



Advent Health

Orlando

Medical Student Clerkship Elective Catalog 2019 - 2020

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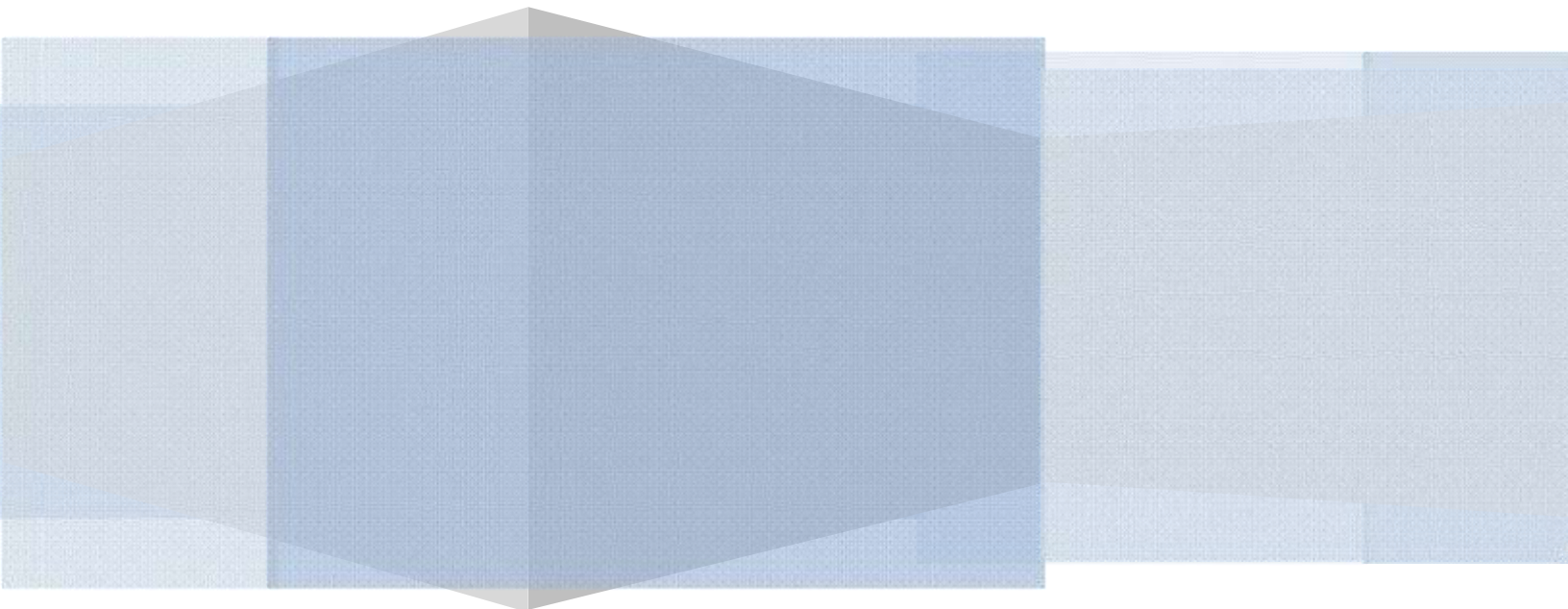


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Emergency Medicine Residency Program Rotation: Emergency Medicine / 4 weeks

Goals & Objectives:

One of the principal goals of this clerkship is to introduce students to the role that Emergency Medicine plays in the management of acute disease. The Emergency Department provides an opportunity for significant clinical exposure and learning of many skills. Such skills include appropriately directed patient history and physical exams, differential diagnoses, medical decision making, and acquisition of procedural skills. In the ED, there is exposure to a broad base of undifferentiated patients with a wide variety of personal, social, and cultural issues that influence patient care. This environment places a premium on physical exam skills and diagnostic reasoning, emphasizing the ability to recognize life-threatening situations and initiate resuscitation in a wide range of diseases with varying degrees of urgency.

Students are taught to appreciate the dynamic state of emergency medicine knowledge, the necessity for maintaining currency, and the means to do it. Although the primary teaching method employed in this Clerkship is tutorial by individual faculty members, students are also exposed to a series of videotaped lectures from the American College of Emergency Medicine covering common emergency problems. Weekly meetings are held with individual students by the Clerkship Director.

Patient Care:

During the fourth year EM rotation the student will individually take care of non-critical patients under direct faculty supervision. This will stimulate their critical thinking, assess their knowledge and skills, and allow them to make clinical decisions affecting patient care.

Specific Learning Objectives

1. Obtain an accurate problem-focused history and physical exam
2. Recognize immediate life-threatening conditions
3. Patient management skills
 - a. Develop a list of possible differential diagnosis
 - b. Develop an evaluation and treatment plan
 - c. Perform procedural skills necessary for treating the pediatric emergency patients.
 - d. Reassess the patients after the interventions had been made
 - e. Develop appropriate disposition and follow up plans.
4. Health Education for the Patient
 - a. Educate patients on safety and provide anticipatory guidance regarding patient chief complaint or diagnosis
 - b. Educate patient on the discharge planning and ensured comprehension by the patient

Medical Knowledge:

The student should develop differential diagnosis list of the potential life-threatening conditions and likelihood of disease. Students should demonstrate knowledge of basic diagnostic modalities and interpretation of results. Students should discuss the risk stratification and pretest probabilities based on the chief complaint and patient presentation.

Specific Learning Objectives

1. Develop a differential diagnosis when evaluating patients with no specific diagnosis
 - a. Prioritize likelihood of diagnoses based on patient presentation and acuity
 - b. List the most emergent diagnoses.
2. Develop diagnostic plan based on differential diagnoses.
3. Develop a management plan for the patient with both an undifferentiated complaint and a specific disease process.

Self-Directed Learning and Lifelong Improvement:

Practice-based learning can be demonstrated through systematically evaluating patient care and population features; teaching other students and health care professionals; and applying knowledge gained from a systematic evaluation of the medical literature, including study design and statistical methodology.

Specific Learning Objectives

Effectively use available information technology, including reviewing medical record and other educational resources, to optimize patient care and improve their knowledge base.

Interpersonal and Communication Skills:

Students must demonstrate interpersonal and communication skills that result in effective information exchange and interaction with patients, family members, and health care providers.

Specific Learning Objectives

1. Humanistic qualities
 - a. Effectively communicate with patients, and family members
 - b. Demonstrate a compassionate and nonjudgmental approach when caring for patients.
2. Presentation skills:
 - a. Present cases in an organized, complete, and concise fashion;
 - b. Effectively communicate with faculty, residents and other healthcare providers.

Professionalism:

Professionalism should be viewed as an academic virtue, not just an expected set of behaviors. Students should learn to reflect on their professionalism during clinical rotations and learn from faculty role models.

Specific Learning Objectives

1. Work ethic:
 - a. Always show up on time and ready to work
 - b. Exhibit honesty and integrity in patient care.
 - c. Demonstrate genuine interest
 - d. Demonstrate compassion
2. Practice ethical decision-making
3. Professional behavior:
 - a. Exercise accountability
 - b. Maintain a professional appearance
 - c. Be sensitive to cultural issues (age, sex, culture, disability, etc.)
 - d. Work in a collegial manner with other members of the health care team
 - e. Maintain patient confidentiality
 - f. Conference attendance
 - g. Procedure reporting
 - h. Completion of the Quizzes
 - i. Completion of the Video

Systems-Based Practice:

Specific Learning Objectives

1. Recognize when patients should be appropriately referred to the emergency department (ED)
2. Develop appropriate follow-up plans for patients being discharged from the ED
3. Recognize the role of EM in the community, including access to care and its impact on patient care.
4. Understand the indications, cost, risks, and evidence behind commonly performed ED diagnostic studies and therapies.

Link to Clerkship Expectations:

http://media.wix.com/ugd/265bf5_681488e0397043289ecfa7df2015e212.pdf

Prerequisites:

- Must be either: 1) a 4th year medical student or 2) a 3rd year medical student who has completed all of the required core clerkships of the junior year to participate in the Emergency Medicine Clerkship.
- USMLE or COMLEX Step 1 exam
- CV
- Students with plans to pursue Emergency Medicine as their career
- Student must write a personal statement addressing:
 - Why they are interested in Emergency Medicine
 - What future goals they hold as an Emergency Medicine physician
 - A statement reflecting the authenticity of their interest in Emergency Medicine

Comments:

Applications will be reviewed and considered based on prerequisite criteria and availability.

Any necessary schedule requests must be submitted to the Clerkship Director at least two weeks prior to rotation start date. Requests should be sent to Dr. Katia Lugo at klugomd@flhemclerkship.com.

**Emergency Medicine Residency Rotation:
Pediatric Emergency Medicine / 4 weeks**

Goals & Objectives: One of the principal goals of this clerkship is to introduce the students to the role that Pediatric Emergency Medicine plays in the management of acute disease in the pediatric population. The Pediatric Emergency Department provides an opportunity for significant clinical exposure and learning of many skills. Such skills include appropriately directed patient history and physical exams, differential diagnoses, medical decision making, and acquisition of procedural skills. These skills are necessary for the care of acutely ill or injured pediatric patients of all ages in the setting of the Emergency Department (ED). In the Pediatric ED, there is an exposure to a broad base of undifferentiated pediatric patients with a wide variety of personal, social, and cultural issues that influence patient care. This environment places a premium on physical exam skills and diagnostic reasoning, emphasizing the ability to recognize life-threatening situations and initiate resuscitation in a wide range of diseases with varying degrees of urgency in the pediatric patient.

The students are taught to appreciate the dynamic state of emergency medicine knowledge, the necessity for maintaining the currency, and the means to do it. Although the primary teaching method employed in this clerkship is tutorial by individual faculty members, students are also exposed to a series of videotaped lectures from the American College of Emergency Medicine covering common emergency problems. Weekly meetings held with individual students by the clerkship Director.

Patient Care: During the fourth year Peds EM rotation the student will individually take care of non-critical patients under direct faculty supervision. This will stimulate their critical thinking, assess their knowledge and skills, and allow them to make clinical decisions affecting patient care.

