

# UNIVERSITY OF MINNESOTA

**2007-2008**

**RESIDENCY GOALS**

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## Residency Goals

The following statements are taken in part from a task force report from the American Academy of Pediatrics on the future role of the pediatrician in the delivery of health care. They state that, "the pediatrician now and in the future should be recognized as the specialist specifically trained to provide comprehensive, coordinated health care to infants, children, adolescents and young adults throughout the stages of growth and development". The pediatrician graduating from the University of Minnesota residency should be competent in the following areas:

1. Health supervision and preventive health care.
2. Diagnosis and treatment of acute illnesses and injuries.
3. Diagnosis, management and coordination care of children with chronic illnesses and disabilities.
4. Diagnosis and management of behavioral and neurodevelopmental disorders.
5. Hospital care of well newborns and those cared for in Level II nurseries.
6. Stabilization of seriously ill newborns and children before transfer to tertiary care centers.
7. Hospital care of infants, children and adolescents.
8. Demonstration of high quality communication skills as they relate to patients, staff and peers.
9. Knowing appropriate indications for referral to and developing relationships with other health professionals and community agencies.
10. Possession of skills in interpreting the medical literature and in continuing professional growth as a pediatric generalist or specialist.
11. Providing high quality, cost effective patient management.
12. Demonstrating knowledge of ethical principles as they relate to the care of children and families.
13. Providing effective child health advocacy.

# Adolescent Medicine

At the completion of the residency the resident will be able to:

## Level 1

- Summarize the assessment, differential diagnosis, and initial evaluation and management of: acne, vaginal discharge, amenorrhea, dysfunctional uterine bleeding, depression, back pain, and knee pain.
- Describe the normal physical, psychological, social, and sexual development processes of adolescence.
- Discuss the patterns as well as the preventive efforts including counseling, diagnosis, and treatment strategies targeted at the following adolescent issues: sexually transmitted diseases, contraceptives, eating disorders (anorexia, bulimia), obesity, mental health disorders, substance use and abuse.
- Demonstrate the following clinical skills: pelvic examination, comprehensive sports physical examinations, effective interview skills with adolescents and their family members.
- Explain the epidemiology and impact of violence on adolescent development and select effective intervention strategies.
- Employ appropriate management strategies in the transition of adolescent care from pediatricians to adult practitioners.

## Level 2

- Recognize the impact of chronic disease on adolescents and their families.
- Identify the hallmarks of the diagnosis, treatment, and counselling involved with sexual orientation concerns.
- Summarize the effects of anabolic steroids.
- Define the signs and treatment of overuse syndromes and the rehabilitation of patients with chronic sports injuries.
- Recognize the impact of teen pregnancy on adolescents and their offspring.

# Allergy

At the completion of the residency the resident will be able to:

## Level 1

- Perform a thorough allergic history and physical examination.
- Employ appropriate laboratory testing in the diagnosis of the allergic infant/child.
- Discuss the differential diagnosis and manage a child with allergic rhinitis.
- Discuss the pathophysiology, diagnostic evaluation, differential diagnosis and management of a patient with asthma.
- Describe the evaluation and management of children with the following disorders: insect stings, urticaria/angioedema, anaphylaxis, food allergy.
- Prescribe appropriate environmental control measures for children with allergic disease.
- Cite the indications for immunotherapy and referral to an allergist.

# Behavioral/Developmental

At the completion of the residency the resident will be able to:

## Level 1

- Trace the normal neurodevelopmental milestones and acceptable variances.
- Describe the assessment, differential diagnosis, initial evaluation, interdisciplinary approach and management of: ADHD/LD, school failure.
- Discuss the management of the following developmental problems: sleep disorders, colic, feeding problems, toilet training, and temper tantrums.
- Demonstrate and discuss effective and therapeutic communication with children and parents.
- Manage disorders of elimination, including incomplete toilet training, enuresis, and encopresis.
- Discuss the management of habit disorders including thumb-sucking, nail-biting, hair-pulling, and tic disorders.
- Employ appropriate management strategies for common chronic, recurrent or persistent somatic complaints, such as recurrent abdominal pain, headaches (including migraine syndromes), and limb pains.
- Explore the management of chronic illnesses with special reference to adjustment and coping by children and their families.

