

University of South Florida

Foot & Ankle Orthopaedics – PGY 2

Competency Based Goals & Objectives

Competency 1- Patient Care: Provide patient care that is compassionate, appropriate and effective for the treatment of health problems and the promotion of health. Residents are expected to:

1. Communicate effectively and demonstrate caring and respectfully behaviors when interacting with patients and their families.
2. Gather essential and accurate information about patient.
3. Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment.
4. Develop and carry out patient management plans, counsel and educate patients and their families.
5. Use information technology to support patient care decisions and patient education.
6. Perform competently all invasive procedures considered essential in foot and ankle practice.
7. Provide health care services aimed at preventing health problems or maintaining health work with health care professional, including those from other disciplines, to provide patient-focused care.
8. In a patient presenting with a complaint related to the foot or ankle the resident will demonstrate competency in the following skills:
 - a. Obtain a focused patient history
 - b. Perform an appropriate physical exam, inspection, palpation, range of motion, neurovascular assessment, special tests
 - c. Demonstrate an understanding of basic gait assessment
 - d. Order and interpret relevant x-rays that may include
 - i. AP ankle
 - ii. Ankle Mortise
 - iii. Lateral Ankle
 - iv. AP Foot
 - v. Lateral Foot
 - vi. Oblique Foot
 - vii. Axial Heel
 - e. Know the indications and basic interpretation of the following imaging studies:
 - i. CT scan
 - ii. MRI
 - iii. Bone Scan
 - iv. Ultrasound
9. For the specific foot and ankle conditions listed below the residents will:
 - a. Make an accurate diagnosis
 - b. Competently perform any relevant condition-specific physical examination
 - c. Identify appropriate radiographic imaging studies
 - d. Outline the etiology, or possible etiologies, of the specific condition
 - e. Outline the natural history of the specific condition
 - f. Describe appropriate non-operative treatment options (if they exist)
 - g. Describe appropriate operative treatment options (if they exist)
 - h. Describe possible complications of non-operative and operative treatment
 - i. Outline the prognosis of non-operative and operative treatment

Chronic

- j. Ankle Osteoarthritis
- k. Osteochondral Lesion of the Talus
- l. Chronic Ankle Instability
- m. Achilles Tendonitis
- n. Retrocalcaneal bursitis/Haglund deformity
- o. Subtalar Arthritis
- p. Tarsal coalition
- q. Peroneal Tendonitis
- r. Drop Foot
- s. Plantar Fasciitis
- t. Symptomatic Adult Flat Foot (posterior tibial tendonitis)
- u. Cavovarus Foot
- v. Tarsometatarsal Arthritis
- w. Hallus Valgus
- x. Metatarsalgia
- y. Morton's Neuroma
- z. Claw/Hammer Toes
- aa. Bunionette
- bb. Ingrown Toe nail
- cc. Diabetic Foot Ulcer

Acute

- a. Achilles Tendon Rupture
- b. Ankle Fracture
- c. Ankle Sprain
- d. Talar Body Fracture
- e. Calcaneal Fracture
- f. Navicular Stress Fracture
- l. Subungual Hematoma
- g. Nutcracker Fracture
- h. Lisfranc Fractures/Dislocation
- i. Base of the 5th MT fracture
- j. Metatarsal Fracture
- k. Phalangeal Fracture

Common Foot Deformities

- 1) Bunions
- 2) Pes Planus
- 3) Bunionette

10. Recognize and provide initial management of the following conditions:

- a. Diabetes
- b. Charcot-Marie-Tooth
- c. Cerebral Palsy
- d. Rheumatoid Arthritis/Inflammatory Arthritis
- e. Spinal Cord Injuries
- f. Peripheral Neuropathies
- g. Fungal Infections
- h. Chronic Pain Syndrome
- i. Reflex Sympathetic Dystrophy
- j. Osteoporosis
- k. Cigarette Smoking
- l. Worker's Compensation Issues

11. Demonstrate competence in the following basic surgical skills:

- a. Surgical Planning
- b. Prepping and Draping
- c. Use of a tourniquet
- d. Choice of suture material
- e. Suture tying
- f. Regional Anesthetic blocks
- g. Local Anesthetic blocks
- h. Application of short leg splint/cast
- i. Application of an Unna Boot
- j. Identify equipment
- k. Outline the operative procedure

Competency 2 – Medical Knowledge: Residents must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological) sciences and the application of this knowledge to patient care. Residents are expected to:

