

**CHILDREN'S HOSPITAL OF ORANGE COUNTY
ORTHOPAEDIC SURGERY RESIDENCY PROGRAM**

**Pediatrics Orthopaedics (PGY-4)
(Duration: Four Months)**

Supervising Faculty: Dr. John Schlechter, Dr. Afshin Aminian, Dr. Francois Lalonde, Dr. Carl Weinert, Dr. Samuel Rosenfeld, Dr. Jeff Dobyns, Dr. Jessica McMichael, and Dr. Jonathan Minor

The overall goal of the pediatric (PGY-4) rotation is to educate the resident to various aspects of musculoskeletal care for children. The PGY-4 experience will build upon the PGY-3 experience with emphasis upon higher levels of decision making and technical skill acquisition. The rotation will last four months at the Children's Hospital of Orange County (CHOC). The resident will participate in clinic, operating room and emergency room on call coverage and will be exposed to numerous pathologies. Faculty supervision will advance from direct supervision to indirect supervision and in some cases oversight as resident ability progresses.

Patient Care

Goals:

The orthopaedic resident must be able to provide patient care that is compassionate, age appropriate, and effective for the treatment of health problems and the promotion of healing following an injury or illness.

Objectives:

- Demonstrate competence in the pre-admission care, hospital care, operative care and follow up care (including rehabilitation) of patients.
- Demonstrate competence in their ability to gather essential and accurate information about their patients.
- Demonstrate competence in their ability to make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date orthopaedic scientific evidence, and clinical judgment and review those with the attending pediatric orthopaedic surgeon.
- Demonstrate competence in their ability to develop and carry out patient management plans.
- Demonstrate competence in their ability to provide health care services aimed at preventing health problems or maintaining health. Provide anticipatory guidance to patients and their families.
- Demonstrate competence in the diagnosis and management of adult and pediatric orthopaedic disorders.
- Observation and treatment of both inpatients and outpatients with a wide variety of orthopaedic disorders.
- Demonstrate competence in their ability to perform all medical and invasive procedures considered essential for the area of practice.
- Demonstrate their ability to work with other health care professionals, including those from other disciplines to provide patient-focused care.
- Demonstrate responsibility for both acutely and chronically ill patients so as to learn the natural history of pediatric orthopaedic disorders as well as the effectiveness of treatment programs and the impact of growth on these disorders.

Medical Knowledge

Goals:

The orthopaedic resident must gain medical knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to pediatric patient care.

Objectives:

- Demonstrate expertise in the knowledge of those areas appropriate for an orthopaedic surgeon.
- Demonstrate investigatory and analytical thinking approach to clinical situations.
- Education in pediatric orthopaedic trauma (acute and reconstructive), metabolic and genetic conditions, tumors, neuromuscular conditions, spinal conditions, hip conditions, foot and ankle conditions, amputations and prosthetics, hand conditions, athletic injuries and general pediatric orthopaedics.
- Development of a scholarly approach to clinical problem solving, self-directed study, development of analytic skills and surgical judgment and research.
- Understanding of the role of physical and occupational therapists and of orthotists and prosthetists in the rehabilitation and ongoing management of pediatric orthopaedic disorders.
- Understanding normal physiologic mechanisms and the pathogenesis and complications of pediatric orthopaedic disorders.
- Understanding the indications, risks and limitations of the commonly performed procedures in the subspecialty.
- Understand the anatomy, diagnose, and manage children and adolescents with brachial plexus palsies.
- Comprehend the embryology, diagnose, and treatment of children with congenital limb differences.
- Interpret x-rays, diagnose, and formulate a treatment algorithm for pediatric fractures of the upper extremity.
- Understand the injury pattern, anatomy, diagnose, acute problems, and manage persons with spinal cord injuries.
- Comprehend the acute and chronic problems of persons with spinal cord injury.
- Understand, recognize and manage complex skeletal dysplasias.
- Understand the etiology, diagnosis and treatment of complex hematologic disorders.
- Understand the characteristics, pathogenesis, diagnostic features and management of complex neuromuscular disorders.
- Recognize and treat, in conjunction with a multidisciplinary team, cerebral palsy, myelomeningocele, muscular dystrophy and juvenile rheumatoid arthritis.
- Understand the clinical manifestations, treatment, and long-term prognosis of complex gait disorders and fractures.
- Understand the etiology, diagnosis and treatment of pediatric sports medicine conditions.

Practice-based Learning and Improvement

Goals:

The orthopaedic resident must demonstrate the ability to investigate and evaluate his/her care of orthopaedic patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.

