Wayne State University School of Medicine
Department of Orthopaedic Surgery

Orthopaedic Surgery Residency Program - Rotation Goals and Objectives

Adult Reconstruction Rotation – PGY-2

By the end of the PGY-2 rotation in Adult Reconstruction, the resident should be able to:

Medical Knowledge:

1. Based on a careful history and physical exam, the resident will be able to propose a rational approach to the evaluation of patients with pain at various intervals after a total hip replacement.

2. Differentiate the bursal and soft tissue diseases about the hip/knee and then outline a treatment plan during office sessions, clinic and rounds.

3. Distinguish other diseases predisposing to arthritis (Paget's Disease, AVN, Charcot arthropathy, ochronosis) - **optional**.

4. Obtain an accurate history and perform a thorough physical exam on patients with an inflamed knee and knee. They will be able to generate differential diagnosis of this condition with the pertinent positives and negatives of these disorders: rheumatoid arthritis, septic arthritis, acute/chronic osteomyelitis, primary/post traumatic, osteoarthritis, gout, psuedogout, SLE, Reiter's disease, ankylosing spondylitis, PVNS, hemophilia, osteonecrosis. The resident must be able to formulate a plan for the work-up of these patients including laboratory and radiographic evaluation.

5. Explain preoperative planning of standard total hip/knee replacement.

6. Understand the general principles and surgical technique for the cemented/cementless femoral and acetabular components.

7. Understand the classification of acetabular and femoral deficiencies.

8. Understand the classification of tibial and femoral deficiencies about the TKA.

9. Based on a careful history and physical examination, the resident will be able to formulate an approach to the evaluation of patients with pain at various intervals after a total hip and knee replacement.

10. Explain the rationale for implant selection (type, size, and configuration) for primary and revision THA/TKA cases.

11. Understand basic biomaterials issues in total joint arthroplasty. Discuss the following materials and their use in orthopaedic implants: Ceramics, polyethylene, metals, and methyl methacrylate.

12. Understand the perioperative considerations for THA and TKA including: preoperative medical evaluation; blood conservation; DVT prophylaxis; and rehabilitation.

13. Understand the principles of femoral and pelvic osteotomies and be able to draw accurate preoperative plans for the procedure.

Patient Care:

1. Remove complex hardware around the hip and knee.

2. Evaluate the painful total hip arthroplasty.

3. Summarize the indications for hip/knee arthrodesis and illustrate the techniques commonly used.

4. Describe the indications for a resection arthroplasty and synovectomy of the hip.

Professionalism:

1. Be on-time for all clinical responsibilities.

2. Adhere to HIPPA requirements and confidentiality.

3. Respect the specific needs of his/her patients based on age, gender, race, and culture in formulating treatment plans.

4. Demonstrate respectful collaboration with their peers and allied health staff.

Interpersonal and Communication Skills:

1. Demonstrate the ability to elicit the presence and location of physical symptoms with cognitively impaired patients.

2. Discuss functional prognosis of the patient and family with attention to their educational, social, and personal beliefs.

3. Provide adequate written and verbal communication to peers, attendings, allied health professionals, and consultants so that they may continue the plan of care in an effective manner when the resident is absent from the floor or service.

4. Maintain comprehensive, timely, and legible medical records.

Practice-Based Learning:

1. Develop a personal program of self-study and professional growth with guidance from a faculty advisor. An understanding of the etiology, pathogenesis, pathophysiology, diagnosis and management of orthopaedic disorders is absolutely necessary.

2. Present on an Orthopaedic Surgery topic within one month following the specific rotation.

Systems-Based Practice:

1. Follow Hospital guidelines when completing all discharge and operating room reports.

2. Follow the established practices, procedures, and policies of the Department and integrated and affiliated hospitals.

Wayne State University School of Medicine
Department of Orthopaedic Surgery

Orthopaedic Surgery Residency Program - Rotation Goals and Objectives

Adult Reconstruction Rotation – PGY-4

By the end of the PGY-4 rotation in Adult Reconstruction, the resident should be able to:

Medical Knowledge:

1. Organization and Advanced Clinical Accumen.

    a. Organize a systematic evaluation of these disorders including radiographic, laboratory tests, and appropriate ancillary studies.

    b. Based on the information, the orthopaedic resident will be able to formulate a differential diagnosis and propose a treatment plan for these disorders: osteoarthritis (1o and 2o), rheumatoid arthritis, seronegative arthritis (AS, Reiters, psoriatic, IB related), septic arthritis, osteomyelitis, PVNS, hemophilic arthropathy, osteonecrosis, and Charcot arthropathy.

    c. Explain the indications for knee fusion and be familiar with various methods of fusion.

    d. Distinguish non-suppurative joint infections (fungal, tuberculosis, viral) and to recognize less common forms of secondary osteoarthritis (post-septic, Paget's Disease, hemochromatosis).

    e. Evaluate and propose treatment for patients with anterior knee pain.

    f. Understand preoperative planning for revision total hip arthroplasty

    g. Know how to evaluate patients with painful THA's and make appropriate judgements based on data obtained from ancillary studies. The Senior Resident will be expected to be able to present the problem, analyze the data, and select a plan of action for these patients.

2. Complications: Management and Avoidance.

    a. Know the early complications after THA/TKA and their management.

    b. Know the late complications after THA/TKA and their management.

    c. Evaluate patients with painful total joint arthroplasty and make appropriate judgements based on history, physical exam and ancillary studies. The Senior Resident will be expected to be able to present the problem, analyze the data, and select a plan of action for these patients at the Preoperative Evaluation Conferences.

    d. Understand the treatment options for the infected THA/TKA including two-stage reconstruction.

    e. Thoroughly comprehend arthroplasty complications and be able to formulate an approach to the treatment (and prevention) of these problems.

    f. Understand the management and surgical approach to periprosthetic fractures about THA and TKA.

    g. Understand the techniques for the surgical treatment of osteolysis about the primary THA and TKA.

3. Physiology, Implant Biology and Advanced Biomechanics.

    a. Understand the immediate and long-term interactions between host bone and implants, bone remodeling and its implications about the THA (eg. calcar resorption – cementless stem ingrowth) and TKA.

    b. Understand the biologic response to wear debris and be able to differentiate these from bone response to implants (osteolysis versus resorption).

    c. Understand the tribiology (wear issues) associated with total joint arthroplasty.

    d. Understand the design rational for THA and TKA implants as pertains to common complications (PF groove, elevated lip liners, anatomic versus straight stems, etc).

    e. Understand the biomechanics of a TKA and osteotomy about the knee.

f. Describe the pathogenesis of implant loosening (lysis, membrane formation, enzyme elevation) at the cement-bone and metal- cement interfaces.

g. Discuss the principles and biomechanics of osteotomies about the hip/knee.

h. Have a thorough understanding of the design rational for THA and TKA implants.

i. Have a thorough understanding of the use and indications of the primary cementless femoral component including: cementless femoral components (modular); cementless femoral component (extensively coated); hydroxyapatite coated implants; proximal fixation of the non-cemented stem; and the tapered femoral component.

j. Understand the application of allografts for THA/TKA surgery.

k. Thoroughly comprehend the principles of THA including: offset, leg length, range of motion, stability, and templating.

Patient Care:

1. Preoperatively plan for a cemented or cementless THA/TKA, and be able to competently perform uncomplicated THA/TKA surgery.
2. Perform amputations about the knee pre and post arthroplasty.
3. Perform various parts of standard revision THA/TKA, complex THA/TKA, and revision of the septic THA/TKA procedures.
4. Perform femoral allografting (intercalary or interpositional).
5. Reduce a dislocated hip and should know how to manipulate a hip under anesthesia to determine the stable range of motion.
6. Formulate an operative and non-operative plan of action to address the unstable THA.
7. Perform a complicated synovectomy about the THA/TKA.
8. Plan and carry out a successful cemented, hybrid, and cementless standard primaryTHA.
9. Preoperatively plan for and competently perform complicated THA surgery including: THA in the posttraumatic patient; complex primary acetabular replacement; complex primary femoral replacement; and hip fractures treated by arthroplasty.
10. Preoperatively plan for and competently perform complicated TKA surgery including: RA, flexion contractures, varus or valgus deformities.
11. Perform soft tissue releases about the knee to correct severe varus/valgus deformities with TKA.
12. Have the surgical skill to balance the flexion and extension gaps during TKA.
13. Plan for revision THA/TKA (including 2 stage for sepsis) and should be able to perform parts of this surgery.
14. Plan for and perform parts of revision of the femoral THA component utilizing cemented, uncemented, and extensively coated modular implants with or without bulk allografts and struts or impaction grafting techniques.
15. Plan for and perform parts of revision of the acetabulum by cementless acetabular reconstruction, structural grafting, bone packing and using cement with all polyethylene components and acetabular cages.
16. Perform a complete synovectomy in the revision THA/TKA.
17. Plan the approach for excision of heterotopic bone and carry out the procedure.
18. Plan for a femoral or pelvic osteotomy and be able to understand the approach and technique of this surgery.
19. Perform most of a hip/knee fusion.
20. Have developed not only competence in amputation surgery about the knee but also be able to discuss the rationale for amputation at various levels and the prosthetic options for this level.
21. Have and select the optimal flap to deal with soft tissue problems (eg. delayed healing, infection) after TKA.
22. Understand and be able to do parts of removal of failed hip and knee components and retained cement mantel.
23. Understand the principles, exposure and techniques of complex THA/TKA Reconstructions.

