/oversight is required for the use of innovative interventions if the intervention is designed solely to enhance the well being of an individual patient and have a reasonable expectation of success. The intent of this off label use is to provide diagnosis, preventive treatment, or therapy to the particular individual and is not research or publication. If the intent is for research, publication, or research to support expanded indications of the product/therapy, then an IND/IDE number may be required and IRB oversight is required.*

9. What do we need to do when a student, who may be a GHS employee but is considered at “guest” of GHS and not an employee when here or doing work/project as a student?

   *Any GHS employee, or non-employee, who needs to complete a project, research or clinical experience for academic credit, must go through the Office of Student Services to complete the student credentialing process.*

   *All students, regardless of GHS employment, need student approval through the Office of Student Services (Nursing and Nursing-related: Sheree Mejia; Allied Health and all other students: Natalie Carey).*

   *If the project involves a research study, IRB oversight is required. If the study is already IRB approved, the student needs to be added as a study team member or co-investigator.*
10. Creation and maintenance of databases to review clinical data, track patient outcomes, track visits and finances. . . and oh yeah. . . maybe we’ll eventually use the data for research too, but are unable at this early stage to pinpoint what future research might involve or what questions they want to study?

Clinicians can create and maintain a clinical database on their patients for quality, care, or treatment purposes. Once a research question is identified, however, a research proposal should be written and submitted to the IRB for approval before those data are used to proceed with a research study.

11. I am a student at the university and need to do a project that involves collecting documentation of care in the medical record. My project involves surveying nurses; doing an educational session and collecting data, before and after, the education to see the difference? Do I need IRB approval?

No - IRB approval/oversight is not needed for activities designed for educational purpose only within GHS. The data will not contribute to generalizable knowledge or be published outside the classroom, will not result in an article, master’s thesis, doctoral dissertation, poster session, abstraction or result in any other publication or presentation.

Yes - IRB approval/oversight is needed for activities designed for educational purpose outside of GHS, including virtual classrooms, (an article, master’s thesis, doctoral dissertation, poster session, abstraction that results in any other publication or presentation (retrospective chart reviews address this (e.g. collection of any of the18 PHI identifiers)).
12. My faculty advisor is instructing me it is QI and doesn’t need IRB approval.

<table>
<thead>
<tr>
<th>Description</th>
<th>IRB Review Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluations of a specific project, process, program, etc. where the primary intent of the activity is solely for internal assessment or improvement. There are no plans for presentation or publication outside of GHS.</td>
<td>NO</td>
</tr>
<tr>
<td>Evaluations of a specific project, process, program, etc. where the primary intent of the activity is to present or publish outside GHS.</td>
<td>YES</td>
</tr>
<tr>
<td>Evaluations to test a new, modified, or previously untested intervention, service or program to determine whether it is effective and can be used elsewhere.</td>
<td>YES</td>
</tr>
</tbody>
</table>

13. Abstracts/posters. . . does this need IRB approval?

Yes, all research presentations and publications need IRB approval. Decisions are made by the IRB and not the Faculty Advisor. Any questions need to be referred to the IRB office.

14. At what point do we need IRB oversight?

IRB approval is required **PRIOR** to the initiation of any research activity. **IF** the project began as a QI project and later evolves into a research study, IRB approval should be sought as soon as the intent of the project changes, and **PRIOR** to submitting the project for any external publication or presentation.

15. If I am a nurse and plan to do a poster on a QI project (with data describing the process) and share it at a conference (local, state, or national) do I have to have it vetted through Nursing Research Council or the IRB before I move forward?

If the study involves a nurse as the principle investigator, or the study will impact nursing time, the study needs to go through the Nursing Research Council **PRIOR** to submitting the project for any external publication or presentation. IRB approval may or may not be required depending on the nature of the study. Please refer back to the “Guidance Document: Determining Which Activities Require GHS Human Research Protection Program IRB Review”.

Version 27JUN2014
16. I am collaborating with someone who is not a GHS employee. Can they be investigators? Do I need a Data Use Agreement or Business Associate Agreement?

Yes, persons outside of GHS may be added to a study as a co-investigator or a study team member in order to participate and have access to the study via the eIRB. Faculty members of institutions affiliated with GHS may also serve as PI. The PI will also need to upload their CITI education training in the eIRB prior to them participating in the study.

If they have access to, or copies of GHS data with Protected Health Information (PHI), than a Data Use Agreement (DUA) would be needed. If only aggregate or de-identified data, then no DUA is needed.
OVERVIEW

This guidance document assists investigators with determining which activities require GHS HRPP/IRB review. All activities that constitute “human research” that are performed by GHS affiliates and/or involving GHS patients as human subjects must be reviewed and approved by the GHS IRB or be certified exempt from IRB review prior to initiation.

IMPORTANT NOTE: This includes planning, screening and recruitment activities that involve interventions or interactions with living individuals (e.g. advertising, recruitment, and/or screening of potential subjects for research; accessing or obtaining identifiable, private information from or about living individuals, such as review of medical records, for the purpose of conducting research).

GHS IRB approval is always required if the human research activities will be supported by Federal funding (e.g. NIH, NSF, DOE, DOD, DOJ, DoE) that is awarded directly to GHS. If GHS is the prime recipient of a federal award but another institution will carry out the non-exempt human subjects research activities, by federal regulation, GHS is considered engaged in human research and GHS IRB approval is required.

HUMAN RESEARCH DEFINITIONS

Investigators should review the following definitions to determine whether an activity is human research. Human Research is any research or clinical investigation that involves human subjects as defined below:

For GHS purposes, activities which meet either the FDA or Department of Health and Human Subject (DHHS) definitions will be considered human subject research.

RESEARCH:

Food and Drug Administration (FDA) regulations define a clinical investigation as any experiment that involves a test article and one or more human subjects, and that either (1) are subject to the requirements for prior submission to the FDA under section 505(i) or 520(g) of the Federal Food, Drug and Cosmetic Act, or (2) are not subject to the requirements for prior submission to the Food and Drug Administration under these sections of the Act, but the results of which are intended to be later submitted to, or held for inspection by the FDA as part of an application for a research or marketing permit (21 CFR 50.3(c), 21 CFR 56.103(c), 21 CFR 312.3(b) and 21 CFR 812.3(h).

- A test article is any drug (including a biological product for human use), medical device for human use, human food additive, color additive, electronic product, or any other article subject to FDA regulations.

- Examples of activities that are clinical investigations:
  - Clinical trials that involve investigational drugs or devices
  - Research testing the safety and effectiveness of a device
  - Medical outcome studies comparing approved drugs or devices
DHHS regulations define research as a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge (45 CFR 46.102(d)).

Systematic Investigation:
- A systematic investigation is an activity that involves preplanned data collection (quantitative or qualitative, retrospective or prospective) and data analysis to answer a question.
- Activities are not research if they do not involve a systematic approach involving a predetermined method for studying a specific topic, answering a specific question, testing a specific hypothesis, or developing theory.
- Examples of activities that typically are systematic investigations:
  - Medical chart review
  - Analysis of data and specimens
  - Surveys and questionnaires
  - Interviews and focus groups
  - Observational studies
  - Epidemiological studies
  - Social or educational program evaluations
  - Cognitive and perceptual experiments
  - Test development

Generalizable Knowledge:
- Activities designed (with intent) to develop or contribute to generalizable knowledge are those designed to draw general conclusions, inform policy, or generalize finding beyond a single individual or an internal program (e.g., publication or presentation).

**IMPORTANT NOTE:** The intent to develop or contribute to generalizable knowledge makes an activity research. Results do not have to be published or presented to qualify the activity as research.

**IMPORTANT NOTE:** As a general rule, if you plan to present, outside of GHS, this constitutes generalizable knowledge.

- Examples of activities that typically are not designed to develop or contribute to generalizable knowledge:
  - Biographies
  - Oral histories that are designed solely to create a record of specific historical events
  - Service or course evaluations, unless they can be generalized to other individuals
  - Services, courses, or concepts where it is not the intention to share the results beyond the GHS community
  - Classroom exercises solely to fulfill course requirements or to train students in the use of particular methods or devices
  - Quality assurance activities designed to continuously improve the quality or performance of a department or program where it is not the intention to share the results beyond the GHS community.
HUMAN SUBJECTS

DHHS Regulations define a human subject as a living individual about whom an investigator (whether professional or student) conducting research obtains (1) data through intervention or interaction with the individual, or (2) identifiable private information (45 CFR 46.102(f)). FDA Regulations define a human subject as an individual who becomes a participant in research, either as a recipient of the test article or as a control (21 CFR 50.3(g), 21 CFR 56.103(e), 21 CFR 312.3(b) and 21 CFR 812.3(p)).

- **Intervention** includes both physical procedures by which data are gathered (e.g., venipuncture) and manipulations of the subject or the subject’s environment that are performed for research purposes.

- **Interaction** includes communication or interpersonal contact between investigator and subject.

