**PEDIATRICS ROTATION**

**Course Title:** Pediatrics Clinical Rotation  
**Course description and goals:**  
At the conclusion of this rotation the student will be able to gather pertinent historical and physical data, obtain indicated laboratory studies, assess the results, formulate a management plan, and assist in the implementation of the appropriate therapy to the pediatric patient who presents to the clinic. Students involved in a pediatric rotation, or during the course of evaluating children in a family practice preceptorship will likely not be able to accomplish all objectives listed below in the clinic realm and 4-week time frame. However, they are expected to be familiar with the diagnostic entities outlined below and their management. Students are also responsible for the information on the PANCE blueprint. As a reminder, students will be tested formally on information they are expected to see clinically or review didactically through specialty examinations.

**Method of Evaluation** (preceptor evaluation, Typhon, self evaluation, specialty exam score, competency lists, other)

**I. Medical Knowledge**  
Upon completion of the rotation, the student will demonstrate the ability to evaluate, manage and educate patients and their parents/caregivers on the following acute, chronic and preventative conditions encountered in the Pediatric setting:

**Objectives:**

**Every Age**  
1. List normal developmental milestones  
2. Discuss the knowledge and skills applicable in ‘well child care’ to include nutrition counseling and obesity, accident and injury prevention  
3. Identify routine and catch-up immunization schedules, indications for, risks and side effects of each immunization  
4. Identify the common signs, symptoms and management of commonly ingested poisons (lead, acetaminophen, alcohol, hydrocarbon, salicylates, iron, toxic plants)  
5. Recognize the common signs and symptoms of child abuse and non-accidental trauma, and legal obligations regarding these issues

**Neonatal/Infancy**  
1. Define prematurity, postmaturity, low birth weight and the high-risk infant  
2. List and explain the 5 objective signs scored via the APGAR test and determine the APGAR score of a newborn  
3. Recognize and describe the treatment of the following conditions:  
   • Fontanel closure  
   • Jaundice
• Hyperbilirubinemia
• Colic
• Meconium staining
• Mongolian spot
• Caput succedaneum
• Failure to thrive
• Circumcision
• Milia
• Cephalohematoma
• Lanugo
• Molding
• Vernix caseosa
• SIDS

**Toddlers**
1. Recognize and discuss the treatment of separation anxiety, negativism, independence issues, toilet training, night terrors, breath holding spells and tantrums

**School Age**
1. Recognize and discuss the treatment of phobias, peer socialization, peer-related behavioral disorders, enuresis/encopresis, attention and learning disorders and autism

**Adolescent**
1. Discuss and educate the patient on sexuality, suicide, substance abuse and eating disorders

**Allergic Conditions**
1. Identify the etiology, presentation, diagnosis and appropriate management of allergies including food allergies, respiratory allergies and urticaria

**Gastrointestinal Conditions**
1. Discuss the evaluation and management of emergency pediatric GI conditions including appendicitis, intussusception, volvulus, necrotizing enterocolitis and GI hemorrhage
2. Describe the differential diagnosis in a patient with acute vomiting
3. Evaluate a patient with diarrhea, assess hydration status and describe the appropriate treatments
4. Discuss the evaluation and management of patients with constipation
5. Recognize and discuss failure to thrive, and evaluate possible causes including malabsorption and pyloric stenosis

**Respiratory/ENT Conditions**
1. Discuss and educate patients on the etiology, presentation, appropriate testing, diagnosis and management of pediatric asthma
2. Identify the etiology, presentation, diagnosis and management of the following conditions:
   • Bronchiolitis
   • Foreign bodies
• Bronchitis
• Pertussis
• Croup
• Pneumonia
• Epistaxis
• Tonsillar/pharyngeal abscess
• Stomatitis
• Hyaline membrane disease/respiratory distress syndrome

• Acute epiglottitis
• Otitis media
• Otitis externa
• Pharyngitis (bacterial, viral)
• Sinusitis
• RSV
• Bacterial tracheitis

Rheumatic Conditions

1. Identify, evaluate and treat rheumatic fever and juvenile rheumatoid arthritis, and describe the incidence of each

Cardiovascular Conditions

1. Describe the etiology, clinical manifestations, diagnosis and management of the following cardiac conditions
   • Atrial septal defect
   • Functional murmurs
   • Coarctation of the aorta
   • Congestive heart failure
   • Patent ductus arteriosus
   • Hypertension
   • Ventricular septal defect
   • Tetralogy of Fallot

