OHSU Department of Orthopaedics and Rehabilitation

Rotation Specific Objectives for Resident Education

Rotation: VAMC

Resident year-in-training: PGY5, PGY2, PGY1

Attending Physicians:

1. **Mark Berkson, MD (Chief)**
2. **Lucas Anissian, MD**
3. **Kenneth Gundle, MD**
4. **Ryan Wallenberg, MD**

Primary Objective:

- Surgical and clinical training related to management of general adult orthopaedics conditions including degenerative, infectious, and traumatic.
- Learn about conditions specific to the care of Veteran patient (e.g. post-traumatic stress disorder) and appropriate ordering of ancillary studies in a system with constrained resources.
- Be able to triage conditions and to know when to refer to a sub-specialist after executing the primary evaluation and management.

Educational Philosophy:

The VAMC is one of two locations where general orthopaedics is emphasized. It is a unique opportunity for the residents to take on more responsibility with appropriate faculty supervision. As they are responsible for the day to day management of the floor as well as the primary contact in preop and postop clinic, they will be learning not only general orthopaedics but also practice management. The goal is to achieve a coordinated care approach across disciplines between orthopaedics, medicine, and anesthesia.

Rotation Expectations and Opportunities

The VA Orthopaedic service is comprised of a Chief Resident (PGY5), a Junior Resident (PGY2), and an intern (PGY1). In addition there are several midlevels assigned to the team, a facilitator to assist in the scheduling of OR cases/clinics, nurse coordinators to assist in patient care, as well as a clinic lead to help in the management and running of clinic. The residents are supervised by the attending surgeons assigned to the VA orthopaedic service. On average, there will be 2-3 OR days per week, 1-2 days of clinic per week, and ½ day of educational activity / self study (preparing for conferences, review of upcoming cases, independent study).

Monday: OR with Gundle, Wallenberg

Tuesday: OR with Anissian, Berkson

Wednesday: OR with Anissian

Thursday: Anissian Clinic

Friday: Trauma Clinic in AM, Gundle Clinic PM

Residents are expected to prepare for each case. This includes having knowledge of the patient history and exam specific to their hip and/or knee condition, pertinent medical information, knowledge of radiographs, and other information as pertinent. They are expected to have a pre-operative template made in preparation for primary arthroplasty cases and a preoperative plan for all cases.

Residents are expected to direct and supervise learners including medical students, PA students, surgical staff and clinical staff. The chief resident is expected to supervise the PGY2 and PGY1 and the PGY2 is expected to supervise the PGY1.

Generalized Rotation Goals & Mechanisms:

Didactic

- Pre-, mid- and post-rotation meetings to assess expectations and progress of residents.
- Complete weekly reading and discuss with staff
- Complete Basic Science Self-Study questions, achieving a score in accordance with Departmental objectives

Patient Care

- Manage all aspects of arthritis seen in adult patients. This includes appropriate non-operative treatment modalities along with varying surgical treatment options. The resident is responsible for learning and understanding indications of different procedures.
- The resident should learn absolute and relative contra-indications to total joint arthroplasty, and the risks and benefits of proceeding with surgery under various conditions.
- Attain competence in performing a comprehensive evaluation and examination of new and return patients in clinic. Comprehensive and concise history, physical examination, and diagnostic test ordering and interpretation are emphasized.
- Thorough and concise management of post-operative patients during their inpatient stay at PVAMC.

Medical Knowledge

At the conclusion of a rotation, each resident is expected to have a basic understanding of:

- Case based learning, focusing on topically driven reading.
- Pathology behind a variety of conditions that lead to hip and/or knee arthritis: osteoarthritis, osteonecrosis, inflammatory arthritis, post-traumatic arthritis, hip dysplasia, FAI, and varying childhood disorders (LCP, SCFE, MED, PFFD).
- Medical management of hip and knee arthritis prior to surgical intervention.

- Preparation for surgical care by learning surgical approaches, implant options, and reconstruction in the setting of bone loss or fracture.
- Prepare patients for operative and non-operative management and empathetically guide them through the recovery process of each.
- Be thoroughly knowledgeable of basic textbook information and current journal articles on orthopaedic specialties pertinent to this rotation. The core reading focus of all VA rotations is the basic science foundations of general orthopaedic surgery.

Practice-Based Learning and Improvement

- Participate as an assistant in surgical procedures and as primary surgeon where level of skill makes this appropriate. Develop the planning and technical skills to the level that participation as primary surgeon is appropriate on most surgical cases.
- Demonstrate ability to effectively perform preoperative planning for surgical procedures, even complex cases. This includes pre-operative templating.
- Set up an operating room for surgery, including surgical instruments, implants, patient positioning, need for fluoroscopy, etc.
- Understand and direct the role/limitations of Operating personnel: Scrubs, Nurses, Charge nurse, Company representatives, Schedulers, and Surgeons.
- Identify and clearly communicate the indication for every operation prior to scrubbing, to the attending and students as indicated.
- Know the algorithm for several techniques for each indication:
  -Be prepared in advance to complete the operation
  -Understand the choices for anesthesia and indications
  -Be ready to describe how to change course mid-operation, if needed
- Direct and perform the following procedures at the PGY2 level:
  1. Aspiration and Injection of the Knee, shoulder, and elbow joint; injection of Trochanteric bursa
  2. Diagnostic knee and shoulder arthroscopy.
  3. Medial and lateral malleolus fracture ORIF
  4. Primary repair of soft tissue tendon tears around the knee and ankle, such as patellar tendon tear, quadriceps tendon tear and achilles tendon tears.
  5. Hemiarthroplasty of the hip for treatment of hip fracture.
  6. ORIF of hip fracture

  In addition, the PGY5 should feel comfortable teaching the PGY2 how to evaluate and treat a broad variety of orthopedic conditions.