1. Demonstrate an investigatory and analytical thinking approach to clinical situations.
2. Know and apply the basic and clinically supportive sciences which are appropriate to foot and ankle surgery.
3. Demonstrate knowledge of normal variations in foot, knee and leg development.
4. Describe the biomechanics of the foot during the gait cycle.
5. Identify relevant anatomy of the foot and ankle including:
 - a. Bones
 - b. Joints
 - c. Musculotendinous units
 - d. Ligaments
 - e. Nerves
 - f. Blood vessels
 - g. Fascia
6. Demonstrate if the following presenting signs and symptoms are caused by an orthopaedic condition, and if so, treat appropriately:
 - a. Limp
 - b. Musculoskeletal pain
 - c. Refusal to walk or gait disturbance
 - d. Refusal to use a limb
 - e. Swollen or painful joint
 - f. Bowed legs or knock-knees
 - g. In-toeing or out-toeing
7. Describe the technical characteristics of a well-fitted shoe including:
 - a. Uppers
 - b. Heel Counter
 - c. Toe box
 - d. Sole
8. Describe the characteristics of a comfort shoe.
9. Describe the indications and the correct manner for prescribing orthotics
10. Outline safe and effective toenail care.
11. Identify the role and general scope of practice of orthopedists; recognize situations where patients benefit from the skills of specialists training in care of foot and ankle conditions; and work effectively with these professionals in the care of these orthopedic conditions.
12. Develop an efficient approach to finding information resources related to the musculoskeletal system (e.g. information on the web, in the literature, text books, or PDA's) to obtain rapid information that is relevant to a presenting patient problem.
13. At the beginning and end of a rotation or clinical experience, clarify your learning needs related to this subspecialty.

Competency 3 – Communication Skills: Demonstrate interpersonal and communication skills that result in information exchange and partnering with patients, their families and professional associates.

1. Talk to family members about sensitive issues that relate to a patient's illness, e.g. coping with the patient's altered needs in his/her home setting.
2. Write an effective and timely consultation note that summarizes the findings and recommendations of the orthopedist and clarifies the continued role and responsibility of the consultant.
3. Describe the role of all members of a multi-disciplinary team and show respect for the contributions of each.
4. Maintain comprehensive, timely and legible medical records.

5. Use effective listening skills.
6. Elicit and provide information using effective nonverbal, explanatory, questioning and writing skills.

Competency 4 – Practice Based Learning and Improvement: Demonstrate knowledge, skills and attitudes needed for continuous self-assessment, using scientific methods and evidence to investigate, evaluate and improve one's patient care practice.

1. Identify standardized guidelines for diagnosis and treatment of complex problems of the musculoskeletal system and learn the rationale for adaptations that optimize treatment.
2. Identify personal learning needs, systematically organize relevant information resources for future references, and plan for continuing data acquisition if appropriate.
3. Seek and incorporate feedback and self-assessment into a plan for professional growth and practice improvement (e.g. use evaluations provided by patients, peers, superiors and subordinates to improve patient care).
4. Use information technology to manage information, access on-line medical information, and support their own education.
5. Facilitate the learning of students and other health care professionals.

Competency 5 – Professionalism: Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles and sensitivity to diversity.

1. Be honest and use integrity in your professional duties.
2. Reflect on your own biases toward particular illnesses or patient groups, and take steps to assure that these biases don't interfere with the care you deliver.
3. Appreciate the psychosocial impact of diseases commonly seen by the subspecialist (e.g. on the child, family, parents' work, school).
4. Respect your patients' privacy, autonomy and need to maintain a positive self-concept, irrespective of age, gender or health belief system, and regardless of acuity of diseases.
5. Be sensitive to the ethical and legal dilemmas faced by providers working with patients with orthopedic problems. Strive to understand how the orthopedist and care team deals with these dilemmas and use such experiences to enhance your own understanding.
6. Demonstrate a commitment to ethical principals pertaining to:
 - a. Provision or withholding of clinical care
 - b. Confidentiality of patient information
 - c. Informed consent
 - d. Business practices

Competency 6 – System-Based Practice: Understand how to practice quality health care and advocate for patients within the context of the healthcare system.

1. Practice cost effective health care and resource allocation that does not compromise quality of care.
2. Clarify how documentation and billing charges differ for consultations vs. referrals vs. on-going management of children treated on the pediatric orthopedic service.
3. Explore the difference between fee-for-service referrals and managed care referrals and the office systems needed to support both.

4. Describe patient and system factors that contribute to escalating costs of care in the subspecialty setting, and consider the impact of these costs on families and on the health care system.
5. Recognize and advocate for families who need assistance to deal with systems complexities, such as lack of insurance, multiple medication refills, multiple appointments with long transport times or inconvenient hours of service.
6. Support community prevention efforts related to pediatric orthopaedics by working with a local professional organization or organizing a project to do with colleagues.
7. Consider potential sources of medical error in this subspecialty setting (e.g. drug interactions, complex care plans, provider fatigue).

