It is the sole responsibility of the student to check AIMS for schedule and site updates on a daily basis!

Northeast Ohio Medical University
College of Medicine

**Pediatrics Clerkship, 40004**

**Course Syllabus**

**2018-19**

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COURSE DESCRIPTION
The Northeast Ohio Medical University College of Medicine M3 Pediatrics Clerkship is a six-week clinical rotation. This core curriculum is designed to: a) develop clinical competence, b) foster appropriate attitudes toward professional responsibility as a physician and c) introduce the student to collaborative patient care in the specialty of Pediatrics. The emphasis will be on the pediatrician's method and approach to care of the patient. Both cognitive and non-cognitive learning will be primarily patient oriented.

COURSE ADMINISTRATION
Clinical Experiential Director and Course Directors
Dr. Susan Nofziger is Clinical Experiential Director for the Pediatrics Clerkship and in collaboration with Dr. David Sperling, Clerkships Course Director and Dr. Susan Labuda Schrop, Clerkships Course Co-Director, provides oversight for the clerkship. In her role as Clinical Experiential Director, Dr. Nofziger is responsible for ensuring that implementation of the Pediatrics curriculum is consistent across all teaching sites.

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**Hospital Sites and Clerkship Site Directors**
The facilities for clinical instruction in Pediatrics are those institutions and residency training programs that have committed themselves to the Northeast Ohio Medical University College of Medicine for participation in the undergraduate training of the NEOMED students.

Susan Nofziger, M.D.  
Akron Children’s Hospital

Shannon Wronkowicz, M.D.  
Mercy Health, St. Vincent Medical Center

Philip Fragassi, MD  
MetroHealth System

**COURSE GOALS** *adopted from the Council on Medical Student Education in Pediatrics COMSEP Curriculum 2005)*  
The overall desired end point is the mastery of basic core competencies that are essential for practice as a competent physician, regardless of career focus to include:

- Acquisition of a body of knowledge and skills necessary for the diagnosis and initial management of common pediatric acute and chronic illnesses.
- An understanding of the approach of pediatricians to the health care of children and adolescents.
- An understanding of the influence of family, community and society on the child in health
and disease.
➢ Development of communication skills that will facilitate the clinical interaction with children, adolescents and their families and thus ensure that complete, accurate data are obtained.
➢ Development of competency in the physical examination of infants, children and adolescents.
➢ Development of clinical problem-solving skills.
➢ Development of strategies for health promotion as well as disease and injury prevention.
➢ Development of the attitudes and professional behaviors appropriate for clinical practice.

Core Clerkship Learner Objectives (adapted from the Council on Medical Student Education in Pediatrics COMSEP Curriculum 2005)

Upon completion of the Pediatrics Clerkship, the student will be able to provide compassionate, effective patient care reflecting the ability to:
➢ Provide age-appropriate anticipatory guidance about nutrition, behavior, immunizations, injury prevention, pubertal development, sexuality, and substance use and abuse.
➢ Measure and assess growth including height/length, weight and head circumference, and body mass index in patient encounters using standard growth charts.
➢ Counsel parents and children about the management of common behavioral concerns such as discipline, toilet training and eating disorders.
➢ Obtain a dietary history in children ranging in age from birth to adolescence.
➢ Provide age-appropriate anticipatory guidance for the following: motor vehicle safety, infant sleeping position, falls, burns, poisoning, fire safety, choking, water safety, bike safety, STI (formerly called STD), firearms and weapons.
➢ Interview an adolescent patient using the HEADSS method to ask sensitive questions about lifestyle choices that affect health and safety (e.g., sexuality, drug, tobacco and alcohol use) and give appropriate counseling.
➢ Conduct a physical examination of an adolescent that demonstrates respect for privacy and modesty, employing a chaperone when appropriate.
➢ Conduct a pre-participation sports exam and demonstrate the key components of that exam necessary to clear an individual for participation in strenuous exercise (special senses, cardiac, pulmonary, neurological and musculoskeletal).
➢ Conduct a health supervision visit for a healthy adolescent, incorporating a psychosocial interview, developmental assessment and appropriate screening and preventive measures.
➢ Provide anticipatory guidance to parents of a newborn for the following issues: feeding, normal bowel and urinary elimination patterns, appropriate car seat use, SIDS prevention, disease prevention, identifying illness.
➢ Perform a complete physical exam of the newborn infant.
➢ Use the "ABC" assessment as a means to identify who requires immediate medical attention and intervention.

