SUNY UPSTATE MEDICAL UNIVERSITY
DEPARTMENT OF ORTHOPEDIC SURGERY
ORTHOPEDIC SURGERY RESIDENCY TRAINING PROGRAM MANUAL

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Introduction:
The SUNY Upstate Medical University Orthopedic Surgery residency education program takes great pride in the quality of the education program. The purpose of this manual is to provide you with a clear description of the residency program. This manual provides you with critical information that will be of value throughout your years in the program. Please carefully read through this manual. It is also available on Department of Orthopedic Surgery website at:


The web site includes additional information about the program and Department, including the calendar of events and listing of the faculty. The site also provides information about the Department’s research and clinical programs.

Program Overview:
The primary objective of the SUNY Upstate Orthopedic Surgery Residency Program is to provide a well-balanced educational experience for residents that will allow them to develop into knowledgeable, competent, compassionate and ethical orthopedic surgeons. The program is structured to provide a broad exposure to all aspects of orthopedic surgery and provide graduated responsibility as residents gain more experience.

The first year (PGY-1) of the education program provides residents with experience in all of the key patient care areas, including the operating room, emergency department and intensive care units. Residents gain experience in the management of patients in the SICU and Burn unit. They complete rotations in the general trauma, vascular surgery, anesthesiology and the emergency department. The required 6 months of orthopedic surgery includes 3 months on the hand service and 3 months on the orthopedic trauma service. The PGY-1 year also includes formal surgical skills training. Residents completing this year are skilled in the care of both adult and pediatric patients with serious illnesses and multi-system trauma.

The PGY-2 and PGY-3 years introduce residents to all aspects of general orthopedics and trauma care at a basic level. During the PGY-2 year, residents spend three months on the trauma rotation at University Hospital. This experience allows them to develop the skills required for splinting, triage and hemostasis, as well as a clear understanding of the indications for surgical treatment of trauma-related conditions. The three month pediatric orthopedic (PGY-2), spine surgery (PGY-2) and hand surgery (PGY-3) rotations also serve as the initial introductions to these subspecialty areas. During the PGY-2 through PGY-4 years, there are three rotations during which the resident spends significant amounts of time with fellowship trained orthopedic surgeons at community hospitals who are committed to resident education. This educational experience broadens the resident’s understanding of disease processes, provides them with an excellent experience in patient management, and facilitates the development of surgical skills.
During the PGY-4 and PGY-5 years the residents gain experience with graduated responsibility in the operating room and clinics. These years provide a focused, more senior level experience, in subspecialty areas including pediatric orthopedics, sports medicine, hand surgery, spine surgery, orthopedic oncology, trauma and adult reconstruction. These rotations also allow specialized skill development and foster interest in areas for possible future study or fellowship education.

Balancing this clinical experience is a comprehensive didactic conference schedule that covers all subspecialty areas, ethics and practice management topics. Included are grand rounds, morbidity and mortality conferences, and journal clubs that encompasses both general and subspecialty journals. Both basic science and clinical topics are covered in this year round conference schedule. All residents attend weekly cadaver dissections during the summer months to enhance their understanding of surgical anatomy and approaches. Furthermore, residents are provided funding for attendance at a fracture fixation course during their PGY-1, 2 or 3 year as well as the AAOS Annual meeting during their PGY-5 year.

Research opportunities abound for the residents with clear direction from numerous orthopedic researchers in both the clinical and basic science arenas. The Institute for Human Performance Building on campus has remarkable laboratory facilities that residents can utilize for basic research and surgical skills development. All residents are educated in the research process via a quarterly research conference that begins in the second year. Residents receive formal instruction on formulation of a research question. Their research efforts are supported by dedicated research half-days over the course of the four years of core rotations. Prior to graduation, all residents are required to complete at least one research project and compose a manuscript suitable for publication. Department funding for start-up projects and national presentations is available.

There is a Department education committee made up of members of the full-time faculty and two residents (PGY-4 and PGY-5). The committee is chaired by the residency program director. The education committee meets monthly, is active in defining and supervising resident responsibilities, works to ensure that all residents are provided with a complete education in the discipline of orthopedic surgery. The residency program is compliant with New York State Health Department Code 405 and ACGME duty hour regulations at all sites. Regular survey of duty hours is coordinated through the Office of Graduate Medical Education.

**Residency Applications**

Applications for the residency program are accepted through ERAS. After review of the application materials and reference letters, approximately 50 candidates per year are interviewed. The interviews are conducted on 3 Saturdays. Each of these days is preceded by a Friday evening social event where the candidates have opportunities to interact with the current residents. Each candidate is interviewed by the program director, and individually by several members of the full-time faculty. There are also resident interviewers. Areas that are stressed during the ranking of candidates are
academic achievement, research experience, USMLE scores, involvement in extracurricular activities and the interview results. There is no discrimination on the basis of race, age, gender, religion, national origin, marital status or sexual orientation. The program recognizes the value of diversity in the residency program.

Core Competencies:
The program goals and objectives are structured to follow the ACGME core competencies. Resident evaluation is based on assessment in the core competencies. Below is a general description of the six core competencies.

a. **Patient Care** (PC) that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health

b. **Medical Knowledge** (MK) about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care

c. **Practice-Based Learning and Improvement** (PBL) that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care

d. **Interpersonal and Communication Skills** (IC) that result in effective information exchange and teaming with patients, their families, and other health professionals

e. **Professionalism** (P) as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population

f. **Systems-Based Practice** (SBP) as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value

**Rotation Objectives and Expectations:**
While developing competence in all six competency areas defined by the ACGME as paramount to residency education, residents also need clear descriptions of goals and objectives for each of the major orthopedic rotations that they complete during their five years of training. The structure of these objectives should allow residents to develop short term goals with specific focus on their daily and weekly education. The listings that follow on the next pages of this manual serve as this guide for residents.

Also included for each rotation is a list of rotation-specific expectations that clearly outline the structure, daily routine and expected resident behaviors for each major rotation. Please review the relevant rotation objectives and expectations at the beginning of each rotation. You should personally review this information with the rotation director at the start and completion of the rotation, so that both of you can agree on attainment of rotation objectives. The core competencies addressed by each objective is listed in parenthesis.
PGY-1 Rotations: Objectives and Expectations
OVERVIEW OF OBJECTIVES AND EXPECTATIONS
NON-ORTHOPEDIC PGY-1 ROTATIONS

The primary goal of the PGY-1 year is to develop the fundamental cognitive and technical skills required for the care of surgical patients. This knowledge will serve as basis for the remainder of training specific to orthopedic surgery. These skills will be developed in a variety of settings with a variety of people.

In the Emergency Department (ED), PGY-1 residents will build their abilities in the assessment and initial management of both adult and pediatric patients with a wide spectrum of presenting complaints. The PGY-1 resident is expected to participate in a wide variety of non-orthopedic care during his/her time in the ED.

On the General Surgery Trauma rotation the PGY-1 resident is expected to gain proficiency in the early assessment and daily management of patients with traumatic injuries. Awareness and basic management of problems related to hemodynamic stability, coagulopathy, chest and abdominal injury, respiratory compromise and comorbid conditions are among the competencies expected to be acquired.

In the Intensive Care Unit the PGY-1 resident is expected to develop skills in the care of critically ill and injured patients. Basic management of ventilators, fluid and electrolyte balance, and complications that occur in the cardiac, pulmonary, renal and vascular systems are among the cognitive skills that should be acquired. Technical skills learned should include placement of venous and arterial lines as well as central lines.

During the anesthesia rotation PGY-1 residents are expected to gain a basic understanding of the patient conditions and risk factors that must be assessed during a pre-operative evaluation, the principles of induction and maintenance of anesthesia, risks and benefits of different types of anesthesia, and basic principles behind the management of pain. PGY-1 residents should acquire skill in airway management and intubation, placement of venous and arterial lines, and placement of regional blocks.

There are two orthopedic surgery rotations during the PGY-1 year. On the orthopedic trauma rotation the residents are exposed to the emergency department and the principles of orthopedic trauma care. They are expected to develop casting, splinting and fracture reduction skills. They should learn to identify open fractures, nerve injuries and vascular compromise. They also expected to learn the principles of evaluating and managing the acutely injured patient in addition to postoperative management of orthopedic trauma patients. The three month hand surgery rotation is their first exposure to hand and micro-vascular surgery. During this rotation they work directly with one of the hand surgery attendings. They are expected to acquire basic skills for the management of hand related problems.

Formal surgical skills education is included as part of the PGY-1 year. PGY-1 residents are expected to develop their basic surgical skills in making incisions, assisting appropriately and effectively in the OR, performing basic procedures, and in closure of fascial, subcutaneous and skin layers.

Overall, the PGY-1 year is designed to build a foundation in the cognitive and technical skills required of an orthopedic surgeon. During this year, PGY-1 residents are also expected to hone their skills in effective communication with patients and colleagues, documentation and maintenance of a medical record, and fulfilling their
educational, clinical and administrative responsibilities maintaining the highest standards of honesty and professionalism.
EDUCATIONAL OBJECTIVES
ORTHOPEDIC SURGERY TRAUMA ROTATION
PGY 1

GOALS

GOAL 1  To introduce the new resident physician to the diagnosis and treatment of basic orthopedic disorders and diseases.

GOAL 2  To introduce the new resident physician to the surgical skills required in the treatment of basic orthopedic disorders and diseases.

EDUCATIONAL OBJECTIVES

GOAL 1  To introduce the new resident physician to the diagnosis and treatment of basic orthopedic disorders and diseases.

Objective 1. To learn a systematic approach to the evaluation of patients presenting in an office or emergency setting, with symptoms secondary to disorders of the musculoskeletal system. (PC, MK, PBL, IC, P)

Objective 2. To learn the appropriate indications for the use of various diagnostic tests and radiographic techniques for patients with symptoms secondary to disorders of the musculoskeletal system. (PC, MK, SBP)

Objective 3. To develop an understanding of the non-surgical or surgical treatment options for patients presenting with symptoms secondary to disorders of the musculoskeletal system. (PC, MK, IC)

GOAL 2  To introduce the new resident physician to the surgical skills required in the treatment of basic orthopedic disorders and diseases.

Objective 4. To develop basic skills required in surgical procedures for patients presenting with symptoms secondary to disorders of the musculoskeletal system. (PC, MK)
GOAL 1
Objectives 1, 2, 3:
   a. musculoskeletal history
   b. musculoskeletal physical exam
   c. radiographs, computed tomography, MRI, nuclear medicine
   d. long bone fractures of the skeletal system, extra-articular and intra-articular
   e. ligamentous derangements and dislocations of major joints of the extremities
   f. musculotendinous lacerations and contusions
   g. bone and soft tissue derangements of the spine, including spinal cord injury
   h. arthritides of the skeletal system
   i. infections and osteomyelitis

GOAL 2
Objective 4:
   a. closed reduction techniques
   b. casting and splinting techniques
   c. suture techniques and knot tying
   d. lacerations
   e. surgical approaches to long bones and the spine
   f. pinning, external fixation, plating and intramedullary devices
PGY 1 Orthopedic Surgery Trauma Rotation Expectations

1. Learn principles of orthopedic trauma and reconstruction. The resident will be assigned to the adult trauma service, which includes both acute and selected chronic trauma patients. Morning and afternoon patient care rounds in conjunction with the PGY-2 & PGY-4 on service patients is expected.

2. The resident will be involved in the overall treatment of trauma and ED orthopedic patients, from assessment in the emergency department and office, through to the operating room, and post-operatively up to discharge.

3. On call, the resident is to assist in the emergency department to learn to reduce fractures and dislocations, as repair lacerations and proper splinting and casting techniques.

4. The resident is to assist in the operating room or office according to his assigned schedule. If not busy with other responsibilities, the resident should seek out operative cases. A great deal can be learned as a second assistant.

5. The resident is to attend morning sign out rounds, morning specialty conferences, grand rounds and journal club.

6. The PGY-1 is expected to round with the PGY-2 or the PGY-4 on the service. It is expected that they are supervised in their clinical activities.

7. Compliance with New York State and ACGME duty hour regulations is required. Proper transfer of patient care responsibilities must be arranged when you leave the hospital.
EDUCATIONAL OBJECTIVES
ORTHOPEDIC SURGERY HAND ROTATION
PGY 1

GOALS

GOAL 1  To introduce the resident physician to the diagnosis and treatment of diseases of the hand and wrist

GOAL 2  To introduce the resident physician to the surgical skills required in the treatment of diseases of the hand and wrist.

EDUCATIONAL OBJECTIVES

GOAL 1  To introduce the resident physician to the diagnosis and treatment of diseases of the hand and wrist

Objective 1.  To learn a systematic approach to the evaluation of patients presenting in an office setting, with symptoms secondary to disorders of the hand and wrist; including differentiation from referred symptoms

Objective 2.  To learn the appropriate indications for the use of diagnostic tests for patients presenting with symptoms secondary to disorders of the hand and wrist.

Objective 3.  To develop an understanding of the appropriate non-surgical or surgical treatment for patients presenting with symptoms secondary to disorders of the hand and wrist.

GOAL 2  To introduce the resident physician to the surgical skills required in the treatment of disease of the hand and wrist.

Objective 4.  To develop proficiency in surgical procedures appropriate to the treatment of patients presenting with a variety of symptoms secondary to disorders of the hand and wrist.
GOAL 1
Objectives 1, 2, 3:

a. disorders of the distal radius: acute fractures, malunion, arthritis
b. disorders of the DRUJ: fractures, instability, ulnar impaction, arthritis
c. disorders of the carpal bones: carpal fractures, dislocations, instability, arthritis, stiffness
d. disorders of the bones of the hands: fractures, dislocations, arthritis, stiffness, amputations
e. disorders of the nails and nailbed: crush injury, tumors, infections
f. disorders of the flexor tendons: lacerations, tenovaginitis, tenosynovitis, adhesions, chronic deficiency
g. disorders of the extensor tendons: lacerations, ruptures, tenosynovitis, adhesions, dislocations, chronic deficiency
h. disorders of the neurovascular structures of the hand: lacerations, neuromas, vasospastic disorders
i. rheumatologic disorders of the hand and wrist
j. peripheral nerve compression in the upper extremity
k. paralytic conditions of the hand, with and without tendon transfers
l. reflex sympathetic dystrophy
m. masses and tumorous conditions of the hand and wrist

GOAL 2
Objective 4:

a. open reduction and internal fixation, as well as percutaneous reduction techniques, for distal radius fractures
b. ORIF and percutaneous techniques for carpal and hand fractures
c. extensor and flexor tendon repair
d. peripheral nerve decompression
e. peripheral nerve and vessel repair
f. wrist arthroscopy: diagnostic and therapeutic, including synovectomy and debridement
g. excision of masses and tumors
PGY1 Hand Surgery Resident Rotation Expectations

1. Each resident is expected to obtain a copy of the assigned attending’s schedule for the upcoming week. The schedule can usually be obtained by email. Please check with the residency coordinator or the hand fellows for a copy of the monthly attending assignments so you know to whom you are assigned.

2. The resident is expected to dialogue with the assigned attending so that it is clear which activities for the upcoming week absolutely require their attendance. Absences from these activities (conferences, meetings, post-call, etc) should be communicated to the attending and alternate coverage arranged.

3. Attendance at scheduled conferences should be top priority – surgical cases that begin during conference will be started by the attending.

4. The resident will be assigned to one attending on a month-by-month basis. As of 2015, the PGY-1 hand rotation is divided between Dr. Harley and Dr. Loftus. The resident will accompany the assigned attending to all office hours and surgical cases based on their schedule. Refinement of diagnostic skills and non-operative treatment of hand problems is an integral part of this rotation. Time in the office/clinic should represent 50% of patient care on this rotation.

5. Residents need to read and prepare for cases. There are no exceptions. Residents have first priority with regard to surgical cases of their assigned attendings. The only exception is microsurgery and free flaps, for which fellows may “take over” a case.

6. The resident is expected to help cover a 12-hour daytime shift of “in-house call” on Sundays along with the PGY-2 on the spine service.

7. Residents and fellows are welcome to observe any case. If your attending is on vacation, don’t take one yourself. There is a lot to know and limited time, so make the most of it.