- **Private information** includes information about behavior that occurs in a context in which an individual can reasonably expect that no observation or recording is taking place, and information which has been provided for specific purposes by an individual and which the individual can reasonably expect will not be made public (e.g., medical record). Private information must be individually identifiable (i.e., the identity of the subject is or may readily be ascertained by the investigator or associated with the information) in order for obtaining the information to constitute research involving human subjects.

- Protected Health Information – 18 identifiers defined by the Health Information Portability and Accountability Act (HIPAA):
  1. Names
  2. Geographic subdivisions smaller than a state
  3. All elements of dates (except year) related to an individual - including dates of admission, discharge, birth, death - and for persons >89 y.o., the year of birth cannot be used.
  4. Telephone numbers
  5. FAX numbers
  6. Electronic mail addresses
  7. SSN
  8. Medical Record numbers
  9. Health plan beneficiary numbers
  10. Account numbers
  11. Certificate/license numbers
  12. Vehicle identifiers and serial numbers including license plates
  13. Device identifiers and serial numbers
  14. Web URLs
  15. Internet protocol addresses
  16. Biometric identifiers, including finger and voice prints
  17. Full face photos, and comparable images
  18. Any unique identifying number, characteristic or code

- A subject may either be a healthy individual or a patient

- Clinical investigations that use human specimens (e.g., *in vitro* diagnostic devices, assays or culture media) involve “human subjects”.
### Examples of Biomedical and/or Social Behavioral Activities (including Chart Reviews) that May or May Not Require GHS IRB Review

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
<th>IRB Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparatory to Research</td>
<td>Initial planning to see if an investigation is feasible. Only aggregate numbers provided to the investigator. Chart reviews, with patient identifiers, to determine if a study is feasible. *requires a one page application (Prep to Research Form), which can be found on the <a href="#">ORCA website</a>.</td>
<td>NO</td>
</tr>
<tr>
<td>Pilot Studies</td>
<td>Small-scale research typically designed to answer questions of feasibility and/or to collect preliminary data to design/form a future study (can be observational or interventional in nature).</td>
<td>YES</td>
</tr>
<tr>
<td>Clinical Investigations/Novel Procedures, Treatments or Instructional Methods</td>
<td>The use of innovative interventions that are designed solely to enhance the wellbeing of an individual patient and have a reasonable expectation of success. The intent of this off label use is to provide diagnosis, preventive treatment, or therapy to the particular individual and not research or publication. A systematic investigation of innovations in diagnostic therapeutic procedure or instructional method in multiple participants in order to compare to standard procedures. The investigation is designed to test a hypothesis, permit conclusions to be drawn, thus to develop or contribute to generalizable knowledge. Experiments using a test article on one or more human subjects that are regulated by the FDA or support applications for research or marketing permits for protocols regulated by the FDA. Products regulated include foods, including dietary supplements that bear a nutrient content claim or a health claim, infant formulas, food and color additives, drugs for human use, medical devices for human use, biological products for human use, and electronic products.</td>
<td>NO YES</td>
</tr>
<tr>
<td>Standard Diagnostic or Therapeutic Procedures</td>
<td>The collection of data about established and accepted diagnostic, therapeutic procedures, or instructional methods for dissemination or contribution to generalizable knowledge. An alteration in patient care or assignment (randomization) for research purposes. A diagnostic procedure added to a standard treatment for the purpose of research.</td>
<td>YES YES YES</td>
</tr>
<tr>
<td>Repositories and Registries (e.g. data, specimen, etc.)</td>
<td>A storage site or mechanism by which human tissue, blood, genetic material or data are stored or archived for research by multiple investigators or multiple research projects.</td>
<td>YES</td>
</tr>
</tbody>
</table>
| Emergency Use of an Investigational Drug or Device | A treating physician determines an unapproved drug or device is the best treatment for a patient, and all of the following criteria apply:  
1. The test article is used one time per institution to treat a single patient.  
2. The patient has a condition that is life-threatening or severely debilitating.  
3. No standard treatment is available.  
4. There is not sufficient time to obtain IRB review and approval.  
5. The emergency use is reported to the IRB within five working days; when possible, the treating physician should consult with the IRB prior to use. | IRB Notification Required Within 5 Days of Use |
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Sponsor or manufacturer of the drug/device requires IRB approval to release it in an emergency use situation.</td>
<td>YES</td>
</tr>
</tbody>
</table>
| “Compassionate” or Treatment Use of Investigational Drug or Device; Expanded Access Programs | A treating physician determines an unapproved drug or device is the best treatment for a patient, and all of the following criteria apply:  
1. The patient has a condition that is life-threatening or a serious disease.  
2. No comparative or satisfactory alternative treatment is available.  
3. A controlled, clinical trial of drug/device is ongoing.  
4. Sponsor is pursuing marketing approval. | YES |
| Case Review Studies | Retrospective review of 1-3 patient’s medical record with intent to document a specific situation or the experience of an individual without intent to form a research hypothesis, draw conclusions or generalize findings. The data will be de-identified. Patient and/or representative approval may be required for publication. | NO |
| | Retrospective review of more than 3 patient’s medical record with intent to document a specific situation or the experience of an individual without intent to form a research hypothesis, draw conclusions or generalize findings. NOTE: Some journals require subject approval for case studies/case series. | YES |
| | Retrospective review of a patient’s medical records for use in an educational setting. The data will be de-identified in presentation and will not be published. | NO |
| Quality Assurance and Quality Improvement Activities | Evaluations of a specific project, process, program, etc. where the primary intent of the activity is solely for internal assessment or improvement. There are no plans for presentation or publication outside of GHS. | NO |
| | Evaluations of a specific project, process, program, etc. where the primary intent of the activity is to present or publish outside GHS. | YES |
| | Evaluations to test a new, modified, or previously untested intervention, service or program to determine whether it is effective and can be used elsewhere. | YES |
| Surveys/Questionnaires | Purely anonymous questionnaires/surveys (de-identified) | NO |
| | Questionnaires/surveys that will collect participant personal identifiers. | YES |
| Oral Histories | Oral history activities, such as open ended interviews, that only document a specific historical event or the experience of individuals without intent to draw conclusions or generalizable findings. | NO |
| Systematic investigations involving open-ended interviews that are designed to develop or contribute to generalizable knowledge (e.g. designed to draw conclusions, inform policy, or generalizable findings). | YES |
| Oral historians and qualitative investigators may want to create archives for the purpose of providing a resource for others to do research. The intent of the archive is to create a repository of information for other investigators to conduct human research. | YES |
| Educational Activities/Field Study Courses/Research Methods Classes | Activities designed for educational purpose only within GHS. The data will not contribute to generalizable knowledge or be published outside the classroom, will not result in an article, master’s thesis, doctoral dissertation, poster session, abstraction or result in any other publication or presentation. | NO |
| Activities designed for educational purpose outside of GHS, including virtual classrooms, (an article, master’s thesis, doctoral dissertation, poster session, abstraction that results in any other publication or presentation). | YES |
| Ethnographic Research | The investigator or his/her staff will participate, overtly or covertly, in people’s daily lives for an extended period of time. They will be watching what happens, listening to what is said, asking questions and collecting data to create a broader understanding of a particular environment, ethnic group, gender, etc. | YES |

**Regulations and References**

**DHHS:**
- [45 CFR 46.102](#)

**FDA:**
- [21 CFR 50.3](#)
- [21 CFR56.102 and 56.103](#)
- [21 CFR 312.3(b)](#)
- [21 CFR 812.3(h)](#)

**References:**
- [OHRP Guidance on Research Involving Coded Private Information or Biological Specimens](#)
- [OHRP Human Subject Regulations Decision Charts](#)
- [GHS HRPP Policy and Procedure Manual](#)
Quick Start Guide and Frequently Asked Questions (FAQs)
To be used with the guidance document: Determining Which Activities Require Greenville Health System (GHS) Human Research Protection Program (HRPP)/Institutional Review Board (IRB) Review

Will the research activity involve collecting:
(1) Information about living individuals through intervention, interaction or observation? OR
(2) Identifiable private information about individuals?

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**NO**
No IRB submission required

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**YES**

What is the purpose of the study?

**Quality Improvement Project**

- QI for Internal GHS only
  - No IRB submission required

**Research**

What is the risk to human subjects?

