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The Resident Manual can also be searched for keywords to help located needed information.
MISSION STATEMENT

The purpose of the residency and fellowship programs in orthopaedic surgery at the University of Florida is to educate and train qualified individuals to practice orthopaedic surgery of the highest quality.

Goals of the Residency Program in Orthopaedic Surgery

The University of Florida Department of Orthopaedics and Rehabilitation is committed to educating and training individuals to become independent practitioners capable of providing the highest quality orthopaedic care. This includes the development of professional competence and inculcation of the professional attitudes to be a successful orthopaedic practitioner. The residency program includes education in the basic sciences, the cognitive and technical skills necessary to practice orthopaedic surgery, and the development of clinical knowledge and maturity so that surgical judgment can be appropriately applied in the care of patients.

It is expected that individuals who complete this program will become competent in both the non-surgical management and surgical management including the preoperative, operative and postoperative care of patients in all the areas that constitute the principal components of orthopaedic surgery.

It is expected that individuals who enter and complete this program will maintain professional standards of the highest quality including: dedication to patient care, respect for patients and their families, the ability to make sound ethical and scientific judgments in the care of patients, scholarly thinking, dedication to life long self-directed learning, the ability to work well with others and to become part of a team, and intellectual and personal integrity.

The residents and fellows in this program are expected to teach and share knowledge with colleagues, students and other health care providers. They are expected to develop skills and habits of self-learning and appraisal of their own abilities which will continue throughout their practice. The orthopaedist must also develop a respect for the cultural, religious, and individual preferences of the patient and their family as well as other health care providers. The orthopedist must be aware of the cost and societal implications of decisions and be able to adapt to the evolving health care system in this country.
Graduate medical education is based on the principle that each resident should develop the knowledge, skills, and behaviors which enable them to assume a progressive increase in the level of responsibility in caring for patients under the supervision of the faculty. The ultimate goal is for the resident to complete the program capable of providing care of the highest quality to their patients without supervision. During the residency training the faculty is responsible for evaluating the progress of each resident in acquiring the knowledge, skills, and behaviors necessary for the resident to progress to the next level of training. Factors considered in this evaluation include the resident's clinical experience, judgment, professionalism, cognitive knowledge, and technical skills. This also encompasses the whole area of competencies which will be addressed in more detail below.

At each level of training and on each clinical service, there is a set of objectives and competencies that the resident is expected to master. Operative experience is gained through rotations utilizing the Shands @ UF Teaching Hospital, Florida Surgical Center and the Malcolm Randall Veterans Administration Medical Center. Operative experience is under the guidance of senior level residents, fellows, and the supervising faculty orthopaedic surgeon. The level of participation in surgical procedures and surgical decision making is commensurate with the residents' abilities as judged by the supervising faculty member. The goal is for each graduating resident to be fully proficient and competent in the orthopaedic procedures encountered in a general orthopaedic practice and capable of independent practice as an orthopaedic surgeon.
Orthopaedic Resident Education

ACCREDITATION & BOARD CERTIFICATION:

1) Residency Review Committee (RRC)

The Accreditation Committee for Graduate Medical Education (ACGME) reviews and accredits residency & fellowship programs. There are requirements that must be met by the institution as well as the orthopaedic program. These requirements are listed on the ACGME Orthopaedic RRC website.

WEB LINK TO RRC REQUIREMENTS

2) Certification by the American Board of Orthopaedic Surgery (ABOS)

Board certification in Orthopaedic Surgery requires the following:

1) Completion of an ACGME certified residency program in orthopaedic surgery

2) Pass Part I (written examination) of the ABOS certification examination
   This examination is commonly taken in July after completion of your ORT 5 year

3) Pass Part II (oral examination) of the ABOS certification examination
   This examination is based on review of the surgical cases done during a set period of time after completion of your orthopaedic residency program. Usually this examination is taken two years after completion of your residency training (or fellowship program)

WEBLINK to ABOS REQUIREMENTS
CONFERENCES

1) MORNING CONFERENCE:

Morning conference is held each weekday from 7-8 am. All residents are required to attend unless on authorized leave, ill, or providing necessary patient care. A faculty member is in-charge of each conference and other faculty members also attend and participate in the discussions. Residents must be on time for conferences; this is a component of professionalism.

Residents will be present at conferences and should spend the necessary time to be well prepared.

A general schedule is sent out monthly with a more detailed weekly schedule e-mailed and also posted on the orthopaedic website.

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- Mortality & Morbidity Conference is held monthly on the first Thursday
- Chairman’s Conference held 2nd Thursday to discuss relevant topics from ethics to
pertinent service related issues
• “Extra days” which occur in each month will be assigned topics on a month-by-month basis
  o To include research curriculum as outlined in the research section of the manual

**Monday:** Fracture Conference 1st and 3rd; Hand & Upper Extremity 2nd and 4th.

• Fracture Conference
  o Case presentations prepared by the residents on this service
  o Topics for presentation and discussion presented by faculty, fellow or residents
  o Fracture journal review
  o One resident from each of the ORT 2-5 years prepares a case for presentation. The faculty in charge of the conference then calls on other residents to evaluate imaging studies, recommend treatment options, or answer related questions. The resident presenting the case also prepares a short discussion of some aspect of the case based on their review of the literature.

• Hand & Upper Extremity
  o Case presentations prepared by the residents on this service
  o Topics for presentation and discussion presented by faculty or residents

**Tuesday:** Oncology and Pathology Conference 1st and 3rd; Sports Medicine 2nd and 4th.

• Oncology & Pathology
  o Case presentations prepared by the residents or fellows on this service
  o Topics for presentation and discussion presented by faculty or residents
  o Topics follow the 2 year pathology curriculum

• Sports Medicine
  o Case presentations prepared by the residents or fellows on this service
  o Topics for presentation and discussion presented by faculty or fellows or residents

**Wednesday:** Basic Science/Medical Practice Issues 1st and 3rd; Spine 2nd and 4th.

• BSC/MPI (Basic science/medical practice issues conferences).
  o These conferences follow a two-year curriculum. Dr Vander Griend coordinates this schedule and all of these conferences are presented by faculty or invited presenters.
- **Spine**
  - These conferences follow a two-year spine curriculum. Drs Decker and MacMillan coordinate the schedule. Faculty or residents present with a mix of lectures, cases and pertinent article review present all of these conferences.

**Thursday:** M+M Conference 1\textsuperscript{st}; Chairman’s Conference 2\textsuperscript{nd}, Foot &Ankle 3\textsuperscript{rd} and 4\textsuperscript{th}

- **Chairman’s Conference**
  - Topics related to research such as research design, statistics, interpretation of literature, research ethics are presented and discussed. There will also be scheduled presentations of research being done by members of the Department of Orthopaedics & Rehabilitation

- **Foot & Ankle**
  - Case presentations prepared by the residents on this service
  - Topics for presentation and discussion presented by faculty or residents

**Friday:** Case Conference 1\textsuperscript{st} and 3\textsuperscript{rd}, Adult Reconstruction 2\textsuperscript{nd} and 4th

- **Adult Reconstruction**
  - Case presentations prepared by the residents on this service
  - Topics for presentation and discussion presented by faculty or residents

- **Case Conference**
  - Two to three services are selected to bring recent interesting cases for discussion

- **Quality Conference**
  - To discuss quality issues within the department.
  - Review resident and attending quality projects
  - Review cases and issues prior to formal review at M+M conference

2) **MORTALITY & MORBIDITY**

Mortality & morbidity (M&M) conference is held on the first Thursday conference of each month. All M & M cases are recorded in accordance with hospital policy. Cases are selected for presentation and discussion at M & M conference, which is attended, by all faculty and residents.

Additional topics relating to patient safety, prevention & identification of errors, standards of care will also be discussed during as part of the M & M process during the year.
3) GRAND ROUNDS:

Grand rounds conference, which features an invited speaker, will be held every 1 to 2 months. Faculty and residents of the Department and private practice orthopaedists attend this from the community and surrounding region.

4) JOURNAL CLUB:

There is a journal club each month, which is hosted by a faculty member or division within the department. These journal clubs either discuss a series of articles from a specific journal (such as the Journal of Bone & Joint Surgery) or a series of articles from different journals on a specific topic. The oncology, hand & upper extremity, and sports medicine services also have a subspecialty journal club at least once each quarter.

5) ORTHOPAEDIC SUBSPECIALTY CONFERENCES:

Each of the subspecialty services has a preoperative conference during which time cases for upcoming surgery will be reviewed and final preoperative plans made. The organization of these preoperative conferences will be coordinated by each service. The residents of the respective services will participate in these conferences. Residents on other services may attend as time permits.

Orthopaedic Oncology Conferences:

- The orthopaedic oncology services have two scheduled conferences each Monday. The resident and fellow on the oncology service will attend these conferences as part of their service responsibilities. Other residents can attend as time permits. These conferences include:
  - Oncology/Pathology sign-out conference-review of surgical cases including staging studies; surgical procedure and surgical margins; final pathology and pathologic margins
  - Sarcoma Conference: Multi-disciplinary conference for evaluation and treatment planning of patients with sarcoma and other neoplasms of the musculoskeletal system
- Each Tuesday and Thursday at the conclusion of clinic, the oncology service has a conference reviewing interesting new cases and return patients seen that day. The histories are reviewed, the images are viewed, the differential diagnoses are determined and treatment is discussed. Each case that is scheduled for surgery is
discussed regarding the diagnosis, plan of treatment, as well as technical issues related to the surgery as a preoperative conference.
COMPETENCIES

The ACGME (responsible for educational standards and accreditation of residency programs) requires that all residents develop the competencies in the six areas below to the level expected of a new practitioner. Toward this end, each residency program must define the specific knowledge, skills, and attitudes required and provide educational experiences as needed in order for their residents to demonstrate the competencies.

These competencies will be incorporated into the goals & objectives of the residency program as well as the rotation specific goals and objectives. Residents will be evaluated, in part, based on their ability to demonstrate proficiency in achieving these competency standards.

1) PATIENT CARE

Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Residents are expected to:

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families
- Gather essential and accurate information about their patients
- Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment
- Develop and carry out patient management plans
- Counsel and educate patients and their families
- Use information technology to support patient care decisions and patient education
- Perform competently all medical and invasive procedures considered essential for the area of practice
- Provide health care services aimed at preventing health problems or maintaining
health

- Work with health care professionals, including those from other disciplines, to provide patient-focused care

2) MEDICAL KNOWLEDGE

Residents must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care. Residents are expected to:

- Demonstrate an investigatory and analytic thinking approach to clinical situations
- Know and apply the basic and clinically supportive sciences which are appropriate to orthopaedics

3) PRACTICE-BASED LEARNING AND IMPROVEMENT

Residents must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. Residents are expected to:

- Analyze practice experience and perform practice-based improvement activities using a systematic methodology
- Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems
- Obtain and use information about their own population of patients and the larger population from which their patients are drawn
- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
- Use information technology to manage information, access on-line medical information; and support their own education
- Facilitate the learning of students and other health care professionals
4) INTERPERSONAL AND COMMUNICATION SKILLS

Residents must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients families, and professional associates. Residents are expected to:

- Create and sustain a therapeutic and ethically sound relationship with patients
- Use effective listening skills; elicit & provide information using effective nonverbal, explanatory, questioning, and writing skills
- Work effectively with others as a member or leader of a health care team or other professional group

5) PROFESSIONALISM

Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. Residents are expected to:

- Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest; accountability to patients, society, and the profession; and a commitment to excellence and on-going professional development
- Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices
- Demonstrate sensitivity and responsiveness to patients culture, age, gender, and disabilities
- Demonstrate sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.