Upon completion of the clerkship the student will be able to apply their knowledge of pediatrics reflecting the ability to:
➢ Assess psychosocial development, language development, physical maturation and motor development in pediatric patients using appropriate resources.
➢ Identify behavioral and psychosocial problems of childhood using the medical history and physical examination.
➢ Use a family history to construct a pedigree (e.g., for the evaluation of a possible genetic disorder).
➢ Calculate a drug dose for a child based on body weight.
➢ Write a prescription, e.g., for a common medication such as an antibiotic.
➢ Negotiate a therapeutic plan with the patient and family to maximize adherence with the agreed-upon treatment regimens and assess the family's understanding of the plan.
➢ Obtain historical and physical finding information necessary to assess the hydration status of a child.
➢ Calculate and write orders for intravenous maintenance fluids for a child considering daily water and electrolyte requirements.
➢ Calculate and write orders for the fluid therapy for a child with severe dehydration to include "rescue" fluid to replenish circulating volume, fluid deficit and ongoing maintenance.

Upon completion of the clerkship the student will demonstrate interpersonal and communications skills reflecting the ability to:
➢ Explain to parents how to use oral rehydration therapy for mild to moderate dehydration.
➢ Provide anticipatory guidance regarding home safety and appropriate techniques to prevent accidental ingestions.
➢ Elicit a complete history when evaluating an unintentional ingestion or exposure to a toxic substance (including the substance, the route of exposure, the quantity, timing and general preventive measures in the household).
➢ Elicit a complete history surrounding the intentional ingestion of a toxic substance (including the substance, route of exposure, amount, timing, antecedent events and stressors).
➢ Provide appropriate anticipatory guidance to prevent life-threatening conditions (e.g., infant positioning for sudden infant death syndrome, locks to prevent poisoning, and the use of car seats and bicycle helmets).

The degree of competence should be high enough for the student to be capable of doing the assessment unaided and, in the case of tests, to be able to interpret the results in relation to the patient.
**Student Assignment**
Students are assigned to Akron Children’s Hospital, including branch campuses; MetroHealth System (Cleveland); and Mercy St. Vincent Medical Center (Toledo). All sites offer the benefits of a major teaching center with outstanding attending faculty. The clerkship teaching sites are commonly bound by shared learning objectives as well as a common didactic and clinical curriculum. Teaching sites are closely monitored to ensure comparability. The depth and scope of clinical encounters during the six-week clerkship are comparable among sites as evidenced by student feedback, clerkship evaluations and National Board of Medical Examiners (NBME) subject examination scores.

**First Day Reporting**
In addition to the information provided below, students may receive first-day reporting information directly from their clinical sites. If that information differs from the information provided below, please follow the instructions provided directly from the sites.

<table>
<thead>
<tr>
<th>Where and When to Report on First Day of Clerkship</th>
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<tbody>
<tr>
<td><strong>You will need your student ID, white coat and license plate number.</strong></td>
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<tr>
<td><strong>Akron Children’s Hospital (all sites)</strong></td>
</tr>
<tr>
<td><strong>Mercy Health, St. Vincent Medical Center (Toledo)</strong></td>
</tr>
<tr>
<td><strong>MetroHealth System</strong></td>
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Orientation
The clerkship begins with orientation focusing on clerkship goals and objectives, student responsibilities, schedules and assessment methods. Students will be provided information on relevant hospital policies and procedures, personnel contact information, meal allowances (if applicable) and parking. The orientation will include instruction on the risks of infection, techniques for reducing the spread of infection and site specific hospital protocol to be followed in the event of exposure to an infectious or environment hazard or other injury. A one-hour lecture on general pediatric care procedures and their rationale will be provided.

Rotations
Students will spend an average of 50% of time on the inpatient service and 50% of time in outpatient offices. This may include time in the emergency department and newborn nursery. They may be assigned to a variety of pediatric rotations that will include general pediatrics as well as a variety of subspecialty rotations such as infant care, ambulatory medicine and neonatal medicine.