24. Understand the indications and techniques for the adjunct procedures used to treat AVN (eg. bone graft, vascularized bone graft).
25. Know the indications for, and the techniques of, soft tissue releases and neurectomy about the hip.
26. Know the principles and the application of using autografts and allografts for the defects associated with THA/TKA.
27. Be able to state the principles of osteotomy for medial and lateral compartment arthritis.
28. Should be competent in planning these cases and demonstrate proficiency in performing distal femoral or upper tibial osteotomies.

Professionalism:

1. Be on-time for all clinical responsibilities.
2. Adhere to HIPPA requirements and confidentiality.
3. Respect the specific needs of his/her patients based on age, gender, race, and culture in formulating treatment plans.
4. Demonstrate respectful collaboration with their peers and allied health staff.

Interpersonal and Communication Skills:

1. Demonstrate the ability to elicit the presence and location of physical symptoms with cognitively impaired patients.
2. Discuss functional prognosis of the patient and family with attention to their educational, social, and personal beliefs.
3. Provide adequate written and verbal communication to peers, attendings, allied health professionals, and consultants so that they may continue the plan of care in an effective manner when the resident is absent from the floor or service.
4. Act in a consultative role to other physicians and health professionals.
5. Maintain comprehensive, timely, and legible medical records.

Practice-Based Learning:

1. Develop a personal program of self-study and professional growth with guidance from a faculty advisor. An understanding of the etiology, pathogenesis, pathophysiology, diagnosis and management of orthopaedic surgical disorders is absolutely necessary.
2. The resident will demonstrate both a willingness and effectiveness in teaching medical students and peers.
3. The resident will present on an Orthopaedic Surgery topic within one month following the specific rotation.
4. The resident will locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems.
5. The resident will use information technology to optimize learning.
6. The resident will systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement.

Systems-Based Practice:

1. Demonstrate an understanding of the cost/benefit of prescriptions and tests ordered.
2. Justify continued LOS in an acute care setting based on clinical findings and available benchmark data or a prescription for DME or pharmaceuticals to a 3rd party payor.
3. Follow Hospital guidelines when completing all discharge and operating room reports.
4. Understand how the health care organization affects surgical practice.
5. Follow the established practices, procedures, and policies of the Department and integrated and affiliated hospitals.

Wayne State University School of Medicine
Department of Orthopaedic Surgery

Orthopaedic Surgery Residency Program - Rotation Goals and Objectives

General Orthopaedics Rotation – PGY-3

By the end of the PGY-3 rotation in General Orthopaedics, the resident should be able to:

Medical Knowledge:

1. Know the appropriate local anesthesia or conscious sedation for the safety and comfort of the patient during emergency room orthopaedic procedures.

2. Understand the necessary elements of the examination of the orthopaedic patient in the office or clinic setting, including the elicitation of an appropriate history, physical examination techniques, imaging studies, and necessary laboratory studies.

3. Understand the treatment options available to the patient based on pertinent findings of the patient assessment.

4. Understand the short and long term outpatient follow-up for patients as appropriate to their conditions.

5. Understand the limits of his/her own knowledge, of the available facilities in managing orthopaedic patients, and arrange consultation with more experienced or specialized personnel and appropriate facilities as needed.

Patient Care:

1. Demonstrate the ability to effectively manage the responsibilities of call duty.

2. Demonstrate the assessment and management of orthopaedic injuries and illnesses commonly encountered in the emergency room, including appropriate physical and imaging examinations, recognition of important features of the condition, and the appropriate type of procedure required for initial treatment.

3. Demonstrate the manual techniques for initial management of commonly encountered orthopaedic and hand problems in the emergency room (i.e., reduction of fractures and dislocations, treatment of lacerations involving joint or tendon, examination of soft tissue injuries of joint or muscle, and aspiration of joint or fluid collection.

4. Demonstrate appropriate immobilization and dressing techniques for commonly encountered orthopaedic problems.

5. Evaluate emergency room patients and effectively triage patients having injuries of illnesses that are considered to be orthopaedic emergencies (i.e., acute or imminent septic disease, infections, open fractures, compartment syndrome, etc.)

6. Demonstrate physical examination techniques appropriate to the patient's chief complaint and history, and arrange further studies as needed.

7. Perform a basic interpretation of imaging and laboratory study findings in the context of the patient's history and examination.

8. Demonstrate the appropriate pre-operative work-up of orthopaedic patients, including a problem-focused orthopaedic physical examination, functional assessment, and imaging studies.

9. Perform an appropriate screening pre-operative history and physical examination, and refer for further studies as needed for pre-operative clearance for the procedure in question.

10. Participate in the definitive management, including surgical intervention when appropriate, of conditions commonly encountered by the general orthopaedist (i.e., traumatic injuries of the spine and extremities, arthritic conditions involving the spine and extremities, orthopaedic infections, acute and chronic athletic injuries involving bone, muscle, ligament, and tendons).

11. Evaluate and determine appropriate interventions for the orthopaedic and post-operative issues that arise in the care of post-operative patients (i.e., pain control, bleeding and drainage, fevers, traction and post operative stabilization).

12. Recommend and arrange as necessary, appropriate post-operative of post-procedure care, including pain control , activity status including immobilization and/or therapeutic exercise, wound management and appropriate nursing or custodial care for orthopaedic patients upon discharge.

Professionalism:

1. Be on-time for all clinical responsibilities.
2. Adhere to HIPPA requirements and confidentiality.
3. Respect the specific needs of his/her patients based on age, gender, race, and culture in formulating treatment plans.
4. Demonstrate respectful collaboration with their peers and allied health staff.

Interpersonal and Communication Skills:

1. Demonstrate the ability to elicit the presence and location of physical symptoms with cognitively impaired patients.
2. Discuss functional prognosis of the patient and family with attention to their educational, social, and personal beliefs.
3. Provide adequate written and verbal communication to peers, attendings, allied health professionals, and consultants so that they may continue the plan of care in an effective manner when the resident is absent from the floor or service.
4. Maintain comprehensive, timely, and legible medical records.

Practice-Based Learning:

1. Develop a personal program of self-study and professional growth with guidance from a faculty advisor. An understanding of the etiology, pathogenesis, pathophysiology, diagnosis and management of orthopaedic disorders is absolutely necessary.
2. Present on an Orthopaedic Surgery topic within one month following the specific rotation.

Systems-Based Practice:

1. Follow Hospital guidelines when completing all discharge and operating room reports.
2. Follow the established practices, procedures, and policies of the Department and integrated and affiliated hospitals.

Wayne State University School of Medicine
Department of Orthopaedic Surgery

Orthopaedic Surgery Residency Program - Rotation Goals and Objectives

General Orthopaedics Rotation – PGY-5

By the end of the PGY-5 rotation in General Orthopaedics, the resident should be able to:

Medical Knowledge:

1. Know the appropriate local anesthesia or conscious sedation for the safety and comfort of the patient during emergency room orthopaedic procedures.

2. Understand the necessary elements of the examination of the orthopaedic patient in the office or clinic setting, including the elicitation of an appropriate history, physical examination techniques, imaging studies, and necessary laboratory studies.

3. Understand the treatment options (operative and non-operative, where appropriate) available to the patient based on pertinent findings of the patient assessment and be able to explain the pros and cons of the options to the patients and family, and recommend appropriate care of the patient's condition.

4. Understand the short and long term outpatient follow-up for patients as appropriate to their conditions.

5. Understand the limits of his or her own knowledge, of the available facilities in managing orthopaedic patients, and arrange consultation with more experienced or specialized personnel and appropriate facilities as needed.

Patient Care:

1. Instruct and supervise the junior residents in the performance of the goals and objectives of the junior residents.

2. Instruct and supervise the junior residents in the appropriate techniques for general orthopaedic procedures.

3. Demonstrate the ability to effectively manage the responsibilities of call duty, including supervision and instruction of the junior residents.

4. Demonstrate the assessment and management of orthopaedic injuries and illnesses commonly encountered in the emergency room, including appropriate physical and imaging examinations, recognition of important features of the condition, and the appropriate type of procedure required for initial treatment.

5. Demonstrate the manual techniques for initial management of commonly encountered orthopaedic and hand problems in the emergency room (i.e., reduction of fractures and dislocations, treatment of lacerations involving joint or tendon, examination of soft tissue injuries of joint or muscle, and aspiration of joint or fluid collection.

6. Demonstrate appropriate immobilization and dressing techniques for commonly encountered orthopaedic problems.

7. Instruct and consult on the evaluation of emergency room patients and oversee the effective triage patients having injuries of illnesses that are considered to be orthopaedic emergencies (i.e., acute or imminent septic disease, infections, open fractures, compartment syndrome, etc.).

8. Demonstrate physical examination techniques appropriate to the patient's chief complaint and history, and arrange further studies as needed.

9. Perform a basic interpretation of imaging and laboratory study findings in the context of the patient's history and examination.

10. Demonstrate the appropriate pre-operative work-up of orthopaedic patients, including the appropriate problem-focussed orthopaedic physical examination, functional assessment, and imaging studies.

11. Perform an appropriate screening pre-operative history and physical examination, and refer for further studies as needed for pre-operative clearance for the procedure in question.

12. Participate in the definitive management, including surgical intervention when appropriate, of conditions commonly encountered by the general orthopaedist (i.e., traumatic injuries of the spine and extremities, arthritic conditions involving the spine and extremities, orthopaedic infections, acute and chronic athletic injuries involving bone, muscle, ligament, and tendons).

13. Evaluate and determine appropriate interventions for the orthopaedic and post-operative issues that arise in the care of post-operative patients (i.e., pain control, bleeding and drainage, fevers, traction and post operative stabilization).