6) SYSTEMS-BASED PRACTICE

Residents must 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. Residents are expected to:

- Understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice

- Know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources

- Practice cost-effective health care and resource allocation that does not compromise quality of care

- Advocate for quality patient care and assist patients in dealing with system complexities

- Know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance
CURRICULUM: ORTHOPAEDIC ROTATIONS

OVERVIEW

The ORT 1 year is devoted to learning the skills necessary to evaluate and provide treatment of patients in both the inpatient and outpatient setting. During the ORT 2 and ORT 3 years the resident will function as a junior resident and work to develop clinical and surgical skills in orthopaedics. During the ORT 4 and ORT 5 years the resident will function as a senior resident and continue to develop the clinical and operative skills necessary to practice the specialty. Senior residents will also have supervisory and teaching responsibilities for students and junior residents.

ORT 1

This is no longer considered to be the traditional internship year. This year has been integrated into the overall orthopaedic curriculum. The first year orthopaedic resident will have clinical rotations that fulfill the requirements set forth by the Residency Review Committee (RRC).

The program may vary slightly but consists of rotations in general surgery, trauma surgery, pediatric surgery, vascular surgery, ICU (Critical care medicine), plastic surgery, neurosurgery, emergency medicine, musculoskeletal radiology, and orthopaedic surgery. The ORT 1 year is structured to provide appropriate transition from undergraduate medical education to postgraduate medical education. It prepares the resident in the important areas of pre-operative and post-operative care of the surgical patient and allows early development of operative skills. In addition, it provides the beginning orthopaedic surgery resident with basic knowledge of general & trauma surgery, intensive care, and other specialties closely related to orthopaedic surgery.

a. Develop the knowledge, attitudes and skills needed to formulate principles and assess, plan and initiate treatment of adult and pediatric patients with surgical and/or medical problems;

b. Be involved in the care of patients with surgical and medical emergencies, multiple organ system trauma, soft tissue wounds, nervous system injuries and diseases, peripheral vascular injuries and diseases, and rheumatologic and other medical diseases;

c. Gain experience in the care of critically ill surgical and medical patients;

d. Participate in the pre-, intra- and post-operative care of surgical patients; and
e. Develop an understanding of surgical anesthesia, including anesthetic risks and the management of intra-operative anesthetic complications.

ORT 2

The resident will rotate on the following services
- Pediatric Orthopaedic Service at Nemours Children’s Hospital – Jacksonville, FL
- General Orthopaedics at the Malcolm Randall VA Medical Center
- Orthopaedic Trauma Service (2 rotations)

ORT 3

The resident will rotate on the following services
- Hand and Upper Extremity Surgery
- Orthopaedic Oncology
- Adult Reconstruction
- Adult Spine

ORT 4

The resident will rotate on the following services
- Sports Medicine
- Foot/Ankle
- Adult Reconstruction
- Orthopaedic Trauma Service

ORT 5

The resident will rotate on the following services
- General Orthopaedics at the Malcolm Randall VA Medical Center
- Pediatric Orthopaedics
- Hand and Upper Extremity Surgery
- Advanced Clinical Experience (ACE) – Elective
  - Goals and objectives of experience will be created by the resident with review and approval of the Program Director.
Orthopaedic Rotation Goals & Objectives
Adult Reconstruction Rotation

Educational Objectives for All Rotations:

1) PATIENT CARE

Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Residents are expected to:

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families
- Gather essential and accurate information about their patients
- Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment
- Develop and carry out patient management plans
- Counsel and educate patients and their families
- Use information technology to support patient care decisions and patient education
- Perform competently all medical and invasive procedures considered essential for the area of practice
- Provide health care services aimed at preventing health problems or maintaining health
- Work with health care professionals, including those from other disciplines, to provide patient-focused care

2) MEDICAL KNOWLEDGE

Residents must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care. Residents are expected to:

- Demonstrate an investigatory and analytic thinking approach to clinical situations
- Know and apply the basic and clinically supportive sciences which are appropriate to
3) PRACTICE-BASED LEARNING AND IMPROVEMENT

Residents must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. Residents are expected to:

- Analyze practice experience and perform practice-based improvement activities using a systematic methodology
- Locate, appraise, and assimilate evidence from scientific studies related to their patients health problems
- Obtain and use information about their own population of patients and the larger population from which their patients are drawn
- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
- Use information technology to manage information, access on-line medical information; and support their own education
- Facilitate the learning of students and other health care professionals

4) INTERPERSONAL AND COMMUNICATION SKILLS

Residents must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients families, and professional associates. Residents are expected to:

- Create and sustain a therapeutic and ethically sound relationship with patients
- Use effective listening skills; elicit & provide information using effective nonverbal, explanatory, questioning, and writing skills
- Work effectively with others as a member or leader of a health care team or other professional group

5) PROFESSIONALISM

Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. Residents are expected to:
• Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest; accountability to patients, society, and the profession; and a commitment to excellence and on-going professional development

• Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices

• Demonstrate sensitivity and responsiveness to patients culture, age, gender, and disabilities

• Demonstrate sensitivity and responsiveness to fellow health care professionals’ culture, age, gender, and disabilities.

6) SYSTEMS-BASED PRACTICE

Residents must 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. Residents are expected to:

• Understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice

• Know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources

• Practice cost-effective health care and resource allocation that does not compromise quality of care

• Advocate for quality patient care and assist patients in dealing with system complexities

• Know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance

Additional Rotation Specific Objectives and Goals

The goal of the residency program in Adult Reconstruction is to prepare the resident to perform evaluation as well as operative and non-operative treatment of adult patients with abnormalities of the major joints of the upper and lower extremities.

The residents will work with close, daily contact with the faculty involved on the Adult Reconstruction service. This will include evaluation of patients in both outpatient clinic and
in patient treatment on the hospital wards, and in the operating room. The resident will be provided substantial independence in the evaluation of patients, but these will always be presented to one of the faculty. Operative experience will be increased gradually throughout the program based on progress. The resident will participate in the general conferences of the department that include a one-hour conference each weekday morning. A substantial portion of two of these conferences per week is devoted to adult reconstruction problems, but the conferences include all phases of orthopaedics that allows the resident to both contribute to these conferences as well as maintain up-to-date knowledge in other areas of orthopaedics.

**Educational Resources:**

Educational resources available to the resident include textbooks and journals both in the Department and in the Health Center Library. There is no standard textbook for this service but the resident should utilize established (and available) textbooks dealing the anatomy and surgical anatomy, pathophysiology; non-surgical treatments, and surgical treatment. The Orthopaedic Study Center has extensive teaching files and case material on many disorders seen while on the adult reconstructive service. The digital darkroom image and presentation database contains materials that can be used for conference presentations. The resident also has access to Internet based search engines and the local web based collection of orthopaedic textbooks and journals. Laboratory facilities include a biomechanics laboratory, a pathology laboratory and biochemistry laboratory.

The resident should be aware of the large number & complexity of joint replacement components. There are technical manuals, product information guides, and the procedure videotapes available for use and review. Additional information can be obtained for faculty, peers, and the vendors. Every effort should be made to understand the indications and methods of utilization for these various devices; including critical appraisal of outcomes.

**Patient Care:**

The resident will be involved in all aspects of patients care. The resident in the outpatient clinic initially sees most patients. The patient will undergo evaluation and discussion of treatment options under supervision and direction of the faculty. Since preoperative evaluation and the decision making process regarding treatment is one of the most important components of a successful outcome, this will be strongly emphasized. The resident will participate in treatment planning including preoperative planning and teaching for patients scheduled for surgery. The residents will be directly involved in the surgical treatment of these patients consistent with their abilities and under direct supervision from the faculty. All residents will be responsible for the postoperative care of patients. The residents will also follow these postoperative patients in the outpatient clinic. This will
provide them with the opportunity to follow specific patients through the evaluation, treatment, and recovery process as well as encounter numerous other patients in various stages of treatment and rehabilitation.

**ORT 3**

Upon completion of the three-month rotation on the adult reconstructive services, the ORT 3 should be competent in complete evaluation of the patient with major joint disease, emphasizing the hip, knee and shoulder. The resident should know the pathophysiology and natural history of the various arthritic conditions affecting joints and be aware of how these conditions affect the patient’s life style from the standpoint of activities of daily living, their work status and their health status. They should be able to identify these arthritic conditions through a detailed history, recognizing the specific symptoms and signs of the arthritic condition. The resident should learn the techniques of a full examination of the individual joints and have a thorough understanding of how the process affects joint function including gait patterns. The resident should have an understanding of the biomechanics of the extremities and how function is affected by alterations in biomechanical parameters.

The resident should be competent in recommending specific treatments for the arthritic conditions, understanding the conservative management that includes an adequate exercise program, use of walking supports, and orthoses. They should have a thorough understanding of the place of alternative medicine options. The resident should know the place for nonsteroidal anti-inflammatory medications, and most importantly, the potential risks associated with the use of these medications. The resident should learn the surgical indications for various arthritic conditions and for specific joint involvement. This will range from minimal invasive procedures, osteotomies specifically at the knee and hip, arthroscopic debridements and synovectomy, and the specific indications for prosthetic joint replacement. The resident should understand clearly the potential risks of each individual operative procedure, the importance of proper operating room technique, understanding sterile technique, proper draping, as well as the specific details of proper tissue handling techniques during the operative procedure, and the importance of proper wound closure, dressings and postoperative care. The resident should understand the principles of rehabilitation and specifically after total joint replacement. They should understand the role of rehabilitation centers and extended care facilities in the postoperative care of adult patients especially the elderly. The resident should learn the specific complications of these operations, and understand the need for prophylactic management from the standpoint of venous thrombosis and infections.

**ORT 4**
The ORT 4 resident will be the chief resident on the adult reconstructive service. The ORT 4 should focus on developing proficiencies in the diagnosis and treatment of major joint problems. They should be able to evaluate complex problems such as posttraumatic arthritis with deformities, developmental dysplasia of the hip, complex deformities correctable by osteotomy or prosthetic replacement. They should also have a clear understanding of the approach to evaluating painful joint arthroplasty, failed prosthetic replacements, and develop a treatment plan for managing these complex problems. This resident should be competent in the surgical skills for hip and knee osteotomies and primary hip and knee prosthetic arthroplasty. They should also understand in the more complex revision of joint arthroplasties, the requirements for revision implants, place for bone grafts, and salvage reconstructive procedures. The chief resident will also learn the different surgical approaches for joint reconstruction. The resident should understand the principles of rehabilitation and specifically after total joint replacement. They should understand the role of rehabilitation centers and extended care facilities in the postoperative care of adult patients especially the elderly. The resident should learn the specific complications of these operations, and understand the need for prophylactic management from the standpoint of venous thrombosis and infections.