## Level 2

- Review the differential diagnosis and workup for sleep disorders, developmental delay and/or failure to thrive during infancy, early childhood, and school age.
- Discuss the diagnosis and management of the following: eating disorders, conduct disorders, anxiety disorders/depression, grief reactions.
- Consider the effects of chronic disease and/or handicapping conditions on children and their families.
- Summarize the effects of divorce (and single parent families) on children and families.
- Recognize and manage post-traumatic stress disorder in children and families.
- Assess the effects of family violence on children and families.
- Recognize and manage child neglect and abuse.

# Cardiology

At the completion of the residency the resident will be able to:

## Level 1

- Obtain the essential components of an age appropriate cardiac history.
- Demonstrate proficiency in performing a cardiac examination on infants/children.
- Discuss the criteria required for the diagnosis of a non-pathologic murmur, and diagnose the various innocent murmurs.
- Discuss the differential diagnosis and approach to patients presenting with the following symptoms: syncope, and chest pain.
- Interpret common variations and abnormalities of rate, rhythm and chamber enlargement on an ECG.
- Interpret cardiac abnormalities on a PA and lateral chest x-ray.
- Recognize the clinical manifestations and complications of Kawasaki disease and prescribe appropriate treatment.
- Discuss the indications for cholesterol screening, the interpretation of cholesterol values, and the initial management of the patient.
- Identify abnormal age specific blood pressures and initiate an appropriate workup for the hypertensive patient.

## Level 2

- Describe the clinical manifestations (specifically the presenting signs and symptoms) and the characteristic auscultatory findings of the eight most common congenital heart diseases - VSD, ASD, PDA, coarctation of the aorta, TOF, valvular PS, valvular AS, and TOGV.
- Discuss the indications for referral of adolescents with heart murmurs for cardiac evaluation.
- Summarize the indications for SBE prophylaxis and prescribe appropriate antibiotic therapy.
- Recognize the signs, symptoms and ECG manifestations of myopericarditis.

# Child Maltreatment

At the completion of the residency the resident will be able to:

- Recognize the clinical manifestations of child maltreatment.
- Describe the function and approach of a multi-disciplinary team in the evaluation and management of child abuse and neglect.
- Summarize risk factors/stressors in society, families, parents, children and the environment that are associated with child maltreatment.
- Work with community professionals in the prevention and management of child maltreatment.
- Develop the framework for learning specific skills in history-taking, physical examination, communication, teamwork necessary for evaluation, and reporting and management of child maltreatment.

# Developmental Disabilities

At the completion of the residency the resident will be able to:

## Level 1

- Discuss the principles underlying neurodevelopmental evaluation and screening in order to detect developmental disorders and related conditions.
- Participate in multi-disciplinary and interdisciplinary team evaluations.
- Describe screening procedures used in developmental evaluations to detect developmental disorders and related conditions.
- Acquire knowledge of multi-disciplinary team evaluations.
- Explain the role of the primary care pediatrician in the management of patients with developmental disabilities and related conditions.
- Summarize the specific role of the primary care pediatrician in the management of the following:
  - Spina bifida
  - Cerebral palsy
  - Traumatic brain and spinal cord injuries
  - Sensory deprivation (hearing/vision)
  - Mental retardation
- Explain the significance of early language development, especially as it relates to the recognition of mental retardation, autism, and acquired communication disorders.
- Recognize the effects of chronic disease on children in the context of their families, and understand in concrete terms some of the adaptations and coping mechanisms that are required.
- Initiate a diagnostic workup and management plan for the child with developmental delay.
- Understand common problems that arise with gastrostomy tubes and the appropriate management to initiate.
- Demonstrate proficiency in changing a gastrostomy tube, and understand the different types.
- Initiate a diagnostic work-up and management plan for a child with feeding problems or nutritional concerns
- Demonstrate knowledge of the evaluation and treatment of constipation.