8. The reading list can be found in the orientation package. You have three rotations to complete it.

9. The formalized resident vacation policy applies to this rotation.

10. Compliance with New York State and ACGME duty hour regulations is required. Proper transfer of patient care responsibilities must be arranged when you leave the hospital.
EDUCATIONAL OBJECTIVES
EMERGENCY MEDICINE ROTATION
PGY 1

GOALS

GOAL 1  To develop the resident physician’s knowledge and skills in assessment and initial management of a variety of patients in the Emergency Department

EDUCATIONAL OBJECTIVES

GOAL 1

Objective 1. To be able to evaluate adult patients presenting to the Emergency Department with a variety of medical, surgical and psychiatric complaints and develop a plan for diagnostic testing (laboratory and/or radiologic) and/or consultation as appropriate. (MK, PC, PBL, SBP)

Objective 2. To be able to evaluate pediatric patients presenting to the Emergency Department with a variety of medical, surgical and psychiatric complaints and develop a plan for diagnostic testing (laboratory and/or radiologic) and/or consultation as appropriate. (MK, PC, PBL, SBP)

Objective 3. To be able to present concisely and effectively to more senior residents and/or attendings patients presenting to the Emergency Department. (MK, PC, IC, P)

GOAL 1

Objectives 1,2, 3:

a. Traumatic injuries
b. Chest pain
c. Shortness of breath/respiratory compromise
d. Abdominal pain/vomiting/constipation
e. Delirium/dementia
Expectations

1. Participate fully in the Emergency Department Service in the role assigned to the PGY-1 resident.
2. Compliance with New York State and ACGME duty hour regulations is required. Proper transfer of patient care responsibilities must be arranged when you leave the hospital.
3. The expectation is that you see the entire scope of patients in the emergency room. The goal of the rotation is that you observe and learn to evaluate and manage patient complaints outside of orthopedics. Do not only see orthopedic patients during your emergency medicine rotation.
EDUCATIONAL OBJECTIVES
ANESTHESIOLOGY ROTATION
PGY 1

GOALS

GOAL 1  To introduce the resident physician to the principles behind surgical anesthesia and some of the associated procedures

EDUCATIONAL OBJECTIVES

GOAL 1  To introduce the resident physician to the principles behind surgical anesthesia and some of the associated procedures

Objective 1.  To begin to understand the factors evaluated in determining the most appropriate form of surgical anesthesia. (MK, PC, IC)

Objective 2.  To begin to understand the principles of induction and maintenance of anesthesia and of pain management. (MK, PC)

Objective 3.  To learn to perform basic procedures associated with the administration of anesthesia. (MK, PC, SBP)

GOAL 1
Objectives 1,2:

a.  pre-operative evaluation (including risk factors related to: cardiac disease, pulmonary disease, renal disease, coagulopathy, hypercoagulability, cognitive disorders, social factors)

b.  principles of induction and maintenance of anesthesia

c.  risks and benefits of different types of anesthesia

d.  basic principles of pain management

Objective 3:

a.  intubation and airway management

b.  venous line placement

c.  arterial line placement

d.  regional blocks
Expectations

1. Compliance with New York State and ACGME duty hour regulations is required. Proper transfer of patient care responsibilities must be arranged when you leave the hospital.
EDUCATIONAL OBJECTIVES
VASCULAR SURGERY ROTATION
PGY 1

GOALS

GOAL 1  To develop the resident physician’s core knowledge underlying the care of patients with vascular disease

GOAL 2  To develop the resident physician’s knowledge and skills for the evaluation and management of patients with vascular disease

GOAL 3  To introduce the resident physician to performance of vascular surgery

EDUCATIONAL OBJECTIVES

GOAL 1  To develop the resident physician’s core knowledge underlying the care of patients with vascular disease

Objective 1.  To demonstrate an understanding of the pathophysiology of and risk factors for vascular disease. (MK, PC)

Objective 2.  To understand the indications for medical, endovascular, and operative treatments of vascular disease. (MK, PC)

GOAL 2  To develop the resident physician’s knowledge and skills for the evaluation and management of patients with vascular disease

Objective 3.  To be able to perform an appropriate physical exam to evaluate a patient for vascular disease. (MK, PC, IC, P, PBL)

Objective 4.  To be able to order (or perform) and interpret appropriate diagnostic tests to evaluate a patient for vascular disease (MK, PC, PBL, SBP)

Objective 5.  To be able to institute appropriate initial therapy for vascular problems. (MK, PC, PBL)

Objective 6.  To be able to provide appropriate postoperative care to vascular surgery patients. (MK, PC, IC, P, PBL)
GOAL 3  To introduce the resident physician to performance of vascular surgery

Objective 7. To be able to perform basic procedures in the care of vascular surgery patients, and to assist in more complex procedures. (MK, PC)

GOAL 1
Objective 1:
   a. anatomy of arterial and venous systems
   b. pre-morbid conditions leading to vascular disease
   c. prevention and counseling regarding vascular disease
   d. aneurysmal vascular disease
   e. occlusive vascular disease
   f. thromboembolic disease
   g. visceral ischemia

Objective 2:
   a. non-operative management of vascular disease
   b. role of anticoagulant agents
   c. indications for operative/endovascular treatment

GOAL 3
Objective 3:
   a. ankle/brachial indices
   b. palpable/dopplerable pulses

Objective 4:
   a. duplex ultrasound
   b. other vascular laboratory methodologies

Objective 5:
   a. vascular occlusion
   b. aneurysm
   c. indications, performance and limits of endovascular procedures

Objective 6:
   a. graft surveillance
   b. optimization of graft flow
   c. infection
   d. associated complications

GOAL 3
Objective 7:
a. incision and closure  
b. simple vascular exposure  
c. simple vascular clamping  
d. handling of graft materials  
e. preparation of vein grafts  
f. Fogarty embolectomy  
g. Doppler evaluation of vessel patency  
h. portions of dialysis access procedures  
i. portions of uncomplicated anastamosis  
j. basic angiographic skills (including arterial puncture and wire exchanges)

**Expectations**

1. Participate fully in the Vascular Surgery service in the role assigned to the PG1 resident.  
2. Participate in at least one half-day in vascular clinic.  
3. Compliance with Code 405 and ACGME duty hour regulations is mandatory.
EDUCATIONAL OBJECTIVES
TRAUMA GENERAL SURGERY ROTATION
PGY 1

GOALS

GOAL 1 To introduce the resident physician the core knowledge required for the care of patients sustaining trauma

GOAL 2 To develop the resident physician’s knowledge and skills in evaluation and initial management of trauma patients

GOAL 3 To be able to perform appropriately procedures required in the evaluation and initial management of patients who have sustained trauma

EDUCATIONAL OBJECTIVES

GOAL 1 To introduce the resident physician the core knowledge required for the care of patients sustaining trauma

Objective 1. To demonstrate an understanding of the pathophysiology associated with trauma patients. (MK, PC)

GOAL 2 To develop the resident physician’s knowledge and skills in evaluation and initial management of trauma patients

Objective 2. To be able to evaluate appropriately patients presenting following trauma including interpretation of clinical, laboratory, and imaging findings. (MK, PC, PBL)

Objective 3. To be able to institute appropriate initial management of trauma patients. (MK, PC, PBL, IC)

Objective 4. To be able to provide appropriate non-operative, pre-operative, and post-operative care to trauma patients. (MK, PC, IC, P, PBL, SBP)

GOAL 3 To be able to perform appropriately procedures required in the evaluation and initial management of patients who have sustained trauma
Objective 5. To be able to perform simple procedures required in the care of trauma patients. (MK, PC, PBL)

**GOAL 1**
Objective 1:
- a. principles of mechanism of injury
- b. pathophysiology of shock
- c. fluids and electrolytes
- d. nutrition
- e. wound healing

**GOAL 2**
Objective 2:
- a. ATLS
- b. abdominal trauma
- c. thoracic trauma
- d. extremity trauma
- e. radiographs
- f. CT scans
- g. ultrasounds

Objective 3:
- a. ATLS
- b. resuscitation
- c. “team concept” of trauma care

Objective 4:
- a. fluids and electrolytes
- b. nutrition
- c. wound healing
- d. penetrating trauma
- e. blunt trauma
- f. splenic lacerations
- g. liver lacerations
- h. bowel injuries
- i. diaphragmatic injuries
- j. shock
- k. pulmonary contusion

**GOAL 3**
Objective 5:
- a. central venous line insertion
- b. chest tube insertion and removal
- c. diagnostic peritoneal lavage
- d. simple and complex laceration repair
e. foreign body removal
f. laparotomy closure

**Expectations**

1. Participate fully in the Trauma Service in the role assigned to the PGY-1.
2. See and present most patients on morning rounds.
3. See and present straightforward consultations in the Emergency Department including a plan for evaluation and treatment.
4. Participate in trauma resuscitations with graded responsibility.
5. Participate in weekly Trauma Clinic.
6. Compliance with Code 405 and ACGME duty hour regulations is mandatory.
7. Understand the principles of treatment when dealing with the critically injured patient. General surgery trauma is a specialty that shares a number of patients with the orthopedic trauma service. It is valuable to understand rational for decision making on both services.
8. The resident is expected to understand what factors help determine when a patient is medically stable for surgery. Understand the principles of adequate resuscitation and lab values to evaluate appropriately.
EDUCATIONAL OBJECTIVES
SICU (CRITICAL CARE MEDICINE) ROTATION
PGY 1

GOALS

GOAL 1  To introduce the resident physician to the core knowledge required to evaluate and manage critically ill surgical patients.

GOAL 2  To develop the resident physician’s knowledge and skills in performance of procedures required in the management of critically ill surgical patients.

EDUCATIONAL OBJECTIVES

GOAL 1  To introduce the resident physician to the core knowledge required to evaluate and manage critically ill surgical patients.

Objective 1.  To demonstrate an understanding of the pathophysiology of the critically ill surgical patient. (MK, PC)

Objective 2.  To demonstrate an understanding of monitoring equipment used in the care of critically ill surgical patients. (MK, PC, PBL)

Objective 3.  To be able to order appropriate diagnostic tests and interpret results. (MK, PC, PBL, SBP)

Objective 4.  To begin to develop the ability to manage critically ill surgical patients. (MK, PC, PBL, IC, P)

Objective 5.  To develop an understanding of ethical issues and dilemmas encountered in the care of critically ill patients. (MK, PC, IC, SBP, P)

GOAL 2  To develop the resident physician’s knowledge and skills in performance of procedures required in the management of critically ill surgical patients.

Objective 6.  To be able to perform appropriately procedures (primarily for monitoring and resuscitation) often required by critically ill surgical patients. (MK, PC, PBL)
GOAL 1
Objective 1:
- a. hemodynamic pathophysiology
- b. pulmonary pathophysiology
- c. renal pathophysiology
- d. immunologic pathophysiology
- e. nutrition
- f. fluids and electrolytes
- g. antibiotics
- h. organ failure

Objective 2:
- a. ventilators
- b. hemodynamic monitors
- c. intensive neuromonitoring

Objective 3:
- a. laboratory tests for fluid and electrolyte status
- b. laboratory tests for hemodynamic status
- c. laboratory tests for organ failure
- d. nutritional analysis
- e. bacterial cultures

Objective 4:
- a. use of fluids, pressors, inotropes
- b. use of antibiotics
- c. use of ventilators
- d. nutritional repletion
- e. decreased levels of consciousness
- f. increased intracranial pressure
- g. impact of operative interventions on organ physiology
- h. sedation
- i. anxiolytics
- j. neuromuscular blockade

Objective 5:
- a. end of life issues
- b. resource utilization issues

GOAL 2
Objective 6:
- a. insertion of central venous catheters
- b. insertion of pulmonary artery catheters
- c. insertion of arterial lines
- d. intubation
Expectations

1. Participate fully in the Critical Care Medicine service in the role assigned to the PGY-1 resident.
2. Daily contact with the CCM attending.
3. All procedures will be performed under supervision.
4. Compliance with Code 405 and ACGME duty hour regulations is mandatory.
EDUCATIONAL OBJECTIVES
PEDIATRIC SURGERY ROTATION
PGY 1

GOALS

GOAL 1 To introduce the resident physician to the core knowledge required in the care of pediatric surgical patients

GOAL 2 To develop the resident physician’s knowledge and skills for the evaluation of pediatric surgical patients

GOAL 3 To develop the resident physician’s knowledge and skills for developing appropriate operative or non-operative treatment plans for pediatric patients

GOAL 4 To introduce the resident to performing surgery and minor procedures on pediatric patients

EDUCATIONAL OBJECTIVES

GOAL 1 To introduce the resident physician to the core knowledge required in the care of pediatric surgical patients

Objective 1. To demonstrate an understanding of the pathogenesis, diagnosis, and surgical management of common, and some uncommon, pediatric surgical disease processes. (MK, PC)

Objective 2. To develop an understanding of principles of pre- and post-operative care of pediatric surgical patients. (MK, PC)

Objective 3. To develop an understanding of differences between pediatric and adult surgical patients. (MK, PC)

GOAL 2 To develop the resident physician’s knowledge and skills for the evaluation of pediatric surgical patients

Objective 4. To develop proficiency in examination of pediatric patients. (PC, MK, IC, P, PBL)

Objective 5. To be able to order appropriately order and evaluate diagnostic tests for pediatric surgical patients. (MK, PC, SBP)
GOAL 3  
To develop the resident physician’s knowledge and skills for developing appropriate operative or non-operative treatment plans for pediatric patients

Objective 6.  To be able to formulate a differential diagnosis and treatment plan for common, and some uncommon, pediatric surgical diseases. (MK, PC, IC, PBL, SBP)

GOAL 4  
To introduce the resident to performing surgery and minor procedures on pediatric patients

Objective 7.  To be able to perform some minor surgical procedures on pediatric patients. (MK, PC)

Objective 8.  To be able to assist with and/or perform surgical procedures on pediatric patients (commensurate with training/experience/ability). (PC, MK, PBL)

GOAL 1
Objectives 1, 2, 3:
   a. pediatric vs adult physiology
   b. fluid management
   c. pain management
   d. nutrition
   e. common pediatric surgical diseases
   f. uncommon, but important to recognize, pediatric surgical diseases

GOAL 2
Objectives 4, 5:
   a. examination of frightened/uncooperative/nonverbal children
   b. unique psychosocial needs of children/families
   c. appropriate imaging (and how may be different from adults)

GOAL 3
Objective 6:
   a. appendicitis
   b. hernia
   c. pyloric stenosis
   d. abscess
   e. pectus excavatum
   f. intussusception
GOAL 4
Objectives 7, 8:
   a. circumcision
   b. line placement
   c. appendectomy
   d. herniorrhaphy
   e. pylomyotomy

Expectations

1. Participate fully in the Pediatric Surgery Service in the role assigned to the PGY-1 resident.
2. Attend office hours of attending pediatric surgeons.
3. Participate in pre- and post-operative management of all pediatric surgical patients.
4. Residents will have a graded operative experience depending on level of training experience and ability.
5. Compliance with Code 405 is mandatory.
PGY-2 Rotations: Objectives and Expectations
EDUCATIONAL OBJECTIVES
TRAUMA ROTATION
PGY 2

GOALS

GOAL 1 To introduce the resident physician to diagnosis and treatment of emergent orthopedic conditions.

GOAL 2 To introduce the resident physician to the surgical skills required in the treatment of emergent orthopedic conditions.

EDUCATION OBJECTIVES

GOAL 1 To introduce the resident physician to diagnosis and treatment of emergent orthopedic conditions.

Objective 1. To learn a systematic approach to the evaluation of patients presenting in the emergency room setting, with symptoms secondary to disorders of the musculoskeletal system. (PC, MK, IC, PBL, P)

Objective 2. To learn the appropriate indications for the use of various diagnostic tests and radiographic techniques for patients with symptoms secondary to disorders of the musculoskeletal system. (PC, MK, SBP)

Objective 3. To develop an understanding of the non-surgical or surgical treatment options for patients presenting with symptoms secondary to disorders of the musculoskeletal system. (PC, MK, C)

Objective 4. To develop an understanding of the postoperative care of trauma patients, including trauma and fracture related complications (PC, MK, SBP)

GOAL 2 To introduce the resident physician to the surgical skills required in the treatment of orthopedic trauma conditions.

Objective 5. To develop basic skills required in surgical procedures for patients presenting with symptoms secondary to disorders of the musculoskeletal system. (PC, MK)
GOAL 1
Objectives 1, 2, 3:
   a. musculoskeletal history and physical exam
   b. radiographs, computed tomography, MRI, nuclear medicine
   c. interaction with various services in caring for trauma patients
      i. priorities of multiply injured patients with orthopedic injuries
      ii. triage decisions and work under pressure
   d. ligamentous derangements and dislocations of major joints of the extremities
   e. musculotendinous lacerations and contusions
   f. long bone fractures of the skeletal system
      i. diaphyseal
      ii. metaphyseal
      iii. intra-articular
   g. pelvic and acetabular fractures
      i. control of hemorrhage in closed and open pelvic fractures
      ii. evaluate and understand the importance of energy of injury and soft tissue injury
   h. bone and soft tissue derangements of the spine
      i. fractures
      ii. dislocations
      iii. spinal cord injury
      i. infections and osteomyelitis

Objective 4:
   a. open fracture wound care
   b. post operative infection
   c. hemorrhage and hematoma
   d. compartment syndrome
   e. DVT and pulmonary embolus
   f. ileus, urinary retention
   g. pain control

GOAL 2
Objective 5:
   a. closed reduction techniques
   b. casting and splinting techniques
   c. suture techniques and knot tying
   d. laceration repair
   e. surgical approaches to long bones and the spine
   f. principles of fracture fixation
   g. fixation choices in diaphyseal, metaphyseal and articular fractures
   h. amputations
PGY 2 Trauma/Emergency Care Rotation Expectations

1. Each resident is expected to have a copy of the call schedule for the upcoming month. New York State Health Department Code 405 Regulations regarding resident work hours violations are to be strictly avoided – without compromising patient care. Please check with fellow residents to ensure patient coverage.

2. The resident will cover the trauma service during the day and be available to cover emergencies in the event that residents from the other services are not immediately available. Residents from other services are expected to cover all non-emergent matters. Rounds will be conducted in conjunction with the senior resident and intern. Daily notes are required.

3. The resident is expected to dialogue with their assigned attendings daily – either through a clinical rounds or telephone discussion. Significant problems or complications should be communicated immediately to the attending responsible for the patient.

4. When covering the ER and wards at the same time, calls from the wards take first priority. For any emergency on the wards – you are only physician available. The emergency room is full of ER physicians to look after their emergencies!