14. Recommend and arrange as necessary, appropriate post-operative of post-procedure care, including pain control , activity status including immobilization and/or therapeutic exercise, wound management and appropriate nursing or custodial care for orthopaedic patients upon discharge.

Professionalism:

1. Be on-time for all clinical responsibilities.

2. Adhere to HIPPA requirements and confidentiality.

3. Respect the specific needs of his/her patients based on age, gender, race, and culture in formulating treatment plans.

4. Demonstrate respectful collaboration with their peers and allied health staff.

Interpersonal and Communication Skills:

1. Demonstrate the ability to elicit the presence and location of physical symptoms with cognitively impaired patients.

2. Discuss functional prognosis of the patient and family with attention to their educational, social, and personal beliefs.

3. Provide adequate written and verbal communication to peers, attendings, allied health professionals, and consultants so that they may continue the plan of care in an effective manner when the resident is absent from the floor or service.

4. Act in a consultative role to other physicians and health professionals.

5. Maintain comprehensive, timely, and legible medical records.

Practice-Based Learning:

1. Develop a personal program of self-study and professional growth with guidance from a faculty advisor. An understanding of the etiology, pathogenesis, pathophysiology, diagnosis and management of orthopaedic surgical disorders is absolutely necessary.

2. The resident will demonstrate both a willingness and effectiveness in teaching medical students and peers.

3. The resident will present on an Orthopaedic Surgery topic within one month following the specific rotation.

4. The resident will locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems.

5. The resident will use information technology to optimize learning.

6. The resident will systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement.

Systems-Based Practice:

1. Demonstrate an understanding of the cost/benefit of prescriptions and tests ordered.

2. Justify continued LOS in an acute care setting based on clinical findings and available benchmark data or a prescription for DME or pharmaceuticals to a 3rd party payor.

3. Follow Hospital guidelines when completing all discharge and operating room reports.

4. Understand how the health care organization affects surgical practice.

5. Follow the established practices, procedures, and policies of the Department and integrated and affiliated hospitals.

Wayne State University School of Medicine
Department of Orthopaedic Surgery

Orthopaedic Surgery Residency Program - Rotation Goals and Objectives

Foot and Ankle Rotation – PGY-3

By the end of the PGY-3 rotation in Foot and Ankle Surgery, the resident should be able to:

Medical Knowledge:

1. Understand the gross anatomy and histology of the normal foot.
2. Understand the kinematics, kinetics, and wear characteristics of adult foot and ankle biomechanics.
3. Understand neuromuscular and neurologic diseases as they apply to the foot and ankle (i.e., ALS, CP, CVA, CMT, Diabetes Mellitus, Myelodysplasia, etc).
4. Understand localized entrapment neuropathies such as anterior tarsal tunnel, digital nerve compression, Morton's neuroma, and sural nerve compression.
5. Understand circulatory disturbances such as arterial aneurysm, distal arterial occlusive disease, lymphedema, and thrombosis.
6. Understand the dermatologic and nail disorders of the nail and adjacent soft tissue.
7. Understand common tumors of the foot and ankle such as giant cell tumors, fibroma, ganglion, lipoma, etc.
8. Understand infectious and noninfectious inflammatory disorders of the foot and ankle such as bursitis and plantar fascitis.
9. Understand the principles and complications of rheumatoid foot and ankle.
10. Understand the examination, diagnosis, and evaluation of hallux valgus, hallux rigidus, hallux varus, and metatarsus primus varus.
11. Understand and identify the different types of forefoot and toe deformities.
12. Understand gout and periarticular alterations such as calcific deposits, subtalar arthrodesis, metatarsal head resection, and ankle joint arthrodesis.
13. Understand and identify the different types of foot and ankle fractures and dislocations
14. Understand hindfoot pathology such as calcaneal spurs, fascitis, bursitis, Achilles tendonitis, varus, valgus of the heel.
15. Understand and identify stress fractures of the fibula, metatarsals, navicular, and tibia.
16. Understand the treatment of adult clubfoot.
17. Understand the etiology and treatment of cavus foot
18. Understand the classification, roentgenographic evaluation, and treatment (both operative and non operative) of flatfoot or pes planus.
19. Understand ligament reconstruction of the ankle.

Patient Care:

1. Interpret plain radiographs, CAT scans, MR Imaging, etc.
2. Perform procedures related to the forefoot (i.e., partial matrixectomy, resection of tailor's bunion, bunionectomy, removal of interdigital neuroma, hallux interphalangeal fusion with tendon transfer).
3. Perform procedures related to the rearfoot (i.e., triple arthrodesis, resection of Haglund's deformity, tarsal tunnel release, plantar fascial stripping, achilles tendon repair).
4. Perform procedures related to the ankle such as ankle arthroscopy, repair of OCD of the talus, and ankle fusion.

5. Perform amputations (i.e., digital disarticulation, Syme's amputation, Lisfranc's amputation, Chopart's amputation, below knee amputation, calcanectomy.

6. Perform trauma procedures related to the foot and ankle (i.e., ORIF of displaced phalangeal fractures, ORIF of Lisfranc fracture dislocation, ORIF of talar fractures, etc.).

Professionalism:

1. Be on-time for all clinical responsibilities.

2. Adhere to HIPPA requirements and confidentiality.

3. Respect the specific needs of his/her patients based on age, gender, race, and culture in formulating treatment plans.

4. Demonstrate respectful collaboration with their peers and allied health staff.

Interpersonal and Communication Skills:

1. Demonstrate the ability to elicit the presence and location of physical symptoms with cognitively impaired patients.

2. Discuss functional prognosis of the patient and family with attention to their educational, social, and personal beliefs.

3. Provide adequate written and verbal communication to peers, attendings, allied health professionals, and consultants so that they may continue the plan of care in an effective manner when the resident is absent from the floor or service.

4. Maintain comprehensive, timely, and legible medical records.

Practice-Based Learning:

1. Develop a personal program of self-study and professional growth with guidance from a faculty advisor. An understanding of the etiology, pathogenesis, pathophysiology, diagnosis and management of orthopaedic disorders is absolutely necessary.

2. Demonstrate both a willingness and effectiveness in teaching medical students and peers.

3. Present on an Orthopaedic Surgery topic within one month following the specific rotation.

Systems-Based Practice:

1. Follow Hospital guidelines when completing all discharge and operating room reports.

2. Follow the established practices, procedures, and policies of the Department and integrated and affiliated hospitals.

Wayne State University School of Medicine
Department of Orthopaedic Surgery

Orthopaedic Surgery Residency Program - Rotation Goals and Objectives

Hand Surgery Rotation – PGY-2

By the end of the PGY2 rotation in Hand Surgery, the resident should be able to:

Medical Knowledge:

1. Understand the anatomy and pathophysiology of the Intrinsic Muscles and Digital Extensor Mechanism, including the following: extrinsic extensor mechanism, interosseous muscles, lumbrical muscles, and hypothenar muscles.

2. Understand hand evaluation and anesthesia for operative hand procedures, including the following: history, equipment needed, examination itself, metacarpal block, wrist block of the median, ulnar and radial nerves, blocks around the elbow, regional block, brachial plexus block, supraclavicular block, interscalene block, subclavian perivascular approach, infraclavicular block, and axillary block.

3. Understand Compressive Neuropathies of the Upper Extremities, including the following: common compressive neuropathies, pathogenesis, history, carpal tunnel syndrome, pronator syndrome, anterior interosseous syndrome, ulnar tunnel syndrome, cubital tunnel syndrome, radial nerve, radial tunnel syndrome, posterior interosseous syndrome, thoracic outlet syndrome, and cervical root compression.

4. Understand and recognize the various infections of the hand including such aspects as etiologic factors, general considerations, and antibiotic therapy.

5. Understand and recognize specific hand infections such as pulp abscess, cellulitis, paronychia, pyogenic arthritis, web space abscess, acute suppurative tenosynovitis, furuncle, herpetic whitlow, bites, erysipeloid.

6. Understand and the etiology, pathophysiology, anatomy, treatment, surgical technique, and diagnosis of compartment syndromes.

7. Understand how to diagnose fractures of the hand.

8. Understand the anatomy of the wrist and wrist mechanics.

9. Understand the treatment of fractures and ligament injuries of the wrist.

10. Understand the etiology, diagnosis and treatment of tenosynovitis of the hand and forearm.

11. Understand the characteristics, pathogenesis, diagnostic features, and management of ostearthritis of the hand and wrist.

12. Understand the characteristics, history, pathogenesis, management, and indications for surgery of rheumatoid arthritis.

13. Understand the etiology, embryology, classification, and treatment for congenital anomalies of the hand such as short below elbow deficiency, phocomelia, barchydactyly, radial deficiency, ulnar deficiency, cleft hand, syndactyly, trigger thumb, etc.

14. Understand the reasons for splinting, splinting principles, the types of splinting, and the indications.

15. Understand the types of nail and nailbed injuries, the importance of the nail and the principles of treatment for these injuries.

16. Recognize the different types of benign tumors of the hand and wrist such as ganglion, lipomas, benign giant cell tumors, epidermal cysts, etc.

17. Understand the principles, definition, indications, and prerequisites of tendon transfers to the hand.

Patient Care:

1. Perform incision and draining procedures such as paronychia, felon, finger abscesses, and suppurative flexor tenosynovitis.

2. Perform open and closed treatment of extra-articular fractures of the finger, hand, wrist, and forearm.

Professionalism:

1. Be on-time for all clinical responsibilities.

2. Adhere to HIPPA requirements and confidentiality.

3. Respect the specific needs of his/her patients based on age, gender, race, and culture in formulating treatment plans.