Specific Learning Objectives

1. Obtain an accurate problem-focused history and physical exam
2. Recognize immediate life-threatening conditions
3. Recognize the risks factors of potential child abuse
 - a. develop a complete history and physical evaluation for abuse
 - b. review and outline documentation in findings of abuse
4. Patient management skills
 - a. Develop a list of possible differential diagnosis
 - b. Develop an evaluation and treatment plan
 - c. Reassess the patients after the interventions had been made

- d. Perform procedural skills necessary for treating the pediatric emergency patients.
 - e. Develop appropriate disposition and follow up plans.
5. Health Education for the Patient
- a. Educate patients and/or parents on safety and provide anticipatory guidance regarding patient chief complaint or diagnosis
 - b. Educate patient and/or parents on the discharge planning and ensured comprehension by the patient and/or parents.

Medical Knowledge: The student should develop differential diagnosis list of the potential life-threatening conditions and likelihood of disease. Students should demonstrate knowledge of basic diagnostic modalities and interpretation of results. Students should discuss the risk stratification and pretest probabilities based on the chief complaint and patient presentation.

Specific Learning Objectives

1. Develop a differential diagnosis when evaluating patients with no specific diagnosis
 - a. Prioritize likelihood of diagnoses based on patient age and presentation and acuity
 - b. List the most emergent diagnoses.
2. Develop diagnostic plan based on differential diagnoses.
3. Develop a management plan for the patient with both an undifferentiated complaint and a specific disease process.

Self-Directed Learning and Lifelong Improvement: Practice-based learning can be demonstrated through systematically evaluating patient care and population features; teaching other students and health care professionals; and applying knowledge gained from a systematic evaluation of the medical literature, including study design and statistical methodology.

Specific Learning Objectives

Effectively use available information technology, including reviewing medical record and other educational resources, to optimize patient care and improve their knowledge base.

Interpersonal and Communication Skills:

Students must demonstrate interpersonal and communication skills that result in effective information exchange and interaction with patients, family members, and health care providers.

Specific Learning Objectives

1. Humanistic qualities
 - a. Effectively communicate with patients, and family members
 - b. Demonstrate a compassionate and nonjudgmental approach when caring for patients.
2. Presentation skills:
 - a. Present cases in an organized, complete, and concise fashion;
 - b. Effectively communicate with faculty, residents and other healthcare providers.

Professionalism: Professionalism should be viewed as an academic virtue, not just an expected set of behaviors. Students should learn to reflect on their professionalism during clinical rotations and learn from faculty role models.

Specific Learning Objectives

1. Work ethic:
 - a. Always show up on time and ready to work
 - b. Exhibit honesty and integrity in patient care.
 - c. Demonstrate genuine interest
 - d. Demonstrate compassion
2. Practice ethical decision-making 3. Professional behavior:
 - a. Exercise accountability
 - b. Maintain a professional appearance
 - c. Be sensitive to cultural issues (age, sex, culture, disability, etc.)

- d. Work in a collegial manner with other members of the health care team

Systems-Based Practice:

Specific Learning Objectives

- e. Maintain patient confidentiality
 - f. Conference attendance
 - g. Procedure reporting
 - h. Completion of the Quizzes
 - i. Completion of the Video
1. Recognize when patients should be appropriately referred to the emergency department (ED)
 2. Develop appropriate follow-up plans for patients being discharged from the ED
 3. Recognize the role of EM in the community, including access to care and its impact on patient care.
 4. Understand the indications, cost, risks, and evidence behind commonly performed ED diagnostic studies and therapies.

Prerequisites:

1. Must be either: 1) a 4th year medical student or 2) a 3rd year medical student who has completed all of the required core clerkships of the junior year to participate in the Pediatric Emergency Medicine Clerkship.
2. USMLE or COMLEX Step 1 exam
3. CV
4. Students with plans to pursue Emergency Medicine as their career 5. Student must write a personal statement addressing:
 - a. Why they are interested in Emergency Medicine
 - b. What future goals they hold as an Emergency Medicine physician
 - c. A statement reflecting the authenticity of their interest in Emergency Medicine

Comments:

Applications will be reviewed and considered based on prerequisite criteria and availability. Any necessary schedule requests must be submitted to the Peds EM Clerkship Director at least two weeks prior to rotation start date. Requests should be sent to Dr. Carmen Martinez at Carmen.Martinez-Martinez.MD@AdventHealth.com.

Emergency Medicine Residency Program

Rotation: Emergency Medicine Ultrasound / 2 or 4 weeks

Goals & Objectives:

- The primary goal for the emergency ultrasound point of care elective is to introduce medical students to the basics of ultrasound at the bedside, to provide the knowledge, skill, and experience to perform focused bedside ultrasound (US) examinations as a means to provide immediate information and answer specific questions about patients' physical conditions and care.
- Learn primary applications for point of care ultrasound in the emergency department: FAST, Aorta, Renal, First Trimester Bleeding, Echo, Gallbladder, and Procedural ultrasound (peripheral intravenous insertion).
- Be able to perform and interpret point of care ultrasounds in patient in the ED.

Ultrasound specific objectives

- Understand the basic principles of medical ultrasonography with the potential risks and benefits to the patient.
- Demonstrate the ability to appropriately use the ultrasound machine to obtain basic images.
- Demonstrate the ability to identify basic ultrasound anatomy.
- Understand the appropriate use of ultrasound in the diagnosis of common medical problems.

Patient Care

During the fourth year EM rotation the student will evaluate patients under direct faculty supervision with specific ultrasound needs. This will stimulate their critical thinking, assess their knowledge and skills, and allow them to make clinical decisions affecting patient care.

Specific Learning Objectives

- Gather accurate, essential information in a timely manner from all sources, including medical interviews, physical examinations, medical records, and diagnostic/therapeutic procedures.
- Integrate diagnostic information and generate an appropriate differential diagnosis.
- Competently perform diagnostic and therapeutic procedures considered essential to the practice of emergency medicine.
- Demonstrate ability to appropriately prioritize and perform other responsibilities simultaneously.

Medical Knowledge

The student should develop differential diagnosis with the aid of point of care ultrasound to list potential life-threatening conditions and likelihood of disease. Students should demonstrate knowledge of basic diagnostic ultrasound modalities and interpretation of results. Students should discuss the risk stratification and pretest probabilities based on the chief complaint and patient presentation.

Specific Learning Objectives

- Understand the basic principles of medical ultrasonography with the potential risks and benefits to the patient.
- Demonstrate the ability to appropriately use the ultrasound machine to obtain basic images.
- Demonstrate the ability to identify basic ultrasound anatomy.
- Understand the appropriate use of ultrasound in the diagnosis of common medical problems.
- Demonstrates adequate foundation of knowledge in US applications: FAST, Aorta, Renal, First Trimester Bleeding, Echo, Gallbladder, and Procedural ultrasound.
- Demonstrates that can correlate ultrasound findings with patient history & Clinical assessment – correlates findings to patient’s clinical history, lab data and ultrasound findings to provide a differential diagnosis

Self-Directed Learning and Lifelong Improvement

Practice-based learning can be demonstrated through systematically evaluating patient care and population features; teaching other students and health care professionals; and applying knowledge gained from a systematic evaluation of the medical literature, including study design and statistical methodology.

Specific Learning Objectives

- Effectively use available information technology, including reviewing medical record and other educational resources, to optimize patient care and improve their knowledge base.
- Locate, appraise, and assimilate evidence from scientific studies related to the health problems of their patients
- Use information technology to manage information, access online medical information, and support their own education

Professionalism

Professionalism should be viewed as an academic virtue, not just an expected set of behaviors. Students should learn to reflect on their professionalism during clinical rotations and learn from faculty role models.

Specific Learning Objectives

1. Work ethic:
 - a. Always show up on time and prepared to work
 - b. Exhibit honesty and integrity in patient care.
 - c. Demonstrate genuine interest
 - d. Demonstrate compassion
2. Practice ethical decision-making
3. Professional behavior:
 - a. Exercise accountability
 - b. Maintain a professional appearance
 - c. Be sensitive to cultural issues (age, sex, culture, disability, etc.)
 - d. Work in a collegial manner with other members of the health care team
 - e. Maintain patient confidentiality
 - f. Conference attendance
 - g. Procedure reporting
 - h. Completion of the learning modules and at the end complete final exam within the rotation

Interpersonal and Communication Skills

Students must demonstrate interpersonal and communication skills that result in effective information exchange and interaction with patients, family members, and health care providers.

Specific Learning Objectives

- Demonstrate the ability to respectfully, effectively, and efficiently develop a therapeutic relationship with patients and their families
- Demonstrate effective participation in and leadership of the health care team
- Effectively communicate with faculty, residents and other healthcare providers
- Demonstrate ability to develop flexible communication strategies and be able to adjust them based on the clinical situation
- Demonstrate effective participation in and leadership of the health care team
- Demonstrate ability to negotiate as well as resolve conflicts
- Demonstrate effective written communication skills with other providers and to effectively summarize for the patient upon discharge
- Demonstrate ability to effectively use the feedback provided by others

Systems - Based Practice

Specific Learning Objectives

- Understand, access, appropriately utilize, and evaluate the effectiveness of the resources, providers, and systems necessary to provide optimal emergency care.

- Understand different medical practice models and delivery systems and how to best utilize them to care for the individual patient.
- Practice cost-effective health care and resource allocation that does not compromise quality of care.
- Advocate for and facilitate patient's advancement through the health care system.

Learning Activities (daily rounds, weekly conferences, case presentations, lit review, other projects):

- Daily ultrasound scanning, self-directed modules review in learning management system (LMS), image and video review of cases, lit review, other projects: case presentation or development of learning module

Applications will be reviewed and considered based on prerequisite criteria and availability.