5. All admissions and consults in the emergency room should be discussed with the senior resident/fellow on call. Attendings need to know about all admissions and consults once they have been discussed with the senior resident/fellow. Check with the senior resident on when to call an attending.

6. A formal face-to-face handover with attendings is carried out at 6:45 am on weekday mornings, and at 5:00 pm with the oncoming on call resident and the senior resident on the trauma service.

7. The residents are responsible for maintaining an orderly, professional appearance in the resident areas.

8. With the exception of emergencies, attendance at scheduled conferences should be top priority. Ward emergencies should be dealt with promptly.

9. Coverage of the floor and emergency department are the primary responsibility of the resident. Residents are permitted to scrub on operative cases, time permitting.

10. The trauma reading list can be found in the orientation package.

11. The formalized resident vacation policy applies to this rotation

12. Compliance with New York State Health Department Code 405 and ACGME regulations regarding resident work hours is mandatory.
EDUCATIONAL OBJECTIVES
PEDIATRIC ORTHOPEDIC ROTATION
PGY 2

GOALS

GOAL 1 To introduce the resident physician to the diagnosis and treatment of pediatric orthopedic diseases and trauma.

GOAL 2 To introduce the resident physician to the skills required in the treatment of pediatric orthopedic diseases and trauma.

EDUCATIONAL OBJECTIVES

GOAL 1 To introduce the resident physician to the diagnosis and treatment of pediatric orthopedic diseases and trauma.

Objective 1. To learn a systematic approach to evaluation and treatment of pediatric fractures in an ER setting. (PC,MK,PBL,IC)

Objective 2. To learn a systematic approach to the evaluation of patients presenting with pediatric orthopedic disorders in an office setting, so that a differential diagnosis can be generated. (PC,MK,PBL,IC)

Objective 3. To learn the appropriate indications for the use of diagnostic tests for children presenting with pediatric musculoskeletal disorders. (PC, MK, SBP)

Objective 4. To develop an understanding of appropriate non-surgical or surgical treatment for patients presenting with pediatric orthopedic disorders. (PC,MK, IC)

GOAL 2 To introduce the resident physician to the skills required in the treatment of pediatric orthopedic diseases and trauma.

Objective 5. To develop proficiency in casting, aspiration and minor surgical procedures appropriate to the treatment of patients presenting with a variety of symptoms secondary to pediatric musculoskeletal disorders. (PC,MK,SBP)
GOAL 1
Objectives 1, 2, 3, 4
a. pediatric fractures, a) poly trauma b) abuse, acute and mal-union, non-union
b. evaluation of the limping child
c. evaluation of back pain
d. pediatric orthopedic infections
e. rotational & angular deformities of the lower extremity
f. idiopathic scoliosis
g. congenital scoliosis and kyphosis
h. Scheuermann’s disorder
i. spondylolysis & spondylolisthesis
j. pediatric cervical spine
k. SCFE
l. LCPD (Legg-Calve-Perthes disease)
m. DDH
n. tibial deformity
o. leg length inequality
p. knee disorders
q. clubfoot
r. miscellaneous foot disorders
s. neuromuscular disorders

GOAL 2
Objective 5
a. casting of fractures
b. casting of foot deformities, such as clubfeet
c. proper placement of Pavlik harness
d. aspiration of joints, ie. hip & knee in pediatric patients
e. percutaneous pinning of SCFE
f. percutaneous pinning of elbow fractures
g. muscle lengthening, releases and transfers in lower extremity
h. epiphysiodesis & hemiepiphysiodesis procedures
i. closed & open reduction & fixation of pediatric fractures with external fixation or ORIF
j. pediatric halo & vest placement
PGY 2 & 5 Pediatric Orthopedics Rotation Expectations

1. Attendance at conferences is a top priority; surgical cases that begin during conference will be started by the attending.
2. Attendance at office hours is required. Because the schedule shifts from week to week there is not a specific assignment. However, residents are expected to arrive on time and ready to learn. If more than one attending is seeing patients in the office, both residents on the pediatric orthopedic service are expected to be present in the office, unless there is a pediatric orthopedic surgical case requiring coverage at the same time.
3. Residents are responsible for preparing and presenting pre-operative cases for the upcoming week at the pre op/postop conference.
4. Residents are required to read about cases they will attend and should feel free to ask questions about cases at the pre-operative conference.
5. Residents are responsible for presentation of some of the pediatric orthopedic morning conferences scheduled while they are on the rotation. This responsibility should be shared equally by the two residents on the service. Residents should work with one of the pediatric orthopedic attendings when preparing these conferences.
6. Residents are required to read the entire Lovell and Winter’s Pediatric Orthopaedics (Sixth Edition) during the three month rotation.
7. Residents are responsible for preparing presentations on specific topics as directed by the pediatric orthopedic attendings.
8. Rounds should be made twice daily on all in house patients.
9. The formalized resident vacation policy applies to this rotation. Residents are responsible to find coverage for all surgical cases in his/her absence and to let attendings know about this coverage.
10. Residents should be spending one half-day every other week as dedicated time for research on this rotation. This will be the resident’s responsibility to arrange, and the time should be coordinated with the pediatric attendings based upon their schedules.
11. Participation in cases should be chosen based on resident level and difficulty of cases. The case coverage should be divided fairly between the two residents on the service.
12. The PGY-5 resident on the service is the senior resident and responsible for organizing the resident coverage for the service.
13. Both residents on the service are expected to see all inpatients assigned to the service daily. The rounding on patients should not be divided between the residents.
14. Compliance with New York State Health Department Code 405 and ACGME regulations regarding resident work hours is mandatory. Please arrange proper transfer of inpatient care in instances when you must leave the hospital.
EDUCATIONAL OBJECTIVES
SPINE SURGERY ROTATION PGY2

GOALS

GOAL 1 To introduce the resident physician to the core knowledge underlying the clinical care of spinal disorders.

GOAL 2 To develop the resident physician's knowledge and skills for the evaluation of patients with spinal disorders.

GOAL 3 To develop the resident physician's knowledge and skills for formulating a non-operative treatment plan for patients with spinal disorders. The resident should develop experience in the non-operative management of spinal disorders.

GOAL 4 To introduce the resident physician to performing surgery on the spine.

EDUCATIONAL OBJECTIVES

GOAL 1 To introduce the resident physician to the core knowledge underlying the clinical care of spinal disorders.

Objective 1. To demonstrate an understanding of the pathophysiology and natural history of the various common spinal disorders. (PC,MK)

Objective 2. To demonstrate an understanding of the biomechanical concepts of spinal stability and the effects of internal and external fixation on the stability of the spine. (MK)

GOAL 2 To develop the resident physician's knowledge and skills for the evaluation of patients with spinal disorders.

Objective 3. To be able to appropriately evaluate patients presenting with spinal disorders in a variety of clinical settings, including the emergency department and the outpatient clinic. This would include competency with the physical and neurological examination of the patient. (PC,MK,PBL,IC)

Objective 4. To be able to appropriately order and evaluate diagnostic imaging of the spine. (PC,MK,SBP)

GOAL 3 To develop the resident physician's knowledge and skills for formulating a non-operative treatment plan for patients with spinal disorders. The resident should develop experience in the non-operative management of spinal disorders.
Objective 5  To be able to formulate and articulate a treatment plan for patients with spinal disorders.(PC,IC,PBL)

Objective 6  To be able manage the initial care of patients with spinal trauma. (PC,MK)

Objective 7  To be able to treat non-operative spinal disorders in the outpatient setting. (PC,PBL,IC)

GOAL 4  To introduce the resident physician to performing surgery on the spine.

Objective 8.  To be able to participate in spine surgery at a level appropriate for a general orthopedic surgeon. (PC,MK)

Goal 1
Objectives 1, 2:
   a. spinal anatomy and histology
   b. biomechanics
   c. physiology
   d. pathophysiology of degenerative disease
   e. trauma and spinal cord injury
   f. infection
   g. neoplastic disease
   h. osteoporosis
   i. deformity

Goal 2
Objective 3:
   a. herniated disc
   b. spinal stenosis
   c. spinal fractures
   d. spinal cord injury
   e. infection
   f. tumors
   g. spondylolisthesis
   h. back and neck pain

Objective 4:
   a. plain radiographs
   b. CT
   c. MRI
   d. Myelogram
   e. discogram
f. nuclear medicine studies  
g. electrophysiologic studies

**Goal 3**  
Objectives 5, 6, 7:  
  a. cervical, thoracic, and lumbar trauma  
  b. spinal immobilization  
  c. placement of skeletal traction  
  d. medical and hemodynamic management of patients with acute spinal injuries  
  e. management of low back pain  
  f. management of neck pain  
  g. role of nonoperative modalities of spinal care

**Goal 4**  
Objective 8:  
  a. disc herniation surgery  
  b. decompressive laminectomy/foraminotomy  
  c. noninstrumented Posterolateral fusion  
  d. anterior and posterior bone graft harvest  
  e. instrumentation of spinal fractures

This document refers to the PGY-2 resident rotating on the adult spine service. The resident receives additional training in spinal disorders, especially deformity, while on the pediatric orthopedic service.

In developing these goals and objectives we utilized the following published guidelines:


* The Resident/Fellow Education Committee of the North American Spine Society.
PGY2 and PGY4 Spine Surgery Resident Rotation Expectations

1. The PGY4 on the spine service is responsible for the management of the service. This management responsibility includes ensuring that patient care responsibilities of the residents are met and that requested consults are completed.
2. Attendance at scheduled conferences should be top priority. Surgical cases that begin during conference time will be started by the Attending.
3. All Spine cases at University Hospital should be covered by the Spine Residents, fellow or physician extender. Exceptions can be made when there are multiple spine cases or a shortage of available residents.
4. Office hours should be attended when there is no conflict with scheduled conferences, Spine cases, or the Friday Outpatient Clinic at Upstate. At a minimum, the resident should spend at least 1 half day per week in the outpatient setting.
5. The PGY-2 and PGY-4 Spine Residents will attend the Upstate Clinic for a half day of outpatient clinical patient care.
6. All requests for spine consults are to be covered by the spine service when the request for the consult is initiated during regular working hours. On weekends and after hours, new consults will be handled by the on call resident covering emergencies.
7. All spine inpatients and consults should be attended on a twice-daily basis by the spine residents, and more frequently as required. The exception to this is the emergent care of a spine trauma patient. Weekend rounds should be performed daily by a member of the spine team, and coverage must be arranged to allow proper transition of care.
8. All activity required for appropriate patient care is to be done by the Spine Residents. Forwarding tasks to ER On-Call Resident is not appropriate unless the resident is involved in an OR and delay is detrimental to patient care.
9. The spine residents will be responsible for presentation of the Spine Indications Conferences which are scheduled during their three-month block. These should be coordinated with the scheduled attending.
10. The resident is required to give a minimum of one month advance notice to the chief of the spine service for any absences, such as vacation, interviews, conferences, etc.
11. The reading list can be found in the orientation package. You should complete this reading, as well as read around your cases in order to cover spine surgery adequately.
12. Residents and fellows are welcome to observe any case. If your attending is on vacation – don’t take one yourself. There is a lot to know and limited time, so make the most of it.
13. Compliance with New York State Health Department Code 405 and ACGME regulations regarding resident work hours is mandatory. Please arrange proper transfer of inpatient care in instances when you must leave the hospital.
EDUCATIONAL OBJECTIVES
VETERAN’S ADMINISTRATION HOSPITAL ROTATION
PGY 2

GOALS

GOAL 1  To develop the resident physician’s knowledge and skills for pre-operative assessment, and hospital and postoperative management of common orthopedic disorders.

GOAL 2  To develop the resident physician’s knowledge and surgical skill in the treatment of common orthopedic disorders, at a level appropriate for a general orthopedist.

EDUCATIONAL OBJECTIVES

GOAL 1  To develop the resident physician’s knowledge and skills for pre-operative assessment, and hospital and postoperative management of common orthopedic disorders.

Objective 1  To appropriately assess patients presenting with a variety of musculoskeletal disorders, and learn appropriate surgical indications. (PC,MK)

Objective 2  To begin to manage, in an inpatient setting, patients recovering from surgical treatment of a variety of musculoskeletal disorders. (PC,MK,PBL,IC)

Objective 3  To learn to diagnose and treat peri-operative complications arising as a result of the surgical treatment of a variety of musculoskeletal disorders. (PC,MK,PBL,SBP)

GOAL 2  To develop the resident physician’s knowledge and surgical skill in the treatment of common orthopedic disorders, at a level appropriate for a general orthopedist.

Objective 4  To begin the development of technical proficiency in surgical procedures appropriate in the treatment of patients presenting with a variety of symptoms secondary to common musculoskeletal disorders. (PC, MK)
**GOAL 1 and 2**

Objectives 1, 2, 4:

a. joint replacement surgery; hip, knee, shoulder, straightforward revisions

a. trauma care, including open reduction internal fixation, traction, closed reduction percutaneous fixation, external fixation of long bone and peri-articular fractures

b. arthroscopic surgery, including diagnostic and operative arthroscopy of the knee and shoulder

c. surgery of the foot and ankle, including fusions, osteotomies, tendon transfers, nonunion procedures

d. surgery of the hand, including arthritis, infection, trigger finger and simple fractures

**GOAL 1**

Objective 2:

a. deep venous thrombosis, pulmonary embolus

b. adult respiratory distress syndrome, fat embolism syndrome

c. wound dehiscence, seroma, hematoma

d. post-operative infection

e. compartment syndrome

f. prosthetic joint dislocations

g. loss of fracture fixation

h. peri-operative blood loss
PGY2 Veterans Resident Rotation Expectations

1. Prepare for and participate in all elective inpatient surgeries.
2. Participate in all outpatient clinics, developing a clear understanding of VA policies and practices.
3. Perform daily morning rounds and notes, including consults and off service patients. Discuss problems with the chief resident, nurse practitioner and/or attending.
4. Attend all University Hospital teaching conferences, including Grand Rounds.
5. Strict observation of New York State Health Department Code 405 Regulations regarding resident work hours – no exceptions! Each resident is expected to know their schedule for the upcoming week, and avoid conflicts by proper patient care transfer.
6. Complete VA rotation evaluation at the end of the rotation.
7. Compliance with New York State Health Department Code 405 and ACGME regulations regarding resident work hours is mandatory.

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PGY-3 Rotations: Objectives and Expectations
EDUCATIONAL OBJECTIVES
CROUSE ADULT RECONSTRUCTION ROTATION
PGY 3

GOALS

GOAL 1  To develop the resident physician’s knowledge and ability to assess common orthopedic degenerative disorders in the emergency room, hospital, and outpatient office.

GOAL 2  To introduce the resident physician to the surgical skills required in the treatment of common orthopedic reconstruction disorders, at a level appropriate for a general orthopedist.

EDUCATIONAL OBJECTIVES

GOAL 1  To develop the resident physician’s knowledge and ability to assess common orthopedic degenerative disorders in the emergency room, hospital, and outpatient office.

Objective 1. To learn a systematic approach to the assessment of patients in the office and outpatient settings (PC,MK,PBL,IC,P)

Objective 2  To learn to manage patients recovering from emergent or elective treatment of a variety of musculoskeletal disorders in inpatient and outpatient settings (PC,MK,PBL)

Objective 3  To be able to diagnose and treat peri-operative concerns or complications arising as a result of the surgical treatment of a variety of musculoskeletal disorders. (PC,MK,PBL,IC,P)

GOAL 2  To introduce the resident physician to the surgical skills required in the treatment of common orthopedic reconstruction disorders, at a level appropriate for a general orthopedist.

Objective 4  To develop the techniques required in surgical procedures appropriate for the treatment of patients presenting with a variety of symptoms secondary to common musculoskeletal disorders. (PC, MK)
GOAL 1 and 2
Objectives 1, 2, 4:
   a. joint replacement surgery; hip, knee, shoulder
   b. trauma care, including open reduction internal fixation, closed reduction
      percutaneous fixation, external fixation of long bones and peri-articular fractures;
      traction

GOAL 1
Objective 3:
   a. pain management
   b. collaboration with consultant physicians and allied health professionals
   c. deep venous thrombosis, pulmonary embolus
   d. adult respiratory distress syndrome, fat embolism syndrome
   e. wound dehiscence, seroma, hematoma
   f. post-operative infection
   g. compartment syndrome
   h. prosthetic joint dislocations
   i. loss of fracture fixation
   j. peri-operative blood loss
PGY-3 Adult Reconstruction Rotation Expectations

1. Participate fully in the Crouse Adult Reconstruction Service in the role assigned to the PGY-3 resident.

2. The weekly schedule is as follows:

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<td>OR (Sherman)</td>
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<td>OR (Izant)</td>
<td>post-call</td>
<td>OR (Sherman)</td>
<td>Office (Izant)</td>
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3. Prepare for and participate in all elective inpatient and outpatient surgeries.

4. The resident is expected to cover “in-house” call on Tuesday nights at Upstate and are thus “post-call” on Wednesdays and will be excused from clinical activities.

3. Perform daily morning rounds and write notes, including consults and off service patients. Discuss problems with the nurse practitioner and/or attending.

4. Prepare for Monday morning conference. Each week will highlight a selected topic.

5. Attend all University Hospital teaching conferences, including Grand Rounds - surgical cases that begin during conference will be started by the attending.