The chief resident should provide guidance to the more junior residents in helping them develop their basic skills leading towards their time as chief resident.

**Supervision**

Supervision will be close in that whether in the operating room, clinics or on the ward, in general all participants on the service are there together which allows close consultation between the resident and faculty. The resident will be provided with increasing levels of independence though supervision will be maintained throughout the rotation.

**Evaluation**

The resident’s progress will be evaluated on a daily basis by the participating faculty. More formal evaluation will occur at two months as well as at the conclusion of the rotation. The assessments will include evaluation of both cognitive and manual skills as well as attitude traits.

The adult reconstruction faculty will complete end-of-rotation evaluations for each resident.
Educational Objectives for All Rotations:

1) PATIENT CARE

Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Residents are expected to:

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families
- Gather essential and accurate information about their patients
- Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment
- Develop and carry out patient management plans
- Counsel and educate patients and their families
- Use information technology to support patient care decisions and patient education
- Perform competently all medical and invasive procedures considered essential for the area of practice
- Provide health care services aimed at preventing health problems or maintaining health
- Work with health care professionals, including those from other disciplines, to provide patient-focused care

2) MEDICAL KNOWLEDGE

Residents must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care. Residents are expected to:

- Demonstrate an investigatory and analytic thinking approach to clinical situations
- Know and apply the basic and clinically supportive sciences which are appropriate to orthopaedics
3) **PRACTICE-BASED LEARNING AND IMPROVEMENT**

Residents must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. Residents are expected to:

- Analyze practice experience and perform practice-based improvement activities using a systematic methodology
- Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems
- Obtain and use information about their own population of patients and the larger population from which their patients are drawn
- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
- Use information technology to manage information, access on-line medical information; and support their own education
- Facilitate the learning of students and other health care professionals

4) **INTERPERSONAL AND COMMUNICATION SKILLS**

Residents must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients' families, and professional associates. Residents are expected to:

- Create and sustain a therapeutic and ethically sound relationship with patients
- Use effective listening skills; elicit & provide information using effective nonverbal, explanatory, questioning, and writing skills
- Work effectively with others as a member or leader of a health care team or other professional group

5) **PROFESSIONALISM**

Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. Residents are expected to:

- Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest; accountability to patients, society,
and the profession; and a commitment to excellence and on-going professional development.

- Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.
- Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.
- Demonstrate sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.

6) SYSTEMS-BASED PRACTICE

Residents must 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. Residents are expected to:

- Understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice.
- Know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources.
- Practice cost-effective health care and resource allocation that does not compromise quality of care.
- Advocate for quality patient care and assist patients in dealing with system complexities.
- Know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance.

Additional rotation specific goals & objectives

1. The resident will be able to demonstrate knowledge of:
   a) the clinical and surgical anatomy of the foot and ankle
   b) the biomechanical function of the foot/ankle and how to evaluate this function
   c) basic mechanics of gait (kinetics and kinesiology of walking)
   d) common disorders which affect the foot and ankle

2. The resident will be able to demonstrate their ability to perform a thorough history and physical examination of the foot & ankle. This will include evaluation of:
3. The resident will be able to order, utilize, and interpret ancillary diagnostic studies. The residents should:
   a) understand the indications for obtaining diagnostic radiographic studies
   b) understand the limitations of these studies including the cost vs. information benefit
   c) be able to accurately interpret
      • Plain Radiographs of the lower extremity
      • CAT scan
      • MRI scan
      • Nuclear medicine studies

4. The resident will be able to demonstrate his/her ability to use basic science and clinical information to arrive at a diagnosis and/or differential diagnosis, determine the appropriate treatment options, and be able to recommend a specific course of treatment. Treatment options for foot and ankle problems will include:
   a) Non-operative treatments with use of splints, casts, local injections, oral medications, physical therapy and other modalities and activity modification.
   b) Use of orthotic devices, prosthetic devices, braces, shoes, and shoe modifications. The resident should understand the principles of prescribing and evaluating the use of orthoses, prostheses, and other types of accommodative footwear.
   c) Operative treatment. This includes the what, how, when, and whom of surgery. What is the most appropriate surgical procedure? How is the procedure performed correctly? When should it be done? Upon whom should it be done?

The resident will be expected to:
   • Understand the principles and necessity of preoperative planning
   • Understand and plan all aspects of surgical procedures on the foot & ankle
   • Perform the indicated surgical procedures with faculty supervision
   • Provide post-operative care & rehabilitation for the patient
   • Evaluate their own technical & psychomotor skills & with faculty assistance address any areas of deficiency

5. The resident will be able to effectively communicate information relating to their evaluation of foot and ankle problems to:
a) The patient and their family—so that they will understand their clinical problem; the diagnosis; the treatment options; the advantages, disadvantages, risks, and benefits of these treatment options in such a way that the patient can make an informed decision regarding their care.
b) Other medical care providers as needed
c) The medical record as a well-organized, through, and complete written record

6. The resident should be able to assess the results and outcome following treatment of foot & ankle problems. This should include an understanding of the:

   a) Management of complications
   b) Methods of outcome assessment, functional improvement, and patient satisfaction
   c) Impact of foot and ankle problems on patient activities, return to work, disability
   d) Basic principles of
      - Worker’s Compensation System
      - Impairment & disability
      - Medical-legal aspects of patient care

At the conclusion of the foot & ankle rotation the resident should understand the pathomechanics and be able to formulate treatment goals and treatment options for all of the following conditions:

1. Lesser toe deformities
   - clawtoe
   - hammertoe
   - mallet toe
   - cross-over toes
   - bunionette
   - instability of MTP & IP joints
   - arthritic joints

2. 1st toe (hallux) deformities
   - hallux valgus
   - hallux varus
   - hallux limitus

3. Tendon problems of the ankle/foot
   - Achilles tendinitis
• Achilles tendon rupture
• posterior tibial tendon dysfunction
• peroneal tendon problems
• extrinsic and intrinsic muscle/tendon imbalance

4. Nerve problems of the ankle/foot
• peripheral neuropathy
• neuroma
• entrapment neuropathy
• nerve laceration or crush injury
• avoidance of injury to cutaneous nerves during surgery

5. Skin and subcutaneous tissue abnormalities
• callosities & keratoses
• recognition of dermatologic conditions requiring referral
• toe nail abnormalities and related infections

6. Joint/ligament problems
• instability
• contracture (especially recognition of functional equinus contractures)
• PJWRA (painful joints without radiographic abnormality)
• synovitis
• arthritis

7. Acquired deformities of the ankle/foot
• flatfoot/pes planus
• cavus foot
• arthritis

8. Diabetic foot
• education of patients and health care providers
• use of shoes, inserts, casting, braces
• skin & nail care
• wound care
• management of infection/osteomyelitis
• reconstructive surgery

9. Neuromuscular conditions affecting the foot and ankle
• stroke
• traumatic brain injury
• congenital/developmental disorders in grown-up patients (cerebral palsy, spina bifida)
• neurologic disorders (hereditary motor sensory neuropathy)

10. Common painful conditions
• heel pain
• metatarsalgia
• tendinitis/synovitis/arthritis
• overuse injuries
• callosities and keratoses
• peripheral neuropathy

11. Trauma of ankle/foot
• sprains-
  o management of acute sprains of the ankle, hindfoot, midfoot, toes
  o evaluation & treatment of chronic symptoms after joint sprains
• non-displaced fractures
• dislocations
• fractures requiring surgical treatment
• compartment syndrome of foot
• crush injury of foot
• stress fractures

12. Infections of the foot & ankle
• infection of skin and nails
• puncture wounds
• diabetic foot
• postoperative infection
• infection related to systemic disease

13. Common lesions/tumors of the foot and ankle

14. Systemic disorders presenting or manifest as foot and ankle problems

15. Foot & ankle disorders common in pediatric orthopaedics now requiring treatment as adults

16. Amputation surgery
- toe, ray, partial foot, ankle/Symes, trans-tibial
- prosthetic fitting and rehabilitation

**Evaluation:**

The resident will be evaluated regarding his/her ability to demonstrate these skills:

- in the outpatient clinic, emergency department, and hospital setting
- in operating room
- in orthopaedic conferences
- in patient related discussions
- in journal club & grand rounds
- on examinations such as the OITE and the foot & ankle specialty examination
- on review of dictations done by the resident

The Department of Orthopaedics & Rehabilitation resident rotation evaluation form will be completed at the end of the rotation and discussed with the resident.

**Recommended Reading & Reference Materials:**

**Surgery of the Foot & Ankle. Editors:** Roger Mann & Michael Coughlin Mosby, 2002

_This textbook will be provided for residents use during the foot & ankle rotation_

**Other Foot & Ankle Reference Materials** (available on request from office)

- Jahss, M.: Disorders of the Foot & Ankle
- Ferkel, R.: Arthroscopy of the Foot & Ankle
- Baxter, D.: The Foot & Ankle in Sports
- Sarrafian, S.: Anatomy of the Foot & Ankle
- Johnson, K.: Master Techniques in Orthopaedic Surgery: Foot & Ankle
- Hansen, ST: Reconstruction of the Foot & Ankle
- Inman, V.: Human Walking (Biomechanics of locomotion)

Orthopaedic Knowledge Update: Foot & Ankle 3
Foot & Ankle International (Journal from 1988-present available)
Foot & Ankle Clinics (All volumes available)

**Video Collections of Foot & Ankle Procedures**
Video Collection from Roger Mann & Michael Coughlin
Trauma Collection from Video Journal of Orthopaedics

Foot & Ankle Reference Materials on CD:
  JBJS American & British
  Instructional Course Lectures
  AO Manual 2001
  Netter Anatomy
  Skeletal Trauma
  Fractures in Adults and Children (Rockwood & Green)
  Foot & Ankle- Mann & Coughlin

Other Resources:

- Anatomic specimens of foot & ankle available for dissection
- Anatomic models
- Sawbones
- Archived lectures and presentations
Orthopaedic Oncology Rotation

Educational Objectives for All Rotations:

1) PATIENT CARE

Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Residents are expected to:

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families
- Gather essential and accurate information about their patients
- Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment
- Develop and carry out patient management plans
- Counsel and educate patients and their families
- Use information technology to support patient care decisions and patient education
- Perform competently all medical and invasive procedures considered essential for the area of practice
- Provide health care services aimed at preventing health problems or maintaining health
- Work with health care professionals, including those from other disciplines, to provide patient-focused care

2) MEDICAL KNOWLEDGE

Residents must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care. Residents are expected to:

- Demonstrate an investigatory and analytic thinking approach to clinical situations
- Know and apply the basic and clinically supportive sciences which are appropriate to orthopaedics
3) PRACTICE-BASED LEARNING AND IMPROVEMENT

Residents must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. Residents are expected to:

- Analyze practice experience and perform practice-based improvement activities using a systematic methodology
- Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems
- Obtain and use information about their own population of patients and the larger population from which their patients are drawn
- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
- Use information technology to manage information, access on-line medical information; and support their own education
- Facilitate the learning of students and other health care professionals

4) INTERPERSONAL AND COMMUNICATION SKILLS

Residents must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients families, and professional associates. Residents are expected to:

- Create and sustain a therapeutic and ethically sound relationship with patients
- Use effective listening skills; elicit & provide information using effective nonverbal, explanatory, questioning, and writing skills
- Work effectively with others as a member or leader of a health care team or other professional group

5) PROFESSIONALISM

Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. Residents are expected to:

- Demonstrate respect, compassion, and integrity; a responsiveness to the needs of
patients and society that supersedes self-interest; accountability to patients, society, and the profession; and a commitment to excellence and ongoing professional development.

- Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.
- Demonstrate sensitivity and responsiveness to patients’ culture, age, gender, and disabilities.
- Demonstrate sensitivity and responsiveness to fellow health care professionals’ culture, age, gender, and disabilities.

6) SYSTEMS-BASED PRACTICE

Residents must 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. Residents are expected to:

- Understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice.
- Know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources.
- Practice cost-effective health care and resource allocation that does not compromise quality of care.
- Advocate for quality patient care and assist patients in dealing with system complexities.
- Know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance.

Additional Rotation Specific Goals & Objectives

The goal of the Orthopaedic Oncology Service is to provide to the orthopaedic resident an appreciation and understanding of the different complex issues regarding patients presenting with tumor or tumor-like conditions of the musculoskeletal system.

The objective of the rotation is to accomplish the aforementioned goals that will be done in the following manner:
1. The resident will be able, at the completion of the rotation, to develop a preliminary staging evaluation of a patient presenting with a tumor/tumor-like condition of the musculoskeletal system. This will include the appropriate use of a directive history and physical examination, laboratory studies and imaging studies. This will include the knowledge of which studies should be obtained on which patients to obtain the most clinically useful and economically responsible studies. The resident will also gain experience in interpretation of these imaging studies.

2. The resident will understand the necessity for a multi-disciplinary team approach to patients with primary neoplasms of the musculoskeletal system and the role that the musculoskeletal radiologists, musculoskeletal pathologists, medical oncologists and radiation therapists have in the evaluation and treatment of patients.

3. The resident will gain an appreciation of the different reconstructive options available for patients presenting with tumors of the musculoskeletal system. This will include the indications for reconstructive options to include the use of allografts, segmental modular prostheses, arthrodesis and amputations.

4. The resident will gain an appreciation of the surgical approaches to orthopaedic oncologic conditions that are unique in orthopaedic surgery and differ from the standard orthopaedic approaches. The resident will have an appreciation for the concepts of margins, how these are achieved operatively and how they interact with the staging system adopted by the Musculoskeletal Tumor Society.

5. The resident will gain an appreciation of the post-operative care of patients with musculoskeletal neoplasms, including rehabilitation of patients after amputation and complex reconstructions.

6. The resident will participate in interdisciplinary conferences as part of the evaluation, diagnosis, and treatment of patients with musculo-skeletal tumors.

7. The resident will also be expected to gain a thorough understanding of the basic sciences and pathology of the musculo-skeletal system neoplasms and other pathologic processes. The resident will participate in the Musculo-Skeletal tumor pathology course sponsored by the Department of Orthopaedics.
Educational Objectives for All Pediatric Rotations:

1) PATIENT CARE

Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Residents are expected to:

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families
- Gather essential and accurate information about their patients
- Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment
- Develop and carry out patient management plans with appropriate supervision of clinical faculty
- Counsel and educate patients and their families
- Use information technology to support patient care decisions and patient education
- Perform competently all medical and invasive procedures considered essential for the area of practice with faculty support and supervision
- Provide health care services aimed at preventing health problems or maintaining health with faculty support and supervision
- Work with health care professionals, including those from other disciplines, to provide patient-focused care

2) MEDICAL KNOWLEDGE

Residents must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care. Residents are expected to:

- Demonstrate an investigatory and analytic thinking approach to clinical situations
- Know and apply the basic and clinically supportive sciences which are appropriate to orthopaedics
Perform a complete pediatric orthopaedic history and physical assessment for the infant, toddler, child and adolescent

- Describe the mechanism of injury of common pediatric fractures and their management
- Describe the characteristics of fractures secondary to child abuse, and the management of a child with fracture suspected of being a result of abuse
- Discuss the assessment of patients with scoliosis presenting at different ages and the role of brace management
- Demonstrate technical ability in the treatment of, but not limited to, supracondylar fractures of the humerus, forearm fractures, femoral fractures, tibial fractures, stable and unstable subcapital femoral epiphysis (SCFE)

3) PRACTICE-BASED LEARNING AND IMPROVEMENT

Residents must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. Residents are expected to:

- Analyze practice experience and perform practice-based improvement activities using a systematic methodology
- Locate, appraise, and assimilate evidence from scientific studies related to their patients’ health problems
- Obtain and use information about their own population of patients and the larger population from which their patients are drawn
- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
- Use information technology to manage information, access on-line medical information; and support their own education
- Facilitate the learning of students and other health care professionals
- Participate in pediatric orthopaedic preoperative and postoperative conferences with a knowledge of the basic historical studies and data regarding specific topics

4) INTERPERSONAL AND COMMUNICATION SKILLS

Residents must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients’ families, and professional associates. Residents are expected to:
- Create and sustain a therapeutic and ethically sound relationship with patients
- Use effective listening skills; elicit & provide information using effective nonverbal, explanatory, questioning, and writing skills
- Work effectively with others as a member or leader of a health care team or other professional group

5) PROFESSIONALISM

Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. Residents are expected to:

- Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest; accountability to patients, society, and the profession; and a commitment to excellence and on-going professional development
- Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices
- Demonstrate sensitivity and responsiveness to patients culture, age, gender, and disabilities
- Demonstrate sensitivity and responsiveness to fellow health care professionals’ culture, age, gender, and disabilities.

6) SYSTEMS-BASED PRACTICE

Residents must 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. Residents are expected to:

- Understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice
- Know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources
- Practice cost-effective health care and resource allocation that does not compromise quality of care
- Advocate for quality patient care and assist patients in dealing with system
complexities

- Know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance

**Additional Rotation Specific Objectives**

**General Patient Assessment Skills:**

In a patient presenting with a complaint related pediatric orthopaedics the resident will demonstrate competency in the following skills:

1. Obtain a focused Patient History
2. Perform an appropriate Physical Examination
3. Demonstrate an understanding of basic gait assessment
4. Order and appropriately interpret relevant x-rays that may include:

   - AP, Lateral, Oblique, Open mouth, Flexion/Extension C-Spine
   - AP, Lateral, Side Bending, Supine Extension Scoliosis
   - AP, Lateral, Oblique Lumbrosacral
   - AP Pelvis and Frog-leg Lateral Hip
   - AP, Lateral Hip
   - Standing AP Hip
   - Osteotomy views of Hip and Pelvis
   - AP, Lateral Shoulder, Humerus, Elbow, Forearm
   - Standing Hip-Ankle
   - Scanogram of lower extremity
   - Bone age of right hand
   - AP, Lateral femur and tibia/fibula
   - AP, Lateral, Flexion, Sunrise Knee
   - AP, Lateral, Oblique of Ankle and Foot

5. Know the indications and basic interpretation of the following imaging studies

   - CT scan
   - MRI
   - Bone scan
Assessment and Treatment of Specific Conditions:

For the specific pediatric orthopaedic conditions listed below the resident will:

- Make an accurate diagnosis
- Competently perform any relevant condition-specific physical examination
- Identify appropriate radiographic imaging studies
- Outline the etiology, or possible etiologies, of the specific condition
- Outline the natural history of the specific condition
- Describe appropriate non-operative treatment options (if they exist)
- Describe appropriate operative treatment options (if they exist)
- Describe possible complications of non-operative and operative treatment
- Outline the prognosis of non-operative and operative treatment

Specific Pediatric Conditions - Chronic

<table>
<thead>
<tr>
<th>Condition</th>
<th>Condition</th>
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<tbody>
<tr>
<td>SCFE</td>
<td>Legg-Calve-Perthes Disease</td>
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<tr>
<td>Hip dysplasia</td>
<td>Blounts Disease</td>
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<tr>
<td>Clubfoot</td>
<td>Coxa vara, Chondrolysis</td>
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<tr>
<td>Limb deficiencies</td>
<td>Osteochondroses</td>
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<td>Limb length discrepancy</td>
<td>Scoliosis</td>
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<tr>
<td>Scheurmanns kyphosis</td>
<td>Spondylolysis and Spondylolisthesis</td>
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<tr>
<td>Torticollis</td>
<td>Normal growth/development</td>
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<tr>
<td>Patellofemoral pain</td>
<td>Flatfeet</td>
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<tr>
<td>Torsion &amp; malalignment</td>
<td>Bladder extrophy</td>
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Specific Pediatric Conditions - Acute

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<tr>
<th>Condition</th>
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<tbody>
<tr>
<td>Sepsis and osteomyelitis</td>
<td>Reflex sympathetic dystrophy</td>
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<tr>
<td>Transient synovitis</td>
<td>Child abuse</td>
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<tr>
<td>Acute Upper Extremity Fx</td>
<td>Acute Lower Extremity Fx</td>
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<tr>
<td>Diskitis</td>
<td>Traction apophysitis</td>
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<td>Growing pains</td>
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Principles of Assessing and Treating General Pediatric Orthopaedic Problems:
For the general or systemic problems listed below the resident will:

- Demonstrate an understanding of the pathophysiology
- Identify how this condition may affect management of specific pediatric orthopaedic problems
- Demonstrate an understanding of appropriate treatment principles
- Recommend appropriate patient referral when needed

**General Pediatric Orthopaedic Problems**

- JRA/Inflammatory arthritis
- Cerebral Palsy
- Spinal Muscular Atrophy
- Angelmann Syndrome
- Osteogenesis imperfecta
- Marfan Syndrome
- Muscular Dystrophy
- Hemophilia
- Sickle Cell Disease
- Rett Syndrome
- Charcot-Marie-Tooth
- Myelomeningocele
- Normal growth/development
- Praeders-Willi Syndrome
- Latex hypersensitivity
- Ricketts
- Turners Syndrome
- Neurofibromatosis
- Von Willebrands Disease
- Diabetes
- Achondroplasia
- Down Syndrome

**Surgical Skills:**

For the basic surgical skills listed below the resident will:
1. Demonstrate competence in performing the described task
2. Appreciate the pitfalls and possible complications