Prerequisites/Comments:

- Must be either: 1) a 4th year medical student or 2) a 3rd year medical student who has completed all of the required core clerkships of the junior year to participate in the Emergency Medicine Ultrasound Clerkship.
- USMLE or COMLEX Step 1 exam
- CV
- Students with plans to pursue Emergency Medicine as their career
- Student must write a personal statement addressing:
 - Why they are interested in Emergency Medicine
 - What future goals they hold as an Emergency Medicine physician
 - A statement reflecting the authenticity of their interest in Emergency Medicine

Link to Clerkship Expectations:

<https://www.floridaemus.com/us-clerkship/>

Comments: Any necessary schedule requests must be submitted to the Ultrasound Clerkship Director at least two weeks prior to rotation start date. Requests should be sent to Dr. Peter Alamia at: peter_Alamia@teamhealth.com

Family Medicine Allopathic Residency Program Rotation: Family Medicine Allopathic / 2 or 4 weeks

Goals & Objectives:

1. To refine basic clinical skills that is essential to practicing Family Medicine effectively
 - a. Obtain a focused, problem-oriented history and physical in an efficient manner.
 - b. Present a patient case in an orderly, thorough, and efficient manner.
 - c. Record a complete and organized SOAP note.
2. Develop a differential diagnosis relevant to the clinical situation and be able to discuss the rationale for establishing a final diagnosis.
3. Create diagnostic and therapeutic plans and exercise cost conscious use of medical resources when evaluating and treating both in-patients and outpatients.
4. To establish effective doctor-patient relationships by using appropriate interpersonal communication skills.
5. To gain knowledge and awareness of the principles and applications of health promotion and disease prevention in the family medicine setting.
6. The student will develop an awareness of, and sensitivity to, the psychosocial, cultural, familial, and socioeconomic aspects of medical problems as they relate to patient management.
7. To gain exposure to, and an understanding of, the practice of family medicine and the role of the family physician within the health care delivery system.
8. To develop knowledge and skills related to common medical office procedures practiced in the family physicians office.
9. To demonstrate knowledge and skills required for lifelong learning and the competent practice of medicine.

Prerequisites/Comments:

The following are prerequisites to be submitted to apply for the Family Medicine Allopathic Externship:

1. The student is currently enrolled in an LCME accredited medical school
2. The student must express a true interest in Family Medicine
3. The student must write a personal statement addressing:
 - a. Why they are interested in Family Medicine
 - b. What future goals they hold as a Family Medicine physician
 - c. A statement reflecting the authenticity of their interest in Family Medicine

Applications will be reviewed and considered based on prerequisite criteria and availability.

General Surgery Residency Program Rotation: General Surgery / 4-weeks

Goals & Objectives:

1. To be able to adequately evaluate and prepare the surgical patient for operation.
2. To effectively help manage the postoperative patient in a team setting alongside residents in surgery and dedicated core faculty.
3. To appreciate less common disease processes and the role of surgery.
4. To recognize the subtleties encountered with the geriatric surgical patient.
5. To improve upon minor surgical skills and surgical assisting.

Description of Elective:

The student will be exposed to working as a sub intern with exposure and involvement in surgery, which would include; Patient workups, pre and post-operative care, ICU management, intra operative surgical assisting, minimal invasive surgery and robotic surgery.

Prerequisites:

1. LCME accredited
2. Allopathic
3. USMLE Step 1 exam
4. Students with strong interest in surgical career pathways.

Internal Medicine Residency Program Rotation: Internal Medicine / 4 weeks

Goals & Objectives:

The purpose of the rotation is to prepare the student for a subsequent PGY-1 year. The focus is on inpatient care from Emergency department entry to subsequent discharge to primary care continuity. Students will have 2-4 patients and be under supervision by a PGY-2/3 Resident and Attending Physician as part of a ward team.

Prerequisites/Comments:

- Must be a 4th year medical student * LCME medical school is the focus
- Availability is extremely limited

Pediatric Residency Program Rotation: Pediatric Residency NICU M4/ 4 weeks

Schedule/Call Responsibilities

Call: None, 4 weeks of 12 hour day shifts

% of Time: Maximum of 80 hours/week, averaged over 4 weeks, max of 14 hours like PL1 [Brief](#)

Description

Team consists of a M4, PL-2 and a staff neonatologist.

During this rotation, you will:

- Integrate clinical assessment and laboratory data to formulate management and therapeutic plans for critically ill infants
- Participate in daily rounds on your patients
- Participate in the decision making in the admitting, discharge, and transfer of NICU patients
- Participate in the resuscitation and stabilization of neonates in the delivery room
- Manage 3 patients and advance to 5 (2 of which are critically ill)

Participation in the care of critically ill infants remains an important part of well-rounded training. The following goals and objectives are meant to guide your study. Some of this material will not be taught on the neonatal service, but may be incorporated into other areas of the training program, e.g. clinics, subspecialty rotations, grand rounds, and lectures.

Documentation Responsibilities:

Admission notes, procedure notes, and updating the transfer summary/discharge summary.

Procedures (Observation or participation under direct supervision of the attending)

Delivery room resuscitation, intubation, umbilical catheter placement, peripheral IVs, arterial line placement, bladder catheterizations, thoracentesis, and lumbar punctures

Rotation Responsibilities/Conferences

- M4s are encouraged to attend the core curriculum sessions from 12:30 to 1:30 pm, Monday-Friday. M4s are also encouraged to attend morning report, peer lectures, and board review sessions 1-2 times a week from 7:00 am-8:00 am.
- M4s are encouraged to attend Neonatology Conferences
- Plan to attend deliveries and new admissions

Goals & Objectives

Patient Care:

- Describe steps in resuscitation and stabilization, including equipment needed.

- Demonstrate competency in providing the initial steps of resuscitation, up to and including bagmask ventilation in the delivery room and/or simulated settings.
- For common signs and symptoms:
 1. Perform an appropriate assessment (history, physical examination, and initial diagnostic studies).
 2. Formulate a differential diagnosis with appropriate prioritization
 3. Formulate and carry out a plan for continuing assessment and management.
- Ensure that initial history and physical examination records include appropriate history (e.g. family, obstetrical records, referring provider), record of procedures in the delivery room, exam appropriate for the infant's condition, labs, diagnostic testing such as chest films, assessment, and plan.
- Maintain daily timed notes, with updates as necessary, clearly documenting the patient's progress, and details of the on-going evaluation and plan. Maintain an up-to-date and concise discharge summary.
- Perform appropriate diagnostic and therapeutic procedures, which may include: intravenous catheter placement, arterial puncture, lumbar puncture, umbilical catheter placement, endotracheal intubation, thoracentesis, and bladder catheterization.

Medical Knowledge:

- Demonstrate knowledge of the physiology of transition and resuscitation, including prenatal, perinatal, and neonatal risk factors for abnormal transition
- Define birth asphyxia and describe the complications and potential interventions to minimize injury from it
- Demonstrate knowledge of the major signs, symptoms, medical conditions, and complications presenting in the neonatal period, including:
 1. **General:** Intrauterine growth failure, large for gestational age, hypothermia, hyperthermia, prematurity (various gestational ages), feeding problems, poor post-natal weight gain, lethargy, irritability, jitteriness, neonatal abstinence syndrome, history of maternal infection or exposure
 2. **Cardiorespiratory:** Respiratory distress (flaring, grunting, tachypnea), cyanosis, apnea, bradycardia, heart murmur, hypotension, hypovolemia, dehydration, poor pulses, shock
 3. **Dermatologic:** Common skin rashes/conditions, birthmarks, hyper- and hypopigmented lesions, discharge and/or inflammation of the umbilicus, proper skin care for extreme prematures
 4. **GI/surgical:** Gastric retention or reflux, vomiting, bloody stools, distended abdomen, hepatosplenomegaly, abdominal mass, failure to pass stool, diarrhea
 5. **Genetic/metabolic:** Metabolic derangements, dysmorphism
 6. **Hematologic:** Jaundice in a premature or seriously ill neonate, petechiae, anemia, polycythemia, abnormal bleeding, thrombocytopenia, neutropenia
 7. **Musculoskeletal:** Birth trauma related fractures and soft tissue injuries, dislocations, birth defects and deformities
 8. **Neurologic:** Hypotonia, seizures, early signs of neurologic impairment, microcephaly, macrocephaly, spina bifida, birth-trauma related nerve damage

9. **Parental stress and dysfunction:** including poor attachment, teen parent, substance abuse, child abuse and neglect
 10. **Renal/urologic:** Edema, decreased urine output, abnormal genitalia, renal mass, hematuria, urinary retention
 11. **Nutrition:** assessment of appropriate growth
- Demonstrate knowledge of the pathogenesis, physiology, diagnostic work-up, and therapeutic options for the following common diagnoses:
 1. **Pulmonary disorders:** Hyaline membrane disease, transient tachypnea, meconium aspiration, amniotic fluid aspiration, persistent pulmonary hypertension of the newborn, pneumonia, pneumothorax, bronchopulmonary dysplasia, atelectasis
 2. **Cardiac conditions:** Congenital heart disease, cyanotic and acyanotic
 3. **Genetic, endocrine disorders:** Infant of a diabetic mother, common chromosomal anomalies (Trisomy 13, 18, 21, Turner's), neonatal screening programs
 4. **GI/nutrition:** Feeding plans and nutritional management of high risk neonates. Assessment of appropriate growth. Knowledge of nutritional content of breast milk and formulas.
 5. **Hematologic conditions:** Indications for phototherapy, exchange transfusion in the premature or ill neonate, erythroblastosis fetalis, hydrops fetalis, and partial exchange transfusion for anemia or polycythemia
 6. **Infectious disease:** Intrauterine viral infections, Group B Streptococcal infections, neonatal sepsis and meningitis, herpes simplex; infant of HIV, hepatitis, or syphilis; nosocomial infections in the NICU; fungal infections
 7. **Neurologic disorders:** Hypoxic-ischemic encephalopathy, intraventricular hemorrhage, retinopathy of prematurity, hearing loss in newborns (prevention and screening), drug withdrawal, central apnea, seizures, hydrocephalus, spina bifida
 8. **Surgery:** Surgical emergencies such as necrotizing enterocolitis, perforated viscus, intestinal obstruction, diaphragmatic hernia, esophageal or gut atresia, gastroschisis, omphalocele, imperforate anus
Describe general principles about:
 - i Basic vital statistics that apply to newborns (neonatal and perinatal mortality, etc.).
 - ii Prenatal services available in one's region.
 - iii Tests commonly used by obstetricians to measure fetal well-being.
 - iv Neonatal transport systems.
 - For prenatal and perinatal complications:
 1. Describe the pediatrician's role in assessment and management to minimize the risk to the fetus and/or newborn.
 2. Recognize potential adverse outcomes for the fetus/neonate.
 - Describe the pathophysiologic basis of the disease for common diagnoses.
 - Describe initial assessment plans for common diagnoses.
 - Discuss key principles of the NICU management plan for common diagnoses.
 - Explain the role of the primary care provider for common diagnoses.
 - Explain when to use consultants.
 - Order and interpret laboratory and imaging studies appropriate for NICU patients, with additional understanding of the differences in normal values with gestational age.

