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Course Leadership

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| Course Directors:  | **Pediatrics Clerkship**Director: Jocelyn Schiller, MD johuang@med.umich.edu Associate Director: Sharon Kileny, MD kileny@med.umich.edu Assistant Director: Jessica Fealy, MD jfealy@med.umich.edu  |
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Course Description & Learning Objectives (and relationship to [Medical Student Competencies](http://medstudents.medicine.umich.edu/sites/default/files/downloads/Med%20Student%20Competencies%2017-18.pdf)

The Pediatric Clerkship is a required, six-week clinical rotation for clinical trunk students at the University of Michigan. 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. Students will actively engage in the care for patients in the clinical setting, as well as attend didactic teaching sessions, which will present core concepts in pediatrics. These concepts will be reinforced through their clinical experiences on inpatient and outpatient care teams.

**Pediatric Intended Learning Objectives**

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.

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| **Course Objectives** | **Comp** |
| **Medical Knowledge**  |  |
| * Identify normal growth, development and behavior and their assessment, as well as approaches to abnormalities from infancy through adolescence
* Describe health maintenance and preventive care for children, including age-related issues in nutrition, safety, vaccination and risk factor identification and modification.
* Recognize common acute and chronic pediatric conditions, congenital and genetic syndromes, and the importance of age on their manifestations and treatment.
* Apply principles of physiology and pharmacology to children from birth through adulthood, especially age-related changes.
 | **MK-bs, sm** |
|  *Inpatient:* 1. Identify 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
* Brief resolved unexplained events (BRUE)
* Asthma
* CXR interpretations
* Fever work-up
* Meningitis

B. Apply 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. Relate principles of pharmacology applicable to children (e.g. appropriate drug dose calculations in children).D. Explain the progression and treatment of pediatric illnesses in hospitalized children.E. Outline approaches to chronic illness and disability. |  |
| *Newborn*: 1. Recognize 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. Outline implications that pregnancy, labor and delivery events has for the health of the newborn.
3. Identify the challenges for parents adjusting to a new infant in the home.
4. Formulate a differential diagnosis and identify complications for the following common problems that may occur in the newborn:
* Jaundice
* Respiratory distress
* Poor feeding
* Large and Small for Gestational Age
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| *Outpatient:* 1. Describe Health Supervision/Prevention
2. Outline the components of a health supervision visit including health promotion and disease and injury prevention, the appropriate use of screening tools, and immunizations
3. Describe how risk of illness and injury change during growth and development
4. Identify the indications and appropriate use of the following screening tests:
* Developmental Screening
* Hearing and Vision Screening
* Anemia Screening
* Oral Health Screening
1. Discuss the rationale, general indications and contraindications for childhood immunizations
2. Provide anticipatory guidance and how it changes based on the age of the child
3. Describe Growth and Nutrition
4. Recognize variants of growth in healthy children, (e.g. familial short stature and constitutional delay).
5. Distinguish growth that deviates from expected patterns, based on the family growth history and the child’s previous growth (e.g. microcephaly, macrocepahly, short stature, obesity and failure to thrive).
6. Describe the signs and symptoms of common nutritional deficiencies in infants and children and how to prevent them.
7. Identify children with specific or special nutritional needs (e.g. prematurity, failure to thrive, obesity)
8. State nutritional factors that contribute to the development of childhood obesity and to failure to thrive
9. Describe Development
10. Identify the 4 developmental domains of childhood and their appropriate screening tools
11. Interpret abnormal development screening
12. Differentiate between normal childhood behavior versus the typical presentation of common behavior problems and issues in different age groups
13. Recognize Common Acute Pediatric Illnesses

