

Inpatient Rotations – Goals and Objectives Interns

Faculty: Members of the LSU Department of Pediatrics

Goal: To develop competency in caring for, and supervising care of, infants, children, and adolescents who require hospital care.

Learning Objectives:

1. Understand the continuum of care for children with acute illness/injury, from initial presentation (office, clinic, ER), through acute hospital care to discharge planning, home health services, and office follow-up care.
2. Understand how to assess and manage common signs and symptoms associated with acute illness and hospitalization.
3. Understand how to assess and manage common childhood conditions cared for in the inpatient setting.
4. Understand the indications, limitations, and interpretation of common laboratory tests and imaging studies utilized in inpatient care.
5. Understand the application of physiologic monitoring and special technology and treatment in the general inpatient setting.
6. Develop a logical and appropriate clinical approach to the care of hospitalized children, applying principles of decision-making and problem solving.
7. Understand how to function as part of an interdisciplinary team on a general pediatric ward, as primary provider and as the consulting pediatrician.
8. Understand how to provide sensitive support acutely to patients and families of children with acute illness, and arrange for on-going support and/or preventive services at discharge.
9. Understand key aspects of cost control in the hospital inpatient setting.
10. Understand how to maintain accurate, timely, and legally appropriate medical records in the hospital inpatient setting.

Curriculum Content:

1. For a representative sample of children and families, provide/participate in care across the full continuum of services, including:
 - a. Presentation of acute illness by clinic/office, ER
 - b. Decision to admit to the hospital (at UH, EKL sites)
 - c. Inpatient acute care
 - d. Discharge planning to facilitate transition to home care
 - e. Post-hospital care (coordination of home health services, ensuring office/clinic follow-up care)
2. Discuss for a given family and child the impact of each phase of care on final health care outcome, psychosocial impact of illness on the child and family, and financial burden to the family and health care system.

3. For each of the signs and symptoms in the list below:
 - a. Perform a directed history and physical examination
 - b. Formulate a differential diagnosis with age-appropriate considerations
 - c. Discuss indications for hospitalization
 - d. Formulate a plan for inpatient diagnosis and management

Signs and Symptoms

1. **General:** FTT, weight loss, fever without source, constitutional symptoms
 2. **Cardiovascular:** Hypotension, hypertension, arrhythmia, syncope, heart murmur, shock
 3. **Dermatologic:** Rashes, petechiae, purpura, ecchymoses, urticaria, edema
 4. **EENT:** Conjunctival injection, acute visual changes, eyelid edema, epistaxis, ear pain, sore throat
 5. **Endocrine:** Polydipsia, polyuria
 6. **GI/Nutrition/Fluids:** Diarrhea, vomiting, dehydration, inadequate intake, dysphagia, reflux, abdominal pain, abdominal masses, hematemesis, hematochezia, jaundice, ascites, constipation
 7. **GU/Renal:** Hematuria, edema, oliguria, dysuria, scrotal swelling, flank pain
 8. **GYN:** Sexual abuse with minor trauma, pelvic pain, abnormal vaginal bleeding
 9. **Hematologic/Oncologic:** Pallor, abnormal bleeding, lymphadenopathy, hepatosplenomegaly, masses, fatigue
 10. **Musculoskeletal:** Minor soft tissue trauma, limp, arthritis/arthritis, limb pain, back pain
 11. **Neurologic:** Seizure, headache, delirium, lethargy, weakness, ataxia, coma, minor head trauma, vertigo, irritability
 12. **Psychiatric/Psychosocial:** Suicide attempt, depression, conversion symptoms, child abuse or neglect
 13. **Respiratory:** Cyanosis, apnea, dyspnea, tachypnea, wheezing, stridor, inadequate respiratory effort, cough, hemoptysis, chest pain, respiratory failure
4. For the conditions in the list below:
 - a. Describe criteria for admission to inpatient service and transfer to PICU
 - b. Formulate a plan for the inpatient diagnosis and treatment
 - c. Describe criteria for discharge and principles of discharge planning

List of Common Conditions

1. **General:** Fever of unknown origin
2. **Allergy/Immunology:** Asthma exacerbation, drug allergies/reactions, common immunodeficiencies, milk protein allergy
3. **Endocrine:** Diabetes mellitus (new onset and complications eg. DKA), diabetes insipidus
4. **GI/Nutritional/Fluids:** Gastroenteritis, dehydration, electrolyte abnormalities, metabolic acidosis, GE reflux, constipation with fecal impaction, FTT
5. **GU/Renal:** UTI/pyelonephritis, nephrotic syndrome, glomerulonephritis
6. **Hematology/Oncology:** neutropenia, sickle cell disease, thrombocytopenia, anemia, common malignancies
7. **Infectious Disease:** cellulitis, periorbital/orbital cellulitis, lymphadenitis, pneumonia, meningitis, sepsis/bacteremia (including newborns), osteomyelitis, pelvic inflammatory disease, septic arthritis, shunt or line infection, infections in immunocompromised patients, viral syndromes
8. **Pharmacology/Toxicology:** Common drug poisoning or overdose

