Purpose of the PGY2 Critical Care Pharmacy Residency at MUSC

The MUSC Medical Center is a 700-bed tertiary care academic medical center providing care for patients of Charleston and throughout the state of South Carolina. In addition to general medical and surgical services, MUSC offers a variety of specialty services including cardiothoracic, transplant and neurosurgery, level I trauma center, digestive disease, psychiatry and level III neonatal intensive care. The medical center is comprised of four hospitals, Ashley River Tower, Children’s Hospital, Institute of Psychiatry, and University Hospital. Outpatient facilities include the Hollings Cancer, Ashley River Tower Clinics, Rutledge Tower Clinics, Family Medicine Center and affiliated faculty practice ambulatory care centers. The Department of Pharmacy Services provides service to patients on a 24-hour basis through multiple inpatient and ambulatory pharmacies to fulfill the department’s mission, vision, and goals of providing optimal pharmaceutical care to all patients.

The PGY2 Critical Care Pharmacy residency program at MUSC is a one-year post-graduate training program designed to prepare critical care specialists. Residents who complete the program are qualified to accept a position and practice in a variety of critical care environments including, but not limited to: medical, surgical-trauma, neurosurgical, cardiothoracic, and transplant. As part of the extensive training residents will receive, residents will be able to identify, prevent, and resolve medication-related problems, participate as active members of a multidisciplinary healthcare team, demonstrate leadership skills, and provide education to various healthcare providers and patients.

Intended Outcomes

Graduating PGY2 Critical Care residents who successfully complete the one year program will:

- Be able to effectively manage all of the pharmaceutical care needs of a complex critically ill medical or surgical patient in an academic medical center or community setting.
- Residents will also obtain the skill set required to precept PharmD candidates on rotation, develop and modify protocols/guidelines, and actively participate as part of a multidisciplinary team.

Residency Program Structure

The Critical Care residency program is designed to provide the flexibility to adapt to the resident’s specific learning needs and goals. The training is provided through concentrated clinical rotational and longitudinal experiences.

Updated 05.2014
There are **7 required** learning experiences plus the mandatory orientation month for residents coming from PGY1 programs outside of MUSC:

<table>
<thead>
<tr>
<th>Learning Experience</th>
<th>Rotation Length</th>
</tr>
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<tbody>
<tr>
<td>Orientation (July of each year)</td>
<td>1 month</td>
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<tr>
<td>Medical Intensive Care Unit (MICU)</td>
<td>2 months</td>
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<tr>
<td>Cardiothoracic Intensive Care Unit (CTICU)</td>
<td>1 month</td>
</tr>
<tr>
<td>Surgical Trauma Intensive Care Unit (STICU)</td>
<td>1 month</td>
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<tr>
<td>Transplant (Inpatient) which entails either abdominal or heart-lung transplant</td>
<td>1 month</td>
</tr>
<tr>
<td>Neurosciences Intensive Care Unit</td>
<td>1 month</td>
</tr>
<tr>
<td>Medical Surgical Intensive Care Unit (MSICU)</td>
<td>1 month</td>
</tr>
<tr>
<td>Clinical On-call</td>
<td>Longitudinal</td>
</tr>
<tr>
<td>Operational Staffing</td>
<td>Longitudinal</td>
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</tbody>
</table>

The program is flexible in its design to offer the following elective rotations all of one month in duration:

<table>
<thead>
<tr>
<th>Elective Learning Experiences</th>
<th>Rotation Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pediatric Intensive Care Unit (PICU)</td>
<td>1 month</td>
</tr>
<tr>
<td>Cardiac Intensive Care Unit (CICU)</td>
<td>1 month</td>
</tr>
<tr>
<td>Pulmonary Floor Service</td>
<td>1 month</td>
</tr>
<tr>
<td>Antimicrobial Stewardship</td>
<td>1 month</td>
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<tr>
<td>Infectious Diseases Consult</td>
<td>1 month</td>
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</table>