PGY 4 Core Curriculum Advanced Learning Objectives

Upon completion of the PGY 4 Foot and Ankle rotation residents will be able to:

Foot & Ankle Trauma

1. Describe the typical mechanism of injury and physical examination finds.
2. Identify and interpret appropriate imaging studies
3. Describe viable treatment options including their risks and benefits
4. Outline the prognosis of the following conditions:

<ol style="list-style-type: none"> a. Ankle sprains b. Achilles tendon rupture c. Ankle fractures d. Osteochondral lesion of the talus e. Pilon fractures f. Talus fractures g. Subtalar dislocation h. Calcaneal fractures 	<ol style="list-style-type: none"> i. Navicular fractures j. Midfoot fractures k. Lisfranc fractures l. Metatarsal fractures m. Phalangeal fractures and toe dislocations n. Open wounds and mangled foot o. Compartment syndrome of the foot
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Diabetic Foot

1. Describe the pathology of diabetes
2. Outline the role of peripheral neuropathy of diabetic foot disease
3. Identify the risk factors for diabetic foot disease
4. Describe an appropriate physical examination of the foot for a diabetic patient including sensory testing using Semmes-Weinstein filaments
5. Describe appropriate evaluation strategies for determining the extent of infection including the role of, physical examination, x-rays, mri, bone scan.
6. Outline the principals of treating diabetic foot problems including, callus formation, plantar ulceration, osteomyelitis.
7. Describe the indications and surgical technique of the following procedures, ulcer debridement, tendoachilles lengthening/gastrocnemius recession, exostectomy, toe amputation, partial ray amputation, Chopart, Symes and below knee amputation.
8. Demonstrate an understanding of Charcot arthropathy in terms of, diagnosis, classification, staging, and treatment principals.
9. Outline appropriate patient education strategies, which include emphasis on, appropriate footwear, daily foot checks, and paring of callosities.

Foot and Ankle Arthritis

1. Outline the pathophysiology of degenerative and post-traumatic osteoarthritis involving the following joints; ankle, subtalar, talonavicular, midfoot, first metatarsalphalangeal (hallux rigidus).
2. Identify the typical clinical presentation and physical examination findings.
3. Identify and interpret appropriate imaging studies.
4. Describe non-operative treatment options.
5. Describe operative options including indications, surgical goals and prognosis. (ankle arthroscopy, fusion, TAA).
6. For arthrodesis of these joints listed above describe the surgical technique including the optimal position.
7. Outline the pathophysiology of the inflammatory arthritides (ex. rheumatoid arthritis).
8. Describe the clinical presentation and treatment options for rheumatoid hindfoot disease.
9. Describe the clinical presentation and treatment options for rheumatoid forefoot disease.

Chronic Soft-Tissue Foot and Ankle Problems

1. Describe the characteristic history and outline the appropriate physical examination for the following problems:
 - a. Achilles tendonitis
 - b. Retrocalcaneal bursitis
 - c. Haglund's deformity
 - d. Peroneal tendonitis
 - e. Peroneal tendon subluxation
 - f. Posterior tibial tendonitis
 - g. Plantar fasciitis and heel pain syndrome
 - h. Lateral ankle instability
 - i. Subtalar instability
2. Identify the indications (if any) using the following investigations; full weight-bearing x-ray, CT scan, MRI, Bone Scan.
3. Outline non-operative treatment options including; steroid injections, splinting, orthotics, physical therapy.
4. Describe operative options including their indications, prognosis, and potential complications.

Pes Planus & Pes Cavus

1. Identify the typical and clinical presentation.
2. Outline the theories of etiology
3. Describe non-operative treatment options
4. Describe operative treatment options including indications, technique and prognosis for the following conditions:
 - a. Acquired adult flatfoot deformity (posterior tibial tendon dysfunction)
 - b. Congenital pes planus
 - c. Cavovarus foot

Hallux Valgus

1. Outline the basic theories on the etiology of hallux valgus.
2. Describe the characteristic physical and radiographic findings associated with hallux valgus.
3. Outline appropriate non-operative management of hallux valgus.
4. Describe appropriate surgical options for hallux valgus (juvenile and adult).
5. Outline the potential complications of the surgical treatment of hallux valgus.
6. Identify and describe salvage procedures for failed hallux valgus surgery.

Lesser Toes Problems

1. Identify the typical clinical presentation
2. Outline the theories of their etiology
3. Describe non-operative treatment options.
4. Describe operative treatment options including indication, technique and prognosis for the following conditions:
 - a. Hammer toes
 - b. Claw toes
 - c. Mallet toes
 - d. Soft corns
 - e. Paronychia
 - f. MTP subluxation/dislocation
 - g. Bunionette
 - h. Metatarsalgia

Neurological Conditions

1. Describe a typical history
2. Identify physical examination findings
3. Demonstrate an understanding of an appropriate neurological examination.
4. Identify appropriate further investigation where indicated.
5. Outline non-operative treatment options.
6. Describe operative options including their indication, prognosis and potential complications for the following problems:
 - a. Superficial peroneal nerve injury
 - b. Tarsal tunnel syndrome
 - c. Morton's neuroma
 - d. Sural neuritis
 - e. Peripheral neuropathy
 - f. Post-operative neuroma
 - g. Reflex sympathetic dystrophy
 - h. complex regional pain syndrome
 - i. Charcot-Marie-Tooth disease
 - j. Polio