

# University of South Florida

## Trauma and Fracture Care – PGY 5

### 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. PGY-2 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 the 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. Use information technology to support patient care decisions and patient education.
5. Perform competently minor invasive procedures considered essential in the acute management of patients with traumatic injuries to the musculoskeletal system.
6. 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.
7. Recognize, diagnose and initiate treatment for infections and life threatening conditions.
8. Able to counsel and educate patients and their families.
9. Exhibit team leadership skills and assume responsibility
10. Relate to, instruct and be a resource for junior residents
11. In a patient presenting with a complaint related to a traumatic injury of the musculoskeletal system the resident will demonstrate competency in the following skills:
  - a. Advanced Trauma Life Support Protocols
  - b. Obtain a focused patient history
  - c. Perform an appropriate physical exam, inspection, palpation, and range of motion
  - d. Demonstrate an understanding of neurological and vascular injury as it may relate to traumatic conditions.
  - e. Know the indications and basic interpretation of the following imaging studies:
    - i. Plain Radiography
    - ii. Computed Tomographic Scanning
    - iii. Magnetic Resonance Imaging
    - iv. Nuclear Medicine
    - v. Ultrasound
12. For the specific traumatic conditions (adult and pediatric) 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

- j. Demonstrate an understanding of, based upon a critical review of the existing literature, the pros and cons of the various surgical treatment options available for a specific fracture or injury.
- k. Prioritization of treatment for patients with multiple fractures.

Chronic

- a. Delayed and Non-union of fracture
- b. Osteomyelitis

Acute

- a. Clavicle Fracture
- b. Humeral Shaft Fracture
- c. Radius and Ulna Shaft Fracture
- d. Distal Radius Fracture (extra-articular)
- e. Proximal Femoral Fracture (Geriatric)
- f. Femoral Shaft Fracture
- g. Tibial Shaft Fracture
- n. Hip Dislocation
- h. Ankle Fracture
- i. Peri-articular Fractures
- j. Pelvic and Acetabular Fractures
- k. Shoulder Dislocation
- l. Elbow Dislocation
- m. Knee Dislocation

13. Recognize, provide *definitive* management of the following emergent and urgent conditions:

- a. Compartment Syndrome
- b. Open Fractures
- c. Acute post-traumatic anemia
- d. Acute post-operative anemia
- e. Acute post-traumatic hypotension
- f. Fat Embolism Syndrome
- g. Deep Venous Thrombosis
- h. Pulmonary Embolism
- i. Acute Post-operative Infection

14. Demonstrate competence in the following basic surgical skills:

- a. Formulation of a pre-operative plan
- b. Appropriate patient positioning
- c. Appropriate surgical field preparation and draping
- d. Effective and efficient assistant skills
- e. Thorough anatomical knowledge
- f. Open reduction and internal fixation of simple fractures (e.g. ankle and hip)
- g. Wound closure techniques and application of post-operative dressing and splints.

15. Demonstrate competence in the following basic non-surgical skills:

- a. Regional Anesthetic
- b. Arthrocentesis
- c. Manipulative Reduction
- d. Casting and Splinting
- e. Application of Skeletal Traction

**Outpatient:**

- 1. Effectively oversee outpatient fracture clinic.
- 2. Supervise, mentor and educate junior residents.

**Inpatient:**

- 1. Oversee all of the in-house patients including consults, as well as, preparation and supervision of the operating room schedule, resident call schedule and patient clinics.

**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 all of the basic knowledge listed for PGY 1-4
2. Demonstrate an investigatory and analytical thinking approach to clinical situations.
3. Demonstrate a critical knowledge of the literature as it pertains to fracture care options and outcomes
4. Know and apply the basic and clinically supportive sciences appropriate to orthopaedic surgery.
5. Demonstrate knowledge of surgical anatomy of the neurological, vascular, and musculoskeletal system.
6. Describe the basic and advanced principles of fracture care as outlined by the AO/ASIF.
7. Identify the role and general scope of practice of orthopedists; recognize situations where patients benefit from the skills of specialists training in care of traumatic conditions; and work effectively with these professionals in the care of these orthopedic conditions.
8. 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.
9. 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. Effectively utilize other services in a multi-disciplinary fashion to provide total care to the multiply injured patient.
4. Describe the role of all members of a multi-disciplinary team and show respect for the contributions of each.
5. Maintain comprehensive, timely and legible medical records.
6. Use effective listening skills.
7. 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).