**PGY2 Critical Care Preceptors** – all with affiliations with the South Carolina College of Pharmacy:

<table>
<thead>
<tr>
<th>Required Rotation Preceptors</th>
<th>Additional Elective Preceptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joe Mazur, PharmD – Clinical Associate Professor</td>
<td>Wendy Bullington, PharmD, Clinical Associate Professor</td>
</tr>
<tr>
<td>Ron Neyens, PharmD, Clinical Assistant Professor</td>
<td>Jill Thompson, PharmD, Clinical Assistant Professor</td>
</tr>
<tr>
<td>Walt Uber, PharmD, Clinical Professor</td>
<td>John Hurst, PharmD, Clinical Assistant Professor</td>
</tr>
<tr>
<td>Tanna Hassig, PharmD, Clinical Assistant Professor</td>
<td>John Bosso, PharmD, Clinical Professor</td>
</tr>
<tr>
<td>Nicole Pilch, PharmD, MSCR, Clinical Associate Professor</td>
<td>Barbara Wiggins, PharmD, Clinical Professor</td>
</tr>
<tr>
<td>Brian McKinzie, PharmD, Clinical Assistant Professor</td>
<td>Donald Wiest, PharmD, Assistant Dean for Faculty Affairs</td>
</tr>
</tbody>
</table>

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Preceptors (Expectations by the RPD)

Each clinical preceptor will be responsible for the coordination of their own learning experience. Preceptor will modify the learning experience accordingly with the assistance of the RPD should the resident need remediation as far as residency goals are concerned. The residency preceptor will exhibit the characteristics and aptitude necessary for residency training including the mastery of the four preceptor roles fulfilled when teaching clinical problem solving (direct instruction, modeling, coaching and facilitation). The residency preceptor will guide and monitor the resident’s activities and service throughout the learning experience. The residency preceptor will provide ongoing formative and summative evaluations of the resident’s performance, with the goal of advancing the resident’s competency on the specific goals assigned to the experience.

The specific preceptor responsibilities are as follows:

- Understand the resident’s responsibilities to the residency teaching experience and to ongoing activities such as projects, talks, student discussions, manuscript preparation.
- Develop and maintain goals and objectives for the specific residency teaching learning experience(s).
- Review the resident’s training plan and resident’s previous performance and modify the learning experience accordingly.
- Orient the resident to the rotation’s setting, and monitor/evaluate/critique the resident’s performance during the experience.
- Provide the resident a midpoint in written and verbal format, and be able to complete the final summary ResiTrak™ evaluation by month’s end as outlined in the residency manual.
- Advise the RPD of any appropriate interventions that may be needed relevant to the resident’s performance.
- Actively participate in an annual feedback session in which preceptors and the RPD consider overall program changes based on evaluations, observations, and direct resident feedback and surveys.

Residency Advisor Role

The Residency Advisor(s) are appointed by the Residency Program Director (RPD) and are responsible for the supervision, guidance and on-going evaluation of the resident’s progress throughout the residency. Advisors also provide an informal professional mentoring role (examples include preparation for future career planning roles, advice on other issues that maybe impacting on the resident’s performance).
Specific Resident Responsibilities

The residents’ role is that of a student, novice practitioner, and emerging clinician and/or administrator. The resident is to participate in ongoing clinical and administrative services with the assistance of the residency preceptor and develop their skill set into a competent clinical practitioner and/or future administrator. The resident must accept and apply qualitative feedback in addition to performing self-evaluations on their performance.

In order to promote an effective and productive residency experience, the relationship between a resident and rotation preceptor must be highly communicative, and a meaningful dialogue must be achieved. Specifically, the resident will:

- Sign off on the learning experience orientation form on the first day of each new clinical rotation.
- Maintain strict deadlines as far as ResiTrak™ requirements are concerned – outlined in the MUSC residency manual – see table for specific deadlines. This involves project work, mini-MUE work, seminar preparation, and any other talk or inservice/presentation that will require preceptor feedback.
- Understand the preceptor’s expectations for daily activities, services provided and preceptor contact.
- Maintain a bi-monthly resident hours Excel spreadsheet documenting all workload hours in accordance to ASHP standards, as well as maintain the disease-state appendix for review each quarter discussion with the advisor and RPD.
- Participate in pharmacy functions (e.g. rounds, patient care conferences, lectures, departmental meetings, clinical staff meetings, Seminars, and RITEs) in accordance to the MUSC residency manual.
- As outlined by the clinical preceptor, provide a detailed account of activities as they relate to the goals and objectives of the learning experience.
- Maintain active communication with the preceptor, advisor and/or RPD concerning any planned off-service activities (e.g. meetings, seminars, projects, staffing, on-call commitments) that the resident will be participating in during the rotation.

Individual Learning Experience Evaluations and Grading

The resident is expected to successfully complete and achieve all of the required outcomes according to ASHP Educational Outcomes, Goals and Objectives for PGY2 Pharmacy Residencies in Critical Care. This will include the following under the “achieved category”:

- Outcome R1: Demonstrating leadership and practice management skills.
- Outcome R2: Optimizing the outcomes of the critically ill patients by providing evidence-based medication therapy as an integral part of the interdisciplinary team.
- Outcome R3: Demonstrating excellence in the provision of training, including preceptorship, or educational activities for health care professionals and health care professionals in training.

Updated 05.2014
• Outcome R4: Demonstrate the skills necessary to conduct a critical care pharmacy research project.
• Outcome R5: Participate in the management of medical emergencies.

The resident is expected to demonstrate proficiency in 90% or above of all activities linked to these specific outcomes via the various goals and objectives assigned from the learning experiences to successfully complete the MUSC program. The resident will observe, learn, act, and then master a particular activity which will deem the resident as achieving that goal. This again will be high individualized and not applied to every resident exactly the same.

For the various elective outcomes, goals, and objectives for PGY2 Pharmacy Residencies in Critical Care, the resident will have to achieved at least 60% or 3/5 of these outcomes at the achieved status (via the various goals and objectives from the learning experience) to successfully complete the MUSC program. These include the following outcomes:

• Outcome E1: Perform quality improvement activities aimed at enhancing the safety and effectiveness of medication-use processes in the critical care area.
• Outcome E2: Provide formalized critical care medication-related information.
• Outcome E3: Demonstrate additional leadership and practice management skills.
• Outcome E4: Contribute the critical care pharmacy perspective to planning for and/or management of mass casualty events.
• Outcome E5: Demonstrate skills required to function in an academic setting.

Selection of Residency Candidates

• Invitation for on-site interview
  o Following receipt of full application packet as outlined on [http://academicdepartments.musc.edu/pharmacy_services/residency/](http://academicdepartments.musc.edu/pharmacy_services/residency/) candidates will be screened using the transplant residency screening tool
  o The top 5 to 7 candidates based on objective score from transplant residency screening tool and midyear interviews for off-site candidates and internal discussions for internal candidates. Candidates brought in for interview will be decided on collaboratively by the Critical Care/Transplant PharmD group (Joe Mazur –RPD, Walt Uber, Ron Neyens, Tanna Hassig, Brian McKinzie, Nicole Pilch, James Fleming, Holly Meadows)
  o Internal candidates are screened once their application is received and the Critical Care/Transplant PharmD group determines if an interview should take place prior to midyear

• On-site interviews
  o Include interviews with the multidisciplinary team including behavioral based questions and each interviewer will provide an interview score
  o Interview scores are collated and added to the pre-interview screening score
  o Candidates are then ranked and discussed by the Critical Care/Transplant PharmD group to determine the final ranking of candidates

• Criteria for selection

Updated 05.2014
Following internal candidate interviews prior to midyear the Critical Care/Transplant PharmD group meets and determines if an offer for the PGY2 position should be made prior to midyear or if they would like to wait until all candidates are evaluated at midyear.

For external and internal candidates wishing to partake in the match, final ranking is determined by the combined score of the pre-interview screening tool and on-site interview score along with expert opinion from the Critical Care/Transplant PharmD group.

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