6. Teach medical students basics of orthopedic care during their rotation.

7. Compliance with New York State Health Department Code 405 and ACGME regulations regarding resident work hours is mandatory. Please arrange proper transfer of inpatient care in instances when you must leave the hospital.
EDUCATIONAL OBJECTIVES
CROUSE HOSPITAL – SPORTS MEDICINE/TRAUMA ROTATION
PGY 3

GOALS

GOAL 1 To develop the resident physician’s knowledge and assessment of common orthopedic sports medicine disorders in the hospital and office.

GOAL 2 To develop the resident physician’s surgical skill in the treatment of common orthopedic sports medicine disorders, at a level appropriate for a general orthopedist.

EDUCATIONAL OBJECTIVES

GOAL 1 To develop the resident physician’s knowledge and assessment of common orthopedic sports medicine disorders in the hospital and office.

Objective 1 To develop a systematic approach to assessment of patients in the office and outpatient settings. (PC,MK,PBL, IC,P)

Objective 2 To become proficient at managing patients recovering from emergent or elective treatment of a variety of musculoskeletal disorders in inpatient and outpatient settings. (PC,MK,PBL)

Objective 3 To be able to diagnose and treat peri-operative concerns or complications arising as a result of the surgical treatment of a variety of musculoskeletal disorders. (PC,MK,IC,P)

GOAL 2 To develop the resident physician’s surgical skill in the treatment of common orthopedic sports medicine disorders, at a level appropriate for a general orthopedist.

Objective 4 To become technically proficient in surgical procedures appropriate in the treatment of patients presenting with a variety of symptoms secondary to common musculoskeletal disorders. (PC,MK)
GOAL 1 and 2
Objectives 1, 2, 4:
  a. arthroscopic surgery, including diagnostic and operative arthroscopy of the knee, shoulder and hip
  b. open and arthroscopic surgery of the joints and muscles, specifically tendon and ligamentous repair/reconstruction, cartilage repair.
  c. post-operative therapy considerations after various arthroscopic and open sports medicine surgeries.

GOAL 1
Objective 3:
  a. pain management
  b. collaboration with consultant physicians and allied health professionals
  c. deep venous thrombosis, pulmonary embolus
  d. adult respiratory distress syndrome, fat embolism syndrome
  e. wound dehiscence, seroma, hematoma
  f. post-operative infection
  g. compartment syndrome
  h. prosthetic joint dislocations
  i. loss of fracture fixation
  j. peri-operative blood loss
PGY 3 Crouse Sports Medicine Rotation Expectations

1. Prepare for and participate in all elective inpatient and outpatient surgeries.
2. Perform daily morning rounds and write notes, including consults and off service patients. Discuss problems with the nurse practitioner and/or attending.
3. Prepare for and run Monday morning conference. Each week will highlight a selected topic.
4. Attend all University Hospital teaching conferences, including Grand Rounds - surgical cases that begin during conference will be started by the attending.
5. Teach medical students basics of orthopedic care during their rotation.
6. Compliance with New York State Health Department Code 405 and ACGME regulations regarding resident work hours is mandatory.

Summary of Attending Schedules – as of 7/1/2015.

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Schedule subject to change, especially with add-on cases to Crouse Main OR

7. Compliance with New York State Health Department Code 405 and ACGME regulations regarding resident work hours is mandatory. Please arrange proper transfer of inpatient care in instances when you must leave the hospital.
EDUCATIONAL OBJECTIVES
SHOULDER / ELBOW / HAND? SURGERY ROTATION
PGY 3

GOALS

**GOAL 1**
To introduce the resident physician to the diagnosis and treatment of diseases of the shoulder, elbow, hand and wrist.

**GOAL 2**
To introduce the resident physician to the surgical skills required in the treatment of disease of the shoulder, elbow, hand and wrist.

EDUCATIONAL OBJECTIVES

**GOAL 1**
To introduce the resident physician to the diagnosis and treatment of diseases of the shoulder, elbow, hand and wrist

Objective 1. To learn a systematic approach to the evaluation of patients presenting in an office setting, with symptoms secondary to disorders of the shoulder, elbow, hand and wrist; including differentiation from referred symptoms.

Objective 2. To learn the appropriate indications for the use of diagnostic tests for patients presenting with symptoms secondary to disorders of the shoulder, elbow, hand and wrist.

Objective 3. To develop an understanding of the appropriate nonsurgical or surgical treatment for patients presenting with symptoms secondary to disorders of the shoulder, elbow, hand and wrist.

**GOAL 2**
To introduce the resident physician to the surgical skills required in the treatment of disease of the shoulder, elbow, hand and wrist.

Objective 4. To develop proficiency in surgical procedures appropriate to the treatment of patients presenting with a variety of symptoms secondary to disorders of the shoulder, elbow, hand and wrist.
GOAL 1
Objectives 1, 2, 3:

n. acromioclavicular joint disorders; acute and chronic dislocations, arthritis, distal clavicular osteolysis

o. glenohumeral joint instability; acute and chronic subluxations and dislocations; uni- and multi-directional

p. glenohumeral arthritis; inflammatory and degenerative

q. scapulohumeral strains, scapular winging

r. rotator cuff and bicipital disorders; strains, tendinopathies, tears, calcific tendonitis, subacromial bursitis/impingement syndrome

s. adhesive capsulitis; primary and secondary

t. clavicle fractures and nonunions

u. avascular necrosis of the humeral head

v. neurologic entrapment syndromes; suprascapular, median, ulnar and radial nerves

w. elbow dislocation, acute and chronic instability

x. capitellar osteochondritis dissecans

y. distal biceps rupture

z. tendinopathies about the elbow

aa. post-traumatic, degenerative, and inflammatory arthritis of the elbow; loose bodies

bb. elbow stiffness; with and without heterotopic ossification

c. olecranon bursitis

d. thoracic outlet syndrome

e. cervical radicular syndromes

f. reflex sympathetic dystrophy

g. disorders of the distal radius: acute fractures, malunion, arthritis

h. disorders of the DRUJ: fractures, instability, ulnar impaction, arthritis

i. disorders of the carpal bones: carpal fractures, dislocations, instability, arthritis, stiffness

j. disorders of the bones of the hands: fractures, dislocations, arthritis, stiffness, amputations

k. disorders of the nails and nailbed: crush injury, tumors, infections

l. disorders of the flexor tendons: lacerations, tenovaginitis, tenosynovitis, adhesions, chronic deficiency

mA. disorders of the extensor tendons: lacerations, ruptures, tenosynovitis, adhesions, dislocations, chronic deficiency

n. disorders of the neurovascular structures of the hand: lacerations, neuromas, vasosplastic disorders

o. rheumatologic disorders of the hand and wrist

p. peripheral nerve compression in the upper extremity

q. paralytic conditions of the hand, with and without tendon transfers

r. reflex sympathetic dystrophy

s. masses and tumorous conditions of the hand and wrist

GOAL 2
Objective 4:
  h. open reduction and internal fixation, as well as percutaneous reduction techniques, for distal radius fractures
  i. ORIF and percutaneous techniques for carpal and hand fractures
  j. extensor and flexor tendon repair
  k. peripheral nerve decompression
  l. peripheral nerve and vessel repair
  m. wrist arthroscopy: diagnostic and therapeutic, including synovectomy and debridement
  n. excision of masses and tumors
PGY3 Shoulder, Elbow and Hand Surgery Resident Rotation Expectations

1. Each resident is expected to obtain a copy of the assigned attending’s schedule for the upcoming week. Please check with the residency coordinator or the hand fellows for a copy of the monthly attending assignments so you know to whom you are assigned.

2. The resident is expected to dialogue with the assigned attending so that it is clear which activities for the upcoming week absolutely require their attendance. Absences from these activities (Conferences, meetings, post-call, etc) should be communicated to the attending and alternate coverage arranged.

3. Attendance at scheduled conferences should be top priority – surgical cases that begin during conference will be started by the attending.

4. The resident will be assigned to one attending on a month-by-month basis. As of 2015, the third year hand rotation is divided between Dr. Pletka and Dr. Setter. The resident will accompany the assigned attending to all office hours and surgical cases based on their schedule.

5. The resident is expected to cover “in-house” call on Monday nights at Upstate Hospital and is “post-call” on Tuesdays and thus excused from clinic duties.

6. Office hours should be attended on a regular basis. Refinement of diagnostic skills and non-operative treatment of hand problems is an integral part of this rotation. Time in the office/clinic should represent 50% of patient care on this rotation.

7. Residents need to read and prepare for cases – no exceptions. Residents have first priority with regard to surgical cases of their assigned attendings. The only exception is microsurgery and free flaps, for which fellows may “take over” a case.

8. Residents and fellows are welcome to observe any case. If your attending is on vacation – don’t take one yourself. There is a lot to know and limited time, so make the most of it.

9. The formalized resident vacation policy applies to this rotation.

10. Compliance with New York State Health Department Code 405 Regulations regarding resident work hours is mandatory. Please arrange proper transfer of inpatient care in instances when you must leave the hospital.

11. Residents should be spending one half-day every other week as dedicated time for research on this rotation. This will be the resident’s responsibility to arrange, and the time should be coordinated with the hand attendings based upon their schedules.
EDUCATIONAL OBJECTIVES
ADULT FOOT AND ANKLE/SHOULDER AND ELBOW ROTATION
PGY-3

PART I – FOOT AND ANKLE

GOALS

GOAL 1 To develop the resident physician’s knowledge and skills for treatment of disorders of the foot and ankle.

GOAL 2 To develop the resident physician’s surgical skill in the treatment of disorders of the foot and ankle, at a level appropriate for a general orthopedist.

EDUCATIONAL OBJECTIVES

GOAL 1 To develop the resident physician’s knowledge and skills for treatment of disorders of the foot and ankle.

Objective 1 To be able to appropriately evaluate, in an office setting, patients presenting with symptoms secondary to musculoskeletal disorders of the foot and ankle; including differentiation from referred symptoms. (PC, MK, PBL, IC)

Objective 2 To be able to appropriately order and evaluate diagnostic tests for patients presenting with symptoms secondary to musculoskeletal disorders of the foot and ankle. (PC, SBP, IC)

Objective 3 To be able to recommend appropriate non-surgical or surgical treatment for patients presenting with symptoms secondary to musculoskeletal disorders of the foot and ankle. (PC, MK, IC, PBL)

GOAL 2 To develop the resident physician’s surgical skill in the treatment of diseases of the foot and ankle, at a level appropriate for a general orthopedist.

Objective 4 To become technically proficient in surgical procedures appropriate in the treatment of patients presenting with a variety of symptoms secondary to musculoskeletal disorders of the foot and ankle. (PC, MK)
GOAL 1
Objective 1, 2, 3:
  a. fractures of the calcaneus, talus, mid-foot, forefoot, ankle, and distal tibia
  b. dislocations about the ankle, hindfoot, midfoot and forefoot
  c. tendon injuries, including acute and chronic ruptures
  d. osteochondral fractures of the talar dome, acute and chronic
  e. sprains of the ankle, hindfoot and midfoot, and their sequelae, including soft-tissue impingement and recurrent instability
  f. nerve pathologies including entrapments, neuromas, neuritidies, and polyneuropathy
  g. neuromuscular conditions including Charcot-Marie-Tooth, cerebral palsy, muscular dystrophy, multiple sclerosis, paralysis
  h. foot and ankle sequelae of the inflammatory arthritidies, including great and lesser toe deformities, midfoot/hindfoot/ankle malalignment and joint degeneration
  i. diabetic ulcers, neuropathic arthropathy and fractures, infections, painful neuropathies
  j. bunions and other disorders of the hallux and sesamoid apparatus, lesser toe deformities

GOAL 2
Objective 4:
  a. reduction and fixation of fractures and dislocations
  b. tendon repair, transfers, lengthenings
  c. arthroscopic surgery of the ankle including osteochondral fracture debridement, soft-tissue debridement, fusion, synovectomy, loose body removal, osteophyte excision
  d. open treatment of osteochondral lesions including bone grafting, drilling, auto and allograft techniques
  e. repair of ankle ligaments, primary and delayed
  f. nerve decompression, including tarsal tunnel, interdigital nerves; neuroma excision
  g. reconstruction of neuromuscular deformities, including tendon lengthenings and transfers, osteotomies, joint fusions, joint releases
  h. reconstruction of sequelae of inflammatory arthritidies, including tendon lengthenings and transfers, osteotomies, joint fusions, joint releases, synovectomies
  i. debridement of ulcers, ostectomies, osteotomies, tendon transfers, deformity realignment and fusion
  j. bunion correction, osteotomies and soft-tissue procedures, small joint fusions, ostectomies, resection arthroplasties
**PART II - SHOULDER AND ELBOW**

**GOALS**

**GOAL 1**  
To develop the resident physician's knowledge and skills for treatment of diseases of the shoulder and elbow.

**GOAL 2**  
To develop the resident physician's surgical skill in the treatment of diseases of the shoulder and elbow, at a level appropriate for a general orthopedist.

**EDUCATIONAL OBJECTIVES**

**GOAL 1**  
To develop the resident physician's knowledge and skills for treatment of diseases of the shoulder and elbow.

Objective 1  
To be able to appropriately evaluate, in an office and sports facility setting, patients presenting with symptoms secondary to musculoskeletal disorders of the shoulder and elbow; including differentiation from referred symptoms.(PC,MK,IC,PBL)

Objective 2  
To be able to appropriately order and evaluate diagnostic tests for patients presenting with symptoms secondary to musculoskeletal disorders of the shoulder and elbow.(PC,SBP)

Objective 3  
To be able to recommend appropriate non-surgical or surgical treatment for patients presenting with symptoms secondary to musculoskeletal disorders of the shoulder and elbow.(PC,MK,IC,P)

**GOAL 2**  
To develop the resident physician's surgical skill in the treatment of diseases of the shoulder and elbow, at a level appropriate for a general orthopedist.

Objective 4  
To become technically proficient in surgical procedures appropriate in the treatment of patients presenting with a variety of symptoms secondary to musculoskeletal disorders of the shoulder and elbow.(PC,MK)

**GOAL 1**
Objectives 1, 2, 3:
   a. sternoclavicular joint disorders; acute and chronic subluxations and dislocations, arthritis
b. acromioclavicular joint disorders; acute and chronic dislocations, arthritis, distal clavicular osteolysis

c. glenohumeral joint instability; acute and chronic subluxations and dislocations; uni- and multi-directional

d. glenohumeral arthritis; inflammatory and degenerative

e. scapulothoracic strains, scapular winging

f. rotator cuff and bicipital disorders; strains, tendinopathies, tears, calcific tendonitis, subacromial bursitis/impingement syndrome

g. adhesive capsulitis; primary and secondary

h. clavicle fractures and nonunions

i. avascular necrosis of the humeral head

j. neurologic entrapment syndromes; suprascapular, median, ulnar and radial nerves

k. elbow dislocation, acute and chronic instability

l. capitellar osteochondritis dissecans

m. distal biceps rupture

n. tendinopathies about the elbow

o. post-traumatic, degenerative, and inflammatory arthritis of the elbow; loose bodies

p. elbow stiffness; with and without heterotopic ossification

q. olecranon bursitis

r. thoracic outlet syndrome

s. cervical radicular syndromes

t. reflex sympathetic dystrophy

GOAL 2

Objective 4:

a. shoulder arthroscopy: diagnostic and operative, including synovectomy, debridement, and subacromial decompression

b. shoulder instability; uni- and multi-directional reconstructive procedures

c. rotator cuff repair, debridement and open subacromial decompression

d. distal clavicle stabilization and excision

e. debridement/release elbow tendinopathies

f. manipulation of the shoulder under anesthesia
Foot & Ankle Rotation Expectations

1. Care of the in-house patients: As the primary service for inpatients followed by the Foot/Ankle Service the resident is responsible for all aspects of the patient’s medical/surgical care. This includes a working up-to-date knowledge of test and lab results, as well as a knowledge of the activities, recommendations and opinions of the consulting and ancillary (e.g. PT, OT, Nutrition) services as they pertain to care of the patient. This can be accomplished by discussions with these services and/or a daily review of the chart for their services’ notes, as well as orders written on the patient. With those patients followed by Internal Medicine Consults, primary medical care can be assumed by that service. The responsibility for awareness of activities, recommendations and opinions remains.

2. Daily contact with the attending regarding the status of the inpatients: ideally this is via daily ward rounds. Alternative contact includes discussions after educational conferences or “phone rounds”. Initiating the daily contact is the responsibility of the Resident.

3. Preparation for the Operating Room: the resident will review the service’s upcoming cases far enough in advance to allow for adequate preparation for the case. This review, predominantly via discussion with the attending, will include indications, radiographic studies, surgical approaches, and surgical technique. The resident will receive from the attending’s secretary the schedule for the upcoming week via email.

4. The weekly schedule varies, though resident typically covers all operative cases with Dr. VanValkenburg as well as clinic when available. The resident is also available to cover Dr. Lemley’s cases at Crouse and SOS surgery center when available.

5. There is no assigned “in-house call” for the Foot & Ankle resident, though this resident is responsible for covering all vacations for PGY-2 and PGY-3 residents. It is their responsibility to help schedule vacations and ensure that all “call” is covered.

6. Presentations at Foot Conference: the Resident will be responsible for organizing the Foot Conference. The format of the conference will vary based on planning with the attending.

7. Notification up Upcoming Absences: the resident will notify the attending of upcoming meetings, vacations, etc. at least one month in advance.