## **Developmental Disabilities** (cont'd)

### **Level 2**

- Assess the role of the primary care pediatrician in the care of technology dependent children.
- Recognize the impact of public policy on the health and development of children.
- Demonstrate knowledge of and ability to counsel families and children about difficult situations where developmental diagnosis is encountered for the first time.
- Recognize the importance of sensitivity to the developmental/life changes in caring for these patients.

# Emergency Medicine

At the completion of the residency the resident will be able to:

## Level 1

- Discuss the etiology and management of patients in cardiac or respiratory arrest.
- Discuss the etiology and management of patients with circulatory failure.
- Demonstrate the following skills required for resuscitation - cardiac compression and defibrillation, bag and mask ventilation, intubation, obtaining vascular access, and dosing and route of appropriate drugs.
- Recognize the significance of pre-hospital care and the Emergency Medical System.
- Discuss the management of an infant/child with status epilepticus.
- Summarize the approach to a patient with ingestion of a known or unknown substance.
- Recognize the clinical manifestations and initially manage patients with foreign bodies of the esophagus and/or tracheobronchial tree.
- Demonstrate the ability to manage and/or perform the following:
  - Minor laceration repair
  - Foreign body removal (eye, ear, skin, nose)
  - I & D of soft tissue infection
  - Minor burns
  - Sprains, strains and simple fractures
  - Corneal abrasion
- Demonstrate the ability to assess and manage the patient with head trauma and state the indications for imaging procedures and neurosurgical consultation.
- Develop a differential diagnosis and initial approach to a patient presenting with the following signs or symptoms.
  - Coma
  - Cyanosis
  - Lethargy
  - "Septic" appearance
  - Unexplained respiratory distress
  - Apnea
  - SIDS
- Identify the clinical manifestations of and initial approach to patients with non-accidental trauma.

## **Emergency Medicine** (cont'd)

### **Level 2**

- °Recognize the clinical manifestations and initiate management of patients who have been sexually abused.
- °Recognize and initially manage a patient with smoke inhalation.
- °Summarize the initial management of the patient with near drowning.
- °Recognize the importance of the multi-disciplinary approach to the patient with significant trauma.

# Endocrinology

At the completion of the residency the resident will be able to:

## Level 1

- Interpret normal and abnormal growth by evaluation of plots on a growth chart, including the use and interpretation of growth velocity charts.
- Determine the relationship of parental height and growth patterns, and calculate and interpret mid-parental height determinations.
- Differentiate constitutional, genetic, and pathologic short stature, utilizing history, physical exam, growth charts and bone age determinations.
- Distinguish the range of ages of onset of puberty for boys and girls and recognize the different Sexual Maturity Rating stages (Tanner).
- Interpret the differences between normal variations, precocious or delayed puberty and employ an appropriate evaluation.
- Recognize and initially manage a symptomatic child with Type I diabetes.
- Discuss the differential diagnosis and outline a workup for an infant/child with a goiter or thyroid mass.
- Diagnose hypoglycemia and select appropriate laboratory testing.
- Manage the child with diabetic ketoacidosis and be able to treat acute illness in the diabetic patient.

## Level 2

- Recognize sexual ambiguity and plan an initial evaluation.
- Recognize the clinical findings in patients with Turner's Syndrome and employ appropriate diagnostic studies.
- Describe the typical infant with Congenital Adrenal Hyperplasia (CAH), and initiate an evaluation.
- Recognize the endocrine conditions screened for in state newborn screening and the initial response.
- Initiate a workup for a patient with "pathologic" short stature.
- Recognize disorders of antidiuretic hormone (Diabetes Insipidus, SIADH, etc.).
- Recognize the definition of micropenis and the differential implications.

# Gastroenterology/Nutrition

The resident will develop competency in the differential diagnosis, evaluation, and initial management of infants/children presenting with the following:

- Chronic recurrent abdominal pain
- Acute and recurrent vomiting (age appropriate)
- Acute and chronic diarrhea (age appropriate)
- Constipation
- Jaundice

At the completion of the residency the resident will be able to:

## Level 1

- Describe the pathophysiology and clinical management of a child with gastroesophageal reflux.
- Identify the presenting signs/symptoms, differential diagnosis and evaluation of children with suspected bowel obstructions.
- Identify the presenting signs/symptoms and evaluation of children with intussusception.
- Review the age related differential diagnosis and initial management of patients with GI bleeding.
- Define the clinical manifestations, differential diagnosis and initial evaluation of a child with hepatitis.
- Summarize the characteristics of normal infant/child/adolescent growth and nutrition.
- Describe the evaluation and management of failure to thrive.
- Treat acute diarrheal dehydration with oral hydration.
- Evaluate and manage a child with chronic constipation/encopresis.
- Recognize the varied presentations of acute appendicitis.