Emergency Medicine Experience: Students may be assigned to work in the pediatric emergency department. During the experience, students will be exposed to the wide breadth of illness seen in a tertiary care pediatric emergency department. Students will work directly with the attending, fellow and resident emergency department staff. Resident staff may include pediatric, emergency medicine, family medicine and transitional residents from all levels of residency.

The emergency medicine experience will provide students the opportunity to refine their ability to:

➢ Obtain an accurate history in an efficient manner.
➢ Perform a physical exam.
➢ Communicate effectively with patients, families and staff.
➢ Orally present their patients’ cases.
➢ Document their findings.
➢ Synthesize pertinent information.
➢ Develop a reasonable assessment, problem list, differential diagnosis and treatment plan.
➢ Perform selected procedures under supervision.

Newborn Experience: Students will be scheduled to spend time in the newborn nursery or NICU. In preparation for the newborn experience, students are to complete Aquifer Pediatrics cases 1 and 8 and to review the articles provided on AIMS. In addition, students should take the opportunity to view the Newborn Exam video available at http://learn.pediatrics.ubc.ca/videos/newborn-exam/ (last accessed July 19, 2018).

Upon completion of the Newborn Experience the student will be able to:

➢ Describe the basic elements of newborn care.
➢ Describe and perform a physical exam on a newborn.
➢ Discuss routine procedures performed on a newborn including the state metabolic screen, hepatitis B screen, circumcision, transcutaneous bilirubin checks, etc.
➢ Discuss normal newborn issues including jaundice, transient tachypnea of the newborn, hypoglycemia and sepsis evaluation.
➢ Discuss basic newborn nutrition.
➢ Discuss how to decide when a newborn is ready for discharge and the importance of adequate follow up with the pediatrician.

Curriculum Content
The amount of information to be covered during the rotation is vast. In addition to clinical duties, students are expected to read, study and complete all required Aquifer Pediatrics cases (see next section). In addition to the Pediatrics cases, the curriculum is also comprised of two pediatric palliative care videos, and self-directed reading and studying. Supplemental information will be given during conferences, inpatient rounds, discussions regarding individual patients, etc., but this information will vary based on assigned patients. Goals and objectives specific to Pediatrics can be found on the COMSEP website at www.comsep.org (last accessed March 7, 2017) under Educational Resources → COMSEP Curriculum link.

Aquifer Pediatrics Online Cases
A major portion of the Pediatrics Clerkship curriculum is covered in the 32 web-based interactive Aquifer Pediatrics cases. Aquifer Pediatrics cases are intended to be a transition from didactic presentation of information to the self-directed learning format students will need to develop and follow in a lifelong study of medicine. The cases are designed to help students advance their differential diagnosis and critical thinking skills as well as deepen their general pediatric knowledge.

Of the 32 available cases, students are required to complete a total of 21 cases. Sixteen of these 21 cases are specifically assigned and are listed in bold type in the following table. In addition, students are to select and to complete at least five additional cases of their choosing. The required cases will not necessarily be covered in a conference but are intended to provide students with a base of information prior to conferences and rounds.

Students are encouraged to access the Aquifer website early in the rotation and to complete all modules. Each case will take 30 to 60 minutes to complete.