- No more than minimal risk (chart reviews; observational studies)
  - Submit Expedited IRB application

- More than minimal risk (clinical Investigation with research subjects contact? e.g. clinical trials, patient interviews, etc.)
  - Submit Full-Board application

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Version 18JUN2014
Section 13. PCSP Teaching Certificate Program
Learning Experience: Teaching Certificate Program

Elective Experience

Preceptor Information:
Name: Jennifer N. Clements, PharmD, BCPS, CDE, BCACP
Office location: Presbyterian College School of Pharmacy
Department of Pharmacy Practice (Office 308)
307 North Broad Street
Clinton, South Carolina 29325
Hours: Monday to Friday, 8:30am to 5:00pm
Office hours: Monday and Friday, 8:30am to 5:00pm
Phone: 864-938-3870 (office), 864-567-4847 (cell)
Email: jclements@presby.edu

Duration of Experience: Longitudinal experience over 11 months (estimated 2 hours per week)

Learning Experience Description

There is a need for pharmacy educators at existing and new colleges and schools of pharmacy; however, many pharmacy residents will not go into an academic position. The knowledge and experiences gained in this Teaching Certificate Program will be applicable in strengthening the resident’s teaching skills and overall effectiveness regardless of the practice setting. The program will consist of various experiences during the residency year. These experiences will include attendance at and participation in a lecture seminar series on pedagogy topics; reading assignments; formal teaching experiences including didactic presentations, small-group facilitation, experiential teaching; evaluations and feedback of teaching; and development of a teaching portfolio. A certificate of completion will be awarded to the resident by Presbyterian College School of Pharmacy after all requirements are satisfactorily met.

Requirements and Responsibilities of the Learning Experience:

<table>
<thead>
<tr>
<th>Required Activities</th>
<th>Goals/Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precept P4 student on APPE (x1)</td>
<td>R3.1 (R3.1.1, R3.1.2) R4.1 (R4.1.1, R4.1.2, R4.1.4) R4.2 (R4.2.1, R4.2.2) E1.3 (E1.3.1, E1.3.2, E1.3.3, E1.3.4)</td>
</tr>
<tr>
<td>Facilitate laboratory session (x3)</td>
<td>R3.1 (R3.1.1, R3.1.2) R3.2 (R3.2.2) R4.1 (R4.1.1, R4.1.2, R4.1.3, R4.1.4)</td>
</tr>
<tr>
<td>Create objectives for 1-hr didactic lecture (x2)</td>
<td>R4.1 (R4.1.1)</td>
</tr>
<tr>
<td>Create and deliver presentation for 1-hr didactic lecture (x2)</td>
<td>R4.1 (R4.1.1, R4.1.2, R4.1.3, R4.1.4) E1.1 (E1.1.1) E1.3 (E1.3.3)</td>
</tr>
<tr>
<td>Create exam questions for 1-hr didactic lecture (x2)</td>
<td>R4.1 (R4.1.4)</td>
</tr>
<tr>
<td>Attend lectures related to teaching in an academic setting in order to complete a teaching philosophy and teaching portfolio</td>
<td>R3.1 (R3.1.2) R3.2 (R3.2.2) E1.1 (E1.1.1) E1.3 (E1.3.1, E1.3.3, E1.3.4)</td>
</tr>
</tbody>
</table>
Specific Activities:

1. **Pedagogy Seminars** will consist of live or recorded lectures on specific teaching topics delivered online and a face-to-face meeting. These topics and practice skills will be delivered at the beginning of the learning experience at a pre-determined day, located at Presbyterian College School of Pharmacy.
   a. After confirmation of participation in this learning experience, the resident must complete a written self-reflection including but not limited to the following information: (1) desire/reason to complete teaching certificate program; (2) three future career goals; and (3) three goals for the program during the residency program.
   b. The pre-determined topics will include:
      i. Program Overview
      ii. Learning Styles / Teaching Methods
      iii. Learning Objectives
      iv. Lecture / Lab Preparation
      v. Technology in Teaching
      vi. Assessment Methods
      vii. Test-Item Construction
      viii. Experiential Teaching
      ix. Feedback / How to Handle Difficult Situation
      x. Academic Life

2. **Didactic experiences** will consist of 2 one-hour, peer-reviewed lectures given by the resident during the residency year at the School of Pharmacy with mentoring by a content expert, residency program director, and teaching certificate program preceptor during the process.
   a. An equivalent didactic experience can be completed and would need to (1) be delivered to an audience of healthcare professionals and/or students (i.e., minimum of 10 individuals); (2) contain written learning objectives that can be measured through a post-didactic lecture assessment; and (3) be reviewed by a content experience, residency program director, and/or teaching certificate preceptor.
   b. The teaching certificate preceptor will solicit an inquiry to the faculty members regarding available lectures for the Fall and Spring semester. A list of available lectures will be provided in order to match the resident with the best lecture, based on interest and general practice of the residency program.
   c. Once the resident has chosen a lecture, then he or she should understand the commitment and comply with the following guidelines:
      i. Include content expert, residency program director, and teaching certificate preceptor in all correspondences.
      ii. Provide an outline of the presentation (including learning objectives) 4 weeks prior to the presentation date.
      iii. Provide a completed PowerPoint presentation 2 weeks prior to the presentation date.
      iv. Provide a practice draft of the presentation 1 week prior to the presentation date.
      v. Finalize the presentation 2 days prior to the presentation.
      vi. Provide the content expert and/or course coordinator with the finalized presentation in order to post on the Moodle.
      vii. Construct specific number of quiz questions for assessment and submit to course coordinator.
      viii. Construct specific number of exam questions for assessment and submit to course coordinator.
      ix. Contact the technology department to request access to the recording.
      x. Review the recording and completed a self-evaluation on the presentation, commenting specifically on strengths and area of improvements.
      xi. Reflect on statistics related to questions on quiz and/or exam assessment.
      xii. Schedule a meeting with content expert, residency program director, and teaching certificate preceptor within 10 days of the presentation to review self-reflection and formal evaluation.
xiii. Place evaluations and presentation into teaching portfolio.
xiv. Must be respectful and professional to all content expert, residency program director, and teaching certificate preceptor in all interactions.

<table>
<thead>
<tr>
<th>Didactic Experience</th>
<th>Title of Presentation</th>
<th>Date Completed</th>
<th>Initials of Teaching Certificate Preceptor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

3. **Experiential experiences** will consist of the resident serving as the primary preceptor in conjunction with a faculty member or residency preceptor for one student rotation in the spring semester.
   a. The resident should identify a preceptor on record by December in order to complete this requirement. The residency should discuss the experiential experience with the residency program director.
   b. The resident should discuss the experiential experience with the preceptor on record at least 1 month prior to the experience. The following information should be discussed:
      i. Syllabus
      ii. Student Calendar
      iii. Student Activities
          1. Patient Case x 1
          2. Topic Discussion x 1
          3. Journal Club Discussion x 1
          4. Oral Presentation x 1
      iv. Mid-Point Evaluation
      v. Final Evaluation
   c. The resident should complete an experiential experience with the above requirements. All evaluations completed by the resident should be discussed with the preceptor on record and copied for the teaching portfolio.
   d. The preceptor on record will assist the resident in any situation and oversee the resident through guidance and teaching, while providing feedback. The preceptor on record should complete an evaluation regarding the resident’s performance and solicit verbal feedback from the student.
   e. The resident should place his/her evaluation in the teaching portfolio along with a self-reflection of strengths and areas of improvement. The resident and preceptor on record must discuss the resident’s performance, along with self-reflection, within 1 week of completing this requirement.

<table>
<thead>
<tr>
<th>Experiential Experience</th>
<th>Date Completed</th>
<th>Initials of Preceptor on Record / Residency Program Director</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preceptor on Record –</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student –</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of Experiential Experience –</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. The resident will lead a **small group facilitation** over one semester in a particular course – based on the resident’s preferences and career goals – and in conjunction with a faculty mentor.
   a. The resident must facilitate a minimum of 3 laboratory session with the presence of the teaching certificate preceptor. Each weekly laboratory session should be discussed with the teaching certificate preceptor.
   b. The teaching certificate preceptor would provide verbal feedback immediately following the resident’s assigned laboratory session. The preceptor would complete a formal evaluation within 1 week following the resident’s assigned laboratory sessions. A final evaluation can be completed and
reviewed with the resident upon completion of small group facilitation. The resident’s self-reflection, including strengths and areas of improvement, would be discussed at the end of the requirement.

<table>
<thead>
<tr>
<th>Small Group Facilitation</th>
<th>Course / Title of Session</th>
<th>Date Completed</th>
<th>Initials of Teaching Certificate Preceptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
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<td></td>
<td></td>
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<tr>
<td>3</td>
<td></td>
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</tr>
</tbody>
</table>

5. A teaching portfolio will be completed by the resident as a compilation of all teaching experiences and development of a teaching philosophy.
   a. The teaching portfolio will be completed in an electronic format. An example will be provided to the residents.
   b. At any point, questions regarding the teaching portfolio should be directed to the teaching certificate preceptor.
   c. The resident should provide a completed, electronic teaching portfolio 2 weeks prior to the determined residency graduation, as the portfolio must be reviewed by the teaching certificate preceptor.
   d. If the teaching portfolio is incomplete, then the residency program director will be contacted by the teaching certificate preceptor.
   e. The teaching portfolio should include the following information/material:
      i. Pedagogy Seminars
         1. Initial self-reflection
         2. Final self-reflection
         3. Teaching philosophy
         4. Material from seminars
      ii. Didactic Experiences
         1. Outline
         2. Rough draft of presentation (with comments)
         3. Rough draft of exam questions (with comments)
         4. Final draft of presentation
         5. Final draft of exam questions (with analysis)
         6. Student and mentor evaluations
         7. Self-reflection
      iii. Experiential Experience
         1. Syllabus
         2. Student Schedule
         3. Activities completed by the student
         4. Evaluation of student activities
         5. Evaluation from student
         6. Evaluation from preceptor on record
         7. Self-reflection
      iv. Small Group Facilitation
         1. Student activities
         2. Evaluation / grading
         3. Student and mentor evaluations
         4. Self-reflection

<table>
<thead>
<tr>
<th>Teaching Portfolio</th>
<th>Date Completed</th>
<th>Initials of Teaching Certificate Preceptor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>
Timeline:
The learning experience is offered yearly and participants are expected to fully commit in order to complete the program during their residency year.