Genitourinary Conditions

1. Describe the etiology, clinical manifestations, diagnosis and management of common male GU conditions including cryptorchidism, hypospadias, hydrocele, phimosis and testicular torsion
2. Identify the presentation, evaluation, lab studies and treatment for GU infections including UTIs, glomerulonephritis, cystitis, pyelonephritis and vaginitis
3. Recognize, evaluate and manage pediatric hernias and discuss indications for repair
4. Educate parents about presentation, potential causes and treatments for enuresis

Hematological/Oncological Conditions

1. Discuss the etiology, presentation and management of the following anemias:
   • Acquired hemolytic anemia
   • Iron deficiency anemia
   • Aplastic anemia
   • Sickle cell anemia
   • Thalassemia
   • B12 deficiency
2. Discuss presentation, laboratory studies and management of bleeding disorders found in pediatric populations including idiopathic thrombocytopenia purpura, Von Willebrand’s disease and hemophilia.

3. Recognize the signs and symptoms of acute and chronic lymphocytic and myelogenous leukemia, multiple myeloma, Ewing’s sarcoma, retinoblastoma, neuroblastoma and Wilm’s tumor and describe the appropriate workup and treatment for the disease.

4. Describe the workup for febrile neutropenia.

**Endocrine Conditions**

1. Discuss the presenting signs and symptoms, lab work and treatment for diabetes mellitus types 1 and 2.

2. Identify the incidence, etiology and management of cretinism.

3. Recognize the presentation of hypothyroidism and hyperthyroidism in children and describe the appropriate management for both.

4. Identify diseases of the adrenal glands including Cushing’s syndrome and Addison’s disease, and describe the presentation, evaluation and management of both.

**Neurologic Conditions**

1. Discuss the etiology, clinical manifestations, diagnosis and management of the following neurologic conditions:
   - Cerebral palsy
   - Spina bifida/meningomyelocele
   - Febrile seizures
   - Epilepsy
   - Reye’s syndrome
   - Hydrocephalus
   - Delayed development
   - Hydrocephalus
   - V-P shunt malformation

**Orthopedic Conditions**

1. Discuss the etiology, presentation, evaluation and treatment for the following conditions involving the lower extremities:
   - Legg-Calve-Perthes disease
   - Genuvalgum
   - Congenital hip dysplasia
   - Genuvarum
   - Osgood-Schlatter disease
   - Talipes equinovarus (club foot)
   - Slipped capital femoral epiphysis

2. Define the 6 classifications of Salter fractures.

3. Define the presentation, evaluation and management of patients presenting with overuse syndromes including tendonitis and bursitis.

4. Discuss the presentation and management of a patient with Nursemaid’s elbow, Gamekeeper’s thumb, Colles’, Boxer’s, and scaphoid fractures.

5. Discuss the signs and symptoms, risks, radiographic findings, evaluation and treatment of scoliosis.
6. Identify the presentation, lab studies, radiographic studies and findings and management of bone infections including osteomyelitis and septic joints

**Dermatologic Conditions**

1. Describe the appearance, signs and symptoms, diagnosis and treatment of viral skin conditions including viral exanthems, molluscum contagiosum, and pityriasis rosea
2. Identify, describe and treat allergic skin conditions including eczema, poison ivy/oak and dermatitis (atopic, contact and seborrheic)
3. Recognize the presentation, stage and treatments for acne, including the risks and benefits of each treatment
4. Recognize tinea (capitis, corporis and pedis) and describe an appropriate treatment
5. Identify the presentation and treatment of impetigo and erysipelas
6. Describe the presentation, risk factors, evaluation and management of candida
7. Identify the signs and symptoms, evaluation and management of children with scabies, ringworm and pediculosis
8. Describe the presentation and treatment of alopecia areata

**Infectious Diseases**

1. Describe the presentation, course, diagnosis and treatment of the following infectious conditions:
   **Viral**
   - Erythema infectiosum
   - Roseola
   - Epstein-Barr virus
   - Herpangina
   - Rubella
   - Varicella
   - Rubeola
   - RSV
   - CMV
   - Mumps
   - Kawasaki disease
   - HPV
   - Gonococcal infections