- Surgical planning
- Prepping and draping
- Use of a tourniquet
- Choice of suture material
- Suture tying
- Regional anesthetic blocks
- Local anesthetic blocks
- Application of a Jones Splint
- Application of a short arm splint/cast
- Application of a long arm splint/cast
- Application of a short leg splint/cast
- Application of a long leg splint/cast
- Application of a cylinder leg cast
- Application of a Petrie Cast
- Application of a single and double spica cast

For the specific surgical procedures listed below the resident will:
- Identify the appropriate surgical approach
- Describe potential pitfalls
- Outline the operative procedure
- Identify the required equipment
- Perform the procedure

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<th>Cognitive</th>
<th>Psychomotor</th>
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Amputations of the upper extremity

Posterior spinal exposure

Harvesting iliac crest bone graft

Open medial reduction of hip

Open anterior reduction of hip

Open hip capsulotomy for septic hip

Percutaneous fixation of SCFE

Hip capsulorrhaphy

Proximal femoral osteotomy

Subtrochanteric femoral interpositional arthroplasty

Adductor and ilioptoas tenotomy

Hip arthrography

Knee arthroscopy and menisectomy

Bony and Soft tissue extensor reconstruction

ACL reconstruction

Epiphysodesis and Hemiepiphyseodesis

Osteotomies about the knee

Hamstring tenotomy and lengthening

Closed reduction of lower extremity fractures

Application of femoral and tibial external fixators

Femoral shortening/lengthening

Sofield Osteotomies of femur and tibia

Rectus muscle transfer

Resection of partial growth plate arrests

Tibial shortening/lengthening

Gastrocsoleus lengthening

Toe flexor tenotomy/lengthening

Posterior ankle release

Resection of tarsal coalition

Calcaneal osteotomy for valgus heel

Subtalar and triple ankle fusion

Simple foot polydactyly reconstruction

Simple foot polysyndactyly reconstruction

Comprehensive club foot release

Amputations of the lower extremity
Knowledge maps are created in an attempt to map the resident’s knowledge base. Pre-existing objectives are used to identify the content area that the learner plans to master. These objectives are easily converted into a knowledge map by placing three circles beside each individual objective. The number of circles that are filled in beside each objective represents the resident’s perception of his/her knowledge and understanding of that particular objective.

*Three blank circles* (OOO) means that the resident believes he has no knowledge of that topic.

*One circle filled* (●OO) means that the resident feels he has some rudimentary understanding of the subject.

*Two out of three circles filled* (●●O) means a significant, but still incomplete understanding of the subject.

*All circles filled* (●●●) means that the resident feels he has mastered that specific objective to the satisfaction of the rotation’s requirement, or to the point where he can practice competently in that area on his own.

The premise of behind the knowledge map is that the resident is the best judge of the extent of knowledge and depth of understanding they have of each subject area. By making explicit their perception of their knowledge of a particular subject the resident can benefit in a number of ways:

1. By reflecting on what has been learned, what needs to be learned will help clarify study efforts.
2. The map will allow the resident and attending to identify knowledge deficits.
3. Discrepancies between the resident=s perception of what he knows and what is actually known as determined by the attending can be more easily identified and fixed.
Adult Spine Rotation

Educational Objectives for All Rotations:

1) PATIENT CARE

Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Residents are expected to:

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families
- Gather essential and accurate information about patient’s spine problems
  - Perform a complete musculoskeletal and neurological examination, including the cervical spine, thoracic spine, and lumbar spine, including neurologic examination of the upper and lower extremities and be able to explain pathologies such as an absent reflex or long tract signs such as a positive Hoffmann, Babinski and clonus
  - Be able to provide a differential diagnosis and treatment plan
  - Possess an understanding of indications for surgical treatment of scoliosis, kyphosis, various types of spondylolisthesis, various types of fractures, various types of tumors, and infections of the spine
- Recognize and describe neurological deficits (including pathophysiology), resulting limitations, and accommodations for functional deficits
- Recognize and describe spinal deformity conditions, fractures, and dislocations, including pathophysiology
- Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment
- Develop and carry out patient management plans for non-operative treatments, and operative treatment plans for both elective and non-elective pathology
- Counsel and educate patients and their families regarding spinal pathology
- Use information technology to support patient care decisions and patient education
- Perform and assist medical and invasive procedures considered essential for the area of practice
  - Demonstrate preoperative readiness by specifying for each case: indications and goals, step by step description of approach and procedure, three-
dimensional considerations, expected difficulties and risks, contingency plans and criteria for acceptable intraoperative results
  o Perform and assist essential surgical procedures: posterior cervical, thoracic and lumbar exposure and arthrodesis, anterior cervical approach and arthrodesis, discectomy
    ▪ Exhibit competency in straightforward decompressions with Kerrison posteriorly
    ▪ Display basic familiarity with placing spinal instrumentation
  o List all equipment, tables, imaging needs and demonstrate correct review of the completeness of surgical set up for all cases
  o Demonstrate attention to detail in the pre- and postoperative care of patients
  o Demonstrate ability to recognize and initiate treatment of all complications
  o Discuss, confirm and challenge diagnoses and treatment plans based upon recent literature
• Prescribe appropriate spinal orthoses and supervise their application
• Provide health care services aimed at preventing health problems or maintaining health
• Work with health care professionals, including those from other disciplines, to provide patient-focused care

2) MEDICAL KNOWLEDGE

Residents must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care. Residents are expected to:

• Demonstrate an investigatory and analytic thinking approach to clinical situations
• Know and apply the basic and clinically supportive sciences which are appropriate to orthopaedic spine treatments
  o Apply literature and basic science knowledge relevant to the spine
  o Successfully accomplish basic radiographic measurements such as coronal and sagittal Cobb measurements
  o Review spinal stability
  o Accurately read a basic XRay, MRI and CT-Myelogram study of the cervical, thoracic and lumbar spine

3) PRACTICE-BASED LEARNING AND IMPROVEMENT

Residents must be able to investigate and evaluate their patient care practices, appraise
and assimilate scientific evidence, and improve their patient care practices. Residents are expected to:

- Analyze practice experience and perform practice-based improvement activities using a systematic methodology
- Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems
- Obtain and use information about their own population of patients and the larger population from which their patients are drawn
- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
- Use information technology to manage information, access on-line medical information; and support their own education
- Facilitate the learning of students and other health care professionals

4) INTERPERSONAL AND COMMUNICATION SKILLS

Residents must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients' families, and professional associates. Residents are expected to:

- Create and sustain a therapeutic and ethically sound relationship with patients
- Use effective listening skills; elicit & provide information using effective nonverbal, explanatory, questioning, and writing skills
- Work effectively with others as a member or leader of a health care team or other professional group

5) PROFESSIONALISM

Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. Residents are expected to:

- Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest; accountability to patients, society, and the profession; and a commitment to excellence and on-going professional development
- Demonstrate a commitment to ethical principles pertaining to provision or
withholding of clinical care, confidentiality of patient information, informed consent, and business practices

- Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities
- Demonstrate sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.

6) SYSTEMS-BASED PRACTICE

Residents must 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. Residents are expected to:

- Understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice
- Know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources
- Practice cost-effective health care and resource allocation that does not compromise quality of care
- Advocate for quality patient care and assist patients in dealing with system complexities
- Know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance

Additional Rotation Specific Objectives and Goals

The orthopaedic residency rotation in Adult Spine will be during the ORT 3 year and will be three months in length

The orthopaedic resident will be involved in all aspects of patients' care. The residents will evaluate patients in the outpatient clinics, emergency room, and inpatient wards (consults) and discuss treatment options under the supervision and direction of the faculty. For spinal problems requiring surgical intervention the resident will participate in treatment planning including preoperative planning and teaching for patients scheduled for surgery. The residents will be directly involved in the surgical treatment of these patients consistent with their abilities and under direct supervision from the faculty. The resident will be responsible for the postoperative care of patients. The residents will also follow these postoperative
patients in the outpatient clinic. This will provide them with the opportunity to follow specific patients through the evaluation, treatment, and recovery process as well as encounter numerous other patients in various stages of treatment and rehabilitation. The spine resident must demonstrate knowledge of the current spine literature and both the basic and clinical sciences in relationship to the disease processes that are encountered.

The resident will be encouraged to learn from their clinical experience by performing regular reviews of literature in preparation for spinal care as well as preparations for the morning conference and M&M reporting as it pertains to spine. The resident will be expected to work and interact with the health care team including ancillary personnel, other health care providers involving the delivery of care of the multiply injured patient, particularly those with spinal column trauma. An emphasis will be placed on effective communication skills as part of this process and will extend to the patient communication including the process of informed consent.

**Objectives:**

It is expected that the resident will be able to:

1. Describe the pathogenesis and management of
   a. degenerative spine disease
      i. lumbar HNP
      ii. lumbar spine stenosis
      iii. lumbar spondylolisthesis
      iv. cervical spondylosis with and without myelopathy
      v. cervical HNP
   b. spine infection
   c. spine tumors (primary and metastatic)
   d. spine trauma
   e. spinal cord injury
   f. congenital and developmental spine conditions
   g. metabolic and inflammatory

2. Identify and classify radiographic studies of the cervical, thoracic and lumbar spine including plain radiographs, MRI, CT, myelogram and bone scans.

3. Perform and document a clinical evaluation of a pain with neck pain, back pain, extremity pain, and spine deformity or spine injury. This will include appropriate history, physical exam including neurological and musculoskeletal assessments. This will also include use of the data recording templates and spine classification systems (e.g. ASIA classification for spinal injuries)
4. The orthopaedic resident will understand how to stabilize a patient with a spinal cord injury including use of cervical tongs, halo ring and how to place a patient with a spinal injury on a Roto-rest bed for immobilization. The resident will understand the medical issues and other co-morbidities associated with an acute spinal cord injury and be able to recognize and recommend treatment for these problems (# 5 below).

The residents should understand the rationale for both non-operative and operative treatment of spinal injuries, including indications, contra-indications, and complications of both methods. Discuss orthotic and cast management of spinal injuries.

5. Understand basic information about the following topics:
   a. Common problems in spinal cord injury (SCI)
      1. inadequate nutrition
      2. pressure sores
      3. bladder control and urinary tract infections
      4. spasticity
      5. contractures
      6. acquired deformities
      7. muscle weakness and physiologic deconditioning
   b. Gait substitution
      1. wheelchair
      2. orthotics
      3. functional electrical stimulation
   c. Epidemiology of SCI
   d. Types of SCI
      1. complete injury - tetraplegia and paraplegia
      2. anterior cord syndrome
      3. central cord syndrome
      4. posterior cord syndrome
      5. Brown-Sequard syndrome
      6. mixed syndrome
      7. associated root injury
   e. Prognosis of SCI
   f. Management of the SCI patient
      1. lower extremities
      2. upper extremities
      3. skin
      4. bladder function
      5. sexual function
6. autonomic dysreflexia
7. post-traumatic spinal cord cyst

6. Describe the indications for, contraindications to and the complications of
   a. posterior lumbar arthrodesis
   b. lumbar disectomy
   c. lumbar decompression for spinal stenosis
   d. anterior cervical disectomy/corpectomy and reconstruction
   e. anterior/posterior decompression and/or stabilization for injuries of the
      cervical, thoracic and lumbar spine
   f. surgery for axial back pain
   g. skeletal traction and closed reduction of spinal injuries

7. Demonstrate the following skills:
   a. application of cervical traction (tongs) and halo ring and vest
   b. posterior exposure of lumbar spine for decompression
   c. posterior exposure for intertransverse fusions
   d. harvesting iliac crest bone graft (anterior and posterior)
   e. location of pedicles in lumbar and lower thoracic spine
   f. demonstrate cervical lateral masses

In addition, it is expected that the resident will be able to:

1. Demonstrate efficiency and proficiency at clinical examination, investigation and
   management of patients with degenerative, traumatic (including spinal cord injury),
   infectious and neoplastic conditions of the spine. Address issues of neurologic
   impairment, instability and deformity.