Expected Progression of Resident Responsibility on this Learning Experience:

<table>
<thead>
<tr>
<th>Week 3-4</th>
<th>Week 5-8</th>
<th>Week 9-20</th>
<th>Week 21-24</th>
<th>Week 25-36</th>
<th>Week 48-50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attend live pedagogy seminars</td>
<td>Identify first didactic lecture</td>
<td>Develop learning objectives</td>
<td>Identify second didactic lecture</td>
<td>Develop learning objectives</td>
<td>Complete teaching portfolio with teaching philosophy.</td>
</tr>
<tr>
<td>Listen to recorded pedagogy seminars</td>
<td>Identify laboratory sessions for facilitation</td>
<td>Outline first didactic lecture</td>
<td>Identify laboratory sessions for facilitation</td>
<td>Deliver second didactic presentation</td>
<td>(length of time the preceptor spends in each of the phases of learning will depend on BOTH the resident’s progression in the learning experience and when the experience occurs during the residency program)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deliver first didactic presentation</td>
<td></td>
<td>Develop assessment questions</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Facilitate small-group laboratory sessions</td>
<td></td>
<td>Facilitate small-group laboratory sessions</td>
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<td></td>
<td></td>
<td></td>
<td>Complete experiential experience as primary preceptor.</td>
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</table>

Evaluation Strategy:
ResiTrak will be used for documentation of formal evaluations. For formative evaluations, the resident will perform the activity and be evaluated by the preceptor or another individual (i.e., faculty member at Presbyterian College School of Pharmacy; residency program director). Written evaluations of presentations will be completed by the evaluator and the resident. Formative evaluations will be reviewed and discussed and signed by both parties. The discussions will provide feedback on the resident’s performance of the activity and the accuracy of the self-assessment.

<table>
<thead>
<tr>
<th>Type of Evaluation</th>
<th>Snapshot</th>
<th>Who</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formative and Formative Self</td>
<td>Yes</td>
<td>Preceptor, Resident</td>
<td>3 months</td>
</tr>
<tr>
<td>Formative and Formative Self</td>
<td>Yes</td>
<td>Preceptor, Resident</td>
<td>6 months</td>
</tr>
<tr>
<td>Summative</td>
<td></td>
<td>Preceptor, Resident</td>
<td>After presentations or teaching activities</td>
</tr>
<tr>
<td>Summative Self</td>
<td></td>
<td>Resident</td>
<td>End of Learning Experience</td>
</tr>
<tr>
<td>Preceptor and Learning Experience</td>
<td></td>
<td>Resident</td>
<td>3 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>End of Learning Experience</td>
</tr>
</tbody>
</table>
Disciplinary Action:
Residents are expected to conduct themselves in a professional manner at all times and to follow all standards of the teaching certificate experience. If a resident does not make satisfactory progress with requirements, then the following steps of remediation will be implemented:

- The residency program director will be contacted regarding the identified issue(s).
- The resident will meet with the residency program director and teaching certificate preceptor to discuss the identified issue(s).
- Action steps that will follow include:
  - Appropriate solution to rectify the issue and/or deficiency.
  - Corrective action plan and specific goals for monitoring progress.
    - This action plan will be documented in the resident’s personnel file by the residency program director.
  - Assessment of corrective actions on a quarterly basis.
- If the corrective action plan does not result in satisfactory resolution and results in improved performance, further corrective action will be considered, which may include dismissal from the teaching certificate experience.
- Any appeal is subjective for review by the Residency Oversight/Advisory Committee.
## Teaching and Learning Curriculum Program (as known as a Teaching Certificate Program)
Hosted by Presbyterian College School of Pharmacy (PCSP)

### 2018-2019 Schedule

<table>
<thead>
<tr>
<th>Date(s) &amp; Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2-July 19</td>
<td>Suggested readings/other assignments related to:</td>
</tr>
<tr>
<td></td>
<td>• Pharmacy Education</td>
</tr>
<tr>
<td></td>
<td>• Introduction to Teaching Philosophy</td>
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<td></td>
<td>• Teaching Theories (e.g., Bloom’s taxonomy)</td>
</tr>
<tr>
<td></td>
<td>• Learning Styles</td>
</tr>
<tr>
<td>Wednesday, July 18</td>
<td>Live Discussion at PCSP</td>
</tr>
<tr>
<td>9:00 am - 4:00 pm</td>
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<tr>
<td>July 21-August 9</td>
<td>Suggested readings/other assignments related to:</td>
</tr>
<tr>
<td></td>
<td>• Learning Objectives</td>
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<td>• Methods of Assessment</td>
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<td></td>
<td>• Active Learning Techniques</td>
</tr>
<tr>
<td></td>
<td>• Handout Preparation</td>
</tr>
<tr>
<td>Friday, August 10</td>
<td>Live Discussion at PCSP</td>
</tr>
<tr>
<td>3:00 pm – 5:00 pm</td>
<td></td>
</tr>
<tr>
<td>August 11-August 30</td>
<td>Suggested readings/other assignments related to:</td>
</tr>
<tr>
<td></td>
<td>• Methods of Assessment</td>
</tr>
<tr>
<td></td>
<td>• Development and Evaluation of Exam Questions</td>
</tr>
<tr>
<td></td>
<td>• Presentation Design and Advanced Techniques</td>
</tr>
<tr>
<td>Friday, August 31</td>
<td>Live Discussion at PCSP</td>
</tr>
<tr>
<td>3:00 pm – 5:00 pm</td>
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</tr>
<tr>
<td>September 1-September 20</td>
<td>Suggested readings/other assignments related to:</td>
</tr>
<tr>
<td></td>
<td>• Small-Group Facilitation</td>
</tr>
<tr>
<td></td>
<td>• Large-Group Facilitation</td>
</tr>
<tr>
<td></td>
<td>• Classroom Methodology</td>
</tr>
<tr>
<td>Friday, September 21</td>
<td>Live Discussion at PCSP</td>
</tr>
<tr>
<td>3:00 pm – 5:00 pm</td>
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</tr>
<tr>
<td>September 22-October 11</td>
<td>Suggested readings/other assignments related to:</td>
</tr>
<tr>
<td></td>
<td>• Experiential Education</td>
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<td></td>
<td>• Preceptorship</td>
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<tr>
<td></td>
<td>• Development of Syllabus</td>
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<tr>
<td></td>
<td>• Student Feedback</td>
</tr>
<tr>
<td></td>
<td>• Difficult Students</td>
</tr>
<tr>
<td>Friday, October 12</td>
<td>Live Discussion at PCSP</td>
</tr>
<tr>
<td>3:00 pm – 5:00 pm</td>
<td></td>
</tr>
<tr>
<td>October 13-November 1</td>
<td>Suggested readings/other assignments related to:</td>
</tr>
<tr>
<td></td>
<td>• Academic Integrity and Classroom Civility</td>
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<td>• Intellectual Property and Copyright Issues</td>
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Section 14. Medication Use Evaluation (MUE)
Greenville Hospital System
Department of Pharmacy Services

Medication Use Evaluation Program

Program Description:
Medication usage evaluation (MUE), as defined by the American Society of Health-System Pharmacists (ASHP), is a performance improvement method focusing on evaluating and improving medication use processes with the goal of optimal patient outcomes.

ASHP further recommends that the MUE program adapt an organizational approach that is proactive, criteria based, designed and managed by an interdisciplinary team, and systematically carried out.