4. Demonstrate respectful collaboration with their peers and allied health staff.

Interpersonal and Communication Skills:

1. Demonstrate the ability to elicit the presence and location of physical symptoms with cognitively impaired patients.

2. Discuss functional prognosis of the patient and family with attention to their educational, social, and personal beliefs.

3. Provide adequate written and verbal communication to peers, attendings, allied health professionals, and consultants so that they may continue the plan of care in an effective manner when the resident is absent from the floor or service.

4. Maintain comprehensive, timely, and legible medical records.

Practice-Based Learning:

1. Develop a personal program of self-study and professional growth with guidance from a faculty advisor. An understanding of the etiology, pathogenesis, pathophysiology, diagnosis and management of orthopaedic disorders is absolutely necessary.

2. Present on an Orthopaedic Surgery topic within one month following the specific rotation.

Systems-Based Practice:

1. Follow Hospital guidelines when completing all discharge and operating room reports.

2. Follow the established practices, procedures, and policies of the Department and integrated and affiliated hospitals.

Wayne State University School of Medicine
Department of Orthopaedic Surgery

Orthopaedic Surgery Residency Program - Rotation Goals and Objectives

Hand Surgery Rotation – PGY-5

By the end of the PGY-5 rotation in Hand Surgery, the resident should be able to:

Medical Knowledge:

1. Understand the embryology, anatomy, and evaluation of vascular disorders of the hand such as tumors, thrombosis, aneurysms, cannulation injuries, etc.

2. Understand the evaluations, management objectives, pathophysiology, burn depth, complications, prognostic factors, and treatment of burns and high pressure injection injuries.

3. Understand the anatomy and pathophysiology of the intrinsic muscles and digital extensor mechanism, including the following: extrinsic extensor mechanism, interosseous muscles, lumbrical muscles, and hypothenar muscles.

4. Understand hand evaluation and anesthesia for operative hand procedures, including the following: history, equipment needed, examination itself, metacarpal block, wrist block of the median, ulnar and radial nerves, blocks around the elbow, regional block, brachial plexus block, supraclavicular block, interscalene block, subclavian perivascular approach, infraclavicular block, and axillary block.

5. Understand Compressive Neuropathies of the Upper Extremities, including the following: common compressive neuropathies, pathogenesis, history, carpal tunnel syndrome, pronator syndrome, anterior interosseous syndrome, ulnar tunnel syndrome, cubital tunnel syndrome, radial nerve, radial tunnel syndrome, posterior interosseous syndrome, thoracic outlet syndrome, and cervical root compression.

6. Understand and recognize specific hand infections such as pulp abscess, cellulitis, paronychia, pyogenic arthritis, web space abscess, acute suppurative tenosynovitis, furuncle, herpetic whitlow, bites, and erysipeloid with attention to etiology and treatment.

7. Understand the diagnostic and treatment options for fractures of the hand.

8. Understand the principles of amputations and replantations, including definitions, instrumentation, preparation of amputated part, viability factors, surgical technique, vessel repair, postoperative care, failing replant, contraindications, and levels of amputation.

9. Understand the anatomy of the wrist and wrist mechanics.

10. Understand the treatment of fractures and ligament injuries of the wrist (i.e., scaphoid, progressive perilunate dislocation, Lunate-Kienbock's Disease, carpal instability).

11. Understand the characteristics, pathogenesis, diagnostic features, and management of osteoarthritis of the hand and wrist.

12. Understand the etiology, pathophysiology, anatomy, treatment, surgical techiques, and diagnosis of compartment syndromes.

13. Understand the history, features, etiology, anatomy, pathology, treatment, and long-term results of Depuytren's Disease.

14. Understand the anatomy, goals, treatment principles, and treatment methods for skin coverage of the fingertip and hand wounds.

15. Understand the types of nail and nailbed injuries, the importance of the nail and the principles of treatment for these injuries.

16. Understand the selection process for definitive coverage and the methods of coverage of fingertip and hand wounds.

17. Understand the anatomy, physiology, classification, and nerve regeneration and repair of peripheral nerves.

18. Understand the principles, definition, indications, and prerequisites of tendon transfers to the hand.

19. Understand the etiology, diagnosis and treatment of tenosynovitis of the hand and forearm.

20. Understand the characteristics, history, pathogenesis, management, and indications for surgery of rheumatoid arthritis

21. Understand the etiology, embryology, classification, and treatment for congenital anomalies of the hand such as short below elbow deficiency, phocomelia, brachydactyly, radius deficiency, ulnar deficiency, cleft hand, syndactyly, trigger thumb, etc.

22. Understand the reasons for splinting, splinting principles, the types of splinting, and the indications for splinting.
23. Recognize the different types of benign tumors of the hand and wrist such as ganglion, lipomas, benign giant cells, epidermal cysts, etc.
24. Understand the pathophysiology, clinical presentation, classification, testing, treatment, and prevention of the painful upper extremity.

Patient Care:

1. Perform incision and draining procedures such as paronychia, felon, finger abscesses, and suppurative flexor tenosynovitis.
2. Perform primary and delayed primary repair of extensor tendons (i.e., finger, hand, wrist, forearm).
3. Determine anesthesia for finger, hand, and wrist surgeries.
4. Perform nerve decompression of the wrist, forearm, and elbow (median nerve, ulnar nerve, radial nerve).
5. Perform split thickness skin grafting, fasciotomies/escharatomies of the finger, hand, forearm, and arm.
6. Perform amputation of the following: digits, hand, wrist, forearm, elbow, arm, shoulder level.
7. Perform open and closed treatment of intra and extra-articular fractures of the finger, hand, wrist, and forearm.
8. Perform decompression and tenosynovectomy of the flexor and extensor tendons due to stenosing tenosynovitis or rheumatoid tenosynovitis.
9. Perform surgical treatment of arthritis (finger small joint fusion technique, thumb reconstruction, wrist OA, etc.).
10. Perform partial or radical facieotomies, wound closure with Z-plasty, and skin grafting as it relates to Depuytren's disease.
11. Perform procedures realted to nail bed repairs and coverage of finger and hand wounds (i.e., STSG, FTSG, cross finger flap, thenar flap, etc.).
12. Perform nerve repairs with or without grafting and transposition.
13. Perform flexor tendon repair at zones 1-5 and primary or delayed primary repair.
14. Successful completion of the microsurgery course in technique and surgical sequence of replantation of the digit, hand, wrist, forearm, and arm.

Professionalism:

1. Be on-time for all clinical responsibilities.
2. Adhere to HIPPA requirements and confidentiality.
3. Respect the specific needs of his/her patients based on age, gender, race, and culture in formulating treatment plans.
4. Demonstrate respectful collaboration with their peers and allied health staff.

Interpersonal and Communication Skills:

1. Demonstrate the ability to elicit the presence and location of physical symptoms with cognitively impaired patients.
2. Discuss functional prognosis of the patient and family with attention to their educational, social, and personal beliefs.
3. Provide adequate written and verbal communication to peers, attendings, allied health professionals, and consultants so that they may continue the plan of care in an effective manner when the resident is absent from the floor or service.
4. Act in a consultative role to other physicians and health professionals.
5. Maintain comprehensive, timely, and legible medical records.

Practice-Based Learning:

1. Develop a personal program of self-study and professional growth with guidance from a faculty advisor. An understanding of the etiology, pathogenesis, pathophysiology, diagnosis and management of orthopaedic surgical disorders is absolutely necessary.
2. The resident will demonstrate both a willingness and effectiveness in teaching medical students and peers.

3. The resident will present on an Orthopaedic Surgery topic within one month following the specific rotation.

4. The resident will locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems.

5. The resident will use information technology to optimize learning.

6. The resident will systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement.

Systems-Based Practice:

1. Demonstrate an understanding of the cost/benefit of prescriptions and tests ordered.

2. Justify continued LOS in an acute care setting based on clinical findings and available benchmark data or a prescription for DME or pharmaceuticals to a 3rd party payor.

3. Follow Hospital guidelines when completing all discharge and operating room reports.

4. Understand how the health care organization affects surgical practice.

5. Follow the established practices, procedures, and policies of the Department and integrated and affiliated hospitals.

Wayne State University School of Medicine
Department of Orthopaedic Surgery

Orthopaedic Surgery Residency Program - Rotation Goals and Objectives

Pediatric Orthopaedics Rotation – PGY-2

By the end of the PGY-2 rotation in Pediatric Orthopaedics, the resident should be able to:

Medical Knowledge:

1. Know the appropriate local anesthesia or conscious sedation for the safety and comfort of the pediatric patient during office orthopaedic procedures.

2. Understand the special elements of the initial and follow-up examination of the pediatric orthopaedic patient in the office or clinic setting, including working with families, the non-verbal child, the child with developmental disabilities, and adolescents.

3. Understand normal and abnormal growth and development, including embryology, osseous growth, muscular growth, growth rate, developmental milestones, and timing, especially secondary sexual characteristics.

4. Introduction of skeletal dysplasias including defects of tubular bone (achondroplasia, MED, SED), disorganized cartilage and/or fibrous components (Ollier's), and local or regional malformations of bone.

5. Understand the characteristics, pathogenesis, diagnostic features, and management of constitutional diseases with bone pathology (rickets, mucopolysaccah, Ca/Phosphorous disorders), metabolic (rickets, osetomal, renal osteodys, hypophosphates, parathyroid, thyroid, heavy metal, juvenile osteoporosis, hypervitamin, scurvy, infectious hyperostos), connective tissues (Ehlors Danlos, Marfan's, Down's), and short stature.