<table>
<thead>
<tr>
<th>Aquifer Pediatrics Cases</th>
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<tbody>
<tr>
<td>(required cases indicated in <strong>bold</strong> type)</td>
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<p>| 1. Evaluation and care of the newborn infant - Thomas | 17. 4-year-old refusing to walk - Emily |
| 2. Infant well-child (2, 6 and 9 months) - Asia     | 18. 2-week-old with poor feeding - Tyler |
| 3. 3-year-old well-child check - Benjamin          | 19. 16-month-old with a first seizure - Ian |</p>
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<tbody>
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<td>4.</td>
<td>8-year-old well-child check - Jimmy</td>
<td>20.</td>
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<tr>
<td>5.</td>
<td>16-year-old girl’s health maintenance visit - Betsy</td>
<td>21.</td>
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<tr>
<td>6.</td>
<td>16-year-old boy's pre-sport physical - Mike</td>
<td>22.</td>
</tr>
<tr>
<td>7.</td>
<td>Newborn with respiratory distress - Adam</td>
<td>23.</td>
</tr>
<tr>
<td>8.</td>
<td>6-day-old with jaundice - Meghan</td>
<td>24.</td>
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<tr>
<td>9.</td>
<td>2-week-old with lethargy - Crimson</td>
<td>25.</td>
</tr>
<tr>
<td>10.</td>
<td>6-month-old with a fever - Holly</td>
<td>26.</td>
</tr>
<tr>
<td>11.</td>
<td>5-year-old with fever and adenopathy - Jason</td>
<td>27.</td>
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<tr>
<td>12.</td>
<td>10-month-old with a cough - Anna</td>
<td>28.</td>
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<tr>
<td>13.</td>
<td>6-year-old with chronic cough - Sunita</td>
<td>29.</td>
</tr>
<tr>
<td>14.</td>
<td>18-month-old with congestion - Rebecca</td>
<td>30.</td>
</tr>
<tr>
<td>15.</td>
<td>Two siblings with vomiting—Caleb (age 4 years) and Ben (age 8 weeks)</td>
<td>31.</td>
</tr>
<tr>
<td>16.</td>
<td>7-year-old with abdominal pain and vomiting - Isabella</td>
<td>32.</td>
</tr>
</tbody>
</table>

**Aquifer Culture in Health Care**

1. 6-year-old girl with seizures - Lily
2. 2-year-old boy with fever and headache - Bao
3. 2-year-old with pneumonia and probable empyema - Kenny

**Aquifer Medical Home**

1. 16-year-old girl presents with status asthmaticus - Amanda
2. 11-year-old girl with meningomyelocele - Sally
3. 2-year-old with language delay - Peter
4. Newborn with multiple congenital anomalies - Angelo
Aquifer Registration and Log-in Instructions
Following are the instructions to gain access to the cases for first time users*:

1. Go to: https://www.meduapp.com/users/sign_in
2. Enter your institutional e-mail under “Need to Register?” option

Need to Register?

Enter your institutional email

Register

3. Click “Register” button.
4. An email will be sent to you. Follow the instructions in the email to set up your account.

*You only need to register once with Aquifer to access Family Medicine, Internal Medicine, Pediatrics and Surgery (WISE-MD) modules. Separate registration is not required.

Core Educational Lecture Videos
In addition to the Aquifer cases, students are required to view two core educational lecture videos presented by Dr. Sarah E. Friebert available on AIMS.

➢ Pediatric Palliative Care and You
➢ Pharmacologic Pain Management in the Child with Life-threatening Illness

Clinical Skill Experience Portfolio (CSEP)
The Pediatrics Clinical Skills Experience Portfolio (CSEP) is an electronic checklist of clinical experiences developed for the clerkship and designed for students to use to track their progress in developing knowledge and skill in the following areas:

➢ Diagnoses/Symptoms/Clinical Scenarios
➢ Physical Examinations
➢ Procedures/Technical Skills
➢ Additional Clinical Activities
➢ Additional Learning Activities

All items listed on the CSEP are required; i.e., students must document exposure to all of the listed experiences. Students are required to submit their CSEP electronically to the Clerkship Site Director for review at both the midpoint and the end of the clerkship.

See instructions below for accessing and entering data into CSEP:

➢ Links to clerkship-specific content for each CSEP are posted on AIMS M3 Clerkship Site homepage. Follow the link for CSEP and enter your Banner ID number (excluding the @ character and initial zeros);
Click the fields in which you wish to enter information. Please be sure to mark Patient Type, Setting and Level of Responsibility for each item;

- click “Submit” when you have finished.
- You do not need to put in your email address because you will receive a copy automatically whenever you submit.
- To send a copy of your CSEP to your Clerkship Site Director or preceptor, enter their e-mail address at the bottom of the form.
- You can return to the site as often as necessary throughout the rotation to update your entries. All previous entries will be preserved.