Program Goals:
- Promote appropriate medication use ( Appropriateness)
- Evaluate medication effectiveness (Effectiveness)
- Prevent medication-related problems and improve patient safety (Safety)
- Improvement in the level of patient care as it relates to internal or external quality standards (Quality)
- Meet federal, local, regulatory, professional, or accreditation standards (Compliance)
- Minimize cost of medication therapy (Cost)

Responsibility:
- The Pharmacy & Therapeutics Committee will oversee and review the MUE program (overall governing body)

Bylaws language:
Assist in developing, implementing, evaluating and/or facilitating policies regarding the evaluation, selection, therapeutic use, administration and monitoring of medications, related devices and nutritional products within the health system and its hospitals;
Undertake drug utilization review; review any significant adverse drug reactions; and revise and approve as appropriate all protocols or requests concerned with non-approved uses of FDA approved drugs; and develop, plan and/or facilitate educational programs related to medication use

- The Drug Information Specialist will maintain an ongoing plan that outlines which medications and/or clinical conditions that will be part of the MUE process for the upcoming year
- Medication use criteria will be developed through an interdisciplinary consensus process (transparency) that includes administrators, pharmacists, physicians, and nurses, when appropriate. These criteria will be communicated to affected professionals PRIOR to the evaluation of care.

Potential Sources of MUE Projects (not all inclusive):
- Medication event or adverse drug event data
- CMS core measures/other quality assurance data
- P&T initiatives
- Non-formulary requests
- Budgetary information (e.g. drugs with very high cost/utilization)
- Other committee objectives (e.g. Medication safety committee, pain committee, ICU Q/A committee, etc)
• Pharmacist-identified problems/concerns

Steps to Successfully Conducting an MUE:
• Identify a clear, measurable objective
  o MUE objectives typically attempt to evaluate medication effectiveness; improve patient safety, or avoid medication misadventure including adverse drug events; standardize therapy to reduce variation; optimize therapy; meet federal, local, regulatory, professional, or accreditation standards; or minimize costs.
• Identify a clinical question to be answered by an MUE that is clear, unbiased, specific, consistent, and clinically important (What, Who, Where, When, and So What)
• Literature search for ways to define and measure variables of interest
  o Formulary monograph service
• Once a topic is selected, establish a collaborative approach:
  o Clinical experts: consult for question specification and definition; also establish buy-in and transparency
  o I.T.: consult for data collection strategies, pitfalls
  o Statisticians: sample size requirements, etc
  o Institutional Review Board (IRC): if publication of findings is anticipated
• Establish specific criteria for evaluating medications/processes that are evidence-based and supported by clinical experts
• MUE criteria are reviewed and approved by (PELT and P&T if appropriate) prior to initiation of data collection
• Collect data: piloting data abstraction tool may be necessary in some cases
• Data analysis
• Develop & communicate conclusions/recommendations for improvement based on findings (if indicated)
• Assess effectiveness of recommendations/actions taken and document improvements

Appendices
Appendix A. Medication Use Evaluation (MUE) Process
Appendix B. Proposal/Request for MUE Submission PELT approval
Appendix C. MUE Summary of overall results
Appendix A. Medication Use Evaluation (MUE) Process

Assign responsibility (Multidisciplinary team)

Establish priorities (Identify high-use, high-risk, problematic, and so forth medications)

Select topic

Develop or adapt measurement tool (criteria, indicator, and so forth)

No

Was the measurement tool adequate/appropriate?

Obtain approval of tool

Yes

Approval Granted by PELT

No

Were data collected appropriately

Yes

Data analysis was flawed

Collect data

Analyze data

Are significant opportunities for improvement identified

Yes

Identify potential interventions

No

Does data reflect compliance

Yes

Report findings and recommend corrective action

Actions approved by P&T Committee

Obtain approval for corrective action

Implement corrective action

Assess effectiveness of corrective action

Effective intervention

Report results

Implement alternative intervention(s)

Repeat as needed

1. Report findings & recommended actions to PELT
2. Report to stakeholders

Clinical QAPI Meeting once/month or bimonthly
Appendix B. Template for MUE Submission for PELT Approval

1. MUE Title:
2. To be completed by:
3. Medical staff collaborator(s):
4. Objective(s) of the MUE:
5. Focus of proposed MUE (Select all that apply):
   - Promote appropriate medication use (Appropriateness)
   - Evaluate medication effectiveness (Effectiveness)
   - Prevent medication-related problems and improve patient safety (Safety)
   - Improvement in the level of patient care as it relates to internal or external quality standards (Quality)
   - Meet federal, local, regulatory, professional, or accreditation standards (Compliance)
   - Minimize cost of medication therapy (Cost)
6. Background
   State rationale for MUE
   What is the baseline performance?
7. Location(s) where data collection will occur:
   - System-wide
   - GMH
   - Other: _________________________________
8. Direction of inquiry:
   - Prospective
   - Retrospective
   - Concurrent
9. MUE Criteria:
   - Define criteria to be used for the evaluation
   - Use referenced criteria as much as possible
   - Define a threshold and acceptable performance level expected
10. Design:
    Timeframe for data collection or date range
    Data that will be collected
    How data will be obtained
    Approx. number of records to be evaluated
11. Resources / Needs Assessment:
    - Committee approvals (P&T, etc)
    - Reports / database access
    - Assistance with data collection
12. Timeline for completion:
13. Proposed reporting channels & frequency of reports
Appendix C. MUE Summary of overall results

MUE Title:

Objective of the MUE: States the intent to characterize the use of a single medication or therapeutic class, medication therapy for a specific disease state or condition, an element of the medication use process (prescribing, preparation, dispensing or administration) or specific outcomes from medication therapy at the hospital or health-system involved.

Background and Rationale: State the rationale for the MUE, review any known baseline performance history, or review events or medication usage that prompted the MUE. A review of FDA-approved indications, clinical research data, organizational history (e.g., last P&T review), and/or previously approved guidelines for use.

Criteria for Evaluation: Define the performance criteria or indicators being used for the evaluation and cite the source of these criteria. This section also defines a threshold of acceptable performance.

Methods: Define the design of the MUE, the data collected to evaluate the MUE criteria, how & over what time period the information was obtained, how patients for review were identified, who among them were included or excluded in the analysis, and a description of statistical analyses, if applicable.

Results: State the number of records reviewed, prescriber and prescription characteristics, description of the patient population, measures of efficacy, safety, and tolerability, whether the medication therapy was appropriately monitored, and clinical outcomes. Comparative cost estimates are frequently included. Whenever possible, results should be presented in outline format and/or through charts and graphs.

Conclusions: Draw conclusions from the results of the analysis. Answer the question posed that prompted the MUE, if able, and identify any surprising findings or area for further investigation.

Limitations: State any unexpected hindrances to data collection or challenges in the process of analysis, and whether there was incomplete or unobtainable information.

Recommendations: Recommend what interventions can be made to improve the medication use process and suggest what specific actions should be taken as a result of the MUE. Also, propose a plan for reassessment of performance and a reasonable time frame in which to determine if the intervention was successful. These recommendations can then be delivered back to administrators or committees who can make decisions on what individuals will be involved in implementing them.

References: Cite any references used to define the MUE
Section 15. Program Timeline
July

- Orientation
- Society of Critical Care Medicine (SCCM)
  o Consider submitting an abstract by deadline **August 1, 2018**
  o Meeting February 17-20, 2019 in San Diego, CA
- Review project list (To be distributed via email by July 15)
  o Select topic and have a meeting scheduled with project mentor by **July 31**

August

- Rotations begin
- Select longitudinal committee membership by **August 31**
- Mentorship program
  o Select mentor by **August 31**
- Research Project
  o Pick research topic and work with preceptor to begin development of project design
  o Begin search and collection of literature related to research topic
  o Develop data collection form
  o Make sure Citi-training is up to date (see section 12a of the Residency Manual for instructions)
- Residents begin On-call program
- Pharmacy & Therapeutics
  o Each resident will be required to develop and present a minimum of one drug monograph for the Pharmacy & Therapeutics Committee (or equivalent drug policy committee, such as Antimicrobial Subcommittee or Pediatric Task Force)
    ▪ This monograph should result in a process/order set/EMR change that the resident will see through to completion
  o Each resident will be required to participate in Medication Use Evaluation (MUE)
    ▪ See section 14 of the manual for details on the MUE process
  o The P&T Committee meets the second Wednesday of every month at 5:30 pm (no meetings in July or December)
- Seminar
  o Identify topic and begin working on formal seminar presentation
  o 60 minutes total (50 minutes in length with additional 10 minutes for questions)
  o Purpose: Prepare and deliver an accredited, evidence-based (must include primary literature), formal presentation on a topic of the resident’s choosing, pertinent to pharmacy staff
  o Identify topic and begin working on formal seminar presentation in September
    ▪ Topic must be approved by residency director
    ▪ Topic should be suitable for use on potential job interviews
    ▪ Should incorporate evaluation of primary literature to support recommended therapies for selected topic (i.e. randomized controlled trials)
  o Presentation advisor must be chosen to help direct and approve the final version
Two (2) evaluators must be contacted and selected by the resident no later than 2 weeks prior to the presentation. One of the two evaluators will be the resident advisor; if the advisor is not available, then an alternative evaluator must be identified.