6. Understand the etiology, embryology, classification, diagnosis, and treatment of genetic disorders, including autosomal dominant, autosomal recessive, sex-linked dominant, sexlinked recessive, chromosomal disorders, and multifactorial disorders. Be able to identify which diseases can be identified through amniocentesis.

7. Understand the etiology, diagnosis, and treatment of hematologic disorders (Gaucher's hemoglobinopathies, hemophilia) neoplasia (cysts, fibrous cort, EG), chondroblastoma, giant cell tumor, Ewing's, osteosarcoma, fibrous dysplasia, soft tissue sarcoma.

8. Understand the characteristics, pathogenesis, diagnostic features, and management of muscular dystrophies (Duchenne, Becker, limb Girdle, FSH, cong dyst, hypotonic, myotonic, cong myopath), inflammatory myopathies (polio, SMA, HMSNs), myelodysplasia, spondyloarthropathies, cervical spine (cong malform, hypermobility), and spinal deformities (scoliosis, kyphosis, spondylosis, and spondylolisthesis.).

9. Understand underlying processes with upper limb (deficiencies and malformations), hop (CDH, coxa vara, synovitis, Legg Perthes, idio chondrolysis), leg length descrepancies, lower limb (congenital deficiencies, cong pseudoarth, posteromedial bow, patellofemoral, Osgood Schlotter's, congenital disl/sub, clubfoot, cong vert talus, postural deformations, polydactyly).

10. Understand clinical manifestations and treatment of gait disorders and fractures.

11. Understand the characteristics, history, pathogenesis, management, and indications for surgery of various head trauma.

Patient Care:

1. Interpret and synthesize patient history, clinical exam, and diagnostic tests into a differential diagnosis for the conditions listed above.

2. Interpretation of various laboratories, radiologic, and other diagnostic tests for the conditions listed above.

3. Plan appropriate surgery based upon the diagnosis and clinical findings.

4. Perform or assist in surgical procedures required to address the conditions listed above (i.e. scoliosis surgery, limb length problems, tumors, fracture care, neuromuscular disease, cerebral palsy, myelomeningocele, developmental deformities, DDH, Legg-Perthes Disease, and congenital anomalies.

Professionalism:

1. Be on-time for all clinical responsibilities.

2. Adhere to HIPPA requirements and confidentiality.

3. Respect the specific needs of his/her patients based on age, gender, race, and culture in formulating treatment plans.

4. Demonstrate respectful collaboration with their peers and allied health staff.

Interpersonal and Communication Skills:

1. Demonstrate the ability to elicit the presence and location of physical symptoms with cognitively impaired patients.

2. Discuss functional prognosis of the patient and family with attention to their educational, social, and personal beliefs.

3. Provide adequate written and verbal communication to peers, attendings, allied health professionals, and consultants so that they may continue the plan of care in an effective manner when the resident is absent from the floor or service.

4. Maintain comprehensive, timely, and legible medical records.

Practice-Based Learning:

1. Develop a personal program of self-study and professional growth with guidance from a faculty advisor. An understanding of the etiology, pathogenesis, pathophysiology, diagnosis and management of orthopaedic disorders is absolutely necessary.

2. Present on an Orthopaedic Surgery topic within one month following the specific rotation.

Systems-Based Practice:

1. Follow Hospital guidelines when completing all discharge and operating room reports.

2. Follow the established practices, procedures, and policies of the Department and integrated and affiliated hospitals.

Wayne State University School of Medicine
Department of Orthopaedic Surgery

Orthopaedic Surgery Residency Program - Rotation Goals and Objectives

Pediatric Orthopaedics Rotation – PGY-4

By the end of the PGY-4 rotation in Pediatric Orthopaedics, the resident should be able to:

Medical Knowledge:

1. Understand, recognize, and manage complex skeletal dysplasias.
2. Understand the etiology, diagnosis and treatment of complex hematologic disorders.
3. Understand the characteristics, pathogenesis, diagnostic features, and management of complex neuromuscular disorders.
4. Recognize and treat, in conjunction with a multidisciplinary team, cerebral palsy, juveniles rheumatoid arthritis, and complex spinal deformities.
5. Understand, recognize, and non-operatively and operatively manage complex upper limb, leg length, hip, and lower limb deformities and disorders.
6. Understand the clinical manifestations, treatment, and long-term prognosis of complex gait disorder and fractures.
7. Understand the characteristics, history, pathogenesis, management, and indications for additional treatment of complex head trauma problems.

Patient Care:

1. Interpret and synthesize patient history, clinical exam, and diagnostic tests into a differential diagnosis for the conditions listed above.
2. Know the indications for an interpretation of various laboratories, radiologic, and other diagnostic tests for the conditions listed above.
3. Plan appropriate surgery based upon the diagnosis and clinical findings.
4. Perform or assist in surgical procedures required to address the conditions listed above (i.e., scoliosis surgery, limb length problems, tumors, fracture care, neuromuscular disease, cerebral palsy, myelomeningocele, developmental deformities, DDH, Legg Perthes disease, congenital anomalies).

Professionalism:

1. Be on-time for all clinical responsibilities.
2. Adhere to HIPPA requirements and confidentiality.
3. Respect the specific needs of his/her patients based on age, gender, race, and culture in formulating treatment plans.
4. Demonstrate respectful collaboration with their peers and allied health staff.

Interpersonal and Communication Skills:

1. Demonstrate the ability to elicit the presence and location of physical symptoms with cognitively impaired patients.
2. Discuss functional prognosis of the patient and family with attention to their educational, social, and personal beliefs.
3. Provide adequate written and verbal communication to peers, attendings, allied health professionals, and consultants so that they may continue the plan of care in an effective manner when the resident is absent from the floor or service.
4. Act in a consultative role to other physicians and health professionals.
5. Maintain comprehensive, timely, and legible medical records.

Practice-Based Learning:

1. Develop a personal program of self-study and professional growth with guidance from a faculty advisor. An understanding of the etiology, pathogenesis, pathophysiology, diagnosis and management of orthopaedic surgical disorders is absolutely necessary.

2. The resident will demonstrate both a willingness and effectiveness in teaching medical students and peers.

3. The resident will present on an Orthopaedic Surgery topic within one month following the specific rotation.

4. The resident will locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems.

5. The resident will use information technology to optimize learning.

6. The resident will systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement.

Systems-Based Practice:

1. Demonstrate an understanding of the cost/benefit of prescriptions and tests ordered.

2. Justify continued LOS in an acute care setting based on clinical findings and available benchmark data or a prescription for DME or pharmaceuticals to a 3rd party payor.

3. Follow Hospital guidelines when completing all discharge and operating room reports.

4. Understand how the health care organization affects surgical practice.

5. Follow the established practices, procedures, and policies of the Department and integrated and affiliated hospitals.

Wayne State University School of Medicine
Department of Orthopaedic Surgery

Orthopaedic Surgery Residency Program - Rotation Goals and Objectives

Spine Surgery Rotation – PGY-3

By the end of the PGY-3 Spine Surgery Rotation, the resident should be able to:

Medical Knowledge:

1. Understand the biomechanics of anterior and posterior spinal instrumentation systems.

2. Understand the occupational environmental exposures in terms of industrial ergonomics and vibration machinery.

3. Understand the natural history, etiology, nonoperative and operative treatment of adolescent round back, Scheuermann's Disease and congenital kyphosis.

4. Understand nonscoliosis spinal deformities such as, Torticollis, Klippel-Feil Syndrome, basilar impression, atlantoaxial rotatory subluxation.

5. Understand the controversies related to discography and the spinal fusion.

6. Understand the natural history of adult scoliosis and degenerative scoliosis. Describe the treatment methodology and the indications. Develop an understanding for the issues of distal fusion levels.

7. Understand the history, anatomy, and clinical sign of thoracic disc herniation. Recognize the findings on physical exam and diagnostic imaging studies.

8. Understand the concept of spinal segmental instability, both degenerative and iatrogenic.

9. Differentially diagnose patients with failed back syndrome and understand the role of salvage revision surgery versus multidisciplinary pain management.

10. Learn about infantile and idiopathic scoliosis and the role of imaging studies in the initial evaluation of these patients.

11. Evaluate clinically and radiographically patient with suspected spinal tumors.

    Benign Tumors
    Osteoid Osteoma
    Osteoblastoma
    Aneurysmal Bone Cysts
    Giant Cell Tumor
    Osteochondroma
    Eosinophilic Granuloma
    Hemangioma
    Neurofibroma
    Malignant Tumors
    Multiple Myeloma
    Solitary Plasmacytoma
    Osteosarcoma
    Ewing's Sarcoma
    Chordoma
    Chondrosarcoma
    Lymphoma
    Metastatic Lesions

12. Understand the issues related to adult iatrogenic flatback deformity and role of operative treatment with osteotomies.

Patient Care:

1. Read advanced MRI with gadolinium enhanced imaging in postoperative patients and patients with suspected spinal tumors, both metastatic and primary.

2. Describe the various surgical approaches for thoracic disc hernations and the indications. Understand the possible use of thorocoscopy for surgical treatment.

3. Describe the anterior approaches to the cervical and thoracolumbar spine.

4. Perform the basic element of a cervical discectomy and lumbar laminectomy.

5. Perform placement of hook and pedicle screws for thoracolumbar spinal constructs.

6. Perform the basic rod bending maneuvers for saggital and coronal plane curves.

7. Describe the corrective maneuvers for spinal deformity (i.e., compression distraction, rod roll, and insitu bending).

Professionalism:

1. Be on-time for all clinical responsibilities.

2. Adhere to HIPPA requirements and confidentiality.

3. Respect the specific needs of his/her patients based on age, gender, race, and culture in formulating treatment plans.

