

1903 Pediatric Acute ICU

Course: Pediatric Acute Intensive Care Unit Course Number: PED 1903

Department: Pediatrics

Faculty Coordinator: Leslie Garner, MD

Assistant Faculty Coordinators: N/A

UTSW Education Coordinator Contact: Anthony Lee (Anthony.Lee@UTSouthwestern.edu)

Hospital: (Location of rotation) Children's Medical Center

Periods Offered: Periods 1-12

Length: 4 weeks

Max # of Students: 2 (Post Clerkship Students)

First Day Contact: PICU Fellow (214-456-8597) or PICU Resident (214-456-8552)

First Contact Time: 7:00am

First Day Location: Children's Main Hospital PICU 12th Floor

Prerequisites: PED 1801 Pediatric Core Clerkship

I. Course Description

Students will be integral members of a team providing comprehensive pediatric care to critically ill neonates, infants, and children. Teams are typically composed of 2-3 pediatric residents, an outside rotating resident, an ICU fellow, and an ICU attending. Students will participate in the care of patients with heart disease, respiratory failure, neurological disease, infectious disease, and a variety of other illnesses. Each student is assigned 1-2 patients and will have the primary responsibility for these patients under the supervision of a PICU faculty member.

<u>Goals</u>	<u>Objectives</u>	<u>Assessment Methods</u>
Patient Care: Students, together with supervising faculty, must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.	• Gather essential and accurate information about their patients. <i>Examples: History, intercurrent problems, physical examination and results of pertinent laboratory tests and physiologic monitors.</i> • Make informed recommendations about diagnostic and therapeutic interventions based on physical examination, physiologic monitors, laboratory data, scientific evidence, and clinical judgment. <i>Examples: Patients with respiratory failure and shock.</i> • Together with the fellow and attending, communicate plan of care to parents. <i>Examples: Plan of care for mechanical ventilation.</i> • Work with health care professionals,	• Quality of Medical Records entries • Skills evaluation from direct observation.

1903 Pediatric Acute ICU

	including those from other disciplines, to provide patient-focused care, develop and carry out patient management plans. <i>Examples: Respiratory care, pharmacology, nursing, physical therapy.</i>	
Medical Knowledge: Students must demonstrate knowledge about established biomedical and clinical sciences and the application of this knowledge to patient care. They must understand the approach to establishing a differential diagnosis in the sick neonate.	• Develop a pathophysiology based understanding of common critical illnesses affecting children, including but not limited to: ○ Status Asthmaticus ○ Acute Respiratory Distress Syndrome ○ Shock ○ Sepsis ○ Diabetic ketoacidosis ○ Congenital Heart Disease ○ Status Epilepticus ○ Hypoxic Ischemic Brain Injury ○ Acute Renal Failure ○ Coma ○ Recovery from Extensive Surgical Interventions ○ Brain Death • Learn the indications and physical assessment skills required for determining the need for intensive care unit admission and treatment. • Develop the skill required to assimilate historical, physical, physiologic, and laboratory data, and to present data in an organized and prioritized manner. • Be exposed to and gain a basic understanding of the emergency treatment and stabilization of critically ill children: ○ Airway Obstruction ○ Respiratory Failure ○ Shock (cardiogenic, hypovolemic, anaphylactic, septic) ○ Deteriorating Mental Status/Altered Sensorium ○ Immunocompromise ○ Uncontrolled Fever ○ Persistent Seizures ○ Deteriorating Homeostatic Control: severe electrolyte abnormalities, progressive acidosis, osmolar disturbances, hepatic and renal insufficiency, severe multi-system trauma • Become familiar with standard ICU supportive care, including: ○ Mechanical Ventilation ○ Inotropic Support ○ Sedation and Pain Control	• Each student is required to create a case presentation and to present it to the faculty and fellows during the rotation. It is recommended that students present an interesting case they encountered during their rotation. However, they are also permitted to present on a topic of interest that relates to pediatric NICU. The presentation will be given in the designated department conference room.

1903 Pediatric Acute ICU

	○ Nutritional Support ○ Pharmacology • Gain experience in dealing with the family, social, economic, and ethical issues related to common critical illness in childhood.	
Interpersonal and Communication Skills: Students must be able to demonstrate interpersonal and communicate skills that result in effective information exchange to PICU team members and patient families.	• Give clear, concise, well-organized case presentations, exchange patient information effectively with members of the team (<i>e.g., nurses, residents, and fellow</i>), work effectively with other members when indicated, and participate in rounds. • Explain complex treatments to parents without medical jargon. • Communicate effectively during rounds.	• Observations of faculty and staff.
Practice-Based Learning and Improvement: Medical students must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning. Medical students are expected to develop skills and habits to be able to meet the following goals	• Locate and assimilate evidence from scientific studies related to their patients' health problems. <i>Example: Randomized controlled trials of therapy for meningococemia or asthma.</i> • Use information technology to manage information, access on-line medical information, and support one's own education. <i>Example: Use electronic medical record to access laboratory and physiologic information.</i>	• Each student is required to create a case presentation and to present it to the faculty and fellows during the rotation. It is recommended that students present an interesting case they encountered during their rotation. However, they are also permitted to present on a topic of interest that relates to pediatric NICU. The presentation will be given in the designated department conference room. • Critical review of a relevant article.
Professionalism: Medical students must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. Students must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.	• Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and their families that supersedes self-interest; accountability to patients and the profession, and a commitment to excellence and on-going professional development. <i>Example: Willingness to seek additional patients for evaluation.</i> • Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care and confidentiality of patient information. • Demonstrate sensitivity and responsiveness to patients' or their family's culture, age, gender and disabilities.	• Observations of faculty and staff.

II. Methods of Instruction

Didactic:

1903 Pediatric Acute ICU

- **Tuesday, 1:15-2:00pm:** PICU Divisional conference (journal club, research presentations, morbidity/mortality conferences, quality meetings, etc), 11th floor Classroom
- **Wednesday, 12:00-2:00pm:** PICU Divisional conference (journal club, research presentations, morbidity/mortality conferences, quality meetings, etc), 11th floor classroom
- **Monday/Thursday/Friday, 1:00-2:00pm:** PICU Didactic Lectures on core ICU topics given by PICU faculty and fellows, 11th floor classroom

Clinical:

- Students are expected to arrive in time to pre-round on each of their patients in preparation for attending rounds at 8:30am.
- Afternoon rounds (*AKA sign out rounds*) generally occur at 4:00pm.
- Students are expected to stay one day per week on short call (*until 7:00pm*) and encouraged to take overnight call at least once during their 4 week rotation.

III. Overview of Student Responsibilities

- Evaluate patients, present to attending, and follow until discharge.
- Students are expected to take primary responsibility for their patients with supervision by the residents, fellows, and faculty members.

IV. Method of Evaluation of Students and Requirements

Honor-Pass-fail grades; there are no examinations. Evaluations of the student by the faculty will be based on achievement of the stated objectives of the course. This will be assessed by the student's preparation, fund of knowledge, participation in rounds, and participation on call.