

Orthopaedic Surgery (Elective)

Length: 4 weeks of PGY-1 year (General Surgery Residents)
12 weeks of PGY-1 year (Designated Orthopaedic Residents)

Location: The Queen ' s Medical Center

Primary Supervisor: Robert Atkinson, M.D.

Contact Telephone #: 586-8233 Coordinator Jamie Castelo

This rotation is designed to expose General Surgery Residents and designated Orthopaedic PGY-1 Residents to the overall management of patients with common orthopaedic problems.

Goals

Upon completion of the Orthopaedic Surgery rotation, the Resident will have:

1. Acquired a broad knowledge base that comprises the evaluation and management of common orthopaedic conditions.
2. Acquired, and will be able to demonstrate, psychomotor and technical skills required for the management and care of common conditions encountered in orthopaedic patients.

Objectives

Medical Knowledge

1. Understand the anatomy and physiology of the musculoskeletal system, with emphasis on the upper and lower extremities and joints.

Patient Care

1. Accurately diagnose, properly manage, and appropriately consult for common orthopedic conditions and emergencies.
2. Understand which x-rays are appropriate to order for each common condition, and how to interpret them.
3. Demonstrate understanding of aspiration and injection techniques.
4. Explain the treatment of simple and complex fractures, bone infection and bone neoplasms.
5. Demonstrate basic principles and techniques of simple fracture reduction and stabilization, including casting, external fixation and internal fixation; immobilization and splinting.
6. Describe the management of hand injuries, including fracture and tendon injuries; and infections.
7. Discuss basic knowledge of acute diseases and trauma of the spine.

8. Demonstrate understanding of the management of complex soft tissue injuries as they relate to the musculoskeletal system.
9. Demonstrate knowledge of the elements of the orthopaedic examination of the injured patient.
10. Apply the essentials of fracture management, including management of soft tissue injuries and the use and complications of cast and fixation devices.
11. Discuss and apply the basic principles of wound healing, bone physiology, bone healing, musculoskeletal biomechanics, and amputation surgery with rehabilitation.
12. Understand the role of physical and occupational therapy and appropriate use of these modalities.
13. Evaluate peripheral vascular circulation in orthopaedic injuries.
14. Diagnose and treat Compartment Syndrome.

Systems-based Practice

1. Understand the multidisciplinary role of the Orthopedic Surgeon, Nurses, the Operating Room Team, Physical Therapists, Occupational Therapists, Rehabilitation Specialists, and Social Service personnel in the provision of coordinated, safe and high quality Orthopedic care.

Professionalism

1. Interact with patients and their families in a respectful, sensitive, and ethical manner.
2. Interact with other members of the Orthopedic Surgery Team and ambulatory clinic personnel in a respectful, responsible, and professional manner.

Practice-based Learning and Improvement

1. Demonstrate ability to utilize scientific studies to provide high quality Orthopedic surgical care.
2. Appropriately utilize Hospital information technology systems to manage patient care, and to access on-line medical information to deliver high quality care.
3. Facilitate and supports the education of medical students, junior residents, and other healthcare team members.

Interpersonal and Communication Skills

1. Demonstrate skill in effective information exchange with patients, their families, and other members of the Orthopedic Surgery Team, understanding the impact of acute and chronic orthopedic diseases on the patient.
2. Demonstrate ability for accurate and timely information exchange between other members of the healthcare team, both verbally and in writing, with appropriate use of the medical record.

Implementation

During the rotation, under the supervision of an Attending Faculty member, Residents will participate in the early diagnosis and treatment of common orthopaedic injuries as described above. Residents shall participate in the operative repair of major and minor fractures, including instrument handling, bone fixation techniques, and tendon repair. Residents will have a designated Operating Room experience at least twice a week where their pager will be passed off to another Resident and s/he should be able to scrub uninterrupted.

While taking emergency room call, Residents will gain experience in proper plaster casting technique, as well as in the use of other special materials on patients requiring casting in the emergency room. Residents will also be given the opportunity to participate in the repair of soft tissue injuries and perform selected lower extremity amputations.

Residents are not expected to handle orthopaedic problems in the emergency room without proper teaching and supervision by either the Attending Faculty or Chief Orthopaedic Resident. The Chief Resident will provide in-house backup, *until midnight*, for the Resident for the first few nights that a Resident is on-call.

Residents are to maintain a log of participation in operative procedures as documentation.

In addition, Residents will attend and participate in the teaching rounds and conferences (including journal club) of the Orthopaedic Residency Program during the rotation. Residents are expected to attend the weekly Trauma Service Patient Management Conference as the Orthopaedic Service representative.

Required Readings

Residents are expected to maximize their learning opportunities by reading about anticipated and real conditions encountered in their training. Thus, readings on conditions which are deemed appropriate will be the Resident 's responsibility during this rotation.

Residents will receive the *Handbook of Fractures, 2nd Edition* by Kenneth J. Koval, M.D. and Joseph D. Zuckerman, M.D. They may keep this handbook for future reference.

Performance Measures and Competency Assessment

Daily interaction with Senior/Chief Orthopedic Surgery Residents and formal interaction with Faculty Attendings in the Operating Room, Clinic, and on Teaching Rounds will provide the opportunity for focused review and global evaluations at the end of the rotation.