

**Curriculum for the Stanford Pediatric Surgery Residency Program
at Lucile Packard Children's Hospital**

Pediatric Intensive Care Rotation

DESCRIPTION

The fellow will partake in a clinical rotation in the pediatric intensive care unit.

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REQUIRED READINGS

Current handbook of pediatric intensive care.

EDUCATIONAL GOALS

To give the trainee an appreciation for the intensive care of the child, particularly as it pertains to surgical conditions, and to familiarize the trainee with pediatric physiology and the social dynamics of pediatric intensive care, including the management of the polytrauma patient.

LEARNING OBJECTIVES

At the end of the rotation, the trainee will become familiar with the following, based on the general core competencies:

Medical Knowledge & Patient Care

- 1) Fluid, Nutrition and Electrolyte management in the critically ill child.
- 2) Respiratory support required to manage the critically ill child
 - a. This includes the application both non-invasive and invasive ventilation techniques
 - b. Exposure to the use of inhalational gases (e.g. Nitric oxide, heliox)
 - c. Exposure to both conventional, high frequency ventilation, and use of extracorporeal oxygenation devices
- 3) Cardiovascular support
 - a. Vascular Access techniques
 - b. Pharmacologic support for cardiac output
 - c. Mechanical support if indicated
- 4) Neurologic care
 - a. Appropriate use of muscle relaxants, sedation, analgesia in the ICU setting
 - b. Monitoring of the neurologically injured child
- 5) Other pertinent matters including (but not limited to):
 - a. Infectious Diseases
 - b. Hematologic
 - c. Gastroenterology

- d. Imaging studies for the critically ill infant and child
- e. Transport medicine

Systems-Based Practice

The trainee will:

- 1) Recognize the need for referral to appropriate subspecialists.
- 2) Make efficient use of medical resources including awareness of the benefits of pediatric intensive care, awareness of the cost to society of pediatric intensive care, and rational use of laboratory and radiologic studies.
- 3) Demonstrate familiarity with the discharge planning process and appropriate followup care.

Professionalism

The trainee will:

- 1) Understand the ethical principles governing decisions to initiate, terminate or modify intensive care; exhibiting facility in speaking with families about the appropriate or inappropriate application of technology; supporting families in such situations.
- 2) Demonstrate organization of information and prioritization of problems.

Practice-Based Learning & Improvement

The trainee will:

- 1) Exhibit evidence of continuing review of contemporary medical literature as indicated by comments on rounds, in conferences and other settings.
- 2) Show enthusiasm for fostering medical education among trainees and colleagues.

Interpersonal and Communication Skills

The trainee will:

- 1) Exhibit competence in public speaking.

Learning Activities (See Tables 2 & 3)

Learning activities will include daily rounds, didactic teaching conferences, journal club, and M&M reviews. The Fellow assigned to the ICU service will be required to attend and participate in the weekly conferences.

Weekly ICU Conference Schedule

Week 1	M&M
Week 2	Didactic Lecture
Week 3	Journal Club
Week 4	Research conference
Every Friday @ noon	Patient sign out
Every Tuesday @ 11am	Multidisciplinary rounds

While rotating in the ICU, the fellow will supervise the residents and students, work with the ICU attendings and take the necessary call as required by the RRC for their discipline. These programs will be tailored specifically to the needs of the fellow in Pediatric Surgery.