## **Gastroenterology/Nutrition (cont'd)**

### **Level 2**

- Summarize the age related clinical manifestations of peptic ulcer disease.
- Describe the clinical manifestations and evaluation of children with inflammatory bowel disease.
- Discuss the clinical manifestations and evaluation of children with the following surgical conditions: tracheoesophageal fistula, malrotation with or without bands, meconium ileus, intestinal atresias and stenoses.
- Describe the differential diagnosis and initial evaluation of a patient with acute and/or chronic hepatic failure.
- Recognize the clinical manifestations and describe the initial evaluation and management of a child with ascites.
- Recognize the clinical manifestations and initial evaluation of patients with a swallowing disorder.
- Discuss the differential diagnosis and management of the infant/child with obesity.
- Explain the indications for and the specific feeding modalities used in enteral feeding.

# General Pediatrics - Inpatient Experience

The resident will develop competency in the differential diagnosis, evaluation, and initial management of infants/children presenting with the following:

- Fever without a focus
- Respiratory distress
- Acute abdominal pain
- Acute vomiting
- Altered consciousness

At the completion of the residency the resident will be able to:

## Level 1

- Efficiently and accurately record data on an inpatient chart.
- Monitor and manage patients with asthma.
- Diagnose and manage patients with community acquired pneumonia.
- Evaluate and manage patients with acute bronchiolitis.
- Evaluate and manage patients with laryngotracheobronchitis.
- Recognize the signs and symptoms and initiate treatment in patients with septicemia.
- Diagnose and treat patients with meningitis and its complications.
- Diagnose, evaluate and manage patients with urinary tract infections.
- Evaluate and manage infants and children with diarrhea/dehydration and explain the principles of IV and oral rehydration.
- Monitor and manage children with acute head trauma.
- Manage infants and children with soft tissue infections.
- Monitor and manage children who are post-operative from various surgical procedures.
- Identify clinical situations where consultative involvement in patient care is appropriate.
- Evaluate, coordinate and manage inpatients with child abuse.
- Diagnose, monitor and manage infants/children with ingestion/poisoning.
- Diagnose, evaluate and manage patients with foreign body aspiration.
- Diagnose and treat patients with septic arthritis/osteomyelitis.

# Genetics

At the completion of the residency the resident will be able to:

## Level 1

- Develop a complete family tree or pedigree.
- Collect essential information needed to make a diagnosis of a genetic disorder.
- Employ an initial approach to an infant/child with a single or multiple birth defects.
- Explain the indications for a referral for genetic counseling.
- Recognize the phenotypic manifestations of the following syndromes: Down, Trisomy 13-15, Trisomy 17-18, Turners, Potters, Klinefelter, Neurocutaneous syndromes.

## Level 2

- Summarize the common modes of inheritance and be able to identify examples of each.
- Discuss common clinical problems and their management in patients with Down Syndrome.
- Recognize the clinical features of patients with Fragile X Syndrome and consider the diagnosis in the evaluation of a child (especially males) with developmental delay.
- Use effective strategies in presenting "bad news" to parents, including death/dying.

# Hematology

At the completion of the residency the resident will be able to:

## Level 1

- Diagnose anemia correctly at various ages, develop a plan for evaluation of the etiology, and implement a therapeutic plan.
- Select an appropriate laboratory evaluation and diagnose and manage an infant with iron deficiency without anemia.
- Distinguish bleeding that may arise from disorders of platelet function/number or plasma factor deficiencies, predict the course of either, and implement the initial assessment of the child.
- Assess a child with recurrent infections for disorders of white cell number or function.
- Evaluate the child with sickle cell disease who presents with fever or pain and initiate an appropriate therapeutic strategy.
- Assess accurately the child with a history of recurrent epistaxis.

