

## PGY2 Critical Care Course Description

### Learning Experience Title: Pediatric Intensive Care Unit

#### Preceptor:

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#### Description:

This elective learning experience involves the provision of direct patient care for patients in the pediatric critical care unit. The resident pharmacist in this role will spend four weeks working with the medical team in the unit to identify, prevent and resolve medication therapy issues for PICU patients. Excellent critical reasoning skills are essential in this rotation. The resident must devise efficient strategies for accomplishing the required activities in a limited time frame and often during emergent situations.

The pharmacists participate in clinical activities including; 1) Daily review of medical or surgical patients' laboratory values/culture and sensitivity reports, 2) Daily review of patients' medication orders for appropriate drug therapy and doses, 3) Attending patient rounds with the team, 4) Therapeutic recommendations including appropriate medication and dosage based on disease state and laboratory values, 5) Drug and dosage information for PICU staff including attending physicians, residents, and nurses regarding pharmacology, adverse drug reactions, administration compatibility, 5) Participation in all intubations, cardiac arrest resuscitations and other emergency situations and procedures in the PICU 6) Provide in-service education to nurses and other practitioners, 7) Provide instruction to pharmacy technicians, pharmacy students, pharmacy residents and pharmacists.

The pediatric intensive care unit (PICU) is a 41 bed unit that provides specialty care to critically ill children from neonates to 18 years old. The PICU specializes in the comprehensive care of post-operative cardiac surgery patients. The children in the PICU are managed by 2 medical teams and 2 cardiac surgery teams. Each team is managed by an attending physician who is in charge of the service. The physician is assisted by a PICU fellow and a team of residents. There is twenty four hour coverage by an attending physician in the PICU. General surgery patients may also come to the PICU and are managed by the surgery service. There is a clean room within the PICU that offers services 24 hours per day 7 days a week. This satellite is staffed by 3-4 pharmacists and three technicians on the day shifts and by one pharmacist and one technician on nights

#### Resident Responsibilities:

- Attend multidisciplinary rounds at 8:30am daily
- Provide timely, evidence based drug therapy recommendations and information
- Design evidence based therapeutic regimen and monitoring plan when pharmacy is requested to dose medications

- Attend all *Code Blue's* in the ICU
- Serve as primary pharmacist for all patients on the PICU Medicine service
- Function as a liaison between the Critical Care Service and the Department of Pharmacy
- 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:

- |  |                             |
|--|-----------------------------|
| • Cardiopulmonary resuscitation              | • Acute Kidney Injury/ CRRT |
| • Shock (septic, cardiac, hypovolemic)       | • Congenital heart defects  |
| • Intracranial hypertension / cerebral edema | • Congestive heart failure  |
| • Sepsis / meningitis                        | • Hypertensive crisis       |
| • Status epilepticus                         | • Poisonings/ Ingestions    |
| • Status asthmaticus                         | • Respiratory distress      |
| • Multiple traumas                           | • Diabetic ketoacidosis     |
|  | • ECMO                      |

**Learning Experience Activities:**

Activity	Objectives Covered
Use electronic health record to collect patient-specific information prior to rounds each morning	R1.1.3
Determine presence of any medical therapy problems to discuss on rounds	R1.1.4
Design patient-specific treatment plan for each problem identified	R1.1.5
Effectively communicate with medical staff a recommendation and reasoning while understanding alternative views and coming to a consensus.	R1.1.1
Give detailed report on patient's to PICU pharmacist each day or Floor team pharmacist upon transfer out of the ICU	R1.2.1
Document appropriate pharmaceutical recommendations in patient's medical record	R1.1.7

**Objectives selected to be evaluated during learning experience:**

R 1.1.1 (Applying) Interact effectively with health care teams to manage critically ill patients medication therapy

R 1.1.3 (Analyzing) Collect information on which to base safe and effective medication therapy for critically ill patients

R 1.1.4 (Analyzing) Analyze and assess information on which to base safe and effective medication therapy for critically ill patients

R 1.1.5 (Creating) Design, or redesign, safe and effective patient-centered therapeutic regimens and monitoring plans for critically ill patients

R 1.1.7 (Applying) For critically ill patients, document direct patient care activities appropriately in the medical record, or where appropriate

R 1.2.1 (Applying) Manage transitions of care effectively for critically ill patients

**Requirements of Learning Experience:**

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

Required presentations: To be determined by preceptor

Required readings: Topics will be discussed on a case-by-case basis and/or upon area(s) of interest but will focus on the areas of emphasis previously stated in the disease states/conditions

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 within seven days from 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