2. Classify spinal disorders. The senior resident will know the natural history of the
   condition and effectiveness, risks and benefits of treatment options. They will be
   able to formulate a workup and a treatment plan and defend the chosen treatment
   method over the other options.

3. Demonstrate skills in:
   a. anterior and posterior exposures of the cervical, thoracic and lumbar spine
   b. lumbar disectomy
   c. lumbar decompression for stenosis
   d. posterior lumbar fusion
   e. posterior cervical arthrodesis
4. **Evaluation:**

The resident's progress will be evaluated on a daily basis by the participating faculty. There will be a formal evaluation at the conclusion of the rotation. The assessments will include evaluation of both cognitive and manual skills as well as attitude traits. Each faculty member on the adult spine service will complete an end-of-rotation evaluation for each resident.
Sports Medicine Rotation

Educational Objectives for All Rotations:

1) PATIENT CARE

Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Residents are expected to:

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families
- Gather essential and accurate information about their patients
- Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment
- Develop and carry out patient management plans
- Counsel and educate patients and their families
- Use information technology to support patient care decisions and patient education
- Perform competently all medical and invasive procedures considered essential for the area of practice
- Provide health care services aimed at preventing health problems or maintaining health
- Work with health care professionals, including those from other disciplines, to provide patient-focused care

2) MEDICAL KNOWLEDGE

Residents must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care. Residents are expected to:

- Demonstrate an investigatory and analytic thinking approach to clinical situations
- Know and apply the basic and clinically supportive sciences which are appropriate to orthopaedics

3) PRACTICE-BASED LEARNING AND IMPROVEMENT
Residents must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. Residents are expected to:

- Analyze practice experience and perform practice-based improvement activities using a systematic methodology
- Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems
- Obtain and use information about their own population of patients and the larger population from which their patients are drawn
- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
- Use information technology to manage information, access on-line medical information; and support their own education
- Facilitate the learning of students and other health care professionals

4) INTERPERSONAL AND COMMUNICATION SKILLS

Residents must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients families, and professional associates. Residents are expected to:

- Create and sustain a therapeutic and ethically sound relationship with patients
- Use effective listening skills; elicit & provide information using effective nonverbal, explanatory, questioning, and writing skills
- Work effectively with others as a member or leader of a health care team or other professional group

5) PROFESSIONALISM

Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. Residents are expected to:

- Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest; accountability to patients, society, and the profession; and a commitment to excellence and on-going professional
development

- Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices
- Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities
- Demonstrate sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.

6) SYSTEMS-BASED PRACTICE

Residents must 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. Residents are expected to:

- Understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice
- Know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources
- Practice cost-effective health care and resource allocation that does not compromise quality of care
- Advocate for quality patient care and assist patients in dealing with system complexities
- Know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance

Additional Rotation Specific Objectives

ROTATION OVERVIEW

The Orthopedic Sports Medicine rotation is designed to educate residents in a broad variety of aspects regarding primarily upper and lower extremity sports injuries, with concentration on clinical evaluation and operative treatment of shoulder and knee injuries, but also including topics on elbow injury, foot and ankle injury, and spinal injury. The residents will focus on developing proficiencies in diagnostic arthroscopy of the shoulder, knee, and ankle and will become familiar with procedures, particularly involving treatment
of meniscal and chondral injuries of the knee, ligament reconstruction, and patellofemoral problems in the knee, rotator cuff injuries in the shoulder and instability of the shoulder, ligament injuries and chondral injuries of the ankle, and various athletic overuse injuries including stress fractures and tendinopathy. Residents will participate in team coverage at the collegiate level for the University of Florida. These include the evaluation of athletes in athletic training rooms at these facilities, as well as on-site physician coverage for sporting events.

The resident must demonstrate knowledge of the current literature in relationship to the disease processes that are encountered. The resident will be encouraged to learn from their clinical experience by performing regular reviews of the literature in preparation for patient care, as well as in preparation for morning conference, journal club, and M&M reporting. The resident will be expected to work and interact with the health care team including ancillary personnel and other health care providers. The resident rotating on the sports medicine service is expected to provide patient care that is compassionate & appropriate and to effectively communicate with patients, their families, and other members of the health care team.

By the end of the rotation the resident should be able to:

1. Take an appropriate history including the date of injury, duration of symptoms, mechanism of injury, prior treatment and present it in a concise synopsis.
2. Perform a thorough physical examination of the involved area and present the pertinent findings, both positive and negative.
3. Discuss and point out the salient findings, both on plain films and imaging studies.
4. List an appropriate differential diagnosis in the order of likelihood.
5. Be able the list the various treatment options available for the presumed diagnosis.
6. Describe an overview of the rehabilitation "milestones" relative to that particular diagnosis.
7. Understand the principles of rehabilitation as they relate to sports injuries and be able to proper order (prescribe) rehabilitation services e.g. physical therapy, orthotics, braces, etc.
8. Understand issues relative to athletic injury and performance such as return to play, prophylactic bracing, impairment, compliance.

Surgical skills should include:

1. Comprehensive knowledge of the surgical anatomy.
2. Ability to describe, demonstrate and perform routine arthroscopic portal placement in the shoulder, elbow, knee, and ankle.
3. Ability to perform a routine diagnostic arthroscopy in the shoulder and knee. The resident should be familiar with all instrumentation used to perform arthroscopic procedures on these joints.

4. With respect to the knee, be able to:
   a. Detail the steps and perform a routine knee meniscectomy.
   b. Detail the steps of an uncomplicated primary anterior cruciate ligament reconstruction.
   c. Detail the steps of proximal and/or distal realignment procedure for the treatment of patellar instability.

5. With respect to the shoulder, be able to
   a. Detail the steps to properly position the patient and arthroscopic equipment
   b. Detail the steps of evaluation and debridement of the gleno-humeral joint, including labral pathology
   c. Detail the steps in performing a subacromial decompression, arthroscopic AC joint decompression, and evaluation and repair of the rotator cuff.

6. Understand the principles of arthroscopy of other joints such as the elbow, ankle, and hip.

7. Identify & treat the common post-operative complications

8. Understand rehabilitation protocols for the various reconstructive procedures; be able to recognize problems related to rehabilitation and therapy.

**Evaluation:**

The resident will be evaluated during and at the completion of their sports medicine rotation. Evaluation will be based on achievement of the rotation specific objectives and observations by the sports medicine of the resident’s overall performance in conferences, clinic, and surgery. The end-of-rotation evaluation form will be used.
Hand & Upper Extremity Rotation

Educational Objectives for All Rotations:

1) PATIENT CARE

Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Residents are expected to:

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families
- Gather essential and accurate information about their patients
- Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment
- Develop and carry out patient management plans
- Counsel and educate patients and their families
- Use information technology to support patient care decisions and patient education
- Perform competently all medical and invasive procedures considered essential for the area of practice
- Provide health care services aimed at preventing health problems or maintaining health
- Work with health care professionals, including those from other disciplines, to provide patient-focused care

2) MEDICAL KNOWLEDGE

Residents must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care. Residents are expected to:

- Demonstrate an investigatory and analytic thinking approach to clinical situations
- Know and apply the basic and clinically supportive sciences which are appropriate to orthopaedics
3) PRACTICE-BASED LEARNING AND IMPROVEMENT

Residents must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. Residents are expected to:

- Analyze practice experience and perform practice-based improvement activities using a systematic methodology
- Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems
- Obtain and use information about their own population of patients and the larger population from which their patients are drawn
- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
- Use information technology to manage information, access on-line medical information; and support their own education
- Facilitate the learning of students and other health care professionals

4) INTERPERSONAL AND COMMUNICATION SKILLS

Residents must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients' families, and professional associates. Residents are expected to:

- Create and sustain a therapeutic and ethically sound relationship with patients
- Use effective listening skills; elicit & provide information using effective nonverbal, explanatory, questioning, and writing skills
- Work effectively with others as a member or leader of a health care team or other professional group

5) PROFESSIONALISM

Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. Residents are expected to:

- Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest; accountability to patients, society,
and the profession; and a commitment to excellence and on-going professional development

- Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices
- Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities
- Demonstrate sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.

6) SYSTEMS-BASED PRACTICE

Residents must 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. Residents are expected to:

- Understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice
- Know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources
- Practice cost-effective health care and resource allocation that does not compromise quality of care
- Advocate for quality patient care and assist patients in dealing with system complexities
- Know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance

Additional Rotation Specific Objectives

The goal of this rotation is to educate the orthopaedic resident in all aspects of care of patients with problems of the upper extremity. The resident will have the opportunity to independently evaluate patient, make a diagnosis, formulate a treatment plan and implement this treatment under strict supervision of the attending physician. The surgical volume on the service is high and the resident will participate in the preoperative planning, performance of the surgical procedure, and postoperative care including supervision of the rehabilitation. The resident will participate in surgery under direct faculty supervision with increasing responsibility and opportunities as his/her surgical skills develop. Diagnostic and surgical arthroscopy of the shoulder, elbow and wrist as well as microsurgical skills will
be emphasized.

Upon completion of the rotation, the resident should have the ability to evaluate patients with upper extremity disorders; make a diagnosis based on clinical evaluation and appropriate diagnostic studies; understand treatment options both non-surgical and surgical; be able to discuss these options and communicate effectively with patients and their families; properly plan, perform, and provide post-operative care for common upper extremity surgical procedures; and acquire the medical knowledge & demonstrate the professional attitudes and behaviors necessary to provide this care at the highest standards.