## Level 2

- Diagnose children with hemolytic anemias and be able to evaluate and manage these patients with consultation.
- Manage the child with chronic ITP.
- Recognize and provide initial management of the child who presents with disseminated intravascular coagulation.
- Recognize and provide the initial management of patients with various classes of von Willebrand's disease.
- Manage (with consultation) the care of children with congenital bleeding diatheses.
- Recognize and initially manage infants and children with hemoglobinopathies (Thalassemia, hemoglobin E, etc.).

# Immunology

At the completion of the residency the resident will be able to:

## Level 1

- Discuss the clinical manifestations of the infant/child with a possible immunodeficiency disease.
- Initiate a workup to identify the infant/child with a possible immunodeficiency disorder.
- State the specific indications for the administration of IVIG.
- Diagnose common immune deficiency syndromes, including:
  - Wiskott-Aldrich
  - Combined immunodeficiency disease
  - B cell disorders
  - Ataxia-telangiectasia
  - DiGeorge Syndrome

# Infectious Disease

At the completion of the residency the resident will be able to:

## Level 1

- Utilize the microbiology laboratory appropriately in the diagnosis of common infections by rapid antigen tests, cultures and serology.
- List the schedule for routine immunizations of childhood and demonstrate knowledge of vaccine efficacy data, adverse effects, and common barriers to vaccines.
- Discuss the strategies for tuberculosis screening, and the management of an infant/child with a positive PPD and/or TB exposure.
- Diagnose and manage common upper respiratory infections (pharyngitis, otitis media, sinusitis).
- Diagnose and manage common lower respiratory tract infections (community acquired pneumonia, wheezing associated respiratory illness).
- Utilize appropriate procedures in the diagnosis of urinary tract infections, employ appropriate follow-up laboratory and radiologic studies, and know the indications for urologic referral.
- Diagnose and manage bone and joint infections.
- Recognize the clinical features of patients with meningitis or encephalitis, interpret cerebrospinal fluid findings, and provide initial management.
- Manage common skin and soft tissue infections (impetigo, cellulitis).
- Develop an understanding of antimicrobial agents including their spectrum of activity, adverse reactions, cost and convenience of administration.
- Summarize the indications for passive immune globulin prophylaxis of hepatitis B, varicella, etc.
- State the public health reporting requirements for specific infectious diseases.

## **Infectious Disease** (cont'd)

### **Level 2**

- Discuss the epidemiology of common nosocomial infections, infections in the family and in day care settings.
- Describe the clinical features which warrant investigation for possible primary immune deficiencies and HIV infection, and design an appropriate management and treatment plan.
- Site the special infectious disease issues associated with animal exposures or international travel.
- Prescribe a treatment regime for patients with active tuberculosis.

# Metabolism

At the completion of the residency the resident will be able to:

## Level 1

- Discuss the rationale for neonatal screening.
- Interpret abnormal values and prescribe a management plan for newborns who test positive in the state's screening program.
- Select the appropriate laboratory studies necessary in the evaluation of an infant who presents with a possible metabolic disorder.

## Level 2

°Recognize the clinical presentations of inborn errors of metabolism which include the following: acute encephalopathy, chronic encephalopathy, diffuse hepatocellular disease, myopathy, renal tubular diseases, disorders with distinctive phenotypes.

°Assess the laboratory abnormalities in patients with metabolic disorders.

# Neonatology

At the completion of the residency the resident will be able to:

## Level 1

- Perform a prenatal evaluation.
- Demonstrate appropriate delivery room management of the normal infant including assessment, stabilization and performance of routine procedures (vitamin K administration, eye prophylaxis, airway management).
- Perform gestational age assessments, site potential problems, and develop a differential diagnosis of small and large gestational age babies.
- Summarize the benefits of breast feeding and counsel mothers appropriately about breast and bottle feeding.
- Recognize the risk factors for early recognition and effective intervention of lactation failure.
- Discuss various aspects of routine newborn care including: stooling, urination, rashes, spitting, sleep patterns, and weight loss.
- Learn to perform and discuss the pros and cons of neonatal circumcision.
- Provide initial stabilization and management of the depressed newborn including the following: initial airway management, bag and mask ventilation, intubation, cardiac massage, and appropriate drug therapy.
- Summarize the differential diagnosis and management of neonatal jaundice.
- Cite the differential diagnosis, initial management and indications for referral of the newborn with respiratory distress.
- Recognize the signs and symptoms of the infant with suspected sepsis and provide initial management.
- Provide routine care of the healthy low birth weight infant including: feeding, temperature assessment, and fluid requirements.