8. Compliance with New York State Health Department Code 405 and ACGME regulations regarding resident work hours is mandatory. Please arrange proper transfer of inpatient care in instances when you must leave the hospital.
PGY-4 Rotations: Objectives and Expectations
EDUCATIONAL OBJECTIVES
ST. JOSEPH’S HOSPITAL – GENERAL ORTHOPEDICS
ROTATION
PGY - 4

GOALS

GOAL 1  To develop the resident physician’s knowledge and assessment of common orthopedic disorders in the office, emergency room, and hospital.

GOAL 2  To develop the resident physician’s surgical skills in the treatment of common orthopedic disorders, at a level appropriate for a general orthopedist.

EDUCATIONAL OBJECTIVES

GOAL 1

To develop the resident physician’s knowledge and assessment of common orthopedic disorders in the office, emergency room, and hospital.

Objective 1  To be able to appropriately manage patients presenting for, and recovering from, emergent or elective treatment of a variety of musculoskeletal disorders in multiple settings. (PC,MK,PBL)

Objective 2  To become proficient at diagnosis and treatment of peri-operative concerns or complications arising as a result of the surgical treatment of a variety of musculoskeletal disorders. (PC,MK,IC)

GOAL 2

To develop the resident physician’s surgical skills in the treatment of common orthopedic disorders, at a level appropriate for a general orthopedist.

Objective 3  To become technically proficient in surgical procedures appropriate in the treatment of patients presenting with a variety of symptoms secondary to common musculoskeletal disorders.(PC,MK)
GOAL 1 and 2
Objectives 1, 3:
   a. joint replacement surgery; hip, knee, shoulder including revisions
   b. trauma care, including open reduction internal fixation, closed reduction
      percutaneous fixation, external fixation of long bone and peri-articular fractures

GOAL 1
Objective 2:
   a. pain management
   b. collaboration with consultant physicians and allied health professionals
   c. peri-operative blood loss
   d. deep venous thrombosis, pulmonary embolus
   e. wound dehiscence, seroma, hematoma
   f. post-operative infection
   g. compartment syndrome
   h. prosthetic joint dislocations
   i. loss of fracture fixation
PGY-4 St. Joseph’s Resident Rotation Expectations

1. Prepare for and participate in elective inpatient surgeries. This rotation provides a significant opportunity to advance your education in inpatient surgical exposures and techniques – primarily arthroplasty, revision arthroplasty and general orthopedic surgery.

2. Alternate time on Fridays between outpatient surgeries and use of this time for academic responsibilities (research projects, rounds preparation). Residents are expected to spend one half-day every other week on research projects. Use this time wisely.

3. A minimum of one half day per week office experience is required. The requirement for office experience takes precedence over OR and hospital responsibilities. Arrangements for the office experience are to be directed by Dr. Seth Greenky.

4. Complete daily morning rounds and notes, including consults and off service patients. Discuss problems with the nurse practitioner and/or attending.

5. Participation in surgery and patient care only under the supervision of faculty members on the teaching service. Participation in cases and patient management under the supervision of attendings not on the teaching service is allowed.

6. Cover ER during day in conjunction with nurse practitioners and teaching attending on call.


8. Mandatory attendance at University Hospital Grand Rounds.

9. Attend University Hospital teaching conferences via Zoom.

10. Teach family practice residents basics of orthopedic care during their rotation.

11. Coordinate vacation schedule with attendings in advance.

12. Complete rotation evaluation at the end of the rotation.

13. Compliance with New York State Health Department Code 405 and ACGME regulations regarding resident work hours is mandatory. Please arrange proper transfer of inpatient care in instances when you must leave the hospital.
EDUCATIONAL OBJECTIVES
SPINE SURGERY ROTATION
PGY - 4

GOALS

GOAL 1  To develop the resident physician's core knowledge underlying the clinical care of spinal disorders.

GOAL 2  To develop the resident physician's knowledge and skills for the evaluation of patients with spinal disorders.

GOAL 3  To develop the resident physician's knowledge and skills for formulating a non-operative treatment plan for patients with spinal disorders. The resident should develop experience in the non-operative management of spinal disorders.

GOAL 4  To provide the resident physician's with experience in performing surgery on the spine.

EDUCATIONAL OBJECTIVES

GOAL 1  To develop the resident physician's core knowledge underlying the clinical care of spinal disorders.

Objective 1.  To demonstrate an understanding of the pathophysiology and natural history of the various common spinal disorders. (PC,MK)

Objective 2.  To demonstrate an understanding of the biomechanical concepts of spinal stability and the effects of internal and external fixation on the stability of the spine. (MK)

GOAL 2  To develop the resident physician's knowledge and skills for the evaluation of patients with spinal disorders.

Objective 3.  To be able to appropriately evaluate patients presenting with spinal disorders in a variety of clinical settings, including the emergency department and the outpatient clinic. This would include competency with the physical and neurological examination of the patient. (PC,MK,PBL,IC)

Objective 4.  To be able to appropriately order and evaluate diagnostic imaging of the spine. (PC,MK,SBP)

GOAL 3  To develop the resident physician's knowledge and skills for formulating a non-operative treatment plan for patients with spinal
disorders. The resident should develop experience in the non-operative management of spinal disorders.

Objective 5  To be able to formulate and articulate a treatment plan for patients with spinal disorders. (PC, MK, IC)

Objective 6  To be able manage the initial care of patients with spinal trauma. (PC)

Objective 7  To be able to treat non-operative spinal disorders in the outpatient setting. (PC, MK, IC, P)

GOAL 4  To develop the resident physician's experience in performing surgery on the spine.

Objective 8.  To be able to participate in spine surgery at a level appropriate for a general orthopedic surgeon. (PC, MK)

Goal 1
Objectives 1, 2:
  a. spinal anatomy and histology
  b. biomechanics
  c. physiology
  d. pathophysiology of degenerative disease
  e. trauma and spinal cord injury
  f. infection
  g. neoplastic disease
  h. osteoporosis
  i. deformity

Goal 2
Objective 3:
  a. herniated disc
  b. spinal stenosis
  c. spinal fractures
  d. spinal cord injury
  e. infection
  f. tumors
  g. spondylolisthesis
  h. back and neck pain

Objective 4:
  a. plain radiographs
  b. CT
c. MRI
d. Myelogram
e. discogram
f. nuclear medicine studies
g. electrophysiologic studies

**Goal 3**

Objective 5, 6, and 7:

a. cervical, thoracic, and lumbar trauma
b. spinal immobilization
c. placement of skeletal traction
d. medical and hemodynamic management of patients with acute spinal injuries
e. management of low back pain
f. management of neck pain
g. role of nonoperative modalities of spinal care

**Goal 4**

Objective 8:

a. disc herniation surgery
b. decompressive laminectomy/foraminotomy
c. noninstrumented Posterolateral fusion
d. anterior and posterior bone graft harvest
e. instrumentation of spinal fractures

This document refers to the PGY-4 resident rotating on the adult spine service. The resident receives additional training in spinal disorders, especially deformity, while on the pediatric orthopedic service.

In developing these goals and objectives we utilized the following published guidelines:

* The Resident/Fellow Education Committee of the North American Spine Society.
PGY2 and PGY4 Spine Surgery Resident Rotation Expectations

14. The PGY4 on the spine service is responsible for the management of the service. This management responsibility includes ensuring that patient care responsibilities of the residents are met and that requested consults are completed.

15. Attendance at scheduled conferences should be top priority. Surgical cases that begin during conference time will be started by the Attending.

16. All Spine cases at University Hospital should be covered by the Spine Residents, fellow or physician extender. Exceptions can be made when there are multiple spine cases or a shortage of available residents.

17. Office hours should be attended when there is no conflict with scheduled conferences, Spine cases, or the Friday Outpatient Clinic at Upstate. At a minimum, the resident should spend at least 1 half day per week in the outpatient setting.

18. The PGY-2 and PGY-4 Spine Residents will attend the Upstate Clinic for a half day of outpatient clinical patient care.

19. All requests for spine consults are to be covered by the spine service when the request for the consult is initiated during regular working hours. On weekends and after hours, new consults will be handled by the on call resident covering emergencies.

20. All spine inpatients and consults should be attended on a twice-daily basis by the spine residents, and more frequently as required. The exception to this is the emergent care of a spine trauma patient. Weekend rounds should be performed daily by a member of the spine team, and coverage must be arranged to allow proper transition of care.

21. All activity required for appropriate patient care is to be done by the Spine Residents. Forwarding tasks to ER On-Call Resident is not appropriate unless the resident is involved in an OR and delay is detrimental to patient care.

22. The spine residents will be responsible for presentation of the Spine Indications Conferences which are scheduled during their three-month block. These should be coordinated with the scheduled attending.

23. The resident is required to give a minimum of one month advance notice to the chief of the spine service for any absences, such as vacation, interviews, conferences, etc.

24. The reading list can be found in the orientation package. You should complete this reading, as well as read around your cases in order to cover spine surgery adequately.

25. Residents and fellows are welcome to observe any case. If your attending is on vacation – don’t take one yourself. There is a lot to know and limited time, so make the most of it.

26. Compliance with New York State Health Department Code 405 and ACGME regulations regarding resident work hours is mandatory. Please arrange proper transfer of inpatient care in instances when you must leave the hospital.
EDUCATIONAL OBJECTIVES
MUSCULOSKELETAL ONCOLOGY ROTATION PGY4

This document refers only to the three-month rotation on the musculoskeletal oncology service. While the resident physicians do receive some additional exposure to various benign conditions on the Pediatric, Hand, and Emergency Room rotations as well as to metastatic disease on the Adult Reconstruction and Trauma rotations, their concentrated exposure to these and all other musculoskeletal oncology conditions occurs during this three month rotation.

GOALS

GOAL 1  To develop the resident physician’s knowledge and skills for recognition and appropriate decision making regarding care for musculoskeletal oncology conditions and their simulators.

GOAL 2  To develop the resident physician’s surgical skill in the treatment of those musculoskeletal oncology conditions and simulators appropriately cared for by the general orthopedist.

EDUCATIONAL OBJECTIVES

GOAL 1  To develop the resident physician’s knowledge and skills for recognition and appropriate decision making regarding care for musculoskeletal oncology conditions and their simulators.

Objective 1  To be able to appropriately evaluate, in an office setting, patients presenting with symptoms and/or findings secondary to musculoskeletal oncology conditions of all extremity and axial sites, including differentiation between common metabolic, infectious, neoplastic, endocrinologic, traumatic, vascular, autoimmune, and degenerative categories of musculoskeletal oncologic conditions and simulators.

Objective 2  To be able to appropriately order and evaluate appropriate laboratory, radiologic, and histologic tests for patients presenting with symptoms secondary to musculoskeletal oncology disorders and their simulators.

Objective 3  To be able to recommend appropriate non-surgical or surgical treatment for patients with musculoskeletal oncology disorders and their simulators.
GOAL 2 To develop the resident physician’s surgical skill in the treatment of those musculoskeletal oncology conditions and diseases appropriately cared for by the general orthopedist.

Objective 4 To become technically proficient in surgical procedures appropriately applied by the general orthopedist in the evaluation (biopsy) and treatment (excision of benign soft tissue masses, excision of osteochondromas, curettage and grafting, prophylactic stabilization of impending fractures, ORIF of pathologic fractures) of patients presenting with the wide variety of symptoms or findings attributable to musculoskeletal oncologic diseases and their simulators.

SPECIFIC ENTITIES

GOAL 1
Objectives 1, 3: (While this is not meant to be an all-encompassing list of orthopedic oncologic entities, it is meant specifically to include common entities which the resident physician should be exposed to through direct patient care and/or reading while on the Musculoskeletal Oncology service.

I. Bone Disorders
   a. Metabolic bone diseases
      i. Osteoporosis
      ii. Osteomalacia
      iii. Paget’s disease of bone
   b. Infectious bone diseases
      i. Acute osteomyelitis
      ii. Chronic osteomyelitis (including Garre’s sclerosing osteomyelitis and Brodie’s abscess)
      iii. Tuberculosis of bone
      iv. Fungal osteomyelitis
   c. Benign bone tumors
      i. Fibrous dysplasia
      ii. Enchondroma and Ollier’s disease
      iii. Enostosis
      iv. Eosinophilic granuloma (and other presentations of Langerhan’s cell histiocytoses/ granulomatoses)
      v. Giant cell tumor of bone
      vi. Non-ossifying fibroma
      vii. Ossifying fibroma
      viii. Osteoid osteoma
      ix. Osteoblastoma
      x. Osteochondroma and Multiple Exostoses
      xi. Aneurysmal bone cyst
      xii. Simple bone cyst
      xiii. Hemangioma
      xiv. Chondroblastoma
xv. Chondromyxoid fibroma
d. Primary malignant bone tumors
   i. Osteosarcoma (all 3 histologic subtypes as well as clinicoradiologic subtypes)
   ii. Ewing sarcoma
   iii. Chondrosarcoma (all types)
   iv. Multiple myeloma
   v. Plasmacytoma
   vi. Extranodal lymphoma of bone
   vii. Chordoma
   viii. Angiosarcoma
   ix. Hemangioendothelioma
e. Metastatic bone disease
f. Endocrine bone disorders (eg. Hyperparathyroidism)
g. Vascular bone disorders (eg. Avascular necrosis, Gorham’s disappearing bone disease, hemangiomatosis with skeletal involvement, skeletal-extraskeletal lymphangiomatosis)
h. Autoimmune bone disorders (eg. Sarcoidosis with bone involvement)
i. Degenerative bone disorders (eg. Intraosseous ganglion, degenerative geode, Charcot joint)

II. Soft Tissue Disorders
   a. Metabolic soft tissue disorders (eg. Diabetic skeletal muscle necrosis, benign soft tissue extension of Paget’s disease of bone)
   b. Infectious soft tissue disorders (eg. Abscess, cellulitis, septic arthritis)
   c. Benign soft tissue tumors
      i. Glomus tumor
      ii. Lipoma
      iii. Rhabdomyoma
      iv. Leiomyoma
      v. Schwannoma (formerly neurilemmoma)
      vi. Neurofibroma
      vii. Hemangioma
      viii. Lymphangioma
      ix. Fibromatosis, plantar and Dupuytren’s
      x. Extra-abdominal desmoid tumor
d. Primary malignant soft tissue tumors
   i. Undifferentiated pleomorphic sarcoma (formerly malignant fibrous histiocytoma)
   ii. Liposarcoma
   iii. Rhabdomyosarcoma
   iv. Leiomyosarcoma
   v. Malignant peripheral nerve sheath tumor
   vi. Angiosarcoma
   vii. Hemangioendothelioma
   viii. Fibrosarcoma
   ix. Synovial sarcoma
x. Extraskeletal osteosarcoma
xi. Extraskeletal Ewing’s sarcoma
xii. Extranodal lymphoma of soft tissue
xiii. Malignant melanoma
e. Endocrine soft tissue disorders (eg. Hyperparathyroidism, tumoral calcinosis)
f. Traumatic soft tissue disorders (eg. Myositis ossificans, calcific myonecrosis, hematoma, epidermal inclusion cysts)
g. Vascular soft tissue disorders (eg. Hemangiomatosis, skeletal-extraskeletal lymphangiomatosis)
h. Synovial proliferative disorders
   i. Tenosynovial giant cell tumor of tendon sheath
      a. Giant cell tumor of tendon sheath
      b. Pigmented villonodular synovitis (localized and diffuse forms)
   ii. Synovial chondromatosis
   iii. Synovial cysts

Objective 2:
   I. Laboratory evaluation pertinent to both bone and soft tissue conditions
   II. Radiological evaluation of both bone and soft tissue conditions
      a. Plain radiographic evaluation
      b. Computerized tomographic evaluation
      c. Magnetic resonance imaging evaluation
      d. Nuclear medicine evaluation
         i. Technitium-99 bone scan
         ii. Indium scan
         iii. Gallium scan
         iv. PET scan
   III. Histological evaluation of both bone and soft tissue conditions
      a. Frozen section
      b. Permanent histologic section

Objective 3:
   I. Determine appropriate surgical or non-surgical treatment for each of the above soft tissue masses from the following list of options
      a. Observation
      b. Aspiration
      c. Irrigation/debridement
      d. Marginal excision
      e. Wide resection
      f. Radical resection
      g. Radiotherapy, pre-operative vs post-operative vs brachytherapy
      h. Chemotherapy, pre-operative vs post-operative
      i. Sclerotherapy
      j. Embolization
   II. Describe and determine appropriate surgical or non-surgical treatment for each of the above bone lesions from the following list of options
      a. Observation
b. Radiofrequency ablation
c. Irrigation/debridement
d. Intralesional curettage
e. Extended intralesional curettage
f. Exteriorization technique
g. Argon beam coagulation (ABC)
h. Phenolization
i. Cryotherapy
j. Wide resection
k. Radical resection
l. Cementoplasty
m. Cementation
n. Grafting (autologous vs allograft vs synthetic)
o. Prophylactic stabilization

III. List and describe in detail the means of fracture risk prediction in the setting of metastatic disease, myeloma, and lymphoma
a. Classic techniques
b. Mirels
c. CT-based structural rigidity analysis
d. Finite element modeling

GOAL 2
Objective 4:
I. Biopsy techniques, all sites
   a. Trucut core biopsy of soft tissue masses
   b. Open biopsy of bone and soft tissue masses
II. Excision of benign bone tumors, all sites
   a. Simple curettage
      i. Autogenous iliac crest bone grafting
      ii. Allograft bone grafting
      iii. Bone graft substitute grafting
   b. Extended curettage
      i. Adjuvant treatment for aggressive benign tumors
      ii. Cementation of bone defects
   c. Excision of osteochondromas
   d. Prophylactic stabilization following curettage
III. Marginal excision of benign soft tissue tumors, all sites
IV. Surgical management of myeloma, lymphoma, and metastatic disease
   a. Internal fixation of pathological fractures, all sites
   b. Prophylactic internal fixation of impending pathological fractures, all sites
V. Surgical treatment of synovial processes
   a. Marginal excision of synovial cysts, all sites
   b. Synovectomy and loose body removal, major joints
EDUCATIONAL OBJECTIVE
TRAUMA AND OPERATIVE FRACTURE CARE
PGY-4

GOALS

GOAL 1 To develop the resident physician’s knowledge of the diagnosis and treatment of orthopedic trauma conditions.

