

M3 Pediatric Clerkship

The overall goals for the third year Pediatric Clerkship are to educate future physicians to provide competent, effective and compassionate care of patients by developing clinical reasoning, communication and life-long learning skills.

Pediatric Intended Learning Objectives

Medical Knowledge: UMMS students will demonstrate a strong foundation in:

- 1) Normal growth, development and behavior and their assessment, as well as approaches to abnormalities from infancy through adolescence (MK1, MK2, MK3)
- 2) Health maintenance and preventive care for children, including age-related issues in nutrition, safety, vaccination and risk factor identification and modification (MK1, MK2).
- 3) Common acute and chronic pediatric conditions, congenital and genetic syndromes, and the importance of age on their manifestations and treatment (MK 1, MK 2, MK3).
- 4) Principles of physiology and pharmacology applicable to children from birth through adulthood, especially age-related changes (MK1, MK 2, MK3).

Inpatient: Students will demonstrate a strong foundation in:

1. Common acute and chronic pediatric conditions and the importance of age on their manifestations and treatment. Relevant inpatient topics include:
 - Fluid management, electrolytes, nutrition
 - Respiratory infections/pneumonias
 - Urinary tract infections
 - Failure to thrive
 - Apparent Life Threatening Events
 - Asthma
 - CXR interpretations
 - Fever work-up
 - Meningitis
- B. Principles of physiology applicable to children from birth through adulthood, especially age-related changes (e.g. interpret variations in vital signs based on age).
- C. Principles of pharmacology applicable to children (e.g. appropriate drug dose calculations in children).
- D. The progression and treatment of pediatric illnesses in hospitalized children.
- E. Approaches to chronic illness and disability.

F. Explain the difference between informed consent, assent, and parental permission; knowing the limits of parental autonomy and the limits of physician authority

Newborn: Students will demonstrate a strong foundation in:

1. The potential complications in the transition from the intrauterine to the extrauterine environment, including temperature regulation, cardiovascular/respiratory adjustment, metabolic fluctuations, and initiation of feeding.
 2. Implications that pregnancy, labor and delivery events has for the health of the newborn.
 3. How gestational age can be assessed with an instrument such as the Ballard scale and how gestational age affects risks of morbidity or mortality in the newborn period.
 4. The challenges for parents adjusting to a new infant in the home.
 5. The differential diagnosis and complications for the following common problems that may occur in the newborn:
 - Jaundice
 - Respiratory distress
 - Poor feeding
 - Large and Small for Gestational Age
 - Neurological abnormalities such as tremulousness, irritability, lethargy due to sepsis, drug withdrawal, hypoglycemia
 - Heart Murmurs
1. Describe the role of circumcision in newborns.

Outpatient: Students will demonstrate a strong foundation in:

1. Health Supervision/Prevention
 1. The components of a health supervision visit including health promotion and disease and injury prevention, the appropriate use of screening tools, and immunizations
 2. How risk of illness and injury change during growth and development
 3. The indications and appropriate use of the following screening tests:
 - Developmental Screening
 - Hearing and Vision Screening
 - Lead Screening
 - Anemia Screening
 - TB testing
 - Oral Health Screening
1. The rationale, general indications and contraindications for childhood immunizations
2. Anticipatory guidance and how it changes based on the age of the child
3. Growth and Nutrition
 1. Variants of growth in healthy children, (e.g. familial short stature and constitutional delay).

2. Growth that deviates from expected patterns, based on the family growth history and the child's previous growth (e.g. microcephaly, macrocephaly, short stature, obesity and failure to thrive).
3. The signs and symptoms of common nutritional deficiencies in infants and children and how to prevent them.
4. Children with specific or special nutritional needs (e.g. prematurity, failure to thrive, obesity)
5. Nutritional factors that contribute to the development of childhood obesity and to failure to thrive
4. Development
 1. 4 developmental domains of childhood and appropriate screening tools
 2. Interpretation of abnormal development screening
5. Behavior: Differentiation between normal childhood behavior versus the typical presentation of common behavior problems and issues in different age groups
6. Common Acute Pediatric Illnesses

Age appropriate differential diagnosis for pediatric patients presenting with each of the following symptoms, physical findings or laboratory findings. Describe the epidemiology, clinical, laboratory and radiographic findings of each of the core pediatric level conditions listed.

- Abdominal Pain or Mass
- Anemia
- Cough/Wheeze
- Diarrhea
- Fever with rash or without a source
- Headache
- Heart Murmur
- Hematuria or Proteinuria
- Lethargy or Irritability
- Limp or Extremity Pain
- Otagia
- Ophthalmologic complaints (red eye, strabismus, white pupillary reflex)
- Rash, including bruising, petechiae or purpura
- Sore Throat
- Vomiting

Patient Care: UMMS students will demonstrate a strong foundation in:

- 1) Skills in obtaining and interpreting relevant information from patients, parents/caregivers, laboratory data and other sources to deliver optimal patient centered care (PC1).
- 2) Skills to organize and interpret clinical information to make clinical decisions effectively and efficiently (PC2).
- 3) Sustained excellence in patient management and treatment (PC1, PC2, PC3, PC4, PC5).