- Explain indications, limitations, and gestational-age norms which may have specific application to neonatal care:
 1. Serologic and other studies for transplacental infection.
 2. Direct and indirect Coomb's tests.
 3. Neonatal drug screening.
 4. Cranial ultrasound.
 5. Abdominal x-rays for placement of umbilical catheters.
 6. Chest x-rays for endotracheal tube placement, heart size, and vascularity.
 7. Bilirubin & its direct and indirect fractions.
- Discuss indications and limitations and demonstrate proper use/instruction in how to use:
 1. Physiologic monitoring of temperature, pulse, respiration, blood pressure.
 2. Phototherapy.
 3. Pulse oximetry.
 4. Umbilical arterial and venous catheterization.
- Discuss in general terms, home medical equipment and services needed for oxygen-dependent and technology dependent graduates of the NICU (oxygen, cardiac/apnea monitor).

Practice-Based Learning and Improvement:

- Seek information as needed and apply this knowledge appropriately using evidence-based problem solving.
- Recognize the limits of one's own knowledge, skill level, and tolerance of stress; know when to ask for help, how to contact consultants, and where to find basic information.
- Demonstrate the ability to critically appraise the medical literature.
- Incorporate evidence (when possible) into the decision-making and treatment plans of common NICU health care issues.
- Locate patient information efficiently.
- Participate in student and resident orientation to delineate roles/responsibilities.
- Use clinical encounters for teaching opportunities.

Interpersonal and Communication Skills:

- Communicate and work effectively with fellows, residents, attendings, consultants, nurses, nurse specialists/clinicians, lactation consultants, nutritionists, pharmacists, respiratory therapists, social workers, discharge coordinators, referring physicians, and ancillary staff.
- Communicate effectively with highly stressed families.
- Demonstrate sensitivity and skills in dealing with death and dying in the NICU setting.
- Consistently listen carefully to concerns of families and provide appropriate information and support.
- Collaborate with parents to develop plans, accepting their wishes in a non-autocratic and culturally sensitive manner.
- Provide responsible communication with the neonate's primary care physician during the hospital stay and in discharge planning.

Professionalism:

- Discuss concepts of futility, withdrawal, and withholding of care.
- Describe hospital policy on "Do Not Resuscitate" orders.
- Identify situations warranting consultation with the hospital ethics committee.
- Demonstrate reliability in the daily function of the NICU.
- Maintain integrity and honor in complex situations.
- Maintain positive attitude amidst chaos.
- Avoid shortcuts that omit components of patient care.
- Demonstrate accountability for actions of yourself and the health care team.
- Advocate for best quality of care possible.
- Identify cultural and personal issues of patients/families that affect patient care decisions.
- Recognize personal biases that may conflict with patients/families in decision-making and development of treatment plans.
- Resolve conflicts in favor of the patient/family when possible.
- Respect the input and importance of the family/patient and each member of the health care team.
- Recognize and address ethical issues confronted daily in the NICU.
- Maintain and advance knowledge and skills independently. □ Maintain a safe, effective and responsible practice.

Systems-Based Practice:

- Discuss how the pediatrician can advocate for strategies to reduce fetal and neonatal mortality in his/her own community.
- Discuss the role of the primary care physician in the long term management of infants admitted to the NICU; facilitate this through appropriate oral and written communications with that provider.
- Discuss the role of managed care case manager; work with these individuals to optimize health care outcome.
- Demonstrate awareness of the unique problems involved in the care of neonates with multiple problems or chronic illness, and serve effectively as an advocate and case manager for such patients.
- Work with the discharge coordinator to develop discharge plans which facilitate the family's transition to home care, including adequate follow-up and appropriate use of community services.
- Identify problems and risk factors in the infant or family, even outside the scope of this admission, and make appropriate interventions and/or referrals.
- Demonstrate awareness of costs and cost control in NICU care.
- Explain principles of typical coverage by local insurance plans, Medicare and Medicaid, and other state and federal subsidies for the care of high risk neonates.
- Be sensitive to the burden of costs on families and refer for social services as indicated.
- Use consultants and other resources appropriately during NICU stay and in discharge planning.

Goals:

1. Perinatal Prevention. Understand the pediatrician's role in and become an active advocate for programs to reduce morbidity and mortality from high-risk pregnancies.
2. Resuscitation and Stabilization (NICU). Assess, resuscitate and stabilize critically ill neonates.
3. Common Signs and Symptoms (NICU). Evaluate and manage, under the supervision of a neonatologist, common signs and symptoms of disease in premature and ill newborns.
4. Common Conditions (NICU). Recognize and manage, under the supervision of a neonatologist, the common conditions in patients encountered in the NICU.
5. Diagnostic Testing (NICU). Under the supervision of a neonatologist, order and understand the indications for, limitations of, and interpretation of laboratory and imaging studies unique to the NICU setting.
6. Monitoring and Therapeutic Modalities (NICU). Understand how to use the physiologic monitoring, special technology and therapeutic modalities used commonly in the care of the fetus and newborn.
7. Pediatric Competencies in Brief (NICU). Demonstrate high standards of professional competence while working with patients in the Neonatal Intensive Care Unit.

Pediatric Residency Program Rotation:**Pediatric Residency Pediatric Intensive Care Unit M4/4 weeks**

Schedule/Call Responsibilities

Call: None, M4 will spend 4 weeks on days in the PICU, 12 hour shifts

% of Time: Maximum of 80 hours/week, averaged over 4 weeks

Brief Description

During this rotation you will participate on the PICU team. You will work with an ICU attending, resident and AHPs to assess, stabilize, and manage patient problems in the physiologically unstable or high risk patients. After arriving no EARLIER than 6 am, you will evaluate your patients. The focus should be on the physical examination and review of the events of the last 24 hours. You will present the patients on rounds and assist in developing the day's plan of care. You will assist in implementing the plan of care and documenting your assessment and plan. You will admit new patients as they are admitted, participate in multidisciplinary discussions and are encouraged to interact with the families.

Procedures

The number of procedures that occur in the ICU are highly variable. M4s are encouraged to watch as many procedures as possible and may participate in IV lines, urine catheterizations and blood draws if supervised by an attending. You may be required to participate in simulations of appropriate procedures (airway management, line placement.)

Rotation Responsibilities/Conferences

M4s are encouraged to attend the daily core curriculum sessions from 12:30 to 1:30 pm, Monday-Friday. Faculty will attempt to provide several core didactic sessions during the month.

Goals & Objectives

Patient Care:

- Observe/Participate in resuscitation, stabilization and transportation of patients, particularly airway management, resuscitative pharmacology, and fluid management.
- Rapidly recognize the sign or symptom as heralding the onset of disease or injury and perform a directed pertinent history and physical examination.
 1. Formulate an age-appropriate differential diagnosis.
 2. Devise a plan for stabilization, further evaluation, and definitive management, and be able to describe the physiologic basis for common therapies.
- Develop and maintain a detailed problem list with accurate prioritization.
- Recognize and address the psychosocial needs of acutely ill children and their families, both during the immediate illness and during recovery.
- Maintain daily, timely notes, with updates as necessary, clearly documenting the patient's progress and details of the ongoing evaluation and plan.
- Prepare appropriate and timely discharge and transfer notes.
- In addition, requirements:
 1. Recognize and manage isolated and multi-organ system failure and assess its reversibility.
 2. Understand the variations in organ system dysfunction by age of patient.
 3. Integrate clinical assessment and laboratory data to formulate management and therapeutic plans for critically ill patients.
 4. Have knowledge of invasive and noninvasive techniques for monitoring and supporting pulmonary, cardiovascular, cerebral, and metabolic functions.
 5. Participate in decision making in the admitting, discharge, and transfer of patients in the ICU.
 6. Describe the appropriate roles of the generalist pediatrician and the intensivist.
 7. Participate in preoperative and postoperative management of surgical patients, including understanding the appropriate roles of the general pediatric practitioner and the intensivist.
 8. Evaluate and manage patients following traumatic injury.

Medical Knowledge:

- Discuss the pathophysiologic basis of frequent diseases or injuries admitted to the PICU.
 1. List indications for admission to and discharge from the PICU.
 2. Describe stabilization, further work-up and management.
 3. Explain potential acute and long-term consequences of the disease and treatment
- For common laboratory or diagnostic tests:
 1. Explain the indications and limitations and be aware of age-appropriate normal values.
 2. Interpret abnormalities in the context of specific physiologic derangement.

3. Discuss therapeutic options for corrections when appropriate.
- For each of these invasive techniques, describe the indications and general technique and appropriately interpret the results of such monitoring (not necessarily perform the procedure):
 1. CVP.
 2. PAP.
 3. Blood Pressure monitoring.
 4. Intracranial monitoring.
 - Describe common causes of acute deterioration in the previously stable PICU patient.
 - For common therapies, integrate understanding of physiology and pathophysiology to determine the appropriate use of therapy and how to monitor its effect as well as describe potential complications of therapy:
 1. Oxygen administration by cannula, masks, hood.
 2. Positive pressure ventilation (non-invasive ventilation).
 3. Basic ventilator management (invasive ventilation).
 4. Analgesics, sedatives, and paralytics.
 5. Enteral and parenteral nutrition.
 6. Blood and blood product transfusions.
 7. Vasoactive drugs (pressors and inotropes).
 - Explain steps in resuscitation and stabilization, particularly airway management, resuscitative pharmacology, and fluid management.
 - Define brain death and describe criteria for organ donation.

Practice-Based Learning and Improvement:

- Recognize the limits of your own knowledge, skills, and tolerance for stress level. Ask for help as needed.
- Demonstrate the ability to critically appraise the medical literature.
- Incorporate evidence (when possible) into the decision-making and treatment plans of common PICU health care issues.
- Ask questions of other members of team to guide thinking.
- Seek feedback on performance on a regular basis from attendings and peers.
- Provide effective feedback to students, residents and other members of team.

Interpersonal and Communication Skills:

- Maintain an approachable demeanor for families, nurses and other members of health care team.
- Communicate and work effectively with patients/families and all members of the health care team:
 1. Demonstrate effective listening.
 2. Demonstrate respect and sensitivity.
 3. Involve families and other health care professionals in discussions to assure patient centered care.
 4. Seek complete information needed and verify information from appropriate sources, filling in gaps to promote optimal care.