4. Demonstrate respectful collaboration with their peers and allied health staff.

Interpersonal and Communication Skills:

1. Demonstrate the ability to elicit the presence and location of physical symptoms with cognitively impaired patients.

2. Discuss functional prognosis of the patient and family with attention to their educational, social, and personal beliefs.

3. Provide adequate written and verbal communication to peers, attendings, allied health professionals, and consultants so that they may continue the plan of care in an effective manner when the resident is absent from the floor or service.

4. Maintain comprehensive, timely, and legible medical records.

Practice-Based Learning:

1. Develop a personal program of self-study and professional growth with guidance from a faculty advisor. An understanding of the etiology, pathogenesis, pathophysiology, diagnosis and management of orthopaedic disorders is absolutely necessary.

2. Present on an Orthopaedic Surgery topic within one month following the specific rotation.

Systems-Based Practice:

1. Follow Hospital guidelines when completing all discharge and operating room reports.

2. Follow the established practices, procedures, and policies of the Department and integrated and affiliated hospitals.

Wayne State University School of Medicine
Department of Orthopaedic Surgery

Orthopaedic Surgery Residency Program - Rotation Goals and Objectives

Sports Medicine Rotation – PGY-4

By the end of the PGY-4 rotation in Sports Medicine, the resident should be able to:

Medical Knowledge:

1. Understand physical therapy modalities in general sports medicine.
2. Understand and describe the pertinent clinical anatomy of the shoulder, elbow, knee, leg, ankle, and foot.
3. Understand and weigh the surgical risk and potential benefit for each patient for each surgical procedure considered.
4. Understand and describe the clinical anatomy and biomechanics of the shoulder.
5. Understand and describe the mechanics of the throwing motion.
6. Understand and describe the relationship between shoulder instability and rotator cuff tendinitis.
7. Understand and describe the relationship between impingement and rotator cuff tears.
8. Describe the pathophysiology and the rationale for non-operative treatment of the following pathologic entities related to the shoulder: rotator cuff tendinitis/tear/impingement, gleno-humeral instability, and adhesive capsulitis.
9. Describe the indications and rationale for the following procedures related to the shoulder (describe both open and arthroscopic variations of the procedure, indication for each, and rehabilitation protocol): rotator cuff repair, subacromial decompression, stabilization procedures, and Mumford procedure.
10. Understand the differential diagnosis and treatment for anterior knee pain and patellar instability.
11. Understand the typical history and presentation of anterior or posterior cruciate ligament Injuries
12. Be familiar with the various types of knee braces.
13. Understand the healing potential and current treatment options of meniscal tears and chondral defects.
14. Understand the presentation and pathology of meniscal cysts and discoid menisci.
15. Understand the non-operative treatment of patella tendinitis, saphenous neuritis, and MCL sprains.
16. Understand the post-operative rehabilitation of meniscal repairs and ACL reconstructions.
17. Understand the presentation, evaluation and treatment of common post-operative complications of infection, and deep venous thrombosis.
18. Understand and describe the pathophysiology of compartment syndrome.
19. Understand and describe the pathophysiology of stress fracture.
20. Be familiar with special radiographic examinations of the leg and thigh including MRI, CT, and nuclear medicine studies.
21. Discuss the possible etiologies of peroneal nerve injury and recognize the signs of peroneal nerve injury.
22. Understand the pathophysiology and presentation of OCD of the talus.
23. Understand the pertinent clinical anatomy and biomechanics of the ankle.
24. Understand the non-operative treatment of the following related to the ankle: peroneal or posterior tibialis tendinitis, ankle sprains, achilles tendinitis, and ankle instability.

25. Understand the pathophysiology and presentation of the following related to the ankle: the different types of achilles tendinitis, the different types of ankle sprainos, and ankle instability.

26. Understand the presentation and the non-operative treatment of the following related to the elbow: lateral epicondylitis, medial epicondylitis, UCL sprains, ulnar neuritis, olecranon bursitis, and radial head fractures.

27. Understand the pertinent clinical anatomy and biomechanics of the elbow.

28. Understand the pathology and presentation of Panner's Disease (OCD capitellum) and valgus extension overload

29. Understand anatomy, physiology, and biomechanics as they relate to patients with sports-related injuries and disease.

30. Understand sports medicine conditions and their treatments with regard to natural histories, prognoses, treatment regimens, risks and benefits, expected short/long term outcomes, surgical techniques, and postoperative protocols.

31. Be familiar with the various types of knee braces.

32. Understand the post-operative rehabilitation of ACL reconstructions and PCL reconstructions.

33. Understand the presentation, evaluation, and treatment of common post-op complications such as arthrofibrosis.

Patient Care:

1. Write a concise physical therapy prescription.

2. Write a physical therapy prescription for the following related to the shoulder: rotator cuff tendinitis/tear/impingement, gleno-humeral instability, adhesive capusulitis, rotator cuff repair, subacromial decompression, stabilization procedures, and the Mumford procedure.

3. Perform a physical examination of the shoulder and identify all pertinent anatomic landmarks, quantify range of motion, evaluate gleno-humeral stability of the rotator cuff and the AC joint.

4. Make a clinical diagnosis of the following: adhesive capsulitis, anterior instability, posterior instability, rotator cuff tendinitis, impingement syndrome, AC joint arthrosis, AC joint separation and grade, and biceps rupture.

5. Identify all pertinent anatomic landmarks of the knee.

6. Evaluate knee range of motion.

7. Make a clinical diagnosis of the following related to the shoulder: labral tear and rotator cuff tear.

8. Know the indications for and perform the following procedures related to the shoulder: distal clavicle excision and open decompression.

9. Evaluate and grade knee stability in varus/valgus, anterior/posterior, and rotatory directions using appropriate clinical tests.

10. Make a clinical diagnosis of the following: ACL tear, PCL ter, MCL injury/tear, LCL injury/tear, chondromalacia patella, patella instability, degenerative arthritis, pre-patella bursitis, tibial plateau fracture, quadriceps rupture, patellar tendon rupture, knee dislocation.

11. Make a clinical diagnosis of the following related to the knee: Posterior lateral corner injuries, meniscal tear, loose body, synovitis, plica syndrome, and VMO avulsion.

12. Perform and ORIF patella procedure.

13. Diagnose and describe the nonoperative treatment of the following related to the thigh/leg: quadriceps contusion, hamstring tear/strain, quadriceps strain/tear, hip flexor/adductor strain/tear, stress fracture of femur or tibia, shin splints, and gastrocnemius strain/tear.

14. Know the indication for and perform the following procedures related to the knee: diagnostic arthroscopy, arthroscopic debridement, partial meniscectomy, abrasion chondroplasty, and patellar tendon repair.

15. Diagnose and describe the non-operative treatment of exertional compartment syndrome, medial tibial stress syndrome, and stress and traumatic fractures of the tibia and fibula.

16. Diagnose the following related to the Leg and Thigh: exertional compartment syndrome, medial tibial stress syndrome, shin splints, gastrocnemius strain/tear, and Maissoneuve fracture/syndesmosis injury.

17. Know the indications for and be able to perform the following procedures related to the leg/thigh: Compartment releases: Anterior, lateral, and posterior.

18. Be able to perform an intramedullary nailing of stress fracture of the tibia and femur.

19. Know the indications for and perform the following procedures related to the ankle: diagnostic arthroscopy, ORIF Jones fracture.

20. Know the indications for and perform the following procedures related to the elbow: diagnostic arthroscopy, tennis elbow debridement, ORIF fractures, olecranon bursa debridement/drainage.

21. Perform a physical examination of the elbow and identify all pertinent landmarks.

22. Evaluate range of motion and stability of the elbow joint.

23. Diagnose the following related to the elbow: Lateral epicondylitis, medial epicondylitis, ulnar nerve entrapment, valgus extension overload, UCL incompetence, biceps tendinitis or distal rupture, OCD of capitellum, and olecranon bursitis.

24. Perform the following procedures related to the elbow: decompression of the Ulnar nerve, reduction of dislocation, and saline arthrogram.

25. Interpret and synthesize patient history, clinical exam, and diagnostic tests into coherent diagnoses for each condition.

26. Perform procedures necessary for the treatment of athletic-associated injuries, including performing the task with a clear understanding of surgical indications.

27. Know the indications for and perform the following procedures related to the shoulder: arthroscopic debridement, arthroscopic stabilization procedures, Weaver-Dunn type clavicle stabilization, open rotator cuff repair, biceps tendinitis, open Bankart repair, and capsular shift.

28. Evaluate and grade knee stability in varus/valgus, anterior/posterior, and rotatory directions using appropriate clinical tests.

29. Know the indications for and perform the following procedures related to the knee: meniscal repair, ACL reconstruction, PCL reconstruction, patella stabilization, lateral release, VMO repair, and repair of the posterolateral corner.

Professionalism:

1. Be on-time for all clinical responsibilities.

2. Adhere to HIPPA requirements and confidentiality.

3. Respect the specific needs of his/her patients based on age, gender, race, and culture in formulating treatment plans.

4. Demonstrate respectful collaboration with their peers and allied health staff.

Interpersonal and Communication Skills:

1. Demonstrate the ability to elicit the presence and location of physical symptoms with cognitively impaired patients.

2. Discuss functional prognosis of the patient and family with attention to their educational, social, and personal beliefs.

