

General Orthopaedic Surgery Medical Student Rotation

Supervising Faculty: Bradley K. Weiner, M.D.
Location: The Methodist Hospital
Length: 1 Month
Level of training: Medical Student, MS3/MS4
Type of Experience: 80% inpatient, 20% outpatient

GOALS:

This rotation will provide broad exposure to orthopaedic surgery and involve residents in the care of patients with musculoskeletal injuries and diseases. This experience will allow students to develop the knowledge and skills needed to formulate principles for assessing, planning, and initiating treatment of adult patients with surgical and/or non-operative problems. Students will participate in the pre-, intra-, and post-operative care of orthopaedic surgery patients gaining insight and experience.

OBJECTIVES

Patient Care

- Develop the necessary skills to take a complete orthopaedic history and physical examination of patients
- Develop competence in the preadmission care, hospital care, operative care, and follow-up care (including rehabilitation, if applicable) of patients
- Develop competence in nonoperative outpatient diagnosis and care of common orthopaedic conditions
- Receive instruction in basic motor skills, including proper use of surgical instruments and operative techniques, and apply these skills to clinical and operative activities
- Gather essential and accurate information about patients
- Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment
- Develop and carry out patient management plans
- Counsel and educate patients and their families (also practice-based learning and improvement)
- Demonstrate the ability to practice culturally competent medicine
- Use information technology to support patient care decisions and patient education
- Assist in medical and invasive procedures appropriate to the first year of orthopaedic training
- Work with health care professionals (nurses, etc.) to provide patient-focused care.

Medical Knowledge

- Identify anatomy, biomechanics, pathology, and physiology specific to orthopaedic surgery
- Identify basic concepts and principles related to:
 - Orthopaedic surgical techniques and approaches
 - Joint arthrodesis and joint arthroplasty
 - Amputations

- Operative and non-operative treatment of musculoskeletal infections
- Care for benign and malignant primary and secondary bone tumor
- Non-traumatic soft tissue disorders.
- Spinal anatomy, surgical approaches, and common disorders including fractures / dislocations, scoliosis and kyphosis, low back pain, disc disorders, spinal canal stenosis, and spondylolisthesis
- Treatment of ankle injuries, knee injuries, shoulder and elbow injuries, and dislocations as pertinent to sports medicine
- Arthroscopy of the upper and lower extremities
- Fracture care (acute (splinting, casting,...etc.) and definitive (surgical) care) of common injuries—lower extremity injuries, hip fractures, acetabular / pelvic fractures; shoulder, arm, and forearm fractures, hand and foot fractures, spinal fractures
- Hand surgery including peripheral nerve injuries, wrist disorders, compartment syndrome, arthritis of the hand, Dupuytren's contracture, carpal tunnel syndrome, ulnar tunnel syndrome, stenosing tenosynovitis
- Foot and ankle surgery including disorders of the hallux, pes planus, lesser toe abnormalities, rheumatoid foot, diabetic foot, neurogenic disorders, disorders of the nails and skin, disorders of the tendons and fascia
- Receive organized instruction in the appropriate use and interpretation of radiographic techniques commonly used in orthopaedic surgery
- Demonstrate an investigatory and analytic thinking approach to clinical situations
- Apply the basic and clinically supportive sciences which are appropriate to orthopaedic surgery

Practice Based Learning and Improvement

- Examine their own strengths, deficiencies, and limits in their knowledge and expertise
- Set learning and improvement goals
- Identify and perform appropriate learning activities
- Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems
- Utilize practice (evidence)-based guidelines for evaluation and management of orthopaedic surgery patients
- Use information technology to optimize learning, including web based databases available within and outside the hospital setting and medical libraries within and outside the hospital setting
- Participate in the education of patients, families, students, residents, and other health professionals
- Obtain and use information about their own population of patients and the larger population from which their patients are drawn
- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
- Examine errors in practice using quality improvement methods and initiate improvements to eliminate or reduce errors in practice

Interpersonal and Communication Skills

- Communicate effectively with physicians, other health professionals, and health related agencies
- Work effectively as a member or leader of a health care team or other professional group
- Act in a consultative role to other physicians and health professionals
- Maintain accurate and clear medical documentation
 - Write legible prescriptions and orders
 - Dictate accurate and clear documentation of patient encounters and assessment for the medical records
- Create and sustain a therapeutic and ethically sound relationship with patients

- Use effective learning skills and elicit and provide information using effective nonverbal, explanatory questioning, and writing skills
- Develop a physician-patient relationship based upon honest and open communication and respect and partner with patients to develop a treatment and healthcare management plan
- Educate patients, families, and professionals in the issues related to orthopaedic conditions
- Obtain, interpret, and evaluate consultations from other medical specialties

Professionalism

- Compassion, integrity, and respect for others
- Responsiveness to patient needs that supersedes self-interest
- Respect for patient privacy and autonomy
- Accountability to patients, society, and the profession
- Sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation
- Commitment to excellence and ongoing professional development
- Commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices
- Sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities
- Respond to communication effectively and honestly with patients and other consulting health professionals involved in patient care

Systems-Based Practice

effectively on other resources in the system to provide optimal health care. Residents are expected to:

- Work effectively in various health care delivery settings and systems relative to orthopaedic surgery
- Coordinate patient care within the health care system relative to orthopaedic surgery
- Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate
- Advocate for quality patient care and optimal patient care systems
- Work in interprofessional teams to enhance patient safety and improve patient care quality
- Participate in identifying system errors and implementing potential systems solutions
- Recognize how their patient care and other professional practices affect other healthcare professionals, the healthcare organization, and the larger society and how these elements of the system affect their own practice
- Describe how types of medical practice and delivery systems differ from one another, including methods of controlling healthcare costs and allocating resources

SUGGESTED READINGS AND REFERENCES

The Orthopaedic Library on OPC 25 has all major orthopaedic texts, subspecialty texts, and journals readily available. Residents on this rotation should emphasize the major texts (Campbell's, Chapman's), sections describing basic principles, and specifics regarding upcoming patients/surgeries.