# Neonatology (cont'd)

## Level 2

- Develop a differential diagnosis and manage a patient with hypoglycemia.
- List the potential complications and be able to manage an infant of a diabetic mother.
- Manage newborns with transient tachypnea.
- Develop a differential diagnosis and initially evaluate infants with bilious and non-bilious vomiting.
- Develop a differential diagnosis and initially evaluate a newborn with cyanosis.
- Recognize the newborn with cardiac disease.
- Cite the implications for newborns born to mothers with the following infections: group B strep, hepatitis B, hepatitis C, HIV, TB, syphilis, Herpes Simplex.
- Discuss the differential diagnosis and initially manage neonates with polycythemia.
- Discuss the differential diagnosis and initially manage neonates with seizures.
- Evaluate and manage newborns with potential alcohol and/or drug exposure.

# Neurology

At the completion of the residency the resident will be able to:

## Level 1

- Differentiate the etiology of headaches in children on the basis of their clinical manifestations.
- Differentiate simple from complex febrile seizures and develop a management plan including evaluation, prevention, parental counseling and therapy.
- Implement a treatment plan for the management of a child in status epilepticus.
- Describe the clinical manifestations and therapy of the various migraine syndromes.
- Initiate a diagnostic workup and management plan for the child with developmental delay.
- Diagnose and differentiate the various etiologies of micro and macrocephaly in an infant/child.

## Level 2

- Recognize and initially manage patients with shunt infection and/or malfunction.
- Develop a care plan for the infant/child with myelomeningocele, mental retardation, or cerebral palsy using a multidisciplinary approach.
- Recognize the early signs of degenerative brain disease in children.
- Demonstrate a knowledge of the clinical findings and management of Guillain-Barre syndrome, botulism, Erb's and Klumpke's palsies, muscular dystrophy, autism, Rett syndrome, Tourette's syndrome, Fragile X syndrome, and hypotonia.
- Summarize the differential diagnosis and initial evaluation of infants/children presenting with ataxia and vertigo.

# Oncology/BMT

At the completion of the residency the resident will be able to:

## Level 1

- Describe the presenting signs and symptoms of childhood leukemia.
- Identify the various causes of an abdominal mass and recommend a strategy for the initial evaluation.
- Formulate a plan for the initial management of a child with chemotherapy induced neutropenia and fever.
- Recognize the presenting signs and symptoms of brain tumors.
- Develop a care strategy for the terminally ill child.
- Formulate a plan for the management of pain in a child.
- Determine the prognosis of a child with cancer.
- Formulate a plan for the medical and psychosocial care of the siblings of a child with cancer.
- Summarize the types, management and problems associated with intravenous access devices (Hickman catheters, portacaths, etc.)

## Level 2

- Distinguish the various chemotherapeutic agents used in the treatment of childhood cancer and compare their side effects.
- Recognize the hereditary syndromes that are associated with a predisposition to malignancy.
- Summarize the molecular models of carcinogenesis important in childhood cancer (retinoblastoma in particular).
- Explain the rationale for autologous/allogeneic or unrelated donor marrow transplant in the management of the child with malignant or non-malignant disease.
- Describe the late effects of cancer therapy, including neuropsychologic sequelae of CNS therapy.

