

Orthopaedic Oncology Division

1. Rotation Goals and Objectives by Core Competency

General Goals & Objectives PGY 1 Year

A. Patient Care

- 1) Learn the essentials concerning performing a history and physical examination
- 2) Learn the principles of interpreting a plain radiograph (be able to recognize a fracture or bone tumor)
- 3) Recognize the historical symptoms of a malignant bone tumor.
- 4) Know the evaluation strategy for the patient with a carcinoma of unknown origin.
- 5) Demonstrate common non-operative skills
 - a. Splint application
 - b. Cast application
 - c. Joint aspiration/injection
 - d. Fracture manipulation
 - e. Joint reduction
- 6) Demonstrate basic operating room skills:
 - a. Patient positioning
 - b. Preparation and draping of the patient
 - c. Assisting with retractors, lights, and maintaining a blood free field
 - d. Learn layered closure
 - e. Placement of suction drains
- 7) Demonstrate the ability to care for patients postoperatively:
 - a. Wound care
 - b. Antibiotic prophylaxis
 - c. Anticoagulation management
 - d. Pain management
- 8) Consistently mark patients with initials prior to surgery and drape the initials into the surgical field.
- 9) Consistently perform the surgical time out prior to incision
- 10) Report medical errors to the attending surgeon when recognized
- 11) Organize and supervise medical students.

12) Develop patient management plan for patients admitted directly to the hospital

B. Interpersonal and Communication Skills

- 1) Listen to patients' concerns and express sensitivity and empathy for their medical problems
- 2) Explain the risks and goals of surgery to patients and their families and alternatives to surgery (perform informed consent for simple procedures)
- 3) Establish an effective patient-doctor relationship – attire, grooming, manner of speech, concern, and commitment
- 4) Establish an appropriate level of communication and relationship with ancillary
- 5) staff:
 - a. Refrain from abusive behavior
 - b. Be courteous
 - c. Report staff who are disrespectful and do their duties in a less than satisfactory manner (Patient Safety Net).
- 6) Use legible handwriting and print one's name under all signatures (or use the stamp).
- 7) Date and time all notes
- 8) Dictate discharge summaries on the day of surgery
- 9) Answer patient telephone calls on the same day that they are received

C. Professionalism

- 1) Be sensitive and responsive to differences in culture, gender, age, and impairments of both patients and staff
- 2) Be sensitive to the needs of trauma and cancer patients in terms of emotional support
- 3) Be reliable in the performance of responsibilities
- 4) Respect the opinions of other healthcare professionals
- 5) Express opinions in a manner that is sensitive to others

D. Medical Knowledge

- 1) Working knowledge of the common orthopaedic emergencies
 - a. Compartment syndrome
 - b. Cauda equina syndrome
 - c. Fat embolism syndrome
 - d. Pulmonary embolism
 - e. Deep venous thrombosis
- 2) Working knowledge of simple common fractures
 - a. Clavicle
 - b. Distal radius
 - c. Ankle
 - d. Hip

E. Practice Based Learning and Improvement

- 1) Analyze the effectiveness of his or her own interpretative, problem solving, and surgical skills
- 2) Use available information technology to obtain and manage information
- 3) Be receptive to constructive criticism

F. Systems-Based Practice

- 1) Demonstrate ability to provide cost effective care:
 - a. Use appropriate diagnostic tests
 - b. Use of antibiotics
 - c. Use of anti-coagulation medication
- 2) Use the health care system to provide optimal patient care outside the hospital system
- 3) Utilize the chain of command in both the supervision of subordinates and the interaction with seniors
- 4) Recognize emergencies and communicate the problem to appropriate personnel.

General Goals & Objectives PGY 5 Year

A. Patient Care

- 1) Complete the history and physical examination form, interpret imaging studies, and formulate a differential diagnosis of a patient with a bone or soft tissue lesion.
- 2) Recognize the historical symptoms of a malignant bone tumor.
- 3) Know the evaluation strategy for the patient with a carcinoma of unknown origin.

- 4) Choose reasonable options for the fixation of metastatic lesions to long bones and know the indications for prophylactic fixation of metastatic lesions.
- 5) Demonstrate technical competence in the operating room:
 - a. Perform intramedullary nailing independently
 - b. Perform bipolar hemi-arthroplasty independently
 - c. Choose the correct route for needle and open biopsy of bone and soft tissue lesions
 - d. Demonstrate basic proficiency in the dissection of nerves and blood vessels
- 6) Demonstrate the ability to care for patients postoperatively:
 - a. Wound care
 - b. Antibiotic prophylaxis
 - c. Anticoagulation management
 - d. Pain management
- 7) Consistently mark patients with initials prior to surgery and drape the initials into the surgical field.
- 8) Consistently perform the surgical time out prior to incision
- 9) Report medical errors to the attending surgeon when recognized
- 10) Organize and supervise the interns, junior and senior residents, and paramedical staff in the daily care of the service patients.
- 11) Develop patient management plan for patients admitted directly to the hospital

B. Interpersonal and Communication Skills

- 1) Able to listen to patients' concerns and express sensitivity and empathy for their medical problems
- 2) Explain the risks and goals of surgery to patients and their families and alternatives to surgery (perform informed consent)
- 3) Establish an effective patient doctor-relationship – attire, grooming, manner of speech, concern, and commitment
- 4) Establish an appropriate level of communication and relationship with ancillary staff:
 - a. Refrain from abusive behavior
 - b. Be courteous
 - c. Report staff who are disrespectful and do their duties in a less than satisfactory manner
 - d. Utilize the Patient Safety Net