Professionalism

- Learn to organize patient clinic practice while participating in more advance patient evaluation and management activities.
- Actively and competently participate in supervising the educational and clinical activities of the junior level residents (for PGY5s) or medical students (for PGY5s, 2s and 1s).

- Understand the role of the surgeon as part of the health care team and our relationship to the working environment with; Nurses, PA's, PT's, OT's, Orthotists, Patients & Families.
- Model appropriate professional values and behaviors for peers, faculty, and staff.
- Mature in the development of patient care, considering the cost, quality, outcomes, and impact on patient and healthcare system as essential variables in the equation.
- Answer requests in a timely, cordial manner.
- Demonstrate a personal commitment to lifelong reading through completion of reading list and discussing questions with staff and co-residents.
- Demonstrate a personal commitment to professional responsibilities by timely completion of surgical case logs and duty hour reports

Interpersonal and Communication Skills

- The resident is expected on this rotation and all others to interact as a professional and team member with all the other staff and services within the hospital.
- Demonstrate ability to engage in supportive, clear, and compassionate communication with patients and family members.
- The demeanor and tone of the resident in both verbal and nonverbal communication is expected to be exemplary.
- The same communication skills above are expected to be used with the patients and families.
- The residents can and should reach out to the attending staff for any and all patient care and professional concerns. There is always a staff member available in house or on call to address any concerns.

Systems Based Practice

- Develop methods of analyzing complex data and prioritizing principles and issues to solve complex and ill-defined problems related to orthopaedic patient care.
- Demonstrate appropriate judgment, particularly as related to indications for surgical treatment of patients, non-operative treatment options and algorithms.
- Understand the daily business of Medicine/Orthopedic Surgery.
- Develop increasing comfort with the use of clinic and procedural coding.
- Manage the patient and health system to manage a disease/injury in the context of the biopsycho-social model.

Weekly Reading List

Intern (4 weeks)

Week 1: *Orthopaedic Basic Science*, Chapter 3: "Biomechanics of Musculoskeletal Tissues"

Week 2: *Orthopaedic Basic Science,* Chapter 4: "Biomaterials in Orthopaedic Practice"

Week 3: *Orthopaedic Basic Science,* Chapter 26: "Evidence-Based Medicine"

Week 4: *Orthopaedic Basic Science,* Chapter 33: "Biostatistics in Clinical Research"

R2 (10 weeks)

Week 1: *Orthopaedic Basic Science,* Chapter 7: "Thromboembolic Disease & Fat Embolism Syndrome"

Week 2: *Orthopaedic Basic Science,* Chapter 17: "Bone Biology and Engineering"

Week 3: *Orthopaedic Basic Science,* Chapter 21: "The Biologic Response to Orthopaedic Implants"

Week 4: *Orthopaedic Basic Science,* Chapter 6: "Basic Science of Immunology in Orthopaedics"

Week 5: Journal Club

1. Sanders DW, Tieszer C, Corbett B: Operative versus nonoperative treatment of unstable lateral malleolar fractures: a randomized multicenter trial. J Orthop Trauma 26:129–34, 2012
2. Slobogean G, Marra C, Sadatsafavi M, et al. Is Surgical Fixation for Stress-Positive Unstable Ankle Fractures Cost Effective? Results of a Multicenter Randomized Control Trial. J Orthop Trauma. 2012;26(11):652.

Week 6: *Orthopaedic Basic Science,* Chapter 25: "Orthopaedic Infection"

Week 7: *Orthopaedic Basic Science,* Chapter 24: "Molecular Pathophysiology of Musculoskeletal Tumors"

Week 8: Chief selected paper

Week 9: *Orthopaedic Basic Science,* Chapter 27: "The Design of Clinical Investigations"

Week 10: *Orthopaedic Basic Science,* Chapter 28: "Systematic Reviews and Meta-analyses"

R5 (10 weeks)

Week 1: *Orthopaedic Basic Science,* Chapter 9: "Form and Function of Bone"

Week 2: *Orthopaedic Basic Science,* Chapter 10: "Form and Function of Articular Cartilage"

Week 3: *Orthopaedic Basic Science,* Chapter 11: "Form and Function of the Knee Meniscus"

Week 4: *Orthopaedic Basic Science,* Chapter 19: "Articular Cartilage Repair and Regeneration"

Week 5: Journal Club

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Week 6: *Orthopaedic Basic Science,* Chapter 20: "Tendinopathy and Tendon Repair'

Week 7: *Orthopaedic Basic Science,* Chapter 21: "Metabolic Bone Disease"

Week 8: Chief selected paper

Week 9: *Orthopaedic Basic Science,* Chapter 21: "Metabolic Bone Disease"

Week 10: *Orthopaedic Basic Science,* Chapter 23: "Neuromuscular Disorders"