3. Provide adequate written and verbal communication to peers, attendings, allied health professionals, and consultants so that they may continue the plan of care in an effective manner when the resident is absent from the floor or service.

4. Act in a consultative role to other physicians and health professionals.

5. Maintain comprehensive, timely, and legible medical records.

Practice-Based Learning:

1. Develop a personal program of self-study and professional growth with guidance from a faculty advisor. An understanding of the etiology, pathogenesis, pathophysiology, diagnosis and management of orthopaedic surgical disorders is absolutely necessary.

2. The resident will demonstrate both a willingness and effectiveness in teaching medical students and peers.

3. The resident will present on an Orthopaedic Surgery topic within one month following the specific rotation.

4. The resident will locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems.

5. The resident will use information technology to optimize learning.

6. The resident will systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement.

Systems-Based Practice:

1. Demonstrate an understanding of the cost/benefit of prescriptions and tests ordered.

2. Justify continued LOS in an acute care setting based on clinical findings and available benchmark data or a prescription for DME or pharmaceuticals to a 3rd party payor.

3. Follow Hospital guidelines when completing all discharge and operating room reports.

4. Understand how the health care organization affects surgical practice.

5. Follow the established practices, procedures, and policies of the Department and integrated and affiliated hospitals.

Wayne State University School of Medicine
Department of Orthopaedic Surgery

Orthopaedic Surgery Residency Program - Rotation Goals and Objectives

Trauma Rotations – PGY-2 and PGY-3

General Rotation Information: The overall goal of the trauma rotation is for the resident to become proficient in the diagnosis and surgical and non- surgical management of all of the common orthopaedic trauma conditions seen in a general orthopaedic practice. The primary rotation site is St. John Hospital and Medical. But, because of the large and varied referral practice base at Oakwood Hospital and Medical Center, the resident will also develop a broad background in the management of post-acute trauma sequelae, such as non-unions, mal-unions, and orthopaedic infections at this facility's rotations.

By the end of the PGY-2 and PGY-3 rotations in Trauma, the resident should be able to:

Medical Knowledge:

1. Understand the diagnosis and management of orthopaedic disorders.
2. Understand the general principles of musculoskeletal disorders, pathology, and their manifestation.
3. Have developed the proper thought processes.

Patient Care:

1. Perform a thorough and accurate history.
2. Perform a complete physical examination, with emphasis on the examination of the musculoskeletal system.
3. Demonstrate proficiency in the initial evaluation of patients in the clinic, the emergency department, and in-patient settings.
4. Demonstrate level appropriate surgical skills.
5. Demonstrate effective patient management skills, in both the inpatient and outpatient settings.

Professionalism:

1. Be on-time for all clinical responsibilities.
2. Adhere to HIPPA requirements and confidentiality.
3. Respect the specific needs of his/her patients based on age, gender, race, and culture in formulating treatment plans.
4. Demonstrate respectful collaboration with their peers and allied health staff.

Interpersonal and Communication Skills:

1. Demonstrate the ability to elicit the presence and location of physical symptoms with cognitively impaired patients.
2. Discuss functional prognosis of the patient and family with attention to their educational, social, and personal beliefs.
3. Provide adequate written and verbal communication to peers, attendings, allied health professionals, and consultants so that they may continue the plan of care in an effective manner when the resident is absent from the floor or service.
4. Maintain comprehensive, timely, and legible medical records.

Practice-Based Learning:

1. Develop a personal program of self-study and professional growth with guidance from a faculty advisor. An understanding of the etiology, pathogenesis, pathophysiology, diagnosis and management of orthopaedic disorders is absolutely necessary.
2. Present on an Orthopaedic Surgery topic within one month following the specific rotation.

Systems-Based Practice:

1. Follow Hospital guidelines when completing all discharge and operating room reports.
2. Follow the established practices, procedures, and policies of the Department and integrated and affiliated hospitals.

Wayne State University School of Medicine
Department of Orthopaedic Surgery

Orthopaedic Surgery Residency Program - Rotation Goals and Objectives

Trauma Rotations – PGY-4 and PGY-5

General Rotation Information: The overall goal of the trauma rotation is for the resident to become proficient in the diagnosis and surgical and non- surgical management of all of the common orthopaedic trauma conditions seen in a general orthopaedic practice. The primary rotation site is St. John Hospital and Medical. But, because of the large and varied referral practice base at Oakwood Hospital and Medical Center, the resident will also develop a broad background in the management of post-acute trauma sequelae, such as non-unions, mal-unions, and orthopaedic infections at this facility's rotations.

Building upon the knowledge and skills acquired in the previous Trauma rotations (PGY-2 to PYG-3), the resident at the end of the PGY-4 and PGY-5 rotations should be able to:

Medical Knowledge:

1. Know the pathoanatomy of most skeletal injury (i.e., fractures and dislocations of the shoulder, arm, elbow, forearm, wrist, pelvis, acetabulum, femur, knee, ankle and foot).
2. Know the classification of most skeletal injury (i.e., fractures and dislocations of the shoulder, arm, elbow, forearm, wrist, pelvis, acetabulum, femur, knee, ankle and foot).
3. Understand the priorities for initial management, triage, and initial stabilization of skeletal injuries in the multiply injured patient.
4. Know the indications for various methods of operative and non-operative treatment of various injuries and learn to use clinical data to decide on treatment method.
5. Know the complications of each injury.
6. Understand the post-operative management of trauma patients.

Patient Care:

1. Evaluate traumatic fractures, dislocations, and injuries in the emergency department.
2. Determine the classification of such injuries.
3. Discuss the treatment options, priorities, and initially stabilize musculoskeletal trauma.
4. Become competent in the definitive management of basic fractures (i.e., long bone shaft fractures, hip fractures, ankle fractures, and fractures of the distal radius).
5. Demonstrate advancing competence in the management of pelvis, acetabulum, and periarticular fractures.
6. Be responsible for the surgical management of the orthopaedic trauma patient when on call.
7. Demonstrate the ability to coordinate the care of a large musculoskeletal trauma service.

Professionalism:

1. Be on-time for all clinical responsibilities.
2. Adhere to HIPPA requirements and confidentiality.
3. Respect the specific needs of his/her patients based on age, gender, race, and culture in formulating treatment plans.
4. Demonstrate respectful collaboration with their peers and allied health staff.

Interpersonal and Communication Skills:

1. Demonstrate the ability to elicit the presence and location of physical symptoms with cognitively impaired patients.

2. Discuss functional prognosis of the patient and family with attention to their educational, social, and personal beliefs.

3. Provide adequate written and verbal communication to peers, attendings, allied health professionals, and consultants so that they may continue the plan of care in an effective manner when the resident is absent from the floor or service.

4. Act in a consultative role to other physicians and health professionals.

5. Maintain comprehensive, timely, and legible medical records.

Practice-Based Learning:

1. Develop a personal program of self-study and professional growth with guidance from a faculty advisor. An understanding of the etiology, pathogenesis, pathophysiology, diagnosis and management of orthopaedic surgical disorders is absolutely necessary.

2. Demonstrate both a willingness and effectiveness in teaching medical students and peers.

3. Present on an Orthopaedic Surgery topic within one month following the specific rotation.

4. Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems.

5. Use information technology to optimize learning.

6. Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement.

Systems-Based Practice:

1. Demonstrate an understanding of the cost/benefit of prescriptions and tests ordered.

2. Justify continued LOS in an acute care setting based on clinical findings and available benchmark data or a prescription for DME or pharmaceuticals to a 3rd party payor.

3. Follow Hospital guidelines when completing all discharge and operating room reports.

4. Understand how the health care organization affects surgical practice.

5. Follow the established practices, procedures, and policies of the Department and integrated and affiliated hospitals.

Wayne State University School of Medicine
Department of Orthopaedic Surgery

Orthopaedic Surgery Residency Program - Rotation Goals and Objectives

PGY-1 Year

Locations: Oakwood Hospital and Medical Center
Oakwood Heritage Hospital

The Educational Program

A. General competencies:
Residents must become competent in the following six areas at the level expected of a surgical practitioner. Training programs must define the specific knowledge, skills, and attitudes required and provide the educational experience for residents to demonstrate:

1. **Patient Care**: The PGY-1 resident will provide patient care that is compassionate, appropriate and effective for the treatment of health problems of the surgical patient. Residents must demonstrate manual dexterity appropriate for their level of training and be able to develop and execute patient care plans for the surgical patient.

    a. Acquire self-confidence and the ability to develop differential diagnoses and management plans through history and physical examination.
    b. Perform pre and postoperative care of patients with the basic understanding of pathophysiology as applied to surgical diseases.
    c. Understand the principles involved in operations, handling of tissues, dissection of tissue planes, suture-ligation techniques and masters “simple” operative procedures.
    d. Master technique of using and placing Ngs, Foleys, IVs, CVPs, arterial lines, and standard aseptic techniques.
    e. Demonstrate initial management of life threatening surgical illnesses and become adept at resuscitation.
    f. Demonstrate good judgement, safety, and effective technical skills in operative cases.
    g. Become familiar with the concept of Informed Consent, Surrogacy and the Dying Patient, Palliative Care and End of Life Issues, Culturally Congruent Care and Medical Ethics.
    h. Know and practice patient safety policies including Universal Protocol for identifying the correct site, correct side, correct procedure, correct patient and correct surgeon.
    i. Know and practice sterile technique and frequent hand washing. Particularly between each patient encounter.