5. Verify understanding of the patient, families and members of health care team.
 6. Provide information to families and other health care workers that is accurate, appropriate for their level of understanding, and consistent with the overall treatment plan.
- Create and sustain a therapeutic and ethically sound relationship with patients/families.
 - Recognize your own personal biases that affect patient care.
 - Document patient care in the medical record following guidelines in a timely fashion.
 - Actively participate in work rounds, emphasizing facts.

Professionalism:

- Maintain integrity and honor in complex situations.
- Consistently act responsibly and adhere to professional standards.
- Demonstrate accountability for actions of yourself and the health care team.
- Resolve conflicts in favor of the patient/family when possible.
- Recognize and address ethical issues confronted daily in the PICU/ICU (including futility, withdrawal and withholding of care).
- Respect the input and importance of the family/patient and each member of the health care team.
- Demonstrate reliability in the daily function of the ICU.

Systems-Based Practice:

- Assist in coordination of care with multiple consultants.
- Coordinate orderly transfer of care to another provider.
- Provide pediatric consultation to non-pediatric trainees who manage children in the PICU.
- Identify problems and risk factors in the child and family, even outside the scope of this ICU admission; appropriately intervene or refer (e.g., injury prevention; importance of anticipatory guidance in teaching parents about the early signs and symptoms of serious, life threatening disease).
- Demonstrate awareness of costs of PICU care and its impact on families.
- Seek to improve patient safety by complying with policies (e.g., handwashing/CVL bundle) and reviewing ongoing care to minimize potential harmful (e.g. decreasing lab draws, duration of line placement)
- Use consultants and resources appropriately.

Goals:

1. Resuscitation and Stabilization (PICU). Recognize the critically ill patient and initiate appropriate stabilization and/or resuscitative measures.
2. Common Signs and Symptoms (PICU). Evaluate and manage, under the supervision of an intensivist, common signs and symptoms seen in critically ill infants, children and adolescents in the intensive care setting.

3. Common Conditions (PICU). Recognize and manage, under the supervision of an intensivist, conditions that commonly present to the intensive care unit, using consultation when appropriate.
4. Diagnostic Testing (PICU). Utilize common diagnostic tests and imaging studies appropriately in the intensive care unit, obtaining consultation as indicated for interpretation of results.
5. Monitoring and Therapeutic Modalities (PICU). Understand how to use the physiologic monitoring, special technology and therapeutic modalities used commonly in the intensive care setting.
6. Pediatric Competencies in Brief (PICU). Demonstrate high standards of professional competence while working with patients in the Pediatric Intensive Care Unit.

Common Diseases

- Shock
 - Cardiogenic
 - Neurogenic
 - Distributive
 - Septic
- Hypovolemic
- Sepsis
- Respiratory Failure
- Asthma
- Critical Airway
- Bronchiolitis
- Influenza
- Acute Kidney Injury
- Hepatic Failure
- Trauma
- Non-Accidental Head Trauma
- Closed Head Trauma
- DKA
- Post-Operative Neurosurgical Issues:
 - DI, SIADH
- Meningitis/Encephalitis
- Status Epilepticus
- Ventricular Arrhythmia
- Atrial Arrhythmia
- Cardiomyopathy
- DIC
- Ingestion/Overdose
- Hypoxic/Ischemic CNS Injury
- Drowning

Pediatric Residency Program Rotation: Pediatric Residency Inpatient Pediatrics M4/4 weeks

Contact Person: Pediatric Coordinator, Medical Plaza Suite 301

Report Absences to: Chief Resident

When and Where to Report on 1st Day

Pediatric Residency Coordinator: 2501 N Orange Ave, Suite 301, Orlando, FL 32804

Schedule/Call Responsibilities

Call: None, 12 hour shifts only – 2 weeks days, 2 weeks nights

% of Time: Maximum of 80 hours/week, averaged over 4 weeks, maximum of 14 hours like a PL1.

Brief Description

The General pediatrics service is an inpatient ward service that is made up of a variety of patients cared for by the Pediatric Hospitalist service. The resident team is made up of the following:

- 1 - PL3 - supervisory experience, carries Code pager
- 1 - PL2- supervising resident at night, carries Code pager
- 3 - PL1 - primary care providers for patients during the day
- 2 - PL-1 – primary care provider for patients at night
- 2 - M-3 – will rotate on service
- M-4's as scheduled - rotations of 4 weeks as sub-intern

There are some patients on the floor that are not covered by the residents: surgical patients, and Family medicine patients. There will also be some patients that are covered by the PL-3 as a General Pediatrics consult, as time allows, at the discretion of the Gen Peds Staff. These should be staffed with the Gen Peds faculty on service. Rounds are done daily from 9:00am-10:00am.

Procedures

- Urine Catheterizations
- Blood draws
- IV starts
- Observe LPs

Rotation Responsibilities/Conferences

M4s are encouraged to attend the daily core curriculum sessions from 12:30 to 1:30 pm, Monday-Friday. M4s are encouraged to attend morning report(s), peer lectures, and board review sessions scheduled at 7:00am-8:00am, 1-2 times weekly. Faculty will attempt to provide several core didactic sessions during the month.

Goals & Objectives

Patient Care:

- For a representative sample of children and families, provide/participate in care across the full continuum of services, including:
 1. Inpatient acute care.
 2. Discharge planning to facilitate transition to home care.
- For common signs and symptoms:
 1. Perform a directed history and physical examination.
 2. Formulate a differential diagnosis with age appropriate considerations.
 3. Discuss indications for hospitalization.
 4. Formulate a plan for inpatient diagnosis and management.
- Participate in the daily care of "technology dependent" children and those who require parenteral hyperalimentation and enteral tube feedings.
- Recognize unstable vitals and transfer to higher level of care.
- Demonstrate the skills for assessing common pain.
- Develop and maintain comprehensive problem list with accurate prioritization.
- Maintain daily notes which clearly document the patient's progress, relevant investigations, and plan.
- Prepare off-service notes, including written communication for the parents and families.
- Access family educational resources available at the hospital.

- Teach families and patients about their care.
- Identify and attend to issues such as growth and nutrition, developmental stimulation, and schooling during extended hospitalizations.
- Identify problems and risk factors in the child and the family, even outside the scope of this admission (e.g., immunizations, social risks, developmental delay); appropriately intervene or refer.

Medical Knowledge:

- For common conditions:
 1. Describe criteria for admission to inpatient service and transfer to a higher level of care.
 2. Develop a differential diagnosis.
 3. Describe criteria for discharge and principles of discharge planning.
- For common laboratory tests:
 1. Explain the indications and limitations of each test and be aware of the age-appropriate normals.
 2. Interpret abnormalities in the context of specific physiologic derangements.
 3. Discuss therapeutic options for correction of abnormalities when appropriate.
- For the following types of monitoring, list techniques appropriate for age and clinical setting, describe indications and limitations, and interpret the results/measurement:
 1. Body temperature monitoring.
 2. Cardiac monitoring.
 3. Respiratory monitoring.
 4. Pulse oximetry.
 5. Blood pressure monitoring.

Practice-Based Learning and Improvement:

- Apply principles of decision-making and problem solving in the care of hospitalized children.
- Recognize the limits of one's own knowledge, skills, and tolerance for stress; ask for help as needed.
- Seek information needed for patient care decisions and apply this knowledge appropriately.
- Incorporate evidence (when possible) into the decision-making and treatment plans of common health care issues.
- Locate patient information efficiently.
- Use New Innovations to maintain patient/procedure log.
- Seek feedback on performance on a regular basis from attendings and peers.
- Provide effective feedback to students.
- Reflect on own performance and develops plan for improvement.
- Participate in student orientation to delineate roles/responsibilities.
- Use clinical encounters for teaching opportunities for students.
- Address need for balance of professional and personal activities.

Interpersonal and Communication Skills:

- Communicate well and work effectively with fellow residents, attendings, consultants, nurses, ancillary staff, and referring physicians.
- Demonstrate skills as a team participant.

- Work with the primary care provider to assure continuity of care; communicate with the primary care giver in an effective and timely manner.
- Demonstrate awareness of the unique problems involved in the care of children with multiple problems or chronic illness.
- Consistently listen carefully to the concerns of patients and families, and provide appropriate information and support.
- Demonstrate sensitivity to family, cultural, ethnic, and community issues when assessing patients and making health care plans.

Professionalism:

- Demonstrate reliability.
- Maintain integrity and honor in complex situations.
- Seek to exceed expectations.
- Maintain positive attitude amidst chaos.
- Avoid shortcuts that omit components of patient care.
- Accept responsibility for own actions.
- Consistently act responsibly and adhere to professional standards for ethical and legal behavior.
- Demonstrate accountability for actions of yourself and the health care team.
- Advocate for best quality of care possible.
- Identify cultural and personal issues of patients/families that affect patient care decisions.
- Recognize personal biases that may conflict with patients/families in decision-making and development of treatment plans.
- Resolve conflicts in favor of the patient/family when possible.
- Respect the input and importance of the family/patient and each member of the health care team.
- Recognize ethical issues confronted daily.
- Maintain and advances knowledge and skills independently.
- Accept assigned roles and responsibilities.
- Effectively use time.
- Maintain a safe, effective and responsible practice.

Systems-Based Practice:

- Be aware of psychosocial impact of illness on child and family, and financial burden to family and health care system.
- Be aware of quality control/quality improvement processes and when appropriate use the results to improve patient management.
- Facilitate the transition to home care by appropriate discharge planning and parental/child education.
- Show concern for financial circumstances of the patient and refer for social service support as needed.
- Address concerns about team or individual function constructively.
- Resolve conflict respectfully.
- Serve as liaison between multiple services, assuring accuracy and timeliness of response.
- Alert team to potential errors/biases.
- Request help with task overload.

- Recognize and offers help to others with task overload.
- Provide continuity for patient care.
- Systematically hand off responsibilities in a manner that facilitates good patient care.
- Effectively explore acceptable alternatives to plan of care when requested.
- Use technology to aid efficiency and accuracy.
- Seek, respond to and offer constructive feedback.
- Advocate for quality patient care and assist patients/families in dealing with system complexities.
- Recognize prevalence and impact of medical errors and seek to rectify.
- Disclose slips, lapses and mistakes in patient care to appropriate personnel.
- Engage in informal and formal improvement strategies.