**Objectives for the ORT 3 Resident:**

The ORT 3 resident, with completion of the rotation, will demonstrate knowledge of a complete evaluation of the upper extremity. This would include examination of:

1. Skin
2. Circulation
3. Nerve
4. Bone/joint
5. Tendon

With regards to management of upper extremity injuries, the ORT 3 resident will display an understanding of a non-operative approach to the care of:

1. Dislocations: interphalangeal joints, wrist, elbow, shoulder
2. Fractures: phalanx, metacarpals, carpus, distal radius/forearm, humerus, glenoid, scapula, clavicle
3. Tumors
4. Congenital disorders of the hand & upper extremity
5. Soft tissue injuries including principles of wound care and wound closure

Along with the non-operative approach, the junior resident will become well versed with the surgical procedures and anatomy to provide for the operative care of:

1. Fractures: radius/forearm, humerus, wrist & hand
2. Infections: human bites, animal bites, mycobacterium/fungal, HIV patients with infections
3. Reconstruction: radial malunion, humeral nonunion, distal clavicle excision, rotator cuff
4. Compressive neuropathy: CTR, cubital tunnel, posterior interosseous nerve
5. Tendon: extensor tendon, rotator cuff,
Objectives for the ORT 5 Resident:

The ORT 5 will function as the chief resident of the hand and upper extremity service. It is expected that the ORT 5 resident will continue to develop their clinical and operative skills in anticipation of entering either fellowship training or practice as an orthopaedic surgeon. The level of cases should be commensurate with the chief resident level. The chief resident should have a clear understanding of what prescribed treatments should be as well as what alternative treatments are available, along with their inherent risks and benefits and should be able to communicate this effectively to patients and their families. The chief resident should be able to utilize the medical literature to make decisions regarding diagnoses, treatment options, and selection of surgical procedures.

It is expected that the ORT 5 will demonstrate a complete understanding of the knowledge acquired during the junior rotation. Additionally, the senior resident will display an understanding of the rationale and the approach to the more complex aspects of operative care. These surgical procedures would include:

1. Fractures and malunions:
   - phalanx, metacarpal scaphoid & other carpal bones
   - complex fractures of the forearm, elbow, arm & shoulder
2. Reconstruction
   - swan neck & boutinerre
   - wrist ligamentous reconstruction
   - rheumatoid hand reconstruction
   - small joint arthroplasty
   - DRUJ instability
   - wrist arthroscopy
   - nerve repair with graft
   - local composite tissue transfer
   - flexor & extensor tendon repair
   - shoulder arthroscopy
   - reconstruction of the unstable shoulder
   - shoulder arthroplasty
   - principles of micro vascular surgery
   - amputation surgery of the hand & upper extremity

The chief residents should also understand the principles of rehabilitation of the upper extremity and be able to prescribe appropriate therapy including splints and orthotic devices. The chief residents should also understand and be able to apply techniques of outcome assessment including: functional evaluation scoring systems for the hand, wrist,
elbow, and shoulder; quantitative measurement systems of motion, sensibility, motor function, and work capacity. The chief resident should also have an understanding of issues related to on-the-job injuries (i.e. Workman’s compensation) including assessment of impairment and return to work assessments. The chief resident should demonstrate at all times the personal and professional behavior and attitudes

Evaluation:

Evaluation will occur in the clinical setting and with the daily interaction with the orthopaedic faculty. This will include the outpatient clinics, surgery and clinical conferences. The end-of-rotation evaluation form will be used and completed by all faculty on service and discussed with the resident.
Goals & Objections for Orthopaedic Rotation
Malcolm Randall Veterans Administration Medical Center

Educational Objectives for All Rotations:

1) PATIENT CARE

Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Residents are expected to:

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families
- Gather essential and accurate information about their patients
- Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment
- Develop and carry out patient management plans
- Counsel and educate patients and their families
- Use information technology to support patient care decisions and patient education
- Perform competently all medical and invasive procedures considered essential for the area of practice
- Provide health care services aimed at preventing health problems or maintaining health
- Work with health care professionals, including those from other disciplines, to provide patient-focused care

2) MEDICAL KNOWLEDGE

Residents must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care. Residents are expected to:
• Demonstrate an investigatory and analytic thinking approach to clinical situations
• Know and apply the basic and clinically supportive sciences which are appropriate to orthopaedics

3) PRACTICE-BASED LEARNING AND IMPROVEMENT

Residents must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. Residents are expected to:

• Analyze practice experience and perform practice-based improvement activities using a systematic methodology
• Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems
• Obtain and use information about their own population of patients and the larger population from which their patients are drawn
• Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
• Use information technology to manage information, access online medical information; and support their own education
• Facilitate the learning of students and other health care professionals

4) INTERPERSONAL AND COMMUNICATION SKILLS

Residents must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients' families, and professional associates. Residents are expected to:

• Create and sustain a therapeutic and ethically sound relationship with patients
• Use effective listening skills; elicit & provide information using effective nonverbal, explanatory, questioning, and writing skills
• Work effectively with others as a member or leader of a health care team or other professional group

5) PROFESSIONALISM

Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. Residents
are expected to:

- Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest; accountability to patients, society, and the profession; and a commitment to excellence and on-going professional development
- Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices
- Demonstrate sensitivity and responsiveness to patients culture, age, gender, and disabilities
- Demonstrate sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.

6) SYSTEMS-BASED PRACTICE

Residents must 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. Residents are expected to:

- Understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice
- Know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources
- Practice cost-effective health care and resource allocation that does not compromise quality of care
- Advocate for quality patient care and assist patients in dealing with system complexities
- Know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance

Additional Rotation Specific Objectives and Goals

The primary goal of the orthopaedic rotation at the VA is to provide the resident with an experience in general orthopaedic surgery. The VA has a significant population of patients with musculo-skeletal disorders. Because of the age demographics of these patients at the VA the residents will be involved in the evaluation and treatment of elderly patients with
Degenerative and/or fracture conditions common to this population.

The orthopaedic residents will be involved in the evaluation of these patients in both an outpatient and in-patient setting. The residents will be responsible for formulation of treatment options (with appropriate supervision) involving both non-surgical and surgical care.

The surgical experience for the orthopaedic residents will include general types of adult reconstruction surgery with an emphasis on surgical treatment of arthritis; fracture care especially geriatric fractures; arthroscopy primarily of the knee and shoulder for a variety of joint problems; and common surgical procedures of the hand and foot.

**ORT 2**

The ORT 2 resident will assume primary responsibility for inpatient care, participate in all outpatient clinics, and perform surgical procedures under the direct supervision of the orthopaedic chief resident and/or an attending physician. The resident will participate in all department teaching conferences.

At the end of this rotation the ORT 2 resident should be able to demonstrate his/her ability to perform a thorough evaluation and examination of the musculoskeletal system; this includes both clinical and radiographic examinations. The resident should be able to correctly diagnose common musculoskeletal problems and be able to formulate a treatment plan. The resident should be able to demonstrate basic surgical skills and perform common orthopaedic surgical procedures with increasing skill.

**Evaluation**

Evaluation of the ORT 2 resident will be based on daily observations by the chief resident and attending staff, and ability to demonstrate this knowledge and these skills in the clinical setting including the outpatient clinics, surgery, and clinical conferences. The end-of-rotation evaluation form will also be used and discussed with the resident at the end of the rotation.

**ORT 5**

The ORT 5 resident will function as a chief resident. This resident is responsible for all patient care activities of the orthopaedic service and for day-to-day supervision of the ORT 2 resident. The ORT 5/chief resident will participate in all outpatient clinics, coordinate the decision making and scheduling process for all patients for whom surgical treatment is being considered, and perform surgical procedures independently and/or under the direct supervision of the orthopaedic faculty. The chief resident will participate in all department-
teaching conferences.

At the end of this rotation the ORT 5 resident should be able to demonstrate his/her ability to function as an orthopaedic surgeon capable of entering practice as an independent practitioner. This includes appropriate evaluation of patients, correct interpretation of diagnostic studies, and proper decision making regarding treatment options. This resident should be able to demonstrate the ability to plan and perform orthopaedic surgical procedures and provide the proper postoperative care including the rehabilitation as needed. The ORT 5 resident should be capable of providing the highest standards of care for patient with musculoskeletal disorders.

Evaluation

Evaluation of the ORT 5 resident will be based on frequent observations by the attending staff at the VA including ability to demonstrate this knowledge and these skills in the outpatient clinics, surgery, and clinical conferences. The end-of-rotation evaluation form will also be used and discussed with the resident at the end of the rotation.

ORT 2 and ORT 5 Education Experience at VA

<table>
<thead>
<tr>
<th>Experience</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outpatient Clinics</td>
<td></td>
</tr>
<tr>
<td>New patient clinic</td>
<td>Every Thursday</td>
</tr>
<tr>
<td>Return patient clinic</td>
<td>Every Monday</td>
</tr>
<tr>
<td>Hand Clinic</td>
<td>Every Monday</td>
</tr>
<tr>
<td>Inpatient &amp; Outpatient Surgery</td>
<td>Tuesday, Wednesday, Friday</td>
</tr>
<tr>
<td></td>
<td>Thursday (overflow day)</td>
</tr>
<tr>
<td>Inpatient ward responsibilities</td>
<td>Daily</td>
</tr>
<tr>
<td>Emergency room on-call coverage</td>
<td>Department call schedule</td>
</tr>
<tr>
<td>Department teaching conferences</td>
<td>Conference schedule</td>
</tr>
<tr>
<td>VA Teaching conference</td>
<td>Each Monday afternoon</td>
</tr>
</tbody>
</table>

The VA service will be responsible for preparing and presenting at the Case Presentation Conference as part of the Department of Orthopaedics & Rehabilitation morning conference schedule. The VA service will also prepare a monthly mortality & morbidity report & participate in the Department of Orthopaedics & Rehabilitation monthly Mortality & Morbidity Conference.
Orthopaedic Trauma Rotation

Educational Objectives for All Rotations

1) PATIENT CARE

Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Residents are expected to:

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families
- Gather essential and accurate information about their patients
- Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment
- Develop and carry out patient management plans
- Counsel and educate patients and their families
- Use information technology to support patient care decisions and patient education
- Perform competently all medical and invasive procedures considered essential for the area of practice
- Provide health care services aimed at preventing health problems or maintaining health
- Work with health care professionals, including those from other disciplines, to provide patient-focused care

2) MEDICAL KNOWLEDGE

Residents must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care. Residents are expected to:

- Demonstrate an investigatory and analytic thinking approach to clinical situations
- Know and apply the basic and clinically supportive sciences which are appropriate to orthopaedics
3) PRACTICE-BASED LEARNING AND IMPROVEMENT

Residents must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. Residents are expected to:

- Analyze practice experience and perform practice-based improvement activities using a systematic methodology
- Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems
- Obtain and use information about their own population of patients and the larger population from which their patients are drawn
- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
- Use information technology to manage information, access online medical information; and support their own education
- Facilitate the learning of students and other health care professionals

4) INTERPERSONAL AND COMMUNICATION SKILLS

Residents must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients' families, and professional associates. Residents are expected to:

- Create and sustain a therapeutic and ethically sound relationship with patients
- Use effective listening skills; elicit & provide information using effective nonverbal, explanatory, questioning, and writing skills
- Work effectively with others as a member or leader of a health care team or other professional group

5) PROFESSIONALISM

Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. Residents are expected to:

- Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest; accountability to patients, society,
and the profession; and a commitment to excellence and on-going professional development

- Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices
- Demonstrate sensitivity and responsiveness to patients culture, age, gender, and disabilities
- Demonstrate sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.