9. **Neurology:** Seizures, cerebral palsy, other severely handicapped children with acute medical conditions, developmental delay, common neurologic conditions eg. postviral cerebellar ataxia
10. **Respiratory:** Apnea, airway obstruction, cystic fibrosis, asthma, pneumonia, bronchiolitis, croup
11. **Dermatologic:** Common rashes eg. viral exanthems, erythema multiforme
12. **Rheumatologic:** Henoch-Schonlein purpura, vasculitis, rheumatic fever, Kawasaki disease

5. For each of the tests in the lists below:

- a. Explain indications and limitations of each test and be aware of the age-appropriate normal values.
- b. Interpret abnormalities in the context of specific physiologic derangements
- c. Discuss therapeutic options for correction of abnormalities when appropriate

Laboratory Tests

1. CBC with differential, platelet count, indices
2. Blood chemistries: electrolytes, glucose, calcium, magnesium
3. Renal function tests
4. Liver function tests/ liver enzymes
5. Serologic tests for infection (eg. hepatitis, HIV)
6. CRP, ESR
7. Drug levels
8. Coagulation studies
9. Arterial, capillary, and venous blood gases
10. Cultures for bacterial, viral, and fungal pathogens
11. Urinalysis
12. CSF analysis
13. Gram stain
14. Stool studies

Imaging Tests

1. Chest X-ray
2. Abdominal X-ray
3. Lateral neck X-ray

6. For the following types of monitoring, list techniques appropriate for age and clinical setting, describe indications and limitations, and interpret the result/measurement:

- a. Body temperature monitoring
- b. Cardiac monitoring
- c. Respiratory monitoring
- d. Pulse oximetry
- e. Blood pressure monitoring

7. Participate in the daily care of “technology dependent” children and those who require parenteral hyperalimentation and enteral tube feedings; describe key issues for on-going management both in the hospital and at home.

8. Demonstrate the skills for assessing and managing pain.
9. Demonstrate awareness of the unique problems involved in the care of children with multiple problems or chronic illness, and serve effectively as an advocate and case manager for such patients.
10. Identify and attend to issues such as growth and nutrition, developmental stimulation and schooling during extended hospitalizations.
11. Identify problems and risk factors in the child and the family, even outside the scope of this admission (eg. immunizations, social risks, developmental delay); appropriately intervene or refer.
12. Facilitate the transition to home care by appropriate discharge planning and parent/child education.

Skills Acquisition

1. Apply principles of decision-making and problem solving in the care of hospitalized children.
2. Recognize the limits of one's own knowledge, skills, and tolerance for stress; ask for help as needed.
3. Consistently act responsibly and adhere to professional standards for ethical and legal behavior.
4. Seek information needed for patient care decisions and apply this knowledge appropriately.
5. Develop and maintain comprehensive problem list with accurate prioritization.
6. Communicate well and work effectively with fellow residents, attendings, consultants, nurses, ancillary staff, and referring physicians.
7. Demonstrate skills as a team participant and as a team manager.
8. Perform in the capacity of pediatric consultant for hospitalized patients managed by other providers (at EKL, UH sites, CHPA at Children's)
9. Demonstrate sensitivity and skills in dealing with death and dying in the hospital setting.
10. Consistently listen carefully to the concerns of patients and families, and provide appropriate information and support.
11. Demonstrate sensitivity to family, cultural, ethnic, and community issues when assessing patient and making health care plans.
12. Prepare appropriate discharge summaries and off-service notes, including adequate follow-up with primary care provider.

Rotation Requirements:

1. Interns will spend 5 months at PL1's on ward teams at either Children's Hospital, University Hospital.

2. Interns (PL1's) will primarily have direct patient care responsibilities, with some supervision and teaching of medical students.
3. Residents will be responsible for the evaluation and management of all patients admitted to their services under the supervision of either a general ward attending (University Hospital, EKL Hospital) or CHPA/private attendings (Children's Hospital).
4. Teaching rounds will take place a minimum of 2 to 3 hours per week in addition to regular work rounds.
5. Residents will keep medical records and patient charts will be dictated following discharge.
6. Residents will discuss admissions with the attending of record after an initial assessment has been performed, thus allowing resident input into the evaluation and management of the patient.
7. Residents will be responsible for teaching third and fourth year medical students.