

<b>Course:</b>	<b><u>Acute Care Pediatrics (ICU)</u></b>	<b><u>PED 1210</u></b>
Department:		Pediatrics
Course:		Acute Pediatrics ICU (12-10)
Faculty Coordinator:		Leslie Garner, M.D.
Hospital:		Children's Medical Center
Periods offered:		All
Length		4 weeks
Max no. of students:		2
Fax:		214-456-6156
First Day Contact:		PICU Fellow (68597) or PICU Resident (68552)
First Day Time:		7:00 a.m.
First Day Place:		CMC PICU, 12th floor
Prerequisites:		3 <sup>rd</sup> year Pediatric Clerkship

**I. Course Objectives:**

Students will be integral members of a team providing comprehensive pediatric care to critically ill neonates, infants, and children. Teams are typically composed of 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.

**II. Course Goals and Objectives:** (based on ACGME competencies for resident education and modified for medical student education)

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.

Objectives: Students are expected to

- Gather essential and accurate information about their patients. *Examples: history, intercurrent problems, physical examination and results of pertinent laboratory tests and physiologic monitors.*
- Make informed recommendations about diagnostic and therapeutic interventions based on physical examination, physiologic monitors, laboratory data, scientific evidence, and clinical judgment. *Examples: Patients with respiratory failure and shock.*

- Together with the fellow and attending, communicate plan of care to parents.  
*Examples: plan of care for mechanical ventilation.*
- Work with health care professionals, including those from other disciplines, to provide patient-focused care, develop and carry out patient management plans.  
*Examples: respiratory care, pharmacology, nursing, physical therapy.*

### Medical Knowledge

Students must demonstrate knowledge about established biomedical and clinical sciences and the application of this knowledge to patient care.

Objectives: Students are expected to

- 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 these 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
  - Nutritional Support
  - Pharmacology
- Gain experience in dealing with the family, social, economic, and ethical issues related to common critical illness in childhood.

#### Practice-Based Learning and Improvement

Students must be able to assimilate scientific evidence and improve their patient care practices.

Objectives: Students are expected to

- Locate and assimilate evidence from scientific studies related to their patients' health problems. *Example: randomized controlled trials of therapy for meningococemia or asthma.*
- Use information technology to manage information, access on-line medical information, and support one's own education. *Example: use electronic medical record to access laboratory and physiologic information.*

#### Interpersonal and Communication Skills

Students must be able to demonstrate interpersonal and communication skills that result in effective information exchange to PICU team members and patient families.

Objectives: Students are expected to

- Communicate effectively during rounds.
- Explain complex treatments to parents without medical jargon.

#### Professionalism

Students must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

Objectives: Students are expected to

- 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. *Example: willingness to seek additional patients for evaluation.*
- 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' culture, age, gender, and disabilities.

### III. **Methods of Instruction:**

#### A) **Didactic** (schedule, topic)

- Monday 8:15 – 9:00am – PICU Research Conference
- Wednesday – 12:00-1:00pm – Noon Conference (case conferences, ethics, clinical debates, journal club, etc.)
- Thursday – 12:00-1:00pm Integrative Physiology Conference
- Weekly ventilator rounds with respiratory educator Gregg Merritt—days TBA

#### B) **Clinical schedule**

- Students are expected to arrive in time to pre-round on each of their patients in preparation for attending rounds at 7:30am.
- Afternoon rounds (AKA sign out rounds) generally occur between 3:00-5:00 pm and are conducted by the on-call PICU fellow.
- Students are expected to take call every 4<sup>th</sup> night.

#### C) **Student responsibilities** (and to whom accountable)

- 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:**

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.