GOAL 2 To develop the resident physician’s surgical skills required in the treatment of orthopedic trauma conditions.

EDUCATIONAL OBJECTIVES

GOAL 1 To develop the resident physician’s knowledge of the diagnosis and treatment of orthopedic trauma conditions.

Objective 1. To become proficient with a systematic approach to the evaluation of patients presenting in the emergency room setting, with symptoms secondary to trauma of the musculoskeletal system, and to understand the importance of resuscitation and surgical timing on patient outcome.(PC,MK,PBL,SBP)

Objective 2. To identify appropriate indications for the use of various diagnostic tests and radiographic techniques for patients with symptoms secondary to trauma of the musculoskeletal system.(PC,MK,SBP)

Objective 3. To develop clear understanding of the resuscitation, non-surgical and surgical treatment options for patients presenting with symptoms secondary to trauma of the musculoskeletal system.(PC,MK,SBP)

Objective 4. To develop clear understanding of the postoperative care of trauma patients, including trauma and fracture related complications(PC,MK,IC,P)

GOAL 2 To develop the resident physician’s surgical skills required in the treatment of orthopedic trauma conditions.

Objective 5. To develop advanced skills required in surgical procedures for patients presenting with symptoms secondary to trauma of the musculoskeletal system.(PC,MK)
GOAL 1
Objective 1, 2, 3:
   a. musculoskeletal trauma history and physical exam
   b. radiographs, computed tomography, MRI, nuclear medicine
   c. interaction with various services and family members in caring for trauma patients
      i. priorities of multiply injured patients with orthopedic injuries
      ii. triage decisions and work under pressure
      iii. preoperative lab values (base deficit, lactate, etc) and their relationships with resuscitation, surgical timing and choices of operative procedures
   d. ligamentous derangements and dislocations of major joints of the extremities
   e. long bone fractures of the skeletal system
   f. pelvic and acetabular fractures
      i. control of hemorrhage in closed and open pelvic fractures
   g. evaluate and understand the importance of energy of injury and soft tissue injury
   h. trauma resuscitation and damage control orthopedics

Objective 4:
   a. open fracture wound care
   b. post operative infection, osteomyelitis
   c. hemorrhage and hematoma
   d. compartment syndrome
   e. DVT and pulmonary embolus
   f. ileus, urinary retention
   g. pain control

GOAL 2
Objective 5:
   a. principles of fracture fixation
      i. open reduction, internal fixation
      ii. lag screws, compression techniques
      iii. external fixation
      iv. intramedullary fixation
      v. bridging techniques
      vi. fixed angle devices
   b. fixation choices in diaphyseal, metaphyseal and articular fractures
   c. percutaneous fracture fragment manipulation, and reduction techniques
   d. comminuted intra-articular fracture fixation
   e. pelvic and acetabular fixation
   f. soft tissue preservation and reconstruction
   g. amputations and prosthetics
PGY 4 Trauma Chief Resident Rotation Expectations

1. The PGY4 on the trauma service is responsible for the resident management of the service. This includes oversight responsibility of floor and emergency department consults and ensuring appropriate coverage of surgical cases. Rounds on all trauma patients will be conducted in conjunction with the junior residents and medical students assigned to the service. The chief resident on the service is expected to round with the junior residents and directly supervise rounds and patient care. Daily notes are required.

2. The chief is expected to coordinate transfer of care of all trauma patients at a morning conference with the surgeon assigned to the trauma room (between 6:45-7:00). Scheduling of cases and equipment needs for trauma room cases will be coordinated with the responsible attending. The chief is expected to have seen all trauma patients admitted and/or operated upon from the previous day before this conference begins and have received clear transfer of care information from the other junior or senior residents who have cared for the patients who need to attend this am sign over conference for clarity.

3. The PGY-4 resident is expected to coordinate the transfer of care at the end of the day. This responsibility includes ensuring that the resident coming on call for the night assumes clinical responsibilities and participates in ongoing clinical activities beginning at 5 PM.

4. All trauma patients 13 years of age and older are cared for by the adult trauma surgery service and are generally operated upon in the main OR. The chief resident should check with the orthopedic attending on call, and the orthopedic surgeon covering the trauma room, to coordinate care for these patients, and where the orthopedic care of all minors is to be carried out. The orthopedic paediatric service will cover patients treated by pediatric attendings.

5. The resident is responsible for coverage of trauma cases in the main OR and should arrange for PA/NP coverage for cases running at the same time.

6. The resident is expected to dialogue with attendings of trauma patients daily – either through a clinical rounds or telephone discussion. Significant problems or complications should be communicated immediately to the attending responsible for the patient.

7. Attendance at scheduled conferences should be top priority – surgical cases that begin during conference will be started by the attending.

8. The chief resident is responsible for organizing x-rays and cases in conjunction with the junior resident for presentation at Tuesday morning trauma and fracture conferences. Morbidity and Mortality cases on the trauma service should be logged for presentation at M& M rounds.

9. The formalized resident vacation policy applies to this rotation.

10. Violations of the New York State Health Department Code 405 Regulations are to be strictly avoided – without compromising patient care. Please check with fellow residents to ensure proper patient coverage.
PGY-5 Rotations: Objectives and Expectations
EDUCATIONAL OBJECTIVES
SPORTS MEDICINE ROTATION – PGY - 5
Part I - KNEE

GOALS

GOAL 1 To develop the resident physician’s knowledge and skills for treatment of diseases of the knee.

GOAL 2 To develop the resident physician’s surgical skill in the treatment of diseases of the knee, at a level appropriate for a general orthopedist.

EDUCATIONAL OBJECTIVES

GOAL 1 To develop the resident physician’s knowledge and skills for treatment of diseases of the knee.

Objective 1 To be able to appropriately evaluate, in an office and sports facility setting, patients presenting with symptoms secondary to musculoskeletal disorders of the knee; including differentiation from referred symptoms.(PC,IC)

Objective 2 To be able to appropriately order and evaluate diagnostic test for patients presenting with symptoms secondary to musculoskeletal disorders of the knee.(MK,SBP)

Objective 3 To be able to recommend appropriate non-surgical or surgical treatment for patients presenting with symptoms secondary to musculoskeletal disorders of the knee.(PC,IC,P)

GOAL 2 To develop the resident physician’s surgical skill in the treatment of diseases of the knee, at a level appropriate for a general orthopedist.

Objective 4 To become technically proficient in surgical procedures appropriate in the treatment of patients presenting with a variety of symptoms secondary to musculoskeletal disorders of the knee.(PC,MK)

GOAL 1 Objectives 1, 2, 3:

a. meniscal tears; acute and degenerative, meniscal cysts
b. ligamentous injuries; anterior cruciate, posterior cruciate, collateral, and combined
c. patellofemoral disorders; subluxations, dislocations, peripatellar tendinopathies, chondromalacia patella and patellofemoral stress syndrome
d. osteochondritis dissecans of the distal femur and patella
e. chondral lesions; acute and chronic
f. fractures about the knee; tibial spine, patella, tibial plateau
g. tendinopathies about the knee
h. tendon ruptures about the knee; patella, quadriceps
i. post-traumatic, degenerative and inflammatory arthritis of the knee; loose bodies
j. reflex sympathetic dystrophy
k. arthrofibrosis of the knee

GOAL 2
Objective 4:

a. knee arthroscopy: diagnostic and operative, including meniscal repair and resection, chondroplasty, debridement, anterior and posterior cruciate ligament reconstruction
b. patellofemoral reconstruction: lateral release, medial patellofemoral ligament/retinacular reconstruction, distal realignment (tibial tubercle transfer)
c. extra-articular ligament reconstruction/repair: medial, lateral, posterolateral corner
d. patellar and quadriceps tendon repair
e. treatment of osteochondritis dissecans, including arthroscopic fixation or debridement, retrograde drilling
f. treatment of fractures about the knee, including arthroscopic or arthroscopic assisted tibial spine, tibial plateau fixation; patellar open reduction and internal fixation
Part II - SHOULDER AND ELBOW

GOALS

GOAL 1 To develop the resident physician's knowledge and skills for treatment of diseases of the shoulder and elbow.

GOAL 2 To develop the resident physician's surgical skill in the treatment of diseases of the shoulder and elbow, at a level appropriate for a general orthopedist.

EDUCATIONAL OBJECTIVES

GOAL 1 To develop the resident physician's knowledge and skills for treatment of diseases of the shoulder and elbow.

Objective 1 To be able to appropriately evaluate, in an office and sports facility setting, patients presenting with symptoms secondary to musculoskeletal disorders of the shoulder and elbow; including differentiation from referred symptoms.(PC,MK,IC,PBL)

Objective 2 To be able to appropriately order and evaluate diagnostic tests for patients presenting with symptoms secondary to musculoskeletal disorders of the shoulder and elbow.(PC,SBP)

Objective 3 To be able to recommend appropriate non-surgical or surgical treatment for patients presenting with symptoms secondary to musculoskeletal disorders of the shoulder and elbow.(PC,MK,IC,P)

GOAL 2 To develop the resident physician's surgical skill in the treatment of diseases of the shoulder and elbow, at a level appropriate for a general orthopedist.

Objective 4 To become technically proficient in surgical procedures appropriate in the treatment of patients presenting with a variety of symptoms secondary to musculoskeletal disorders of the shoulder and elbow.(PC,MK)

GOAL 1 Objectives 1, 2, 3:

a. sternoclavicular joint disorders; acute and chronic subluxations and dislocations, arthritis
b. acromioclavicular joint disorders; acute and chronic dislocations, arthritis, distal clavicular osteolysis
c. glenohumeral joint instability; acute and chronic subluxations and dislocations; uni- and multi-directional
d. glenohumeral arthritis; inflammatory and degenerative
e. scapulothoracic strains, scapular winging
f. rotator cuff and bicipital disorders; strains, tendinopathies, tears, calcific tendonitis, subacromial bursitis/impingement syndrome
g. adhesive capsulitis; primary and secondary
h. clavicle fractures and nonunions
  i. avascular necrosis of the humeral head
j. neurologic entrapment syndromes; suprascapular, median, ulnar and radial nerves
k. elbow dislocation, acute and chronic instability
l. capitellar osteochondritis dissecans
m. distal biceps rupture
n. tendinopathies about the elbow
o. post-traumatic, degenerative, and inflammatory arthritis of the elbow; loose bodies
p. elbow stiffness; with and without heterotopic ossification
q. olecranon bursitis
r. thoracic outlet syndrome
s. cervical radicular syndromes
t. reflex sympathetic dystrophy

**GOAL 2**
Objective 4:
- shoulder arthroscopy: diagnostic and operative, including synovectomy, debridement, and subacromial decompression
- shoulder instability; uni- and multi-directional reconstructive procedures
- rotator cuff repair, debridement and open subacromial decompression
d. distal clavicle stabilization and excision
e. debridement/release elbow tendinopathies
f. manipulation of the shoulder under anesthesia

**Part III - MISCELLANEOUS**

**GOALS**

**GOAL 1**
To develop the resident physician’s knowledge and skills for treatment of sports-related disorders of the hip, back, foot, and ankle.
**GOAL 2**  To develop the resident physician’s surgical skill in the treatment of sports-related disorders of the foot and ankle, at a level appropriate for a general orthopedist.

**EDUCATIONAL OBJECTIVES**

**GOAL 1**  *To develop the resident physician’s knowledge and skills for treatment of sports-related disorders of the hip, back, leg, foot, and ankle.*

Objective 1  To be able to appropriately evaluate, in an office and sports facility setting, patients presenting with symptoms secondary to sports-related disorders of the hip, back, leg, foot and ankle. (PC,PBL,IC)

Objective 2  To be able to appropriately order and evaluate diagnostic tests for patients presenting with symptoms secondary to sports-related disorders of the hip, back, leg, foot and ankle. (PC,SBP)

Objective 3  To be able to recommend appropriate non-surgical or surgical treatment for patients presenting with symptoms secondary to sports-related disorders of the hip, back, leg, foot and ankle. (PC,IC,P)

**GOAL 2**  *To develop the resident physician’s surgical skill in the treatment of sports-related disorders of the leg, foot and ankle, at a level appropriate for a general orthopedist.*

Objective 4  To become technically proficient in surgical procedures appropriate in the treatment of patients presenting with symptoms secondary to a variety of sports-related disorders of the leg, foot and ankle. (PC,MK)
GOAL 1
Objectives 1, 2, 3:
   a. muscle/tendon strains and tendinopathies about the hip, including iliopsoas, iliotibial, rectus, sartorius, tendonitis
   b. apophyseal avulsion fractures about the hip
   c. “athletic pubalgia” (athletic hernia)
   d. disorders about the back, including muscle strain, disc degeneration and herniation, pars interarticularis stress fractures, facet injury
   e. stress fractures, including hip, femur, tibia, fibula, navicular, fifth metatarsal, etc.
   f. exertional compartment syndrome
   g. medial tibial stress syndrome
   h. ankle sprains, acute and recurrent
   i. tendinopathies about the foot and ankle
   j. Achille’s tendon ruptures
   k. ankle impingement
   l. osteochondritis dissecans of the talus
   m. femoroacetabular impingement

Objective 4:
   a. ankle arthroscopy, diagnostic and operative, for treatment of ankle impingement, debride of chondral/osteochondral lesions
   b. reconstruction of ankle ligaments for treatment of instability
   c. internal fixation +/− bone grafting of fifth metatarsal fractures
   d. fasciotomies for treatment of exertional compartment syndrome
   e. repair of Achille’s tendon ruptures
   f. hip arthroscopy diagnostic and operative for treatment of hip impingement, labral tears and loose bodies
PGY-2 and 5 Sports Medicine Resident Rotation Expectations

1. The PGY 2 will work with Dr. Cannizzaro the first 6 weeks of the rotation and then Dr. Scuderi the last 6 weeks of the rotation. The PGY 5 will do the opposite. This will be run in an apprentice type fashion. The resident is required in both office and OR.

2. Attendance at scheduled educational conferences should be top priority.

3. Sports cases should be covered by the sports resident. Non-sports cases done by sports attendings should be covered by residents on responsible chief services (rare exceptions when shortage of available residents)

4. Weekly coverage of the service should be coordinated with the PGY 5, PGY 2, and the sports PA.

5. Residents will be responsible for presentation at the sports conferences which are scheduled during their 3 month block. This will be coordinated by the PGY 5 chief. The presenter is required to notify the covering attending 1 week in advance to review the presentation. The presenters will rotate between the PGY 5, PGY 2, and the CIMH sports service rotator.

6. One month advance notice to all sports attendings must be given for any resident absences (vacations, interviews, conferences, etc.) It is the resident responsibility to get coverage for all surgical cases in his/her absence and to let attendings know regarding coverage.

7. Residents should be spending one half-day every other week working on academic work while on this rotation. This will be the resident’s responsibility to arrange, and the time should be coordinated with the sports attendings based upon their schedules/vacations.

8. The PGY 5 and PGY 2 will be involved with coverage of SUNY Cortland sports clinic and game coverage as directed by Dr. Cannizzaro.

9. The PGY 2 will be involved with the coverage of Bishop Grimes clinic and game coverage as directed by the sports attending.

10. The PGY 5 and PGY 2 will be involved in the coverage of Cornell University sports clinics and game coverage as directed by Dr. Scuderi.
EDUCATIONAL OBJECTIVES
PEDIATRIC ORTHOPEDIC ROTATION
PGY 5

GOALS

GOAL 1 To develop the resident physician’s knowledge and skill in the diagnosis and treatment of pediatric orthopedic diseases and trauma.

GOAL 2 To develop the resident physician’s skills in the treatment of pediatric orthopedic diseases, at a level appropriate for a general orthopedist.

EDUCATIONAL OBJECTIVES

GOAL 1 To develop the resident physician’s knowledge and skill in the diagnosis and treatment of pediatric orthopedic diseases and trauma.

Objective 1. To appropriately evaluate and treat pediatric fractures in an ER setting. (PC,MK,SBP,IC)

Objective 2. To appropriately evaluate patients presenting with pediatric orthopedic disorders in an office setting, including generation of a differential diagnosis. (PC,MK,IC)

Objective 3. To order appropriate diagnostic tests for children presenting with pediatric musculoskeletal disorders. (PC,MK,SBP)

Objective 4. To recommend appropriate non-surgical or surgical treatment for patients presenting with pediatric orthopedic disorders. (PC,MK,IC,P)

GOAL 2 To develop the resident physician’s skills in the treatment of pediatric orthopedic diseases, at a level appropriate for a general orthopedist.