2. **Medical Knowledge**: The PGY-1 resident will acquire detailed knowledge for the evaluation and management of surgical patients.

    a. Analyze and understand the contents from major surgical textbooks.
    b. Attend and actively discuss readings in the Biweekly Surgical Journal Club.
    c. Use Anatomic and Surgical atlases to understand the approach to the basic sciences and basic surgical procedures.
    d. Attend and actively participate in Program sessions related to the basic sciences and basic surgical procedures.
    e. Describe the anatomic conditions of surgical disease.
    f. Demonstrate knowledge of normal physiology and pathophysiology of surgical disease.
    g. Apply physiological knowledge to the clinical and operative management of surgical diseases

3. **Practice Based Learning and Improvement:** The PGY-1 Resident will investigate and evaluate his or her own patient care practices to appraise and assimilate scientific evidence and demonstrate improved patient care practices.

    a. Analyze, critique and review surgical literature as it applies to evidence based medicine
    b. Complete the Resident Self-Assessment twice a year to evaluate one’s own performance in the six core competencies
    c. Use information technology to access medical literature and select treatment strategies
    d. Use computer technology, simulations and other multimedia resources to increase medical knowledge and operative skills
    e. Attend and actively participate in didactic presentations such as Basic Science Reading program, journal club etc.
    f. Attend and actively participate in the Resident Competency Program Session on Personal Awareness/Self Care and Effective Teamwork
    g. Teach and be a role model for medical students.

4. **Interpersonal and Communication Skills:** The PGY-1 Resident will demonstrate interpersonal and communication skills which result in effective information exchange with patients, their families, and professional colleagues.

    a. Interact with peers regarding cases and provide feedback about the scientific literature at the Basic Science Didactic Reading program.
    b. Listen to patients and their families.
    c. Gather essential information from patients; document patient encounters accurately and completely.
    d. Demonstrate effective communication strategies to interact with patients and families from diverse backgrounds.
    e. Attend and actively participate in any Resident Competency Program sessions on Communication and Breaking Bad News, Conflict Management and Patient Centered Care.
    f. Provide therapeutic relationships with patients using effective listening skills and candid feedback.
    g. Educate patients and families about the pre- and post- operative care of the surgical patient
    h. Respond promptly and considerately to requests of attending physicians and staff.
    i. Demonstrate effective interpersonal skills with patients, their families and health professionals.
    j. Write orders and progress reports in a coherent legible format.

5. **Professionalism:** The PGY-1 Resident will demonstrate a commitment to carrying out professional responsibilities adherent to organizational and ethical principles, and demonstrate sensitivity to a diverse patient population.

    a. Understand and use the chain of command on the resident service.
    b. Respond and answer pages promptly.
    c. Attend and actively participate in any Resident Competency Program Sessions on Professionalism, Medical Ethics and Billing Ethics.
    d. Apply time management principles as necessary to be accountable to patients, families, colleagues and other health care professionals.
    e. Be respectful and responsive to the needs of patients and families.
    f. Demonstrate a commitment to ethical principles; maintain confidentiality of patient information, informed consent, and other business practices.
    g. Complete operative case logs and medical reports in a timely manner when required.

6. **Systems-Based Practice:** The PGY-1 Resident will demonstrate an awareness of and responsiveness to the larger context and system of healthcare and be able to call on system resources to provide care that is of optimal value.

    a. Attend and actively participate in the Resident Competency Program Sessions on Systems-Based Practice, HMO’s, Medicaid and Medicare Insurance Practices, and Billing and Coding Procedures.
    b. Consult with other members of the health care team to provide cost effective health care for patients.
    c. Apply cost-effective care in ordering tests and planning interventions.
    d. Provide consultations for other services.
    e. Demonstrate knowledge of risk-benefit analysis; and demonstrate an understanding of the role of different specialists and other health care professionals in overall patient management.

Rotations: **General Surgery/Trauma Surgery/Plastic Surgery/Vascular Surgery/Surgical Intensive Care**

Locations: Oakwood Hospital and Medical Center and Oakwood Heritage Campus
Length of Rotation: 8 weeks General Surgery, 4 weeks Trauma, 4 weeks Plastic, 4 weeks Vascular, 4 weeks SICU

The goal of the PGY-1 Resident during the General Surgery rotation is to learn patient evaluation and patient selection for surgery on the wards, ICU, in the outpatient clinic, and in the preoperative screening center, mentor surgeon's office and clinic. The resident on these rotations will be on service with other residents from Wayne State University's accredited programs in general surgery, ENT, urology, internal medicine, and family practice. Senior residents, fellows, and attending on their daily rounds and in the outpatient clinics may teach postoperative care. Frequently the PGY-1 is the first person contacted for both emergency and elective admissions. They are expected to gather the necessary data, review the patient with the senior residents, when applicable and ultimately with the attending surgeon. The operative experience includes the usual spectrum of procedures encountered in a busy surgical practice; hernias, biopsies, line placements, appendectomy, amputations, cholecystectomy, and minor outpatient cases, etc. All PGY-1 residents will learn the basics of sterile surgical technique.

One month of plastic surgery is included in the PGY-1 year to ensure that PGY-1 residents gain experience in plastic surgery, especially as it related to soft tissue handling and soft tissue coverage of wounds and injuries. Vascular surgery is included as a rotation to give residents exposure to evaluation and management of vascular injury and disease. It is on this rotation that the PGY-1 residents are taught to perform a thorough vascular examination, are taught to perform and interpret blood pressure indices (such as the ankle-brachial index), are taught to use the Doppler ultrasound to detect and interpret arterial blood flow signals, and are taught to measure and interpret limb compartment pressures.

Rotation: **Anesthesia**
Locations: Oakwood Heritage Campus
Length of Rotation: 4 weeks

The goal of the PGY-1 Resident during the Anesthesia rotation is to gain experience in the management of patients under general anesthesia. Residents will interact with residents from Wayne State University's accredited anesthesia residency program. Residents will become familiar with cardiac and pulmonary physiology, development of concepts regarding anesthesia pharmacology, and the delivery mechanisms of anesthesia. They will also gain knowledge in the areas of ventilator mechanics as well as vascular and pulmonary anatomy. Appropriate titration of anesthetic agents will be emphasized, in addition to the management of hemodynamics and anesthetic emergencies. Also, preoperative and postoperative management of anesthesia patients will be stressed, including airway management.

Rotation: **Emergency Medicine**
Locations: Oakwood Heritage Campus
Length of Rotation: 4 weeks

The goal of the Emergency Medicine rotation is to expose the PGY-1 Resident to the management of the emergency medicine patient. Orthopaedic residents will work alongside ACGME accredited residents from various specialities such as ENT, urology, Internal Medicine, Family Practice, Obstetrics and Gynecology, as well as Transitional Year residents. They will be required to develop a knowledge base of ATLS, BCLS, and the fundamentals of critical care. Considerable emphasis will be placed on outline management principles of triage. Development of triage priorities according to organ systems and management protocols for shock, trauma, closed head injury, laryngeal trauma, myocardial ischemia, pulmonary embolism, vascular injuries, burns, surgeries, and diabetic ketoacidosis will be stressed. In addition, residents should be able to develop management scenarios for lacerations, contusions, long bone fractures, epistaxis, abdominal pain, asthma, croup, and pneumonia. The resident should also be able to develop an understanding of the responsibilities of an ER physician in the medical legal environment. Residents will be required to perform a complete H & P in the Emergency Room, triage patients, assess patients on the basis of airway breathing and circulation, order appropriate diagnostic tests and interpret said tests and order appropriate referrals.

Rotation: **Rehabilitative Medicine**
Locations: Oakwood Heritage Campus
Length of Rotation: 4 weeks

The goal of the Rehabilitative Medicine rotation is to educate the Orthopaedic resident in the various aspects of rehabilitative care. During this month, orthopaedic residents will be on service with Wayne State University/Oakwood Hospital's accredited PM&R residents. Specifically, residents should achieve proficiency in taking a proper physiatric history. General musculoskeletal examination skills will be enhanced during this rotation. Residents should learn working knowledge on general aspects of designing a rehabilitation treatment program as well as the ability to coordinate a rehabilitation team. Residents should also achieve proficiency in the care of inpatients requiring general orthopaedic rehabilitation services.

Rotation: **Musculoskeletal Imaging**
Locations: Oakwood Heritage Campus
Length of Rotation: 4 weeks

The goal of this rotation is to introduce the principles of musculoskeletal imaging and to describe the various imaging modalities available for imaging the patient with musculoskeletal pathology. The resident will gain valuable knowledge while working alongside residents from Oakwood's accredited Diagnostic Radiology residency program. The importance of an organized, efficient approach in imaging the musculoskeletal system will be stressed. The resident will have exposure to plainfilm radiography, interventional procedures, magnetic resonance imaging, computed tomography, ultrasound, and nuclear radiology. By the end of the rotation, the resident should understand the importance of coordinating and integrating the imaging of the patient with musculoskeletal pathology. The resident should understand pertinent normal anatomy in a musculoskeletal radiograph and be able to recognize and describe radiographic findings. The resident should understand the strengths of weaknesses of the various imaging modalities.

Rotation: **Orthopaedic Surgery**
Locations: Oakwood Heritage Campus
Length of Rotation: 8 weeks

It is during this rotation that the PGY-1 orthopaedic surgery resident has their first exposure to the science of orthopaedics. Emphasis will be placed on learning techniques of physical examination. The resident should develop a basic and applied knowledge regarding problems facing orthopaedic patients both from an orthopaedic, surgical and broad medical perspective. The resident should be able to lead the team during afternoon rounds based on the goals laid out for the day. The resident is expected to take call with senior resident supervision. This rotation serves as a transition to their PGY-2 year.