- Evaluations required – print two copies and bring to presentation
- PowerPoint required
- Dates:
  - PGY2 (Perry) Monday, September 17, 2018 2-4 pm in MSA
  - PGY1 (Christina) Tuesday, October 9, 2018 2-4 pm in MSA
  - PGY1 (Kaci) Tuesday, October 16, 2018 2-4 pm in MSA
  - PGY1 (Lisa) Tuesday, October 23, 2018 2-4 pm in MSA
  - PGY1 (Brian) Monday, October 29, 2018 2-4 pm in MSA
  - PGY1 (Jessica) Tuesday, November 6, 2018 2-4 pm in MSA
  - PGY1 (Caroline) Tuesday, November 13, 2018 2-4 pm in MSA

### September

- Residents begin staffing without being extra on schedule
- Pharmacy week activities
  - Purpose: Create and maintain a schedule of activities for the week to celebrate our department
  - Set up meeting with Lucy
  - Begin to plan meals/activities
  - Dates: October 14-20, 2018
- Research Project
  - Resident research proposal presented to the clinical group
    - Purpose: Present proposed research project idea and methods to clinical staff, who will provide feedback to improve study design before presentation of the project to IRB.
    - 10 minutes in length
    - PowerPoint required
  - Monday, September 10, 2018 2-4 pm in ST31
  - Tuesday, September 11, 2018 2-4 pm in ST31
  - Submission of IRB research proposal
- Seminar
  - Present formal seminar presentation

### October

- Research Project
  - IRB submission deadline: **October 1**
  - Data collection after IRB approval
  - Submit Vizient abstract by **TBD**
- Medication Use Evaluation: Select topic by **October 1**
- Family Medicine Medical Resident Lectures
  - Coordinator: Dr. Alyson Ghizzoni-Burns
  - Identify topic by October 1
    - Presentation advisor must be chosen to help direct and approve the final version
- Topic of resident’s choosing from approved list, pertinent to family medicine residents
- Topics/schedule is posted on the Clinical Drive ➔ Family Medicine ➔ FM Lecture Series 2018-2019
- Insert your name and preferred topic in the document. The **bolded topics** have been requested to be scheduled earlier in the year if possible. A list of other proposed topics are included within the document
- Additional topics not included on the list must be approved by Dr. Alyson Ghizzoni-Burns
  - Develop presentation
    - PowerPoint required
    - Residents are expected to create original lecture material for this presentation – residents may use past lecture material as a guide but are expected to create their own material and content
    - Lecture presentation slides must be submitted to project mentor 1 month prior to lecture date for review by mentor
    - The resident is strongly encouraged to contact their mentor prior to this deadline to develop a draft and outline for the presentation material
  - Two evaluators required: The resident advisor will serve as the first evaluator (if advisor not available, then an alternate must be identified) and Dr. Ghizzoni-Burns will serve as the second evaluator
  - Lecture time is from 12:35-1:15pm (30 minutes in length, this includes 5 minutes for questions)
  - Resident prints two copies of the presentation and evaluation forms and brings to the presentation
- Dates:
  - Perry Carrington
    - December 19, 2018
  - Brian Norman
    - January 16, 2019
  - Jessica Snawerdt
    - February 20, 2019
  - Lisa Gibbs
    - March 27, 2019
  - Christina Beckert
    - April 17, 2019
  - Caroline Sutton
    - May 22, 2019
  - Kaci Foster
    - June 5, 2019
- Midyear Preparation
  - Begin development of Vizient/Midyear poster based on research project
  - Update Curriculum vitae
- National Pharmacy Week
  - Dates: October 21-27, 2018
  - Organize, present, and/or participate in associated activities
- School of Medicine (M2) Lecture
  - Date: October 30, 2019 9-10 am in Lecture Hall at School of Medicine

**November**
• Seminar Presentations continue
• Research Project
  o Continue data collection on research project
  o Poster Viewing Session
    ▪ Purpose: Allows clinical staff to give resident feedback prior to printing posters
    ▪ Date: Monday, November 12, 2018 2-4 pm in ST31
    ▪ Presentation on PowerPoint, poster is not printed for this session
    ▪ Please provide handouts of poster and bring to session
    ▪ Following poster viewing session make required revisions as agreed upon with project preceptors and have project preceptors give a final approval after revisions PRIOR to printing
• Reserve hotel and flights for Midyear
• Signup for Clinical Assessment Labs from email sent by Dr. Alyson Ghizzoni-Burns

**December**

- ASHP Midyear Clinical Meeting (Anaheim, CA)
  - Dates: November 30, 2018 – December 5, 2018
  - Participate in Vizient Poster Presentation on Saturday, December 1
  - Create Clinical Pearls presentation upon return
    - Each resident presents for 10-15 minutes (70-105 minutes, plus 15 minutes for questions)
    - Topics of resident choosing, but should incorporate a short overview of 3-4 educational sessions attended while at a professional meeting
    - PowerPoint required

- Research Project
  - Continue data collection

- Manuscript
  - Begin writing draft

**January**

- Research Project
  - Continue data collection

- Midyear Clinical Pearls presentation
  - Provide RPD a list of the Midyear sessions that the residents attended
  - Date: TBD

**February**

- Southeastern Residency Conference (SERC)
  - Submit abstract for Southeastern Residency Conference

- Research Project
  - Complete data collection and begin data analysis

- Acute Care Therapeutics Lecture (P3)
  - Topic: Neuromuscular Blocking Agents
March

- Research Project
  - Complete data collection and begin data analysis
- Southeastern Residency Conference (SERC)
  - Develop presentation of research project for SERC
  - Reserve hotel rooms

April

- Southeastern Residency Conference
  - Practice Presentation
    - Purpose: To provide resident with feedback to improve the presentation delivery at SERC
    - Fifteen minutes in length, including time for questions
    - PowerPoint required
    - All preceptors listed on project must review and approve final slide set
    - Date: TBD
  - Meeting in Athens, GA
    - Date: Thursday, April 25th – Friday, April 26th 2019
    - Formal presentation
      - PowerPoint required
      - See SERC website for specific presentation requirements (http://sercpharm.org/)

May

- Manuscript
  - Complete manuscript appropriate for publication in a peer-reviewed biomedical journal. The resident must be first author and be responsible for submission/revisions to a journal. At a minimum, all residents will submit manuscripts for publication in GHS Proceedings. The journal is published electronically twice a year http://university.ghs.org/proceedings/current).
  - More information, including instructions for submission, can be found online at http://hsc.ghs.org/proceedings/

June

- Upload all documents and presentations into folders on the clinical drive
  - GHS residency ➔ PGY1 Pharmacy Practice or PGY2 Critical Care ➔ Practice Year 2018-2019 ➔ Your folder
- Finalize Teaching Certificate requirements if applicable
- Graduation
  - Date: TBD
Listed below are the MINIMUM deadline requirements and timeline for formal presentations. It is the resident’s responsibility to contact and/or submit the required items to the project/presentation mentor. Preceptors may alter the deadlines or add to the deadlines as needed based on schedule and resident presentation needs.

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<th>Formal Seminar Presentation</th>
<th>Family Medicine Presentation</th>
<th>SOM Lecture</th>
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<td>Complete First Draft Submitted to Mentor</td>
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<td>Final Presentation Complete</td>
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<td>Independent evaluators MUST be contacted/selected by the resident</td>
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*Bolded X’s mean the presentation occurs for all residents in that specified month; Un-bolded dates will vary depending on the topic/monograph/MUE assigned or chosen*
Section 16. Orientation & Termination
PGY2 RESIDENT INITIAL SELF-ASSESSMENT

Name __________________________

Please answer all of the following questions in narrative form. In addition, some questions contain a Likert scale. Mark the scale at the numerical point which best describes your assessment of your experience or competency at this time. Be candid and thoughtful about your answers and communicate any specific strengths or deficiencies that you perceive in any area. Please feel free to use additional space if necessary. This self-evaluation will be used in the formation of your individual residency plan.