   **Bacterial**
   - Diphtheria
   - Shigellosis
   - H flu infections
   - Sepsis
   - Staphylococcal infections
   - Streptococcal infections
   - Meningitis

**Ophthalmologic Conditions**

1. Recognize the signs and symptoms, diagnosis and management of pediatric eye infections including orbital cellulitis, blepharitis, dacryoadenitis, conjunctivitis and ophthalmic neonatorum
2. Identify the presentation, evaluation and treatment of abnormalities of the eye including amblyopia and strabismus
3. Describe the presentation, diagnosis and treatment of traumatic eye conditions including corneal abrasion

Genetic Conditions

1. Identify the presentation, risk factors, diagnosis and management and educate parents on the following:
   • Trisomy 21
   • Klinefelter’s syndrome
   • Turner’s syndrome
   • Cystic fibrosis
   • Sickle cell trait and disease
   • Bleeding dyscrasias

II. Patient Care
Students are expected to gather and document essential and accurate information about their pediatric patients and make informed decisions about diagnostic and therapeutic interventions based on patient information and parental preferences. The student should use up-to-date scientific evidence and clinical judgment to develop and carry out management plans. Prior to completion of the Pediatrics rotation, the student should:

Clinical Skills

1. Perform a ‘well child’ and problem-oriented history and physical exam on the newborn, infant, child and adolescent patient
2. Interpret physical growth parameters (height, weight, head and chest circumference) as they relate to the ‘normal’ pediatric population
3. Perform basic hearing, vision, speech and developmental screening during a pediatric exam and interpret the results
4. Communicate information clearly, completely and in a concise manner to the attending physician, parent and patient
5. Provide information to the parent regarding safety issues, childproofing, seat belt use, car seats, helmets, poison safety, accident prevention strategies, nutrition, growth and development and anticipatory guidance
6. Obtain appropriate specimens and interpret the results of common laboratory screening and diagnostic tests including CBC with differential, urinalysis, standard blood chemistries, tympanogram and CSF.
7. Perform and interpret glucose testing, UA, KOH prep and rapid strep screen

III. Interpersonal & Communication Skills
Students are expected to communicate information respectfully, efficiently and effectively in verbal, nonverbal and written exchange to both pediatric patients and their parents or caregivers. During the Pediatrics rotation, the student must:
   • Effectively communicate information, perform counseling and patient education clearly to patients and their families
   • Respectfully communicate with ALL members of the medical team including providers, ancillary staff and other learners
• Perform accurate and complete documentation of the patient’s visit or hospital stay

IV. Professionalism
Students are expected to demonstrate professionalism at all times during their Pediatrics rotation. During the rotation, the student must:
• Maintain a professional attitude at all times with patients, families and the medical team
• Provide care for pediatric patients of all genders, cultures, socioeconomic backgrounds, sexual orientations and disabilities with respect, compassion and dignity
• Maintain integrity and honesty at all times with patients, families and the medical team
• Be accountable to patients, families, the medical team and the profession

V. Practice-Based Learning and Improvement
Practice-based learning and improvement includes the processes through which clinicians engage in critical analysis of their own practice experience, medical literature and other information resources for the purpose of self-improvement.
During the Pediatrics rotation, students are expected to:
• Recognize one’s own limitations and continuously strive for self-improvement
• Acquire a capacity to learn from errors and use it to self-improve
• Identify appropriate consultation with other medical services for the benefit of the patient to assure comprehensive patient care
• Use evidence from literature to make the most informed and up-to-date clinical decisions
• Participate not only in learning from others but in teaching others, including patients, families, medical team, staff and faculty
• Describe the principles of EBM as they pertain to ‘daily acute care’ clinical practice and locate relevant scientific literature

Suggested Reading List
Online texts can be accessed through the following websites:
2. www.uptodate.com
3. www.mdconsult.com
4. www.pubmed.com
5. www.dynamed.com
6. www.emedicine.com

VI. Systems-Based Practice
Students must be aware of the societal and economic environments in which health care is delivered. During the Pediatrics rotation, the student must:
• Identify the importance of continuity of care and coordinate appropriate follow-up care when needed
• Realize the financial impact of medical care on a patient and identify cost-effective alternatives when appropriate, as well as resources for the patient’s financial and medical benefit
• Use information technology to improve health care delivery and patient education