Common Diseases/Diagnosis

- Fever with and without source
- Respiratory Disease
- Pneumonia
- Dehydration
- Rule out sepsis
- Cellulitis
- Arthritis
- Kawasaki Syndrome
- Lack of Physiologic growth and development
- Hyperbilirubinemia
- Child Abuse
- Seizures
- Muscular dystrophy
- Hypoxic ischemic encephaly
- Cerebral Palsy
- Ketogenic diet
- Video EEG
- Congestive Heart Failure
- Post Cardiac Surgery
- Post Catheterization
- Hypertension
- Post Transplant
- Arrhythmias
- SBE
- Cystic Fibrosis
 - Chronic GN
 - HUS
 - PSGN
 - HSP
- Asthma
- Chronic Lung Disease
- Pneumothorax
- Foreign body aspiration
- Pneumonitis
- Trach dependent/Vent dependent
- Prematurity
- Diabetes, new onset, DKA
- Thyroid storm
- Adrenal Insufficiency
- SIADH
- DI
- Growth Hormone Deficiency
- CAH
- Short Gut
- GI Bleed
- TPN Dependence
- Colitis (IBD)
- New diagnosis malignancies
- Routine Chemotherapy
- Fever/Neutropenia
- ITP
- Anemia
- Central Line infections
- Renal Failure
- Acute GN
 - Renal Biopsy
 - ATN
 - Hypertension

Radiology Residency Program Rotation: Diagnostic Radiology / 2 or 4 weeks

During your General Diagnostic Radiology Clerkship, you will learn about the various imaging modalities including CT, MRI, Ultrasound, Nuclear Medicine, and Radiography. Rotations will include the following imaging subsections: Abdominal (GI/GU), Musculoskeletal, Pediatrics, OB, Cardiothoracic, Neuroradiology, Mammography, and Vascular/Interventional. Rotations may be individualized to emphasize the area of imaging most pertinent to your future career.

You will also become familiar with the integral role that the Radiologist plays in patient care by observing patient interactions and procedures, the interpretation of imaging exams, and the exchange of important information with referring physicians. The use of clinically appropriate imaging will be emphasized.

As a new addition to the course in 2019, we are also offering an "Acting Internship" option within this elective which includes a more in-depth exposure to radiology for those interested in a Radiology career. This is a 4 week option involving daily case dictation and a PowerPoint case presentation.

June to November clerkships should be limited to those choosing a career in Radiology. You will receive an email approximately 4 weeks before your rotation. You will choose the "Acting Internship" option.

For those not planning to pursue a Radiology Residency, rotations can be geared toward specialty-specific goals to suit your future medical career. You will receive an email approximately 4 weeks before your rotation asking you to specify rotation requests.

The rotation requires completion of various reading assignments and online modules. Reading materials and/or online teaching file websites will be made available during your rotation. The Radiology Residency Department has an extensive library for your use.

You are also encouraged to participate in research project, such as preparation of a manuscript for an interesting case. Residents and staff will be available to mentor you. If you are interested in participating in a research project (including completion of a case report) notify Carole (Carole.Coyne@AdventHealth.com) as soon as possible but at least 4 weeks before your rotation. For those interested in Radiology as a career, you could even begin a research project prior to your clinical rotation.

Goals & Objectives:

Goal # 1: Medical Knowledge

General Principles

Throughout the Undergraduate Radiology Curriculum, students will be exposed to the following general principles of the practice of radiology. Upon completion of this curriculum, students will have the appropriate basic diagnostic and therapeutic skills for radiological interpretation, practice, and application for their own future careers. Our graduates will demonstrate competency in the following areas of radiology:

1. Role of radiologists as specialists and consultants working with other medical staff as part of the healthcare team;
2. Applications of radiology as a screening modality of disease and for use in guiding medical and surgical interventions;
3. Importance of evidence-based medicine in choice of radiological imaging, procedures, and appropriate interpretation;
4. Basic concepts of risk management, malpractice, and confidentiality, as it applies to radiology and the legal obligations to protect patients' interests;
5. Formulation of appropriate differential diagnoses for common radiologic findings

Throughout the Undergraduate Radiology Curriculum, our students will become familiar with imaging of both the normal anatomy and pathologic findings that affect the human body. Our graduates will demonstrate competency in:

Plain Radiography:

1. Discuss principles of radiology and radiation
2. Identify normal anatomy on PA, AP, and lateral chest films
3. Recognize abnormal chest films including pleural effusion, pneumothorax, pneumonia and lobe location, changes of congestive heart failure, changes of chronic obstructive pulmonary disease, atelectasis, pulmonary nodules and masses, and hyaline membrane disease of the newborn
4. Identify normal anatomy on abdominal radiography
5. Recognize abnormal abdominal films including ileus, small bowel obstruction, large bowel obstruction, free air, and calcifications
6. Identify normal anatomy of the spine and long bones in both adults and children
7. Recognize abnormal bone radiographs including fractures, degenerative joint disease, osteoporosis, and primary versus metastatic bone malignancy
8. Identify normal anatomy on intravenous pyelogram, barium enema, and upper gastrointestinal series

Computed Tomography:

1. Recognize and treat contrast allergy, its signs and symptoms, and implications to the patient
2. Discuss principles of CT function and applications

3. Discuss differences between CT, MRI, plain film, and US, including the comparative benefits/drawbacks and strengths/weaknesses of each modality
4. Discuss general indications of when to use CT as the imaging of choice
5. Identify normal anatomy found on CT of the head, spine, chest, abdomen, and pelvis
6. Recognize abnormal head CTs including acute hemorrhage (subarachnoid, subdural, and parenchymal), infarction, edema, mass effect, and hydrocephalus in an infant and adult
7. Recognize abnormal chest CT findings including pulmonary nodules and masses
8. Recognize abnormal abdominal/pelvis CT findings including diverticular disease, appendicitis, bowel obstruction, abdominal aortic aneurysms, pancreatitis, abdominal abscesses, ascites, and hepatic, pancreatic and renal masses
9. Recognize abnormal CTs of the spine, including metastatic disease, degenerative joint disease, and disc disease

Magnetic Resonance Imaging:

1. Discuss principles of magnetic resonance imaging, including differences in abilities and applications of MRI versus CT
2. Identify normal anatomy on MRI of the head and spine
3. Recognize abnormal head and spine MRIs including central nervous system infection, masses, stroke syndromes, multiple sclerosis, disc disease, metastatic vertebral column disease, and cord compression

Ultrasound:

1. Discuss general principles of ultrasound including the differences between 2D, Doppler, and M mode
2. Discuss indications and limitations of ultrasound for specific scenarios:
 - vascular Doppler ultrasound (aneurysm, deep vein thrombosis, and carotid artery and peripheral vascular disease),
 - ultrasound for gall bladder, bile ducts and liver,
 - echocardiogram (transthoracic versus transesophageal echocardiography, chamber size, valvular disease, and pericardial infusions),
 - renal ultrasound for cysts and tumors,
 - prostate ultrasound (for evaluation of nodules and biopsy),
 - ultrasound for trauma
 - OB/Gyn (molar pregnancy, anencephalic pregnancy, placenta previa, fetal age using biparietal diameter and femur length, and ectopic pregnancy)

Mammography:

1. Discuss basics of normal and abnormal mammograms
2. Discuss indications and utility of mammography, including usefulness as a screening method and as a surgical tool for resection and biopsy

Nuclear Medicine:

1. Discuss general principles and therapeutic uses of nuclear medicine
2. Discuss mechanisms, indications, and limitations of HIDA scans, bone scans, tagged RBC scans, myocardial perfusion and function (gated blood pool) scans, bone densitometry scans, and ventilation/perfusion scans

Angiography:

1. Discuss diagnostic and therapeutic principles of angiography
 2. Discuss indications for obtaining angiograms
 3. Discuss applications and utility of MRA angiograms
 4. Recognize normal anatomy of the great vessels and other vasculature on angiograms
 5. Discuss indications for angiograms for abnormal processes including subarachnoid hemorrhage and berry aneurysms, vascular stenotic lesions, pulmonary angiogram for pulmonary embolus, aortic dissection, aortic trauma, and gastrointestinal bleeding
- Finally, our graduates will not only have obtained adequate competency in the identification of normal and abnormal findings, but also will have learned appropriate and judicious choice and sequencing of imaging modalities to optimize the diagnosis in balance with sensitivity and specificity, utility, and potential patient complications. Our graduates will have developed competence regarding the radiologic work-up of:

- Pulmonary embolism
- Cardiac ischemia
- Acute abdomen
- Neck and back pain
- Neurological syndromes including spinal cord compression, seizures, cerebrovascular accident, headaches, focal neurological findings, mental status changes, and head trauma
- Child abuse
- Preventive medicine including spiral CT for pulmonary nodules, bone densitometry scans for osteoporosis, mammograms for breast cancer screening, and prostate ultrasound for cancer screening and nodule evaluation
- Bone and joint pain
- Normal and abnormal pregnancy
- Staging of common cancers
- Hematuria and flank pain
- Gastrointestinal bleeding
- Aortic aneurysms/dissections
- Physical findings including ascites, abnormal heart sounds, prostate nodules, bruits, aneurysm, testicular masses, thyroid nodules, and breast lumps □ Trauma

Goal # 2: Communication Skills

Radiology is a field that requires effective communication among many health care professionals working as a team in the best interest of the patient. Upon completion of this curriculum, our graduates will demonstrate the competence to:

1. Recognize the role of the radiologist as a consultant and the importance of effective communication between radiologists and other clinicians

Goal # 3: Professionalism

As physicians, radiologists are expected to hold themselves to the highest standards of integrity, service, and professionalism. Our graduates will demonstrate the competence to:

1. Work collaboratively as members of a healthcare team in a variety of settings.

Goal # 4: Patient Care

Our graduates will demonstrate the competence to:

1. Interpret the results of the most frequent commonly used radiological tests;
2. Select and use information technology as it relates to radiological imaging with respect to PACS, and employ electronic communications for effective communication with clinical services.

Goal # 5: Practice Based and Lifelong Learning Our observers will demonstrate the competence to:

1. Use information technology to access and manage clinical information and perform online searches to support ongoing self-directed learning;
2. Search, evaluate, and critically review radiological scientific evidence appropriate as an approach to a clinical problem;

Goal # 6: Social and Community Context of Healthcare Our observers will demonstrate the competence to:

1. Develop diagnostic and treatment strategies with regard to radiological technologies that are cost-effective, sensitive to limited resources, and do not compromise quality of care.