GENERAL

Describe the extent of your experience in the following areas:

a) Patient medication histories

Very experienced ____________________________  No experience

5 4 3 2 1

b) Patient education and counseling

Very experienced ____________________________  No experience

5 4 3 2 1

c) Participation in medical emergencies

Very experienced ____________________________  No experience

5 4 3 2 1

d) Written consults in the patient's chart

Very experienced ____________________________  No experience

5 4 3 2 1

e) Pharmacokinetics

Very experienced ____________________________  No experience

5 4 3 2 1

f) Parenteral nutrition

Very experienced ____________________________  No experience

5 4 3 2 1

Comments:
___________________________________________________________________________________
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Describe your extent of experience in the following areas:

a) Operating computerized database services (MEDLINE, Pubmed)
Very experienced

5 4 3 2 1
No experience

b) Use of the medical library and other information sources
Very experienced

5 4 3 2 1
No experience

c) Preparation of oral and written reports regarding requests for information
Very experienced

5 4 3 2 1
No experience

d) Preparation of medication use evaluations
Very experienced

5 4 3 2 1
No experience

e) Preparation of monographs for use by the Pharmacy and Therapeutics Committee
Very experienced

5 4 3 2 1
No experience

f) Preparation of drug therapy bulletins or other publications used by the medical staff
Very experienced

5 4 3 2 1
No experience

g) Reporting adverse drug reactions
Very experienced

5 4 3 2 1
No experience

h) Departmental quality assurance/improvement programs
Very experienced

5 4 3 2 1
No experience

Comments:

___________________________________________________________________________________
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DRUG OPERATIONS, DISTRIBUTION, AND CONTROL

Indicate your level of experience in the following areas:

a) Unit dose distribution
   Very experienced
   
   No experience

b) Preparation of extemporaneous formulations
   Very experienced
   
   No experience

c) IV admixture (795/797/800 standards, formulation, production, control, handling of IVs)
   Very experienced
   
   No experience

d) Familiarity with smart pump technologies / automated dispensing cabinets
   Very experienced
   
   No experience

e) Controlled substance laws, regulations, and security practices
   Very experienced
   
   No experience

f) Investigational drugs
   Very experienced
   
   No experience

g) Order entry Systems
   Very experienced
   
   No experience

h) Computerized physician order entry
   Very experienced
   
   No experience

Comments:

___________________________________________________________________________________
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COMMUNICATION AND EDUCATION

Assess your level of skill in the following areas:

a) Written communication
   Strong ___________________________ Weak
   5  4  3  2  1

b) Verbal communication
   Strong ___________________________ Weak
   5  4  3  2  1

c) Small group / large group public speaking
   Strong ___________________________ Weak
   5  4  3  2  1

d) Ability to provide verbal feedback / constructive criticism
   Strong ___________________________ Weak
   5  4  3  2  1

e) Ability to engage audiences in active participation
   Strong ___________________________ Weak
   5  4  3  2  1

f) Ability to meet the audience expectations, goals, with appropriate level of information
   Strong ___________________________ Weak
   5  4  3  2  1

g) Ability to utilize technology to improve understanding of information
   Strong ___________________________ Weak
   5  4  3  2  1

Comments:
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ADDITIONAL RESIDENT GOALS/EXPECTATIONS

Identify 3 specific goals that you personally wish to achieve during your residency:

List any areas of weakness that you would like to improve during the residency:

Describe your career expectations at the completion of your residency program:

Describe any educational/teaching opportunities you would like to experience this year:

Describe your desire to be involved with community and professional organizations:

Describe any additional experiences/opportunities you would like to have during your residency program:
Welcome new residents!!!

Think of this as your first to-do list of the year. During any slow periods or downtime, here is a list of things you should complete by the end of July (in order of priority):

☐ Clock in daily after today!!!
☐ BLS & ACLS Training
☐ Request a copy of your GHS background check to send to Presbyterian College
  o Call First Advantage and speak with consumer advocacy team 800-845-6004
  o Request copy of background check by email if possible to be sent to you. They will not send any information to a 3rd party
  o Once you have the information, fax (number 864-938-3903) to Holly Cook at PC and write on cover sheet that you are a GHS resident participating in the PC Teaching Certificate Program, providing copy of background check as requested by Cliff Fuhrman (PC Dean)
☐ CITI training (Research education training)
☐ Set up voice mailbox greeting. Can do this from any GHS phone, but recommend a quiet place
  o Dial 5-8477
  o Press 5 + last 4 digits of phone number + pound sign # (for example, 57944#)
  o Enter 4-digit password + pound sign #
  o Press 8*
  o Press 2 (greeting)
  o Record both external & internal greetings, following the prompts
☐ Set up outlook email signature
  o File>Options>Mail>Signatures
  o Your Name, PharmD | PGY1 Pharmacy Resident | Greenville Health System | 701 Grove Road Greenville, SC 29605 | office: (864)-455-XXXX | XXX@ghs.org
☐ Request business cards (check GHS email 6/27 for editable form and instructions)
☐ Request Egencia travel account
☐ Join ASHP ($80) & SCSHP ($35)
☐ Take picture for website (after labcoats arrive)
☐ Review project list and work to secure meeting with preceptor (7/16); ID topic by 7/31

Upcoming dates (please begin to get familiar with Outlook Calendar):
• Monday, July 16: Project list, mentor list, and committee lists to be emailed to you
• Wednesday, July 18 from 9 am to 4 pm: Teaching certificate orientation at PC (~1 hour away)
• Friday, July 20 from 2-3 pm in ST-42: Insulin education with Jessica Odom
• Tuesday, July 31: Topic/mentor for project should be selected. Please schedule mentor meeting by this date.
# Preceptor Academic and Professional Record*

Full Name and Credentials:

Position or Title:

RPD? □ Yes □ No

If yes, for which type of program are you RPD?

□ PGY1 □ PGY2 (type(s):__________________________________________)

Organization/Training Site:

Title of Learning Experience(s) Precepted:

## Education

<table>
<thead>
<tr>
<th>College or University</th>
<th>Dates</th>
<th>Degree/Major</th>
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## Postgraduate Training (e.g., residency, fellowship)

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<thead>
<tr>
<th>Specific Type of Postgraduate Training</th>
<th>Organization</th>
<th>Program Director</th>
<th>Dates</th>
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## Professional Experience (List your experience in pharmacy practice for the last ten years, most recent record first.)

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<tr>
<th>Practice Site</th>
<th>Location</th>
<th>Position and Title</th>
<th>Dates</th>
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*NOTE Please provide only the information requested. DO NOT submit any other materials (e.g., curriculum vitae/resume’ or copies of publications). Non-pharmacist preceptors are NOT required to fill out this form.
Briefly describe your contributions/experiences in the following sections, which correspond to Qualifications of the Residency Program Director and Preceptors, and can be found in Standard 4 of the ASHP Accreditation Standard for Postgraduate Year One (PGY1) Pharmacy Residencies or the ASHP Accreditation Standard for Postgraduate Year Two (PGY2) Pharmacy Residencies. Refer to the Guidance Document for the ASHP Accreditation Standard for Postgraduate Year One or Two (PGY1)/(PGY2) Pharmacy Residency Programs for additional information on residency program director and preceptor qualifications.

1. Recognition in the area of pharmacy practice for which you serve as a preceptor. (A minimum of one example in this section must be addressed. If preceptor recognition is by credentialing/privileging granted by organization, a copy of the organization’s credentialing process policy must be included in the pre-survey packet. Include only examples of active practice after licensure and any residency training.

Active BPS Certification(s) (type(s) and expiration date):

Fellow Status for a State or National Organization:

Active Multidisciplinary Certification(s) recognized by the Council on Credentialing in Pharmacy (Exceptions: BLS, ACLS, PALS do not meet requirement) (type(s) and expiration date):

Advanced Degrees related to practice area (e.g., MS, MBA, MHA):

Credential/Privileging Granted by Organization (type(s) and expiration date):

Pharmacist of the Year Recognition at state/city/institutional level (list organization)(List date):

Recognition at organization level for patient care, quality, or teaching excellence (please describe type and date of recognition and the approximate number of recipients per year):


2. An established, active practice for which you serve as preceptor. (A minimum of one example in this section should have been demonstrated within the past 5 years). Items listed in the below areas must pertain to the learning experiences precepted. Include only examples of active practice after licensure and any residency training and include date of contribution/appointment.

Contribution to the development of clinical or operational policies/guidelines/protocols (Narrative):

Contribution to the creation/implementation of a new clinical service or service improvement initiative (Narrative):


*NOTE Please provide only the information requested. DO NOT submit any other materials (e.g., curriculum vitae/resume’ or copies of publications). Non-pharmacist preceptors are NOT required to fill out this form.
Appointments to drug policy and other committees of the organization (e.g., practice setting, college of pharmacy):

<table>
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<tr>
<th>Committee</th>
<th>Activities</th>
<th>Chair or participant</th>
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3. Ongoing professionalism, including your personal commitment to advancing the profession. (At a minimum one example in three different sections must be demonstrated within the past 5 years – activities older than 5 years will not be considered. Only include examples after licensure and any residency training, except as noted below*.)

Primary Preceptor for Pharmacy Students (do not include residency preceptorship)

<table>
<thead>
<tr>
<th>Learning Experience Precepted</th>
<th>Number of Student Learning Experiences Precepted Per Year</th>
<th>Most Recent Year Served as a Preceptor</th>
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Routine In-services or Presentations to Pharmacy Staff/Other Health Professionals at Organization

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<thead>
<tr>
<th>Name of Inservice</th>
<th>Audience</th>
<th>Month/Date</th>
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Service (beyond membership) in National, State, and/or Local Professional Associations:

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<tr>
<th>Name of Association</th>
<th>Office Held, Committee Served, Other Volunteer Work</th>
<th>Dates</th>
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Presentations or Posters at a Local/Regional/National Professional Meeting (co-authored posters with students/residents is acceptable)

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<thead>
<tr>
<th>Title</th>
<th>Professional Meeting</th>
<th>Month/Year</th>
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*NOTE Please provide only the information requested. DO NOT submit any other materials (e.g., curriculum vitae/resume’ or copies of publications). Non-pharmacist preceptors are NOT required to fill out this form.
Completion of a Teaching and Learning Program (only if completed within the last 5 years).
*May be completed during residency.