Objectives:

- Identify strengths, deficiencies, and limits in one's knowledge and expertise.
- Set learning and improvement goals.
- Identify and perform appropriate learning activities.
- Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement.
- Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems.
- Use information technology to optimize learning.
- Participate in the education of patients, families, students, residents and other health professionals.
- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness.
- Acknowledges gaps in personal knowledge and expertise, and frequently asks for feedback from teachers and colleagues.
- Demonstrates computer literacy and basic computer skills in clinical practice.
- Describes basic concepts in clinical epidemiology, biostatistics, and clinical reasoning.
- Categorizes the study design of a research study.
- Continually assesses performance by evaluating feedback and assessments.
- Develops a learning plan based on feedback with some external assistance.
- Demonstrates use of published review articles or guidelines to review common topics in practice.
- Uses patient care experiences to direct learning.
- Ranks study designs by their level of evidence.
- Identifies bias affecting study validity.
- Formulates a searchable question from a clinical question.
- Complete the personal learning project in the practiced based learning and improvement curriculum for the rotation.

Interpersonal and Communication Skills

Goals:

The orthopaedic resident must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and other health professionals.

Objectives:

- Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds.
- Communicate effectively with physicians, other health professionals, and health related agencies.
- Act as a consultative role to other physicians and health professionals.
- Maintain comprehensive, timely, and legible medical records.
- Use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills, if applicable.
- Communicates with patients about routine care (e.g., actively seeks and understands the patient's/family's perspective; able to focus in on the patient's chief complaint and ask pertinent questions related to that complaint).
- Recognizes and communicates role as a team member to patients and staff.

- Responds to requests for information.
- Communicates competently within systems and other care providers, and provides detailed information about patient care (e.g., demonstrates sensitivity to patient—and family—related information gathering/sharing to social cultural context; begins to engage patient in patient-based decision making, based on the patient's understanding and ability to carry out the proposed plan; demonstrates empathic response to patient's and family's needs; actively seeks information from multiple sources, including consultations; avoids being a source of conflict; able to obtain informed consent [risks, benefits, alternatives, and expectations]); actively participates in team-based care; Supports activities of other team members, communicates their role to the patient and family.

Professionalism

Goals:

The orthopaedic resident must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.

Objectives:

- Demonstrate respect, integrity and compassion for others.
- Demonstrate responsiveness to patient needs that supersedes self interest.
- Demonstrate accountability to patients, society and the profession.
- Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.
- Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in culture, age, gender, disabilities and sexual orientation.
- Demonstrate commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent and business practice.
- Consistently demonstrates behavior that conveys caring, honesty, and genuine interest in patients and families.
- Recognizes the diversity of patient populations with respect to gender, age, culture, race, religion, disabilities, sexual orientation, and socioeconomic status.
- Recognizes the importance and priority of patient care, with an emphasis on the care that the patient wants and needs; demonstrates a commitment to this value.
- Understands when assistance is needed and willing to ask for help.
- Exhibits basic professional responsibilities, such as timely reporting for duty, being rested and ready to work, displaying appropriate attire and grooming, and delivering patient care as a functional physician.
- Aware of the basic principles and aspects of the general maintenance of emotional, physical, mental health, and issues related to fatigue/sleep deprivation.
- Demonstrates an understanding of the importance of compassion, integrity, respect, sensitivity, and responsiveness while exhibiting these attitudes consistently in common and uncomplicated situations.
- Consistently recognizes ethical issues in practice; discusses, analyzes, and manages in common and frequent clinical situations including socioeconomic variances in patient care.
- Recognizes limits of knowledge in common clinical situations and asks for assistance.
- Recognizes value of humility and respect towards patients and associate staff.
- Demonstrates adequate management of personal, emotional, physical, mental health, and fatigue.

Systems-based Practice

Goals:

The orthopaedic resident must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

Objectives:

- Work effectively in various health care delivery settings and systems relevant to orthopaedics.
- Coordinate patient care within the health care system relevant to their orthopaedics.
- Practice cost-effective health care and resources allocation that does not compromise quality of care.
- Advocate for quality patient care and optimal patient care systems.
- Participate in identifying system errors and implementing potential system solutions.
- Describes basic levels of systems of care (e.g., self-management to societal).
- Understands the economic challenges of patient care in the health care system.
- Recognizes importance of complete and timely documentation in teamwork and patient safety.
- Explains the role of the Electronic Health Record (EHR) and Computerized Physician Order Entry (CPOE) in prevention of medical errors.
- Gives examples of cost and value implications of care he or she provides (e.g., gives examples of alternate sites of care resulting in different costs for individual patients).
- Uses checklists and briefings to prevent adverse events in health care.
- Appropriately and accurately enters patient data in EHR.
- Effectively uses electronic medical records in patient care.
- Participate in one medical staff committee as a non-voting member, provide a formal presentation at the Orthopaedic Surgery educational grand rounds, and write a self-assessment of committee experience with relevant learning points articulated and documented.

ASSESSMENT METHOD:

Direct and indirect observation by faculty with assessment on formal end of resident rotation evaluation form.

DIDACTIC CURRICULUM REQUIRED ATTENDANCE:

RUHS Ortho Monthly Journal Club/Educational Grand Rounds (Monday PM)

RUHS Ortho Monthly Research Meeting (Wednesday AM)

RUHS Bi-Monthly M&M Conference

CHOC Pediatric Orthopaedic Conditions (Tuesday AM)

CHOC Trauma Conference (Wednesday PM)

CHOC M&M Conference (Friday AM)