Prerequisites/Comments:

1. 3rd or 4th year medical students
2. Medical student must have transportation to be able to travel between the following campuses:
 - AdventHealth Orlando
 - AdventHealth Imaging Princeton
 - AdventHealth Altamonte Springs, a part of AdventHealth Orlando
 - AdventHealth Celebration, a part of AdventHealth Orlando
 - AdventHealth East Orlando, a part of AdventHealth Orlando
 - AdventHealth Kissimmee, a part of AdventHealth Orlando
 - AdventHealth Imaging Oviedo
 - AdventHealth Imaging Waterford Lakes
 - AdventHealth Winter Park, a part of AdventHealth Orlando

Family Medicine Osteopathic Residency Program Rotation: Family Medicine Osteopathic / 2 or 4 weeks

Family medicine is a primary care medical specialty that provides continuous and comprehensive health care for the individual and the family. It integrates the biological, clinical, and behavioral sciences with a broad understanding of all health care disciplines. The scope of family medicine encompasses all ages, sexes, and organ systems. It deals with every disease entity and, includes an understanding and application of the principles of osteopathic medicine. It places in the forefront of medical care the advancement of wellness, the prevention of disease and promotes advocacy for the benefit of its patients. Family physicians possess unique attitudes, skills and knowledge that qualify them to provide continual and comprehensive medical care within the context of social, economic, cultural, psychological and environmental factors. The family practitioner may be involved in all aspects of medical care both in and out of the hospital setting. The family practitioner must know and uses community resources to benefit the patient and the family. Most often family medicine is practiced within the ambulatory setting, which includes outpatient clinics and private physician offices.

Goals: Realm of Competency

Medical Knowledge: Demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social behavioral) sciences and the application of this knowledge to patient care of all ages and all stages of life.

Objectives:

1. List the most common acute, chronic and psychological diagnoses that present to the family physician including their main presenting symptoms and physical examination findings
2. Describe the importance of commonly used laboratory modalities in family medicine
3. Realize the effects of commonly used medications (Rx and OTC) used for frequently seen diagnoses in family medicine Demonstrate the importance of longitudinal care including growth and development assessments, health screenings and management of commonly seen chronic problems
4. Demonstrate an understanding of health promotion and disease prevention
5. Provide a differential diagnosis for common complaints, symptoms and signs that present to the family physician

Patient Care:

1. Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health
2. Demonstrate the ability to perform a complete medical history and physical examination
3. Conduct a focused patient history and physical examination for common complaints and be able to offer a differential diagnoses and plan for treatment
4. Be able to present a case of a patient encounter to a physician
5. Demonstrate an ability to develop rapport with patients through effective listening skills, empathy, sensitivity and respect for the patient

6. Recognize the importance of total patient management including preventative care, patient education, episodic illness care, and chronic illness care in a variety of settings including office, hospital, home visits and group visits
7. Recognize the impact of the disease process on the patient relative to family and other interpersonal relationships
8. Recognize the bio-psycho-social aspects of family systems and its impact on individual and family health

Interpersonal and Communication Skills:

1. Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients' families, and professional associates
2. List and demonstrate the principles of the art of interviewing
3. Demonstrate empathy and cultural sensitivity in patient interactions
4. Present oneself in a professional manner to patients and their families
5. Demonstrate body language that places the patient at ease Relate discussions and explanations in a manner that the patient can correctly interpret Utilize touch when appropriate and within the boundaries of an appropriate doctor-patient relationship Maintain confidentiality at all times

Practice-Based Learning and Improvement:

1. Investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices
2. Be cognizant of, and apply, evidence-based medicine as it pertains to family medicine
3. Collect and analyze patterns of medical practice and compare / contrast the individual patterns within the practice with established clinical guidelines and norms
4. Recognize incidence of disease with epidemiologic consequence and know the process of appropriate notification (outbreaks, etc.)

Systems-Based Practice:

1. Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value Integrate the importance of appropriate referral systems and their use in a family medicine practice
2. Identify health care issues involved in managed care with associated formulary, preventative care and referral pattern issues Understand and use a team approach when delivering healthcare

Professionalism:

1. Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population
2. Act in a professional manner at all times Dress appropriately when working with patients
3. Continually subscribe to changing and advancing medical knowledge
4. Be cognizant of, and sensitive to, cultural diversity
5. Demonstrate respect and professional behavior with other members of the healthcare team

Osteopathic Philosophy and Osteopathic Manipulative Medicine:

1. Integrate Osteopathic Concepts and OMT into the medical care provided to patients as appropriate.
2. Understand and integrate Osteopathic Principles and Philosophy into all clinical and patient care
Identify patients in the family medicine setting who would benefit from OMT
3. Skillfully apply appropriate manipulative treatment as part of the overall treatment of the patient's condition

Prerequisites/Comments:

Must be a 3rd or 4th year osteopathic medical student.

**Family Medicine Osteopathic Residency Program Rotation:
Family Medicine Residency Service (FMRS) / 2 weeks**

Goals: Realm of Competency Medical Knowledge:

Demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care

Objectives:

1. Apply pertinent basic science principles to patients with internal medicine problems
2. Analyze pathophysiological principles to understand why patients develop signs and symptoms from various diseases
3. Apply basic pharmacological principles to the treatment of common internal medicine diseases

Patient Care:

1. Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health
2. Demonstrate proficiency in obtaining a history from an adult patient
3. Perform a general physical examination on an adult patient
4. Perform a problem focused physical examination on an adult patient
5. Formulate a differential diagnosis for common presenting symptoms of adult disease
6. Develop specific motor skills necessary to perform procedures on IM patients
 1. Lumbar puncture
 2. Thoracentesis
 3. Central venous pressure line insertion
 4. Venipuncture / ABG
7. Detect commonly potentially serious medical diseases
 1. Breast cancer - Perform a breast exam
 2. Cervical Cancer – Perform a Pap smear
 3. Colon Cancer – Perform a stool guaiac

4. Prostate Cancer – Perform a DRE
8. Evaluate the pre-operative patient
9. Manage the medical condition of the postoperative patient

Interpersonal and Communication Skills:

1. Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients' families, and professional associates
2. Develop communication skills that facilitate the transfer of information to persons from a different cultural or socioeconomic background
3. Utilize communication skills necessary to care for dying patients and their families
4. Employ sensitivity when dealing with people who are vulnerable or scared
5. Assess the psychosocial and spiritual needs of the patient

Practice-Based Learning and Improvement:

1. Investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices Identify and utilize resources for dissemination of new information regarding the practice of internal medicine
2. Identify and utilize evidence-based medicine guidelines in the field of internal medicine
3. Apply these principles to regular health maintenance

Systems-Based Practice:

1. Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value
2. Employ a team-oriented approach to problem solving in internal medicine
3. Consult other physicians and health care providers in a manner that maximizes patient care and minimizes communication barriers
4. Question the increasing larger role that financial considerations play in medicine
5. Advocate for the needs of the patient, in light of society's inability to provide unlimited resources to everyone

Professionalism:

1. Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.
2. Exemplify behaviors such as altruism, accountability, excellence, duty, honor, integrity, and respect for others

Altruism: the best interest of the patient must come before the interests of the doctor

Accountability: accountability to patients, patients' families, peers, faculty and society

Excellence: an effort to exceed ordinary expectations

Duty: a commitment to service

Honor and integrity: a commitment to the highest standards of personal and professional behavior

Respect for others: respect for patients, their families, peers, nurses, faculty, and other medical personnel and ancillary staff

Osteopathic Philosophy and Osteopathic Manipulative Medicine:

1. Integrate Osteopathic Concepts and OMT into the medical care provided to patients as appropriate. Understand and integrate Osteopathic Principles and Philosophy into all clinical and patient care activities
2. Apply osteopathic principles to the diagnosis and treatment of the internal medicine patient Identify specific internal medicine conditions where osteopathic manipulative medicine is a component of the treatment plan. Examples: Pneumonia, Ileus
3. Apply holistic approaches to the diagnosis and management of internal medicine conditions

Prerequisites/Comments:

Must be a 3rd or 4th year osteopathic medical student.

**Family Medicine Osteopathic Residency Program Rotation:
Geriatrics / 2 or 4 weeks**

Geriatrics is the primary care medical specialty that addresses the unique health care issues of the elderly. The clinical rotation in geriatrics provides students the opportunity to understand the special needs of the geriatric patient and unique disease presentation and progression in the elderly. It also enables students to identify psychosocial needs and functional disabilities of the elderly and their impact on developing appropriate care planning and medical management. The focus is on an interprofessional approach, functional and neuropsychological assessment, and treatment of the geriatric patient as directed by patient needs and wishes.

Goals: Realm of Competency

Medical Knowledge: Demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social behavioral) sciences and the application of this knowledge to patient care of all ages and all stages of life.

Objectives

1. List the most common acute, chronic and psychological diagnoses that present to the geriatric physician including their main presenting symptoms and physical examination findings
2. Understand the important alterations in pharmacokinetics and pharmacological effect of medications commonly prescribed for elderly patients
3. Demonstrate the importance of longitudinal care including growth and development assessments, health screenings and management of commonly seen chronic problems
4. Demonstrate an understanding of health promotion and disease prevention
5. Provide a differential diagnosis for common complaints, symptoms and signs that present to the geriatric physician

Patient Care:

1. Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health
2. Demonstrate the ability to perform a complete medical history and physical examination on an older patient and offer a differential diagnoses and plan for treatment
3. Perform an accurate geriatric assessment
4. Demonstrate an ability to develop rapport with patients through effective listening skills, empathy, sensitivity and respect for the patient
5. Recognize the importance of total patient management including preventative care, patient education, episodic illness care and chronic illness care in a variety of settings including office, hospital, home visits and group visits
6. Recognize the impact of the disease process on the patient relative to family and other interpersonal relationships
7. Recognize the bio-psycho-social aspects of family systems and its impact on individual and family health

Interpersonal and Communication Skills:

1. Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients families, and professional associates
2. List and demonstrate the principles of the art of interviewing
3. Demonstrate empathy and cultural sensitivity in patient interactions
4. Present oneself in a professional manner to patients and their families
5. Demonstrate body language that places the patient at ease
6. Relate discussions and explanations in a manner that the geriatric patient can correctly interpret
7. Utilize touch when appropriate and within the boundaries of an appropriate doctor-patient relationship
8. Maintain confidentiality at all times

Practice-Based Learning and Improvement:

1. Investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices
2. Be cognizant of, and apply, evidence-based medicine as it pertains to geriatric medicine Collect and analyze patterns of medical practice and compare / contrast the individual patterns within the practice with established clinical guidelines and norms
3. Recognize incidence of disease with epidemiologic consequence and know the process of appropriate notification (outbreaks, etc.)