- 5) Use legible handwriting and print one's name under all signatures (or use the stamp)
- 6) Date and time all notes
- 7) Dictate operative notes on the day of surgery
- 8) Dictate discharge summaries on the day of surgery
- 9) Answer patient telephone calls on the same day that they are received

C. Professionalism

- 1) Be sensitive and responsive to differences in culture, gender, age, and impairments of both patients and staff
- 2) Be sensitive to the needs of cancer patients in terms of emotional support
- 3) Be reliable in the performance of responsibilities
- 4) Respect the opinions of other healthcare professionals
- 5) Express opinions in a manner that is sensitive to others

D. Medical Knowledge

- 1) Working knowledge of the presentation, radiographic and histological features of common bone and soft tissue lesions
- 2) Answer the sample written tumor questions
- 3) Interpret the images on the sample tumor CD-ROM
- 4) Apply knowledge base in the care of patients

E. Practice Based Learning and Improvement

- 1) Analyze the effectiveness of his or her own interpretative, problem solving, and surgical skills
- 2) Use available information technology to obtain and manage information
- 3) Be receptive to constructive criticism
- 4) Complete the leadership written exercise each year

F. Systems-Based Practice

- 1) Demonstrate ability to provide cost effective care:
 - a. Utilization of appropriate diagnostic tests
 - b. Appropriate use of antibiotics
- 2) Use the health care system to provide optimal patient care outside the hospital system
- 3) Fully utilize the chain of command in both the supervision of subordinates and the interaction with seniors
- 4) Recognize emergencies and communicate the problem to appropriate personnel
- 5) Utilize the Patient Safety Net

2. Resident Supervision (Orthopaedic Oncology Service)

The resident is part of the orthopaedic oncology team and a valued resource to provide care of patients in the clinic, the hospital, and the operating room. The resident acts under the direct supervision of the orthopaedic oncology attending surgeons. All patients evaluated by the resident in the hospital or clinic will be discussed with and examined by the attending surgeon as well. The resident's daily activities are managed by the faculty

members Drs. Kristy Weber, Samer Attar and Frank Frassica. This provides the opportunity for immediate feedback.

Surgical procedures are performed under the direct supervision of an attending physician at all times, including nights, weekends, and holidays. The attending surgeon will be there for the timeout and all critical portions of the case (this usually means the entire case). The surgical attending determines the resident's level of competence and allows for the appropriate degree of responsibility.

The resident reports directly to the attending surgeon. The attending surgeon, at a minimum, is immediately available by pager or, when on call, within 30 minutes by request on site.

Contact information:

Julie Wiseman (Weber) 410-955-2888

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Marina Romanova (Frassica/Attar – patient care, Attar - administrative) 410-502-2698

Danie Noble, R.N.

410-502-7139

410-283-6214 (pager)

Kristy Weber, M.D.

410-283-2771 (pager)

Frank Frassica, M.D.

410-283-8102 (pager)

Samer Attar, M.D.

410-283-0017 (pager)

3. Clinical Activities

The JH residents have multiple opportunities to see musculoskeletal oncology patients in clinic and in the operating room. They also round on the inpatient tumor service on a daily basis. They spend time in three different faculty clinics (Drs. Weber, Attar, and Frassica) with regular teaching during each patient presentation. They spend time in the operating room with Drs. Weber and Attar. The residents also see inpatient oncology consults related to both sarcoma and metastatic bone disease.

4. Required Readings

Musculoskeletal Oncology and Metabolic Disease In AAOS Board Review Text, J. Lieberman (ed), AAOS, p. 391-489, 2009 (Weber/Frassica – section editors).

McCarthy EF and Frassica FJ: Pathology of Bone and Joint Disorders, p.185-269, W.B. Saunders, 1998.

The James F. Wenz, M.D. Orthopaedic Surgery Resident Survival Guide, 2007

Orthopaedic Pathology Sample Cases for Studying (on CD), Frassica, et al

Frassica FJ: Board Preparation Questions: Pathology/Oncology, 2007

Journal Club articles – twice during each rotation (2-3 articles chosen about relevant tumor topics)

Additional reference - FM Enzinger and Weiss SW: Soft Tissue Tumors, 3rd ed, p. 165-230, 381-430, 579-628, 735-756, 821-888, Mosby, 1995

5. Didactic Activities

Johns Hopkins Board Review Course (spring)– 1 comprehensive day of musculoskeletal pathology
OITE review (fall) – 1 comprehensive day of musculoskeletal pathology
Formal tumor journal club – twice per rotation (residents present and discuss articles with faculty)
Formal case presentations (for evaluation) – twice per rotation
Weekly multidisciplinary tumor conference with review of clinical/radiographic/pathologic presentation of patients as well as proposed treatment
Informal teaching in clinic related to each tumor patient with review of initial imaging, workup and treatment
Informal teaching in OR related to indications and technical considerations for surgical management of patients with primary bone/soft tissue tumors or metastatic bone disease
PDF file attached with additional reading/course curriculum

6. Schedule

The residents (chief and occasional intern) split the time where needed most. There is a concerted effort to be sure there is a reasonable mix of both clinic and OR cases. The residents round each morning on the tumor service. There is a journal club with formal case presentation twice each rotation.

Monday

Frank Frassica, M.D. – clinic
Samer Attar, M.D. – OR

Tuesday

Kristy Weber, M.D. – OR
Samer Attar, M.D. – clinic (every other week)

Wednesday

7am – Weekly multidisciplinary tumor conference
Kristy Weber, M.D. – clinic

Thursday

Samer Attar, M.D. – clinic

Friday

Kristy Weber, M.D. – OR
Samer Attar, M.D. – OR