Objective 5. To develop proficiency in the resident physicians’ surgical skills in the treatment of pediatric musculoskeletal disorders. (PC,MK)
GOAL 1
Objectives 1, 2, 3, 4
a. pediatric fractures, a) poly trauma b) abuse, acute and mal-union, non-union
b. evaluation of the limping child
c. evaluation of back pain
d. pediatric orthopedic infections
e. rotational & angular deformities of the lower extremity
f. idiopathic scoliosis
g. congenital scoliosis and kyphosis
h. Scheuermann’s disorder
i. spondylolysis & spondylolisthesis
j. pediatric cervical spine
k. SCFE
l. LCPD (Legg-Calve-Perthes disease)
m. DDH
n. tibial deformity
o. leg length inequality
p. knee disorders
q. clubfoot
r. miscellaneous foot disorders
s. neuromuscular disorders

GOAL 2
Objective 5.
a. continued training in procedures required in PGY2 year
b. osteotomies for correction of angular deformities independent of or subsequent to fractures
c. exposure of posterior & anterior spine for fusion & instrumentation
d. thoracoplasty
e. anterior approach to pediatric hip
f. drainage of septic hip
g. open and closed reduction of DDH
h. pelvic osteotomies
i. femoral osteotomies
j. leg lengthening or shortening
k. patella realignment
l. surgical correction of clubfoot
m. resection of tarsal coalitions
n. accessory navicular excision
o. hind-foot, mid-foot & forefoot osteotomies
p. triple arthrodesis
PGY 2 & 5 Pediatric Orthopedics Rotation Expectations

1. Attendance at conferences is a top priority; surgical cases that begin during conference will be started by the attending.
2. Attendance at office hours is required. Because the schedule shifts from week to week there is not a specific assignment. However, residents are expected to arrive on time and ready to learn. If more than one attending is seeing patients in the office, both residents on the pediatric orthopedic service are expected to be present in the office, unless there is a pediatric orthopedic surgical case requiring coverage at the same time.
3. Residents are responsible for preparing and presenting pre-operative cases for the upcoming week at the pre op/postop conference.
4. Residents are required to read about cases they will attend and should feel free to ask questions about cases at the pre-operative conference.
5. Residents are responsible for presentation of some of the pediatric orthopedic morning conferences scheduled while they are on the rotation. This responsibility should be shared equally by the two residents on the service. Residents should work with one of the pediatric orthopedic attendings when preparing these conferences.
6. Residents are required to read the entire Lovell and Winter’s Pediatric Orthopedics (Sixth Edition) during the three month rotation.
7. Residents are responsible for preparing presentations on specific topics as directed by the pediatric orthopedic attendings.
8. Rounds should be made twice daily on all in house patients.
9. The formalized resident vacation policy applies to this rotation. Residents are responsible to find coverage for all surgical cases in his/her absence and to let attendings know about this coverage.
10. Residents should be spending one half-day every other week as dedicated time for research on this rotation. This will be the resident’s responsibility to arrange, and the time should be coordinated with the pediatric attendings based upon their schedules.
11. Participation in cases should be chosen based on resident level and difficulty of cases. The case coverage should be divided fairly between the two residents on the service.
12. The PGY-5 resident on the service is the senior resident and responsible for organizing the resident coverage for the service.
13. Both residents on the service are expected to see all inpatients assigned to the service daily. The rounding on patients should not be divided between the residents.
14. Compliance with New York State Health Department Code 405 and ACGME regulations regarding resident work hours is mandatory. Please arrange proper transfer of inpatient care in instances when you must leave the hospital.
EDUCATIONAL OBJECTIVES
VETERAN’S ADMINISTRATION HOSPITAL ROTATION
PGY 5

GOALS

GOAL 1 To develop the resident physician’s knowledge and skills for preoperative assessment, and hospital and postoperative management of common orthopedic disorders.

GOAL 2 To develop the resident physician’s knowledge and surgical skill in the treatment of common orthopedic disorders, at a level appropriate for a general orthopedist.

EDUCATIONAL OBJECTIVES

GOAL 1 To develop the resident physician’s knowledge and skills for preoperative assessment, and hospital and postoperative management of common orthopedic disorders.

Objective 1 To appropriately assess patients presenting with a variety of musculoskeletal disorders, and offer appropriate surgical and nonsurgical treatment. (PC, MK, IC, P)

Objective 2 To appropriately manage, in an inpatient setting, patients recovering from surgical treatment of a variety of musculoskeletal disorders. (PC, MK)

Objective 3 To appropriately diagnose and treat peri-operative complications arising as a result of the surgical treatment of a variety of musculoskeletal disorders. (PC, PBL, IC, P)

Objective 4 To develop skills in the interaction with allied health professionals, with the objective of organizing sound patient treatment plans, including surgery. (PC, IC, P, SBP)

GOAL 2 To develop the resident physician’s knowledge and surgical skill in the treatment of common orthopedic disorders, at a level appropriate for a general orthopedist.

Objective 5 To develop technical proficiency in surgical procedures appropriate in the treatment of patients presenting with a variety of symptoms secondary to common musculoskeletal disorders. (PC, MK)
**GOAL 1 and 2**

Objectives 1, 2, 4:

a. joint replacement surgery; hip, knee, shoulder, straightforward revisions
b. trauma care, including open reduction internal fixation, traction, closed reduction percutaneous fixation, external fixation of long bone and peri-articular fractures
c. arthroscopic surgery, including diagnostic and operative arthroscopy of the knee and shoulder
d. surgery of the foot and ankle, including fusions, osteotomies, tendon transfers, nonunion procedures
e. surgery of the hand, including arthritis, infection, Trigger finger and simple fractures

**GOAL 1**

Objective 3:

a. deep venous thrombosis, pulmonary embolus
b. adult respiratory distress syndrome, fat embolism syndrome
c. wound dehiscence, seroma, hematoma
d. post-operative infection
e. compartment syndrome
f. prosthetic joint dislocations
g. loss of fracture fixation
h. peri-operative blood loss

**GOAL 1**

Objective 4:

a. coordination of outpatient care plans
b. interaction with medical center therapists and nurse practitioners
c. operative case bookings
d. coordination of orthopaedic implant acquisition and technical instruction
e. coordination of post operative treatment plans
PGY5 Veterans Resident Rotation Expectations

1. Prepare for and assume primary surgeon responsibility in all elective inpatient surgeries.
2. Assume a teaching role in clinic and in the OR transferring increasing responsibility to the PGY2 as his/her skills progress.
3. Participate in all outpatient clinics exhibiting behavior consistent with an orthopaedic surgeon in charge of patient care. Oversee and facilitate sound patient care plans in conjunction with the PGY 2 resident and attending surgeon and via interaction with all allied health staff.
4. Perform daily morning rounds and notes, including consults and off service patients. Discuss problems with the junior resident, nurse practitioner and/or attending as appropriate.
5. Prepare for Monday morning case conferences and therapy conferences.
6. Collect and prepare cases for VA M&M conferences and Indications conferences at University Hospital.
7. Attend all University Hospital teaching conferences, including Grand Rounds.
8. Teach medical students basics of orthopaedic care during their rotation.
9. Include medical students into rounds and surgical coverage.
10. Complete medical student evaluations.
11. Strict observation of New York State Health Department Code 405 Regulations regarding resident work hours – no exceptions! Each resident is expected to know their schedule for the upcoming week, and avoid conflicts by proper patient care transfer.
12. Complete VA rotation evaluation at the end of the rotation.
13. Cover senior resident call at University Hospital.
14. Compliance with New York State Health Department Code 405 and ACGME regulations regarding resident work hours is mandatory.

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EDUCATIONAL OBJECTIVES
HAND SURGERY ROTATION
PGY 5

GOALS

GOAL 1  To develop the resident physician’s knowledge and skill in the diagnosis and treatment of diseases of the hand and wrist

GOAL 2  To develop the resident physician’s surgical skills in the treatment of disease of the hand and wrist, at a level appropriate for a general orthopaedist.

EDUCATIONAL OBJECTIVES

GOAL 1  To develop the resident physician’s knowledge and skill in the diagnosis and treatment of diseases of the hand and wrist

Objective 1.  To appropriately evaluate patients presenting in an office setting, with symptoms secondary to disorders of the hand and wrist; including differentiation from referred symptoms (PC,MK,IC)

Objective 2.  To appropriately order and evaluate diagnostic tests for patients presenting with symptoms secondary to disorders of the hand and wrist. (PC,MC,SBP)

Objective 3.  To recommend appropriate non-surgical or surgical treatment for patients presenting with symptoms secondary to disorders of the hand and wrist. (PC,IC,PBL,P)

GOAL 2  To develop the resident physician’s surgical skills in the treatment of disease of the hand and wrist, at a level appropriate for a general orthopedist.

Objective 4.  To become proficient in surgical procedures appropriate to the treatment of patients presenting with a variety of symptoms secondary to disorders of the hand and wrist. (PC,MK)
GOAL 1

Objectives 1, 2, 3:
   a. disorders of the distal radius: acute fractures, malunion, arthritis
   b. disorders of the DRUJ: fractures, instability, ulnar impaction, arthritis
   c. disorders of the carpal bones: carpal fractures, dislocations, instability, arthritis, stiffness
   d. disorders of the bones of the hands: fractures, dislocations, arthritis, stiffness, amputations
   e. disorders of the nails and nailbed: crush injury, tumors, infections
   f. disorders of the flexor tendons: lacerations, tenovaginitis, tenosynovitis, adhesions, chronic deficiency
   g. disorders of the extensor tendons: lacerations, ruptures, tenosynovitis, adhesions, dislocations, chronic deficiency
   h. disorders of the neurovascular structures of the hand: lacerations, neuromas, vasospastic disorders
   i. rheumatologic disorders of the hand and wrist
   j. peripheral nerve compression in the upper extremity
   k. paralytic conditions of the hand, with and without tendon transfers
   l. reflex sympathetic dystrophy
   m. masses and tumorous conditions of the hand and wrist

GOAL 2

Objective 4:
   a. open reduction and internal fixation, as well as percutaneous reduction techniques, for distal radius fractures
   b. ORIF and percutaneous techniques for carpal and hand fractures
   c. Extensor and flexor tendon repair
   d. Peripheral nerve decompression
   e. Peripheral nerve and vessel repair
   f. Wrist arthroscopy: diagnostic and therapeutic, including synovectomy and debridement
   g. excision of masses and tumors
PGY5 Hand Surgery Resident Rotation Expectations

1. Each resident is expected to obtain a copy of the assigned attending’s schedule for the upcoming week. Please check with Julie or the hand fellows for a copy of the monthly attending assignments so you know to whom you are assigned.

2. The resident is expected to dialogue with the assigned attending so that it is clear which activities for the upcoming week absolutely require their attendance. Absences from these activities (for conferences, meetings, etc) should be communicated to the attending and alternate coverage arranged.

3. The resident will be assigned to one attending on a month-by-month basis. As of 2015, the fifth year hand rotation is typically divided among Drs. Harley, Loftus, Setter, and Pletka.

4. Attendance at scheduled conferences should be top priority – surgical cases that begin during conference will be started by the attending.

5. Office hours should be attended on a regular basis. Refinement of diagnostic skills and non-operative treatment of hand problems is an integral part of this rotation. Time in the office/clinic should represent 50% of patient care on this rotation.

6. The senior resident is expected to poll attendings for complications and M&M cases for presentation at the Department M&M conference held the first Tuesday of every month.

7. Residents need to read and prepare for cases – no exceptions. Residents have first priority with regard to surgical cases of their assigned attendings. The only exception is microsurgery and free flaps, for which fellows may “take over” a case.

8. Residents and fellows are welcome to observe any case. If your attending is on vacation – don’t take one yourself. There is a lot to know and limited time, so make the most of it.

9. The formalized resident vacation policy applies to this rotation.

10. Compliance with New York State Health Department Code 405 Regulations regarding resident work hours is mandatory. Please arrange proper transfer of inpatient care in instances when you must leave the hospital.

11. Residents should be spending one half-day every other week as dedicated time for research on this rotation. This will be the resident’s responsibility to arrange, and the time should be coordinated with the hand attendings based upon their schedules.

12. Compliance with New York State Health Department Code 405 and ACGME regulations regarding resident work hours is mandatory.
Reading List:

RESIDENT’S REQUIRED READING LIST
DEPARTMENT OF ORTHOPEDIC SURGERY
04/01/09

The Education Committee has compiled a list of reference texts that are to be considered required reading for each resident in this program. The list represents a minimum requirement, and should be supplemented with additional readings for specific cases, and as recommended by individual attendings. Further, we support the role of the senior residents as educators and mentors, and encourage their regular input to the junior residents in this regard.

PGY 1: Trauma – Brown & Jupiter or Rockwood & Green
Hoppenfeld’s Surgical Exposures
Orthopaedic Basic Science (AAOS)

PGY 2: Pediatrics – Lovell & Winter, or Tachdjian
Spine – OKU Spine and spinal trauma chapters in the Skeletal Trauma text

  General principles
  Anesthesia
  Amputations
  Arthrodesis
  Arthroplasty
  Arthroscopy
  Stiff joints
  Dupuytrens
  Intrinsic contracture
  RSD
  Elbow
  Fractures and Dislocations
  Infections
  Principles of microvascular surgery
  Replantation
  Nails
  Nerve Injury and compression (Not thoracic outlet)
  Nerve reconstruction
  Rheumatoid arthritis
  Skin grafts
  Flexor and Extensor tendons
  Ganglions
  Vascular disorders
Sports – OKU sports medicine

PGY 4-5:
  Self directed reading (case based), Instructional Course Lectures (AAOS), Current Concepts (JBJS), Journal Articles, etc. – to continue through the PGY 4 & 5 years.
**Resident Research Project Requirements:**

Over the course of the five-year program, each resident is expected to complete at least one major research project of a quality suitable for submission to a major medical journal. Each resident project will be completed under the direction of one or more of the clinical or research faculty here in Syracuse. The coordinators for compliance with this project are Dr. Brian Harley, MD and Mr. Fred Werner, MME. The timeline of this process is as follows.

Over the course of your first two years in the program, you should come up with a research question. While at first this might seem quite simple, remember that there are two aspects to this that you will find critical. First, has it been already answered? There is no point performing a project if quality research has clearly answered your question. Second, can you answer your question? (given that the timeline for your involvement in this program is five years!) Obviously, some questions are easier to answer than others, so make sure you get some direction early on – ask the senior residents and attendings for important advice and ideas.

As you can gather, both of these processes can take some time. To help you along, during your second year, you will be expected to present your research topic at a quarterly research conference. At this time, you will be expected to formulate your question into a hypothesis, and also be able to provide a clear description on the relevant recent literature. If you are having trouble deciding on a topic and a research preceptor, please contact Fred Werner or Brian Harley. Each has a listing of possible topics (both basic science and clinical) and preceptors. The quarterly conferences are held to make sure that you are on track, and so that you can get valuable input.

By early in your third year, you need to have formulated a methodology in order to answer your question, and by the end of third year you should have a good start on the project. You will be expected to present the methodology and early results of your project at the Annual Alumni Day at the end of your fourth year, and the final project results in your chief year. This is not the time to find out that your methodology is flawed. Please utilize the research conferences, the resident research coordinators as well as your project preceptor early on in the development process to help foresee issues like bias and confounding. Statistical methods are likely not your area of expertise, but you need to know what you’re going to do before you acquire a whole data set!

Now the finale, and keep this in mind, because it takes some time to complete this requirement. You can’t do it in your last two weeks in Syracuse! You need to have your project written up in a format suitable for submission to a major journal, with references in place, submitted to the chairman’s office before by April 1st. Submission of the manuscript is a requirement to finish the residency program. No exceptions. Once again, seek out help liberally.

The purpose of this component of your training is to help you appreciate the research process, and gain a healthy understanding of what constitutes quality (and not so quality) results. While it is likely that only the minority of graduating residents will ever again undertake a major research project, the skills you acquire during the completion of this project will provide you with significant respect for the whole process. This will allow you to become more critical of the vast majority of published research, with the result being your cautious but effective incorporation of new ideas and new techniques into your lifelong practice of orthopedic surgery.
A formalized research rotation is not provided. However, to facilitate your progress, on the St. Joe’s, sport’s, both pediatric, oncology and both hand rotations you are expected to take at least one half day every second week to help complete your research requirements. Please check the expectations section for these rotations to determine the exact policy for each rotation. You are also expected to complete your project during breaks in your daily schedule on other rotations.

Lastly, realize that many orthopedic research projects do not prove to be fruitful. We would suggest that you plan to do a minimum of at least two projects during your residency, so that you end up with at least one complete project. While at first this may seem daunting, remember that in the past, many residents from this program have completed up to four projects that ended up in publications during their time in the residency program.

**Case logs and credentialing**

Residents are required to keep their ACGME case logs up to date. The data if reviewed monthly by the education committee and residents contacted if they are more than one month behind entering cases. The total number of cases entered to date are also reviewed and addressed if the resident’s case log numbers are below the expected level for his or her level in the program.

Residents are required to be credentialed for clinical activities. All credentialing must be completed prior to the end of the PGY-2 year in order to be promoted. Residents must be credentialed for any clinical activity they complete independently.

**Conference participation**

Resident attendance at morning education conferences, journal club, grand rounds and rotation specific conferences is mandatory. Residents are excused if attendance will result in duty hour violations. Residents are expected to actively participate in these education activities. They are required to present at grand rounds and may be asked to present at some of the morning education conferences. Completion of journal club assignments is also required.