4) Recognize the important role of patient education in prevention and treatment of disease (PC3, PC4).

Inpatient: UMMS students will demonstrate a strong foundation in:

1. The Pediatric History Taking including complete history of present illness, past medical and surgical history, medications, allergies, family history, social history, developmental, immunizations, diet and complete review of systems.
2. Physical examination skills of infants, children and adolescents, adapting appropriately to the age of the patient.
3. Clinical Problem Solving, including interpret data from history, physical, labs and studies to define problems, develop a differential diagnosis and patient management plan and identify associated risks.

Newborn: UMMS students will demonstrate a strong foundation in:

- A. Obtaining prenatal and peri-partum history.
- B. Physical examinations of the newborn infant
- C. Interpret data from prenatal history, physical, labs/studies to identify associated risks/problems, develop a differential diagnosis and patient management plan

Outpatient: UMMS students will demonstrate a strong foundation in:

1. History Taking: Obtaining a dietary history in children of different ages. Performing an age-appropriate history pertinent to the presenting complaint of the child. Assessing psychosocial, language, physical maturation, and motor development in pediatric patients using appropriate resources. Identifying behavioral and psychosocial problems of childhood using the medical history.
2. Age-appropriate exams pertinent to the presenting complaint of the child
3. Assessment of growth including height/length, weight and head circumference and body mass index using standard growth charts.
4. Differential diagnosis and care plan for the common conditions listed above.

Communication: Students will demonstrate interpersonal communication skills that facilitate empathic relationships and effective collaborations with families, children and adolescents, and other health care professionals and teams.

1) History Taking: From parents, children and adolescents and in more complex situations (e.g. adolescent psychosocial interview, more demanding parent), collecting complete and accurate information and focusing appropriately. Describe how to modify the interview depending on the age of the child, with particular attention to the following age groups: toddler/preschooler, school-age child, adolescent, including when to address questions to child versus parent (C1).

2) Verbal Presentations: Organize a case presentation to accurately reflect the reason for the evaluation, the chronology of the history, the details of physical findings, the differential diagnosis and the suggested initial evaluation. Include age specific information and precise description of physical findings. Justify the thought process that led to the diagnostic and therapeutic plan (C1, C2).

3) Written Documentation: Document the independent clinical thinking of the student (C3).

Inpatient: Students will demonstrate competence in:

1. Interacting effectively and sensitively with families, patients, and health care team members during family centered rounds and other interactions.
2. Effective communication about the diagnosis and treatment to the patient and family, avoiding vague terms and jargon.
3. Writing inpatient admission history.

Newborn: Students will demonstrate competence in giving newborn anticipatory guidance for the following issues:

- benefits of breastfeeding vs formula feeding for the newborn and mother
- normal bowel and urinary elimination patterns
- normal newborn sleep patterns
- newborn screening tests including metabolic and hearing screening
- appropriate car seat use
- prevention of SIDS
- immunizations (Hep B vaccine)
- medications (eye prophylaxis, vitamin K)

Outpatient: Students will demonstrate competence in:

1. Providing age-appropriate anticipatory guidance about nutrition, behavior, immunizations, injury prevention and pubertal development.
2. Writing an appropriate note for the outpatient encounter.

Professionalism: The student will be expected to:

1) Demonstrate compassion, empathy and respect toward children and families, including respect for the patient's modesty, privacy and confidentiality (P2).

2) Demonstrate respect for patient, parent, and family attitudes, behaviors and lifestyles, paying particular attention to cultural, ethnic and socioeconomic influences to include actively seeking to elicit and incorporate the patient's parent's and family's attitudes into the health care plan, showing flexibility to meet the needs of the patient and family (P2, P3).

3) Function as an effective member of the health care team, demonstrating collegiality and respect for all members of the health care team (P5).

4) Be accountable to patients, families and the medical team (P1, P5).

Practice-based Learning and Improvement: Students will demonstrate a commitment to achieving personal and professional excellence, including self-directed learning, reflective practice, the critical evaluation of the performance of peers and self, and promotion of collaborative learning. Students will demonstrate a positive attitude and regard for education by demonstrating intellectual curiosity, initiative, honesty, responsibility, dedication to being prepared, maturity in soliciting, accepting and acting on feedback, flexibility when differences of opinion arise and reliability (PBLI1, PBLI2, PBLI3).

Students will demonstrate the expertise to apply the scientific method and critically evaluate the literature, assimilate new information, and apply this knowledge to patient care (PBLI4).

Systems-Based Practice: Students will demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively draw on system resources to provide care that is of optimal value (SBP1, SBP3).