**Learning Strategies**
A variety of learning strategies will be used during the clerkship to help students achieve their goals. Strategies include but are not limited to:

- Patient encounters (inpatient, private office, clinics, hospice centers)
- Standardized patient encounters
- Teaching rounds
- Small group discussions
- Conferences and lectures
- Core educational lecture videos
- Web-based clinical modules (Aquifer)
- Practice-based Learning and Improvement (PBLI) Project
- Textbooks

Organized reading and study materials will be available to support learning about assigned subjects, pediatric problems of assigned patients and to prepare for comprehensive written examinations. This source material will include enumeration of concepts to be learned and specific details pertinent to these concepts. These materials will be supplemented by conferences and lectures, which may include oral quiz sessions covering the assigned topics and by selective patient assignments appropriate to the curriculum plan.

The net effect of the several avenues of implementation is to provide a framework designed to help the student acquire the knowledge of selected pediatric subjects, to appreciate the pathophysiology involved, to use the scientific method of problem solving, to develop proficiency in selected basic skill, and to develop a professional attitude of responsibility and empathy toward patients. A significant advantage of this overall approach is early development of the capabilities and habits that will support each medical student in a life-long study of medicine.

**Patient Assignment**
The student is expected to follow a minimum of four new patients per week. The student will take a complete history-taking and perform a complete physical examination on each new patient. A written report of the history and physical (H&P) is to be documented promptly for each new patient and given to the senior resident, or faculty member, for critical review. The
documented cases also will serve as the basis for discussions with preceptors. Students are expected to remain current on their assigned patients and to pre-round, write progress notes, present and to check on patient status throughout the shift.

**Supervision of History and Physical Examinations**

It is the student’s responsibility to become comfortable with obtaining histories and performing physical exams (H&Ps) on children of all ages and stages of development, including neonates, infants, preschoolers, school-agers and adolescents. Students should seek out patients of different ages and developmental stages in order to round out their experience.

One H&P should be completed with the chief resident, attending physician or senior resident present. The student’s written H&P should be reviewed by the appropriate resident or physician and any necessary corrections or comments made.

**Discharge Summaries**

Clear communication skills, both verbal and written, are imperative to good patient care. Therefore, students are expected to participate in preparing discharge summaries. The student will work on the same note that the residents and attendings are developing throughout the patient’s admission. There is no separate student discharge summary.

**COURSE TEXTBOOKS AND INSTRUCTIONAL RESOURCES**

**Required Textbooks and Resources**

Reading during the clerkship should include both textbooks and journal literature. Students should read about specific problems encountered with their own patients, as well as subjects of general importance in pediatrics. Specific reading assignments from both text and the periodic literature may be required at the discretion of the Clerkship Site Director or other designees.

The required textbooks for the clerkship are:


**Conferences and Morning Report**

Formal teaching conferences specifically designed for students are scheduled throughout the clerkship. Attendance at these conferences is mandatory. Student are required to attend morning report along with the house staff and attending physicians.

**Night Float**

Students will be assigned night float shifts with their team for five consecutive nights. Night float provides educational opportunities not always available on the day service. Students are expected
to take every opportunity to learn while on night float. If it is a quiet night with few patient issues, students should take the time to talk with members of the team; ask them how they chose their field; ask them how they handle the multiple demands of being a resident or attending; ask!

The night float experience will include seeing new patients and completing their H&Ps, accompanying the intern, senior or attending to evaluate other patients on the floors, and preparing oral presentations to be given while on night float and/or during morning sign-out rounds. Students should take the opportunity to present new patients to the patients’ attendings either in person or over the phone.

**MINIMUM PERFORMANCE REQUIREMENTS**
To meet the minimum requirements necessary to complete the Pediatrics Clerkship satisfactorily, the student must:

- maintain a professional appearance and behavior at all times consistent with the highest standards of the profession
- perform all required activities, including but not limited to:
  - core educational videos
  - Aquifer Pediatrics, Culture in Health Care and Medical Home cases
  - PBLI project
- complete the Clinical Skills Experience Portfolio (CSEP) to the satisfaction of the Clerkship Site Director
- obtain approval of the Clerkship Site Director prior to any absence
- pass the National Board of Medical Examiners (NBME) subject exam
- complete the end of clerkship evaluation (feedback) survey