# Primary Care Clinics

At the completion of the residency the resident will be able to:

## Level 1

- Provide age related health supervision including:
  - Growth monitoring
  - Nutrition assessment and counseling
  - Developmental monitoring including the use of specific screening instruments (DDST, behavior questionnaires, Preschool Readiness Test)
  - Immunizations
  - Screening tests (hearing, vision, hemoglobin, lead, urine)
  - Anticipatory guidance including injury prevention, age related developmental issues (sleep, toilet training, etc.)
- Demonstrate the ability to effectively communicate with children and parents.
- Demonstrate competency in the management of common infections seen in the outpatient setting (upper and lower respiratory, GI, urine and skin).
- Demonstrate competency in the diagnosis and management of infants/children with acute otitis media, otitis media with effusion, and chronic otitis media.
- Recognize and manage common dermatologic disorders including but not limited to: infestations, infections, atopic dermatitis, seborrheic dermatitis, contact dermatitis, diaper rashes, etc.
- Explain the role of the primary care pediatrician in the referral process.
- Demonstrate an understanding of the basic principles of telephone medicine.
- Appreciate the functions of various community agencies and specialized services (schools, legal system, social agencies).
- Explain the role of other professional disciplines and recognize appropriate indications for a referral (audiology, speech, psychology, etc.).
- Demonstrate skills in the primary care coordinating function required in managing children with chronic diseases.
- Manage children with common chronic disorders including: recurrent abdominal pain, chronic headaches, encopresis, enuresis, asthma, etc.
- Diagnose and manage common disorders of the lower extremity and foot including: tibial torsion, femoral anteversion, metatarsus adductus, flat feet, etc.

# Pulmonology

At the completion of the residency the resident will be able to:

## Level 1

- Recognize the signs and symptoms of acute sinusitis, implement a workup, and prescribe appropriate therapy.
- Differentiate the various etiologies and manage patients who present with acute and chronic stridor.
- Differentiate the various etiologies and manage patients who present with acute and/or recurrent wheezing.
- Recognize the clinical and radiographic manifestations of foreign body aspiration.
- Differentiate the various etiologies and manage infants, children and adolescents with chronic cough.
- Diagnose and manage patients with community acquired pneumonia.
- Demonstrate a thorough knowledge of the diagnosis, evaluation and long term management of patients with asthma, and effectively treat status asthmaticus.
- Manage patients with wheezing associated respiratory illness.
- Recognize the child with impending respiratory failure.
- Accurately interpret blood gas determinations, and oxygen saturations.
- Summarize the indication for and interpretation pulmonary function tests.

## Level 2

- Demonstrate knowledge of the genetics, clinical manifestations, diagnosis and treatment of patients with cystic fibrosis.
- Summarize the clinical, laboratory, epidemiologic and radiologic manifestations of tuberculosis.
- Know the differential diagnosis and approach to patients with apnea of infancy.
- Recognize the clinical manifestations of extrinsic airway obstructions.
- Evaluate appropriately the patient with respiratory symptoms thought to be secondary to GE reflux.
- Manage infants with bronchopulmonary dysplasia

# Renal/Urology

At the completion of the residency the resident will be able to:

## Level 1

- Formulate a differential diagnosis, initial evaluation and management plan for the following common signs and symptoms:
  - Dysuria
  - Hematuria
  - Proteinuria
  - Hypertension
  - Edema
- Recognize the signs and symptoms of urinary tract infections.
- Discuss the diagnosis, treatment and radiographic evaluation of patients with urinary tract infections.
- Summarize the classification and management of vesicoureteral reflux and the indications for urologic consultation.
- Discuss the differential diagnosis and management of the patient with the acute scrotum.
- Demonstrate knowledge of normal blood pressure ranges for children and formulate an initial workup of a child with hypertension.
- Diagnose, evaluate and initially manage acute renal failure.
- Recognize the clinical manifestation of infants with posterior urethral valves.
- Recognize, manage, and list the indications for referral of patients with the following urologic disorders: hypospadias, cryptorchidism, balanitis, phimosis, hernia, hydrocele.

## Level 2

- Summarize the clinical manifestations, diagnosis, evaluation, initial management and referral indications for the following diseases:
  - Acute and chronic glomerulonephritis
  - Nephrotic syndrome
  - Hemolytic uremic syndrome
  - Cystic renal disease
  - Renal tubular disorders
  - Renal trauma
  - IgA nephropathy
  - Chronic pyelonephritis