**Resident Requirements for Promotion/Renewal**

The Department of Orthopedic surgery follows the guidelines for appointment, promotion, graduation and termination established by the Office of Graduate Medical Education. These policies are detailed on the University web site,

All residents sign annual contracts of appointment. Promotion to each subsequent year is determined by the program director and the Education committee based upon: satisfactory completion of educational objectives and administrative duties (as detailed on preceding and subsequent pages), demonstration of ethical and professional conduct, as well as acceptable performance on rotation evaluations and departmental examinations (see detail in subsequent pages). All evaluations and information pertinent to the resident
is documented in a database and hard copy file available for review by the resident with
the permission of the program chairman.

Resident Supervision

The residency program is ACGME accredited and follows all guidelines established by
the institutional Office of Graduate Medical Education. At all times residents are under
the supervision of a faculty orthopedic surgeon. Residents must notify the attending
physician whenever a patient is admitted to the hospital or a consult is requested. All
emergency department and inpatient consults must be reviewed during morning sign out
rounds with the attending on call the previous 24 hours and the attending assigned to the
trauma room for the current day.

The supervisory lines of responsibility are as follows. All junior and senior residents
report directly to the faculty member supervising their specific rotation and/or patient
interactions. However, it is understood that a significant portion of resident education
occurs as a result of the senior to junior resident interaction.

All PGY 1 residents will be directly supervised or indirectly supervised with direct
supervision immediately available. When PGY 1 residents participate in call, there will
always be a more senior resident immediately available in the hospital to provide direct
supervision.

All faculty members involved in resident education report to the Orthopedic Depart-
ment Chairman. The department education committee is extremely active in defining and
supervising all resident responsibilities, and meets regularly to ensure that all residents
are provided with a complete education in the discipline of orthopedic surgery.

Resident Discipline and Grievances

In the unfortunate situation where a resident is not maintaining the standards required by
the Department, the resident will be asked to meet with the program director. Strategies
for remediation will be provided, and all residents will be given extensive opportunities
to meet departmental requirements. Repeated failure to meet minimum standards will
result in non-renewal of the resident’s annual appointment, and in extreme cases,
immediate termination. Any such action is performed in consultation with the Office of
Graduate Medical Education, according to University policy, so that the resident is fully
informed of the process, and an appeal can be entered.

At the end of each rotation, the residents are given the opportunity to provide
constructive feedback of the rotation and preceptors, and this information is reviewed on
a regular basis by the education committee. The residents complete annual anonymous
evaluations of the program conducted by the ACGME and the Upstate GME office. The
results of these surveys are used as part of the program evaluation and may lead to
program changes. The Office of Graduate Medical Education also provides a mechanism
for registration of residents’ grievances at available on the University web site.
Fitness for Duty Policy

A resident or fellow who does not feel fit for duty should consult with the Orthopedic Surgery program director or Employee Health. Additionally, a supervisor who has concerns regarding a resident or fellow’s fitness for duty should also consult with the Program Director and/or Associate Dean for Graduate Medical Education.

Back-up Support:

Appropriate use of sick call includes unexpected illness, death in the family or other personal emergency. Sick call is not to be used for scheduled absences, e.g., doctor’s visits, family responsibilities, interviews, etc. For such scheduled absences, the resident/fellow will follow their department procedures in compliance with human resources/payroll policy.

Procedure for Back-up Support:

1. The resident will contact the senior resident on the service and residency program director or designee when the program director is unavailable to inform them of his/her illness or situation. The resident/fellow will talk directly to the senior resident or program director. No voicemail messages should be left. If the resident unable to perform his/her duties is the senior resident on the service, the resident should inform the administrative chief resident (PGY-5 resident on the pediatric orthopedic service) and the program director.

2. The resident/fellow will discuss the work type and duration for which coverage is needed. The senior resident and program director will ascertain what responsibilities need to be covered to ensure safe, comprehensive transfer of duties to the covering colleague. This will occur prior to each shift for which the resident is ill unless otherwise determined by program director.

3. As a general rule, each resident/fellow will be expected to complete an equal share of weekend and holiday calls. If the resident/fellow is unable to meet this responsibility due to illness or another situation as listed above, the resident/fellow will complete the requisite number of calls at a later date as determined by the Program Director or Chief. It should be understood that receiving return coverage is a courtesy but is not an absolute requirement and may not be possible in all situations. SUNY Upstate Medical University’s institutional policy allows employees to be out for a number of sick days without consequences. It is in this regard that professionalism and courtesy should exist.

Repayment of coverage may never result in an ACGME or New York State duty hours regulation violation, no matter what the circumstances.

4. If a resident/fellow is out sick greater than three days, documentation must be brought to the Program Director’s attention within 24 hours of returning to work. Documentation needs to show the name, date, time, and place where the resident/fellow was seen. Diagnosis does not need to be disclosed as this information is confidential. Failure to comply with the documentation requirement could lead to
comments regarding professionalism in the final evaluation of the resident/fellow or
disciplinary action.
5. For extended absences/illness, please refer to the institutional policy on Leaves of
Absence available on SUNY Upstate’s website. Residents and fellows should be
mindful of individual Board requirements that may set limits on the amount of leave
one may take at any level. In most cases, vacation time cannot be forfeited for leave.
6. While every attempt will be made to cover a resident or fellow with another resident
or fellow, the final authority for patient care and supervision lies with the attending.
In all cases when another resident or fellow cannot cover or cannot be reached, the
attending on service will provide this coverage.

**Resident & Physician Work Hours Policy:**

To maintain working conditions and working hours of physicians and post-graduate
trainees that promote the provision of quality medical care, University Hospital shall
follow the policies as set forth in Code 405 and the ACGME, regarding working hours
for post-graduate trainees and certain members of the medical staff. When the ACGME
and Code 405 requirements are in conflict, the stricter requirement applies.

The Orthopedic Duty hour policies are consistent with the University Hospital and
ACGME policies. Additional information and responses to frequently asked questions are
available on the ACGME site:

[http://www.acgme.org](http://www.acgme.org)

Additional Institution information is available in the Upstate Resident Handbook
available on the Upstate web site.

**Call Schedules**

The table below is a general outline of the call schedule for the PGY 2 and 3 residents.
During the PGY-2 and 3 years, call at Upstate is in-house. Call is generally busy. A call
room is provided. At Crouse and the Veteran’s Hospital, call is from home.

The PGY 1 on the trauma service is on call for a 12 hour shift from 6 PM Saturday to 6
AM Sunday. The PGY 1 on the hand service is on call for a 12 hour shift from 8 AM to 8
PM Sunday.

<table>
<thead>
<tr>
<th></th>
<th>UPSTATE</th>
<th></th>
<th>CROUSE</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>AM</td>
<td>PM</td>
<td>AM</td>
<td>PM</td>
</tr>
<tr>
<td>MON</td>
<td>TRAUMA(2)</td>
<td>HAND(3)</td>
<td>SPORTS(3)</td>
<td>TRAUMA(2)</td>
</tr>
<tr>
<td>TUES</td>
<td>TRAUMA(2)</td>
<td>JOINTS(3)</td>
<td>JOINTS(3)</td>
<td>VA(2)</td>
</tr>
<tr>
<td>WED</td>
<td>TRAUMA(2)</td>
<td>Peds(2)</td>
<td>SPORTS(3)</td>
<td>FILLED BY 3'S</td>
</tr>
<tr>
<td>THUR</td>
<td>TRAUMA(2)</td>
<td>SPORTS(3)</td>
<td>JOINTS(3)</td>
<td>SPINE(2)</td>
</tr>
<tr>
<td>FRI</td>
<td>TRAUMA(2)</td>
<td>TRAUMA(2)</td>
<td>F&amp;A(3)</td>
<td>FILLED BY 3'S</td>
</tr>
</tbody>
</table>
On weekdays the transition of call for the PGY-2’s and 3’s occurs at 5 PM. The resident beginning call at 5 PM is expected to immediately become involved in patient care. This means participation in emergency department consults, even if they have been started by the daytime service. They are also expected to assist with remaining patient care activities on the floors if there are no emergency department consults. It is important to facilitate the timely transition of care to be certain all residents are in compliance with duty hour requirements.

Resident call responsibility varies throughout the five years of residency. At all times, compliance with New York State Health Department Code 405 Regulations and ACGME policies regarding resident duty hours is mandatory.

You are required to arrange proper transfer of inpatient care in instances when you must leave the hospital. Pagers are provided by the department. Cell phones are the responsibility of each resident.

During the PGY-1 year, call on the off-service rotations is coordinated by the individual specialty service. Duty hours on these services must be in compliance with duty hour requirements.

During the PGY-4 and 5 years, residents cover the trauma, pediatrics, hand and spine services at a senior level from home. This is a position of responsibility consistent with a resident’s experience and level of training. The resident must provide advice and occasional personal assistance to the junior residents in their evaluation and treatment of emergency department patients and inpatient consults. The resident is expected to cover all operative cases while on-call. Each night, one resident is on first call, while a second senior resident is designated as a backup in the case of multiple cases. Furthermore, the senior resident on call is expected to provide for accurate and complete transfer of patients onto their respective services in the morning following call. Residents are not allowed to take consecutive nights of senior level first call. The call schedule must allow for one 24 hour period free of clinical responsibilities. This applies to backup as well as first call.

Moonlighting by orthopedic residents is not allowed.

**Vacation Policies**

Each resident will be allowed one week of vacation (5 weekdays) per 3 month rotation during PGY2 – PGY5 rotations. The PGY1 residents will get a week of vacation during each of their two orthopedic rotations. Vacation while on off service rotations will be assigned in conjunction with General Surgery and other PGY-1 rotations.

Vacation requests will be granted based on seniority. (i.e. PGY5’s have priority over PGY4’s and so on). Vacation requests are just that, requests.
Vacation must be approved prior to the start of each rotation. The vacation request form must be filled out completely with details regarding coverage and signatures from attending surgeons.

Vacation must be approved by each of the following people:
- Attending surgeon of the respective rotation
- Chief Resident of the respective rotation
- Resident covering any missed call
- Administrative Chief Resident
- Residency Program Director (Dr. Albanese)

Arranging coverage is the responsibility of the resident who is away, not of the resident who is covering. This includes weekend coverage, call coverage, rounding.

Any covering resident must remain in compliance with the ACGME and New York State duty hour regulations.

Residents on services with multiple residents (Trauma, Spine, Peds, VA, and Hand) cannot take the same week of vacation. If weeks are taken back to back by residents on the same service rounding on the service must be done by one of the residents on the service.

With the exception of fellowship interviews, Vacation cannot be “saved” from prior rotations to be used during a later rotation. Special cases will be reviewed on a case by case basis.

In general, vacation must be taken a week at a time. Vacation can be split but must be approved.

Time away for presenting research at an official Orthopedic Conference/Meeting will not count against vacation days. This requires prior approval by the Residency Program Director.

Time away to attend training courses will be counted against vacation.

Vacation cannot be taken by anyone during the first or last week of the academic year (June 23 to July 7) or from December 24 to January 1.

**Fellowship Interviews**

Vacation needs to be used for days away on fellowship interviews. Vacation for a given rotation should be used first for time away during the same rotation. If a resident misses more than the allotted 5 days of vacation for a given rotation, then those days away will be expected to be made up from vacation on another block.
It is expected that each resident will email Dr. Albanese in advance of any days away on interviews as to keep an accurate record of days missed.

Days where the majority of the day was worked but the resident has to leave in the late afternoon for travel will not be counted against vacation.

**Vacation Coverage - Clinical responsibilities (includes cases and rounding)**

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Coverage Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pediatrics (PGY-5)</td>
<td>No coverage required. Covered by the co-resident on the service.</td>
</tr>
<tr>
<td>VA (PGY-5)</td>
<td>No coverage required. Covered by the co-resident on the service.</td>
</tr>
<tr>
<td>Sports (PGY-5)</td>
<td>No coverage required. OR cases covered by PA.</td>
</tr>
<tr>
<td>Hand (PGY-5)</td>
<td>No coverage required. Covered by the co-resident / fellow on the service.</td>
</tr>
<tr>
<td>Trauma (PGY-4)</td>
<td>Covered by the Sports PGY-5 for OR cases and rounding.</td>
</tr>
<tr>
<td>Spine (PGY-4)</td>
<td>No coverage required. Covered by the co-resident / PA / Fellow on the service.</td>
</tr>
<tr>
<td>Tumor</td>
<td>OR Cases and rounding are covered by PGY-5 on Hand. Office is not covered.</td>
</tr>
<tr>
<td>St. Joesph’s</td>
<td>No coverage required. Covered by the St. Joe’s PA’s.</td>
</tr>
<tr>
<td>Foot &amp; Ankle</td>
<td>No coverage required.</td>
</tr>
<tr>
<td>Sports (PGY-3)</td>
<td>No coverage required.</td>
</tr>
<tr>
<td>Joints (PGY-3)</td>
<td>No coverage required.</td>
</tr>
<tr>
<td>Hand (PGY-3)</td>
<td>No coverage required. Covered by the co-resident / fellow on the service.</td>
</tr>
<tr>
<td>Pediatrics (PGY-3)</td>
<td>No coverage required. Covered by the co-resident on the service.</td>
</tr>
<tr>
<td>Trauma (PGY-2)</td>
<td>Covered by the Peds PGY-2 (Monday-Wednesday, Friday) Covered by the Spine PGY-2 (Thursday)</td>
</tr>
<tr>
<td>Spine (PGY-2)</td>
<td>No coverage required. Covered by the co-resident / PA / Fellow on the service.</td>
</tr>
<tr>
<td>VA (PGY-2)</td>
<td>No coverage required. Covered by the co-resident on the service.</td>
</tr>
<tr>
<td>HAND (PGY-1)</td>
<td>No coverage required. Covered by the co-resident on the service.</td>
</tr>
<tr>
<td>TRAUMA (PGY-1)</td>
<td>No coverage required. Covered by the co-resident on the service.</td>
</tr>
</tbody>
</table>

**Coverage – Call responsibilities**

<table>
<thead>
<tr>
<th>PGY-5 and PGY-4</th>
<th>No coverage required. Call trades will be made with other residents in the senior resident call pool</th>
</tr>
</thead>
<tbody>
<tr>
<td>PGY-3 and PGY-2</td>
<td>In house call (UH) and home call (Crouse &amp; VA) will be covered by the Foot &amp; Ankle resident.</td>
</tr>
<tr>
<td></td>
<td>Each resident will be covered for 1 in house call and 1 home call. The VA resident will be</td>
</tr>
<tr>
<td></td>
<td>covered for 2 in house call’s and 1 home call. If coverage by the Foot &amp; Ankle resident is</td>
</tr>
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<td></td>
<td>going to result in a duty hours violation, other arrangements must be made.</td>
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</tbody>
</table>
Service Coverage During Regular Working Hours

During regular working hours, residents are responsible for coverage of the patients on their assigned service. If a resident is off site, the trauma team may be consulted and there is a patient care issue that requires urgent attention. The trauma team is not to be called for routine dressing changes, orders and prescriptions.

Spine service is expected to cover the monthly spine clinic at Harrison Center. The spine fellow is required to be present at the clinic. Spine cases scheduled during the clinic time will be covered by residents or spine service physician extenders. Residents from other services will not be allowed to cover the spine cases during spine clinic hours. The spine service fellow or resident will admit patients directly admitted to the floor and cover the floor consults. Routine patient care issues that arise during regular working hours are to be managed by the spine service. The trauma team may be called if there is an urgent patient management issue and no one from the spine service is available. The trauma resident will cover the acute aspects. The spine service will then takeover as soon as possible and continue the management. The trauma service will continue to cover the emergency department spine consults.

The trauma service residents will cover trauma patients of the non-trauma attendings. Patients 12 years old and younger will be managed by the pediatric orthopedic service. Any patient over age 12 assigned to one of the trauma attendings, even the non-trauma patients, is the responsibility of the senior and junior residents on the trauma service. The trauma residents are not responsible for managing the routine daily activities of other services.

The pediatric orthopedic residents will cover all patients admitted to one of the pediatric orthopedic attendings and all the admitted trauma patients age 12 and under. During regular working hours the pediatric orthopedic residents are responsible for the routine management of their inpatients and completing all inpatient pediatric orthopedic consults. The trauma service will continue to cover the emergency department pediatric consults.

Other Upstate GME Policies

The Upstate Medical University Department of Orthopedics complies with the policies established by the Upstate Medical University GME office. A listing of the GME policies is available in the Resident Handbook and can be accessed on the Upstate web site.

Examinations

Included below are the important dates for exams, at which your attendance is mandatory:

1. Orthopaedic in training exam (OITE) – PGY2-5, usually the second Saturday in November annually.
2. **Orthopaedic Oral examination** – PGY3-5, mid May annually.

Other important tools used to evaluate residents include end of rotation evaluations, journal club participation, and grand rounds presentations. Resident progress with their research projects is monitored, and satisfactory completion of the residency program requires submission of at least one publishable manuscript.

Residents are responsible for a varying amount of hospital electronic record documentation, employee health documentation, required on line education and educational administration. Prompt completion of all records, notices and evaluations is expected, and repeated violations will result in assessment of penalties, and in extreme cases even non-renewal.

The program director or designated faculty member meets semi-annually with each resident to review evaluations and discuss progress in the program. An extensive semiannual review of each resident is conducted by the faculty members on the education committee. ACGME milestone evaluations are also completed on all residents every 6 months.

**Appendix A: ACGME Program Requirements for Residency Training in Orthopedic Surgery**

Program requirements for residency education in orthopaedic surgery can be found at: [http://www.acgme.org](http://www.acgme.org)