

# Critical Care I Course Description

## Learning Experience Title: Critical Care I (PGY2)

### Preceptor:

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PGY2 Critical Care Residency Program Director  
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### Purpose:

The Critical Care learning experience is one in which residents will be introduced to the Intensive Care Unit and caring for critically ill patients. The role of the critical care pharmacist includes participation in multidisciplinary rounds, bed-side patient rounds, medication profile review and therapeutic optimization, therapeutic drug monitoring as well as resident and student education. During the learning experience, residents will further develop their pharmacotherapeutic skills and broaden their knowledge base within the area of Critical Care. The resident will also serve as the clinical pharmacist for the Medical Critical Care team.

### Learning Experience Responsibilities:

- Attend multidisciplinary rounds at 8:45am daily
- Attend all *Code Blue's* in the ICU
- Serve as primary pharmacist for all patients on the Critical Care Medicine service
- Provide timely, evidence based drug therapy recommendations and information
- Design evidence based therapeutic regimen and monitoring plan when pharmacy is requested to dose medications
- Monitor all patients in the *pharmacy clinical notebook*
- Present as least one topic discussion (approx. 30min.) to the pharmacy/medical staff
- Function as a liaison between the Critical Care Service and the Department of Pharmacy
- Actively participate in /or lead topic discussions with Pharm.D. students and/or PGY1 pharmacy practice residents, and preceptor
- Supervise Pharm.D. students and/or PGY1 pharmacy practice residents (if applicable)
- Actively participate in all mid-point and final evaluations of Pharm.D. students and/or PGY1 pharmacy practice residents
- Complete other duties as assigned by preceptor

### Disease States

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:

- Neurology
  - Epilepsy, CVA
- Renal disorders
  - Acute renal failure, chronic kidney disease, acid base disorders
- Respiratory disorders
  - Asthma, COPD, respiratory failure, ARDS, ALI
- Gastrointestinal disorders
  - GERD, PUD, GI bleed, pancreatitis, hepatitis, liver failure
- Endocrinologic disorders
  - Diabetes Mellitus, DKA, thyroid disorders
- Systemic
  - Hemorrhagic shock, septic shock, vasopressors, inotropes, SIRS
- Hematology
  - DVT, PE, Drug-Induced thrombocytopenia, anemia, blood loss/replacement
- Pain, Agitation, Delirium
- Neuromuscular blockade
  - Peripheral Nerve Stimulation
- Mechanical Ventilation
- Enteral and Parenteral nutrition in the critically ill

### Required Readings

The reading materials for this learning experience include but are not limited to the following:

- *Surviving Sepsis Campaign: International Guidelines for Management of Severe Sepsis and Septic Shock: 2012*; Journal of Critical Care Medicine, February 2013
- *Clinical Practice Guidelines for the Management of Pain, Agitation, and Delirium in Adult Patients in the Intensive Care Unit*; Journal of Critical Care Medicine, January 2013
- *The Use of Neuromuscular Blocking Agents in the ICU: Where Are We Now?* Journal of Critical Care Medicine, May 2013

### Goals and Objectives to be covered:

- R1 Demonstrate leadership and practice management skills:
  - Goal R1.1 Exhibit essential personal skills of a practice leader.
  - Goal R1.2 Contribute to the critical care practice area's leadership and management activities.
  - Goal R1.3 Exercise practice leadership
- R2 Optimize the outcomes of critically ill patients by providing evidence-based medication therapy as an integral part of an interdisciplinary team.
  - Goal R2.1 Establish collaborative professional relationships with other members of the interdisciplinary critical care team.
  - Goal R2.2 Prioritize the delivery of care to critically ill patients.

- Goal R2.3 Act in accordance with a covenantal relationship with the patient.
- Goal R2.6 Design evidence-based monitoring plans for critically ill patients.
- Goal R2.7 Recommend regimens and monitoring plans for critically ill patients.
- Goal R2.8 When appropriate, implement selected aspects of critical care patients' regimens and/or monitoring plans
- Goal R2.9 Evaluate critically ill patients' progress and redesign regimens and monitoring plans
- R3 Demonstrate excellence in the provision of training, including preceptorship, or educational activities for health care professionals and health care professionals in training.
  - Goal R3.1 Provide effective education or training to health care professionals and health care professionals in training.
- R5 Participate in the management of medical emergencies.
  - Goal R5.1 Participate in the management of medical emergencies.

**Objectives to be evaluated**

Activity	Objective
Presenting a well thought out plan to the critical care team to defend recommendations and to optimize patients care.	1.3.1
Interact with both the patient and their representative whether it is during rounds, or when speaking to them outside of rounds to gather or explain pertinent information regarding their care or that of their loved ones.	1.3.3
Work up patients each morning prior to rounds to identify medication related issues and devise therapeutic plan. Attend daily work rounds provide pharmaceutical care services for the critical care medicine team	2.4.1, 2.4.2, 2.4.3
Being an active member of critical care team. Effectively communicate with medical staff recommendations and reasoning while understanding alternative views and coming to a consensus that is in the best interest of the patient and is in line with their wishes.	2.1, 2.5.1
Monitor outcomes on all patients on the CC service receiving vancomycin or aminoglycosides for dosing appropriateness and effectiveness of treatment and if needed, obtain necessary labs to redesign therapy to achieve appropriate outcomes	2.7.1 2.8.1, 2.8.2, 2.9.1, 2.9.3
Present formal case presentation at the conclusion of the learning experience as well as give a presentation to the critical care team (if applicable)	3.1.5 and 3.1.1

**Requirements of Learning Experience:**

Expected Hours: 0700-1600 (Times may vary depending on patient census and service requirements)

Required presentations: One topic presentation (approx. 30 min.) to the pharmacy/medical staff

Required readings:

\*Topic will be discussed on a case-by-case basis and/or upon area(s) of interest but will focus on the areas of emphasis shown below

Misc. Projects: To be determined by preceptor

**Method of evaluation:**

Evaluation of the resident will be based on the ASHP activity learning experiences listed above. Each learning activity has a corresponding code following the experience which corresponds to the activity learning experience listed in PharmAcademic®. During the orientation to the learning experience, the preceptor and the resident will review all the material contained in this learning experience description and sign a copy to be retained in the residents file.

The preceptor will provide feedback verbally (formative) throughout the course of the learning experience and electronically (summative) via PharmAcademic® at the conclusion of the experience. Once the resident is finished with all of the requirements for the experience, the preceptor and the resident will discuss the learning experience as a whole both formally and informally. The resident will also be responsible for providing both formative and summative feedback at the conclusion of the experience. All evaluations must be submitted by the conclusion of the learning experience.

*I have read and acknowledged the responsibilities of the learning experience.*

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Pharmacy Resident

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Primary Preceptor