Systems-Based Practice:

1. Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value
2. Integrate the importance of appropriate referral systems and their use in geriatric medicine

3. Identify health care issues involved in managed care with associated formulary, preventative care and referral pattern issues Understand and use a team approach when delivering healthcare to the geriatric patient

Professionalism:

1. Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population
2. Act in a professional manner at all times
3. Dress appropriately when working with patients
4. Continually subscribe to changing and advancing medical knowledge
5. Be cognizant of, and sensitive to, cultural diversity Demonstrate respect and professional behavior with other members of the healthcare team

Osteopathic Philosophy and Osteopathic Manipulative Medicine:

1. Identify patients in the geriatric medicine
2. Integrate Osteopathic Concepts and OMT into the medical care provided to patients as appropriate. Understand and integrate Osteopathic Principles and Philosophy into all clinical and patient care setting who would benefit from OMT
3. Skillfully apply appropriate manipulative treatment as part of the overall treatment of the patient's condition

Prerequisites/Comments:

Must be a 3rd year core osteopathic medical student.

**Family Medicine Osteopathic Residency Program Rotation:
Osteopathic Manipulative Medicine / 2 or 4 weeks**

Realm of Competency Synopsis

Appropriate supervision shall be provided so that the resident will integrate these skills into the daily care of his/her patients. This shall be documented in the medical record.

Goals:

1. To teach the resident, through didactic as well as clinical settings, the application of osteopathic principles and osteopathic manipulative treatment in all patient care settings.
2. To expose the resident to multiple treatment techniques so he/she may choose the most appropriate method of treating any patient.

Objectives:

The resident will demonstrate competence in his/her ability to:

1. Describe the philosophy behind osteopathic manipulative treatment.
2. Describe the role of the musculoskeletal system in disease, including somato/visceral reflexes, alterations in body framework, and trauma.

3. Describe contraindications to osteopathic manipulative treatment.
4. Utilize multiple methods of treatment including, but not limited to, High-Velocity/Low Amplitude (HVLA), strain/counter strain, and muscle energy.
5. Demonstrate, as documented in the medical record, his/her use of osteopathic principles and osteopathic manipulative treatment in the continuity of care training site in an integrated fashion. It is understood that integration implies the use of OMT in such conditions as, (but not limited to) respiratory, cardiac, and gastrointestinal disorders, as well as musculoskeletal disorders.

Patient Care:

1. Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health
2. Demonstrate osteopathic history and physical exam skills for:
 - a. Newborns
 - b. Infants and toddlers
 - c. Children
 - d. Adolescents
 - e. Adults
3. Demonstrate development of evaluation and treatment plan including osteopathic manipulation of the patient
4. Refer patient and parent to the appropriate specialist for adjunctive care
5. Order laboratory tests as indicated for both health maintenance and illness assessment
6. Effectively differentiate between the sick patient who needs immediate attention and the sick patient who can be managed less acutely

Interpersonal and Communication Skills:

1. Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients' families, and professional associates
2. Recognize and address the needs of the patient during the visit
3. Utilize appropriate techniques in interviewing
4. Communicate the diagnosis in lay language and assure comprehension
5. Provide effective patient education
 - a. Educate regarding indications for calling the doctor or returning to the office for follow-
 - b. Indication and approach of Osteopathic manipulative treatment to the patient
6. Provide anticipatory guidance on:
 - a. Normal growth and development concerns
 - b. Osteopathic approach to medical condition
 - c. Issues related to puberty and adolescence
7. Issues related to family dynamics
8. Consider confidentiality issues and the rights of parents and minor children around health care issues

Practice-Based Learning and Improvement:

1. Investigate and evaluate their patient care practices,
2. Appraise and assimilate scientific evidence, and improve their patient care practices
3. Identify and utilize virtual library for use in diagnosis and therapeutics
4. Whenever possible, apply evidence-based medicine to clinical decision-making processes
5. Utilize clinical guidelines and best practice standards in an effort to minimize unexpected and unnecessary clinical variation

Systems-Based Practice:

1. Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value
2. Formulate diagnostic and therapeutic plans based upon medical, psychosocial, spiritual, socioeconomic and ethical factors
3. Utilize community agencies and resources
4. Apply ethical and legal boundaries with regard to the interaction with and treatment of children and their parents or caretakers
5. Educate parents or caretakers on safety issues specifically regarding recreational activities, exercise, diet, drugs and alcohol, sexual activity, STDs and pregnancy

Professionalism:

1. Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population
2. Communicate cases to colleagues, supervisors and consultants clearly and succinctly
3. Employ effective and proper strategies when confronted with problems relative to patient care responsibilities
4. Use appropriate dress, behavior and language in dealing with children, parents or caretakers, staff, peers and other health care workers
5. Acknowledge and demonstrate respect for the child and their parents or caretakers throughout the interaction
6. Honor the principles of compassion, empathy, and respect for modesty, privacy and confidentiality
7. Demonstrate tolerance of family attitudes, beliefs, cultural and socioeconomic influences

Osteopathic Philosophy and Osteopathic Manipulative Medicine:

Integrate Osteopathic Concepts and OMT into integrated family care. Understand and integrate Osteopathic Principles, physiology and Philosophy into all clinical and patient care activities.

Prerequisites/Comments:

Must be a 3rd or 4th year osteopathic medical student.

Family Medicine Osteopathic Residency Program Rotation: Pediatrics / 2 or 4 weeks

Pediatrics is the study of the comprehensive care of the growing child. This includes screening for proper growth and development, preventive health care, and the recognition and management of illnesses in infants, children, and adolescents.

The emphasis in pediatrics is on learning to perceive the child as a dynamic, growing, and developing patient. All aspects of the child's health are based upon the foundation formed during previous periods of growth. As pediatricians, it is vital for us to be cognizant of these changes, and to assist in maximizing health in each of these stages through health screening, anticipatory guidance, and preventative medicine techniques. In this way, we can assure the best future for our maturing young patients.

Goals: Realm of Competency

Medical Knowledge: Demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social behavioral) sciences and the application of this knowledge to patient care

Objectives: Identify the common acute and chronic medical conditions for which children visit pediatricians

1. Develop a reasonable differential diagnosis and treatment plan for common pediatric clinical problems
2. List and identify those conditions that require immediate recognition and management in children (e.g. meningitis, epiglottitis, appendicitis, etc.)
3. Demonstrate an awareness of the unique pharmacological concerns involved with prescribing medication for children
 - a. Assess for failure to thrive and identify its major causes
 - b. Assess for developmental delay and identify its major causes
 - c. Describe the fundamental aspects of health maintenance in children
 - d. Delineate the various immunizations for children
 - e. Describe the methods for evaluating the nutritional condition of children
 - f. Define normal ranges in children for commonly ordered laboratory studies
 - g. Identify the most likely and most serious possible causes for abnormal laboratory studies *See list of common problems in Pediatrics*

Patient Care: Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health

1. Demonstrate history and physical exam skills for:
 - a. Newborns
 - b. Infants and toddlers
 - c. Children
 - d. Adolescents

2. Demonstrate the appropriate involvement of parents and other caregivers in the assessment of the well and sick child
3. Order laboratory tests as indicated for both health maintenance and illness assessment
4. Plot growth and development for children and interpret the results
5. Conduct developmental assessments on children and interpret the results
6. Perform procedures such as:
 - a. IV line placement
 - b. Phlebotomy
 - c. Audiometry
 - d. Tympanometry
 - e. Testing for Strep pharyngitis
 - f. Giving immunizations
 - g. Circumcision
7. Effectively differentiate between the sick child who needs immediate attention and the sick child who can be managed less acutely

Interpersonal and Communication Skills:

1. Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients families, and professional associates
2. Recognize and address the needs of both the child and the parent or caretaker during the visit
3. Utilize appropriate techniques in interviewing children and their parents or caretakers
4. Communicate the diagnosis in lay language and assure comprehension
5. Provide effective patient education
6. Educate regarding indications for calling the doctor or returning to the office for follow-up
 7. Provide anticipatory guidance on:
 - a. Normal growth and development concerns
 - b. Issues related to puberty and adolescence
 - c. Issues related to family dynamics
8. Consider confidentiality issues and the rights of parents and minor children around health care issues

Practice-Based Learning and Improvement:

1. Identify and utilize virtual library for use in diagnosis and therapeutics Investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices
2. Whenever possible, apply evidence-based medicine to clinical decision-making processes
3. Utilize clinical guidelines and best practice standards in an effort to minimize unexpected and unnecessary clinical variation

Systems-Based Practice:

1. Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value
2. Formulate diagnostic and therapeutic plans based upon medical, psychosocial, spiritual, socioeconomic and ethical factors
3. Utilize community agencies and resources

4. Apply ethical and legal boundaries with regard to the interaction with and treatment of children and their parents or caretakers
5. Educate parents or caretakers on safety issues specifically regarding recreational activities, exercise, diet, drugs and alcohol, sexual activity, STDs and pregnancy

Professionalism:

1. Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population
2. Communicate cases to colleagues, supervisors and consultants clearly and succinctly
3. Employ effective and proper strategies when confronted with problems relative to patient care responsibilities
4. Use appropriate dress, behavior and language in dealing with children, parents or caretakers, staff, peers and other health care workers
5. Acknowledge and demonstrate respect for the child and their parents or caretakers throughout the interaction
6. Honor the principles of compassion, empathy, and respect for modesty, privacy and confidentiality
7. Demonstrate tolerance of family attitudes, beliefs, cultural and socioeconomic influences

Osteopathic Philosophy and Osteopathic Manipulative Medicine:

1. Integrate Osteopathic Concepts and OMT into the medical care provided to patients as appropriate.
2. Understand and integrate Osteopathic Principles and Philosophy into all clinical and patient care activities
3. Recognize the differences in osteopathic approaches to the child versus the adult Perform osteopathic evaluation and treatment to newborns, children and adolescents
 - a. Condylar assessment and decompression
 - b. Occipital to sacral fascial unwinding
 - c. Leg length discrepancy
 - d. Scoliosis

Prerequisites/Comments:

Must be a 3rd year osteopathic core medical student.