Utilize 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
* Limp or Extremity Pain
* Otalgia
* Ophthalmologic complaints (red eye, strabismus, white pupillary reflex)
* Rash, including bruising, petechiae or purpura
* Sore Throat
* Vomiting
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| **Patient Care:** * Demonstrate skills in obtaining and interpreting relevant information from patients, parents/caregivers, laboratory data and other sources to deliver optimal patient centered care.
* Organize and interpret clinical information to make clinical decisions effectively and efficiently.
* Demonstrate excellence in patient management and treatment.
* Recognize the important role of patient education in prevention and treatment of disease.
 | **PC-hp, cr, mp, dx, ed** |
| *Inpatient:* 1. Demonstrate 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. Apply physical examination skills to infants, children and adolescents, adapting appropriately to the age of the patient.
3. Interpret data from history, physical, labs and studies to define problems, develop a differential diagnosis and patient management plan and identify associated risks.
 | **PC-hp, cr, mp, dx** |
| *Newborn*: A. Obtaining prenatal and peri-partum history.B. Demonstrate 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.D. Discuss discharge instructions and provide newborn anticipatory guidance to new parents on: * 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)
 | **PC-hp, cr, mp, dx, ed, pf** |
| *Outpatient:* 1. Demonstrate history taking: Obtain a dietary history in children of different ages, perform an age-appropriate history pertinent to the presenting complaint of the child, assess 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. Perform age-appropriate exams pertinent to the presenting complaint of the child.
3. Assess growth including height/length, weight and head circumference and body mass index using standard growth charts.
4. Develop differential diagnoses and care plans for the common conditions listed above.
 | **PC-hp, cr, mp, dx** |
| **Communication**: * Demonstrate interpersonal communication skills that facilitate empathic relationships and effective collaborations with families, children and adolescents, and other health care professionals and teams.
* 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.
* Adapt history taking from parents, children and adolescents in more complex situations (e.g. adolescent psychosocial interview, more demanding parent), collecting complete and accurate information and focusing appropriately.
* 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.
* Draft clinical findings and independent clinical thinking in the form of written notes.
 | **PC-hp, C-pf, ch, mr** |
| *Inpatient:* 1. Interact effectively and sensitively with families, patients, and health care team members during family centered rounds and other interactions.
2. Demonstrate effective communication about the diagnosis and treatment to the patient and family, avoiding vague terms and jargon.
3. Produce inpatient admission history and daily inpatient notes.
 | **C-pf, ch, mr, LTI-cc, it** |
| *Newborn:* 1. Interact effectively and sensitively with families, patients, and health care team.
2. Employ effective communication about the diagnosis and treatment to the patient and family.
 | **C-pf, ch** |
| *Outpatient*: 1. Utilize age-appropriate anticipatory guidance about nutrition, behavior, immunizations, injury prevention and pubertal development.
2. Produce an appropriate note for the outpatient encounter.
 | **C-pf, mr** |
| **Professionalism**: * Demonstrate compassion, empathy and respect toward children and families, including respect for the patient’s modesty, privacy and confidentiality.
* 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.
* Function as an effective member of the health care team, demonstrating collegiality and respect for all members of the health care team.
* Demonstrate accountability to patients, families and the medical team.
 | **P-cd, sr, ra, PR-cd, LTI-it, SBP-ws,**  |
| **Practice-based Learning and Improvement:*** **D**emonstrate 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.
* 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.
* Apply the scientific method and critically evaluate the literature, assimilate new information, and apply this knowledge to patient care.
 | **PBLI-ce, sl, ca** |
| **Systems-Based Practice:** * 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.
 | **SBP-os** |

**Course Requirements, Assessments and Grading**

**Course Structure**

The Pediatric Clerkship is a 6-week rotation. All students complete 3 weeks of Inpatient medicine at Mott Children’s Hospital on a General Inpatient Team or a Specialty Inpatient Team. All students will be scheduled for 8-9 half-day sessions with a specific General Peds Clinic. Every student will be on the Newborn Service for 1 week, the Night Team for 3 shifts (6pm-1am). Students may elect to attend a shift in the Pediatric Emergency Department or Pediatric Subspecialty Clinic in lieu of one ½ day primary care clinic.

**Teaching sessions:**

Inpatient students will have scheduled conferences Mon-Thurs. All students have 3 hours of required student conferences/week on Fridays noon-3pm.

Genetics – 1-hour session

Nephrology – 1-hour session

Exam Topic Review – 3-hour session

Musculoskeletal – 1-hour session

Pneumonia – 1-hour session

Nutrition – 1-hour session

Asthma – 1-hour session

Cardiology – 1-hour session

Fever – 1-hour session

Neurology/Seizure – 1-hour session

Development & Behavior – 1-hour session

GI – 1-hour session

**Other assignments:**

2 Written Inpatient History and Physical – Second H&P is formally graded

2 written outpatient notes- Second note is formally graded

2 Aquifer cases (online module) during primary care week

**Evaluation and Grading:**

1. Clinical Performance – 65%

Outpatient attending - 20%

Newborn attending - 10%

Inpatient attendings - 25%

Inpatient resident - 10%

1. Shelf Examination – 20%
2. Departmental Requirements – 15%

Outpatient written note - 5%

Inpatient written history and physical- 5%

Completion of Aquifer Cases/Patient Logs/lecture Evaluations - 5%

Course & Program Evaluation Plan (how will the course be evaluated?)

* Clerkship evaluations by students
* Annual clerkship director and student SWOT reports
* Annual Review by CTOC
* End of year clerkship comparison report
* AAMC GQ reports
* UMMS clinical skills report – reviewed by clerkship director annually
* UMMS clinical skills report – reviewed by clerkship director annually
* CCA4 - reviewed by clerkship director annually
* USMLE Step 1, 2 & NBME Clinical Subject Exam national averages
* Timeliness of grading and formative feedback (reviewed quarterly)