Sponsor/Program Name and Date Completed: 


Providing Preceptor Development Topics at the site.

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<th>Title</th>
<th>Month/Year</th>
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Pharmacy Student/Technician Student/Healthcare Student Classroom/Lab Teaching Experiences

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<th>Audience Members</th>
<th>Course/Lecture</th>
<th>Date(s)</th>
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Evaluator at a state/regional residency conference, poster evaluator at a professional meeting, or evaluator at other local/regional/state/national meetings

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<th>Conference/Meeting</th>
<th>Description</th>
<th>Date(s)</th>
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Publications in Peer-Reviewed Journals/Chapters in textbooks

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<th>Title</th>
<th>Name of Journal/Book</th>
<th>Month/Year</th>
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*NOTE Please provide only the information requested. DO NOT submit any other materials (e.g., curriculum vitae/resume’ or copies of publications). Non-pharmacist preceptors are NOT required to fill out this form.
Reviewer of contributed papers, grants, or manuscripts. Includes reviewing/submitting comments on draft standards/guidelines for professional organizations (do not include review of posters/presentations/publications authored by staff/residents within your organization).

<table>
<thead>
<tr>
<th>Journal Name/Type</th>
<th>Numbers of Reviews</th>
<th>Date(s)</th>
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Participant in Wellness Programs, Health Fairs, Consumer Education Classes, Volunteer at Free Clinics or other Disease Prevention Programs

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<thead>
<tr>
<th>Type of Program</th>
<th>Sponsor or Setting</th>
<th>Dates or Frequency</th>
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Professional Consultation to Other Health Care Facilities or Professional Organizations (e.g. invited thought leader for an outside organization, mock surveyor, or practitioner surveyor)

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4. For Preceptors-in-training only: attach preceptor development plan created for this individual to meet eligibility, responsibility, and qualifications requirements in two years.

List the qualified preceptor(s) assigned as an advisor or coach:

__________________________________________________________________________

*NOTE Please provide only the information requested. DO NOT submit any other materials (e.g., curriculum vitae/resume’ or copies of publications). Non-pharmacist preceptors are NOT required to fill out this form.
Section 17. Schedules
Section 18. Travel
STEPS FOR SUBMITTING A REQUEST FOR REIMBURSEMENT

FIRST:

• **Egencia Account (for flight reservations):** Create an Egencia account, following the instructions in the separate document “GHS Egencia for Dummies.” This can take a while, so don’t wait until the last minute.

***Before submitting any travel request, schedule a group meeting with Donna Taylor (department Administrative Assistant) and other attendees to develop a plan/timeline for submission.***

As of 2018, the types of travel-related expenses eligible for reimbursement (either all or in part) include:

• Meeting registration
• Flight
• Hotel stay
• Mileage, rental cars and/or taxi fares (subject to prior authorization)

As of 2018, the following incidental travel-related expenses are NOT eligible for reimbursement, unless specifically stated otherwise:

• Meals
• Checked baggage fees
• Parking fees

In ALL cases, what you request on your GHS Educational Business Travel Request Form (document 18c in resident manual) must be consistent with what you request on your reimbursement requests. This includes days of travel/days missed from work.

I. Process for SCSHP meetings and SERC

• **1-2 Months Prior to Departure:**
  - Complete and submit a resident PTO/leave request form to receive EDU leave
  - Complete and submit a travel request form “GHS Educational/Business Travel Request Form.” **Scan and email a copy to the RPD to approve prior to submitting to pharmacy admin assistant**
  - Submit travel request form to the pharmacy department administrative assistant (Donna) for approval/signature.

• Donna will review the paperwork and submit to the department director for approval and signature.

• After director approval, the paperwork will be submitted to the corporate office for administrative approval and signatures (Administrator and GMMC Campus Vice-President or President).

• The pharmacy administrative assistant will receive the “GHS Educational / Business Travel Request Form” back from the corporate office. A signed copy
will be sent to you – do not lose this form, you will need to submit a copy upon return for reimbursement.

- All travel expenses must be paid up front by the traveler. Be sure to keep itemized receipts for all expenses. Credit card statements are not acceptable as a receipt.

**While Away**
- Keep itemized receipts for all expenses such as meals, transportation, lodging, registration fees, airline fees, and other individual one-time expenses.
- Totaled receipts from using a debit or credit card will not be accepted.

**Upon Return**
- Obtain a copy of “Travel Form B” from the pharmacy administrative assistant.
- Complete “Travel Form B”.
  - Break down meals per day
  - If you drove, calculate mileage (check with RPD for the current reimbursement rate per mile)
  - Your horizontal and vertical totals should be the same
  - In boxed section at the bottom right of the form, enter the total expenses
- Include copies of all itemized receipts, hotel bills, registration receipts, and a copy of the signed travel request form “GHS Educational/Business Travel Request Form”
- Tip: Scan and email yourself a copy of all documentation in case it gets lost.
- Submit your reimbursement paperwork together as a packet to the pharmacy administrative assistant.
- You will receive an email in a few weeks that the money has been deposited into your account.

**II. Process for UHC/Midyear Meeting (Advanced Expenses and Airfare)**
- **2-3 Months Prior to Departure:**
  - Complete and submit a resident PTO/leave request form to receive EDU leave
  - Complete and submit a travel request form “GHS Educational/Business Travel Request Form.” Scan and email a copy to the RPD to approve prior to submitting to pharmacy admin assistant
  - Submit travel request form to the pharmacy department administrative assistant (Donna) for approval/signature.
- Complete “Travel Form A” for each item to be pre-paid (hotel, registration, etc) so separate checks can be issued (i.e. hotel, registration).
  - Tips for completing travel form A: The check will be payable to whomever the money is being paid to (Hilton, ASHP, etc). Hospital name is “GMMC.” Department is “Pharmacy” and the Department number is 10-1087300. List Donna Taylor as the contact person (phone 5-7065).
  - If you are submitting for meeting registration, complete and attach a registration form.
Travel advances will be limited to the cost of registration fees and lodging. Gas or food will not be advanced. Flights will be booked within the Egencia portal (you will not have to pay out of your account for this).

Send the white and yellow copies of “Travel Form A”, along with a copy of your “GHS Educational / Business Travel Request Form”, to the pharmacy administrative assistant who will review and send to the Accounts Payable Office.

Be sure to keep the pink and gold copies of “Travel Form A”, which you will be required to submit upon return. It’s a good idea to scan and save everything in case it gets lost.

While Away
• Keep itemized receipts for all expenses such as meals, transportation, lodging, registration fees, airline fees, and other individual one-time expenses.
• Totaled receipts from using a debit or credit card will not be accepted.

Upon Return
• Obtain a copy of “Travel Form B” from the pharmacy administrative assistant.
• Complete “Travel Form B”.
  o Break down meals per day
  o If you drove, calculate mileage (check with RPD for the current reimbursement rate per mile)
  o Your horizontal and vertical totals should be the same
  o In boxed section at the bottom right of the form, enter the total expenses
• Include copies of all itemized receipts, hotel bills, registration receipts, a copy of the signed travel request form “GHS Educational/Business Travel Request Form,” and copy of your travel form A.
  o Complete the bottom boxed section listing your advanced expenses, dates, and descriptions. The advance number will be the number in the top right hand corner of the travel form A you submitted.
  o Subtract your advanced expenses from the amount you are submitting for reimbursement as the “balance due employee.”
    ▪ For example, you went to a meeting and paid 100 for registration (advanced), 200 for hotel (advanced), 150 for flight (egencia), and 300 for meals (out of pocket).
      ❖ Total expenses: $750
      ❖ Total advances and prepayments: $450
      ❖ Refund due hospital: $0
      ❖ Balance due employee: $300
• Tip: Scan and email yourself a copy of all documentation in case it gets lost.
• Submit your reimbursement paperwork together as a packet to the pharmacy administrative assistant.
• You will receive an email in a few weeks that the money has been deposited into your account.
III. For Local Travel (Rare)

- If your destination was local (200 miles or less), complete “Travel Form C”
- In order to receive your reimbursement in the next pay period, all documentation must be delivered to the pharmacy administrative assistant by the Wednesday morning prior to that pay period. For example, if payroll Monday is September 29th (pay day on October 3rd), all documents must be submitted by Wednesday, September 24th, which is a week prior to that pay day.
- Documentation for reimbursement of travel expenses must be submitted within 60 days of return. Travel expenses submitted after this deadline will not be eligible for reimbursement unless there are extenuating circumstances.