6) SYSTEMS-BASED PRACTICE

Residents must 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. Residents are expected to:

- Understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice
- Know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources
- Practice cost-effective health care and resource allocation that does not compromise quality of care
- Advocate for quality patient care and assist patients in dealing with system complexities
- Know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance

Additional Rotation Specific Objectives

The Goal rotation is to educate the orthopaedic resident in all aspects of care of patients brought to this American College of Surgeons Designated Level I Trauma Center. The resident will have the opportunity to independently evaluate orthopaedic injuries sustained by the trauma patients, make a diagnosis, formulate a treatment plan and implement this treatment under strict supervision of the attending physician. The resident will participate in the preoperative planning, performance of the surgical procedure, and postoperative care including supervision of the rehabilitation. The resident will participate in surgery under direct faculty supervision with increasing responsibility and opportunities as his/her surgical skills develop.
**ORT 4**

The ORT 4 resident will function as a chief resident. This resident is responsible for all patient care activities of the orthopaedic trauma service and for day-to-day supervision of the ORT 2 resident. The ORT 4/chief resident will coordinate the decision-making and scheduling process for all patients for whom surgical treatment is being considered, and perform surgical procedures independently and/or under the direct supervision of the orthopaedic faculty. The chief resident will participate in all department-teaching conferences.

At the end of this rotation the ORT 4 resident should be able to demonstrate his/her ability to function as an orthopaedic surgeon capable of managing complex fractures. This includes appropriate evaluation of patients, correct interpretation of diagnostic studies, and proper decision-making regarding treatment options. This resident should be able to demonstrate the ability to plan and perform orthopaedic trauma procedures and provide the proper postoperative care including the rehabilitation as needed. The ORT 4 resident should be capable of providing the highest standards of care for patient with orthopaedic trauma.

**Evaluation**

Evaluation of the ORT 4 resident will be based on frequent observations by the attending staff, including ability to demonstrate this knowledge and these skills in the O.R., rounds and clinical conferences. The end-of-rotation evaluation form will also be used and discussed with the resident at the end of the rotation.

**ORT 1 + 2**

The ORT 1 and 2 residents will assume primary responsibility for inpatient care, participate in selected outpatient clinics, and perform surgical procedures under the direct supervision of the orthopaedic chief resident and/or an attending physician. The ORT 1 will be directly supervised in all procedures. The ORT 1 will be primarily responsible in handling the treatment of the floor patients while the ORT 2 primary responsibility will be for evaluation and management of new consults and emergency room patients. The residents will participate in all department-teaching conferences.

At the end of this rotation the ORT 1 and 2 residents should be able to demonstrate his/her ability to perform a thorough evaluation and examination of the musculoskeletal system; this includes both clinical and radiographic examinations. The resident should be able to correctly diagnose common fractures and be able to formulate a treatment plan. The resident should be able to demonstrate basic surgical skills and perform common
orthopaedic trauma procedures with increasing skill.

In order to meet the ACGME duty hours requirement, the two ORT 2 residents are assigned to day and night shifts. The duties of the Day and Night resident are clearly defined. A dedicated sign out and review of the patient care list occurs at the start and end of each resident’s shift, which is supervised by the chief resident. The ORT 1 does not take overnight call and works a day shift to comply with duty hour restrictions.

**Evaluation**

Evaluation of the ORT 2 resident will be based on daily observations by the chief resident and attending staff, and ability to demonstrate this knowledge and these skills in the clinical setting including the E.R., O.R., and clinical conferences. The end-of-rotation evaluation form will also be used and discussed with the resident at the end of rotation.

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OUTLINE OF TRAUMA ROTATION CURRICULUM OBJECTIVES BY LEVEL OF TRAINING, SUBJECT AND ANATOMIC REGION

ORT 1 and 2 Educational Experience:

1. Biology of Bone Repair and Fracture Healing
   - To review the basic structure and histology of bone
   - To review the basic principles of bone formation and bone growth
   - To review in detail the steps and the process of bone healing (spontaneous direct bone healing)
   - To review the factors that influence the degree and type of bone healing to include systemic factors and the biomechanical and biological local conditions
   - To discuss the current knowledge of bone mediators

2. Biomechanical Considerations for Fractures, Implants and Fracture Treatment
   - To review the mechanical properties of bone
   - To review the fracture patterns typically seen with different modes of loading
   - To define basic terms used in biomechanical discussions
   - Discussing and understand of the definitions and factors influencing stability
   - To review the biomechanical properties of intramedullary rods and intramedullary fixation and how these factors can be changed by altering the implant
   - To review the bio mechanical properties of plates and screws in fracture treatment and how these factors can be altered (i.e. number of screws, length of plate, lag screws, etc.)
   - To review the biomechanical properties of external fixation and how these factors can be altered
   - A review of the biomechanical properties of the various materials used to make implants

3. Initial Assessment and Management of Injured Patients (to include appropriate interaction between orthopaedic traumatologist and other subspecialists) – Consideration should be given to having one of the general surgery traumatologist give a portion of this lecture.
   - To review the basic ATLS protocols for assessment of injured patients
   - To review the resuscitation and ongoing assessment of resuscitation efforts in injured patients
   - To discuss the appropriate roles and interactions between the various subspecialists involved in trauma care
   - Discussion of the prioritization of injuries in the polytrauma patient
   - A review of the various trauma scores in use and their relevance
   - Discussion of fracture treatment and how it may be changed in the treatment of
polytraumatized patient

4. **Assessment, Management and Decision Making in the Treatment of Polytrauma Patients with Head Injuries** – Consideration should be given to having one of the neurosurgeons involved in trauma care give a portion of this lecture.
   - To understand the assessment of the head injured polytrauma patient
   - A review of the Glasgow Coma Scale and its relevance
   - The effect of fracture treatment on the head injured patient and how it may need to be altered in these patients
   - The consideration of the effect of head injury on fracture treatment (i.e., inability of patient to cooperate with post-operative protocols, contractures, spasticity, heterotopic ossification, etc.)

5. **Closed Reduction, Traction and Casting Techniques in the Treatment of Fractures** (To include the use of nerve blocks and anesthetic techniques for closed reductions).
   - A review of the proper casting and splinting techniques
   - A review of the complications of cast and splints
   - To review some of the specifics in fractures most commonly treated by closed reduction and casting fractures
   - A review of the anesthetic techniques used to accomplish closed reduction and casting fractures
   - To review the types of traction, both skin traction and skeletal traction for upper and lower extremities
   - Review of pin placement for skeletal traction

6. **General Principles of External Fixation and its uses in Fracture Treatment**
   - To review basic frame constructs for external fixators to include uniplanar and multiplanar and the use of half pins and thin wires
   - To review techniques and locations for placement of pins and wires
   - A review of the biomechanical considerations with different pins, wires, and constructs and how these enter decision making in fracture treatment
   - To review the indications for use of external fixation in fracture treatment
   - To review the advantages and disadvantages of external fixation and its complications

7. **Basic Principles and Techniques of Internal Fixation of Fractures**
   - Understand the rationale to consider internal fixation of fractures
   - To understand reduction techniques (direct and indirect) and how they relate to internal fixation
   - To discuss the concept of stability, both absolute and relative and how this affects fracture healing
   - To understand interfragmentary compression and lag screw techniques
   - To review and understand plate fixation and the different functions that plates
can serve when used in fracture fixation
- To review and understand the basic principles of intramedullary fixation
- To review and understand tension band wire principles, its proper techniques and its indications for use

8. **Principles for Evaluation and Treatment of Patients with Vascular Injuries** – Consideration should be given to having one of the vascular surgeons involved in trauma care give a portion of this lecture
   - To understand the principles of assessment and the interpretation of the assessment of the vascular system in patients with fractures to include physical examination, Doppler signals and Doppler pressure measurements
   - To review and understand special considerations related to blunt or penetrating injuries
   - To discuss and understand the use of arteriography to include its indications, technique, and location (in the operating room or in radiology)
   - To understand the types of vascular injuries and their significance
   - To understand the principles of the treatment protocols for the patient with their fracture and avascular injury to include a discussion of the timing, order of treatment, indication for shunts, different options for fracture fixation, both interaction between the vascular surgeon and orthopaedist when treating these patients
   - To understand the indication for fasciotomy in patients with vascular injuries
   - To discuss and understand principles of post-operative management in patients with vascular injuries

9. **Compartment Syndromes**
   - To review the definition of compartment syndromes
   - To review the anatomy of the compartments of the upper and lower extremities
   - To review and understand the pathophysiology of compartment syndromes
   - To review the possible etiologies of compartment syndromes
   - To review the diagnosis of compartment syndromes
   - To review compartment pressure measurements to include the techniques and the interpretation of the pressure measurement
   - To understand the principles of the treatment of compartment syndromes
   - To be familiar with the sequelae of untreated compartment syndromes

10. **Fracture with Soft Tissue Injuries (To include biology of soft tissue injuries and wound healing).**
    - To understand the importance of the etiology and mechanism of injury as it relates to the energy dissipated to the extremity
    - To review soft tissue injuries and their classification as associated with closed fractures
    - To review soft tissue injuries and their classification as associated with open injuries
fractures

- To understand the principles of the treatment of the soft tissue injuries associated with skeletal trauma
- To review the treatment of the bony injury and how it is affected by the soft tissue injury
- A review of the bacteriology involved with these injuries and considerations for antibiotic use
- To review the process and the phases of wound healing
- To review conditions affecting wound healing
- Review wound healing as it relates to specific tissues (tendons, ligaments, and muscles)

11. **Wound Coverage Techniques** – Consideration should be given to having a plastic surgeon or an orthopaedic surgeon who does the bulk of the soft tissue coverage give at least a portion of this talk.

   - To review the indications for wound coverage considering the advantages and disadvantages over waiting for possible wound healing
   - To review issue related to the wound and as related to the timing in consideration of coverage
   - Wound coverage techniques, grafts, flaps. Understanding the options available for specific sites

12. **Pathologic Fractures**

   - To review the etiologies that may lead to pathologic fracture
   - To briefly review common benign tumors and cysts of bone that may lead to pathologic fractures
   - To briefly review primary malignant and aggressive bone tumors that may lead to pathologic fractures and to understand the importance of differentiating these from other etiologies
   - To review metastatic bone lesions
   - Adjuvant treatment for metastatic bone lesions and their indications
   - Surgical treatment of pathologic fractures to include indications, techniques, and complications
   - To review indications for treatment of impending pathologic fractures

13. **Biology of Bone Grafting and Bone Graft Substitutes**

   - To understand the definitions involved with bone grafts and the types of bone grafts with their potential and advantages and disadvantages
   - To review the functions of bone grafts
   - To review and understand the indications and function for bone grafts
   - To understand the process of incorporation of bone grafts
   - To understand and review the techniques and sites for harvesting autograft
• To review and understand the techniques of bone grafting
• To review the current options for bone graft substitutes with current supporting data to discuss its uses

14. Epidemiology, Prevention and Treatment of Osteoporotic Fractures
• To understand the definition of osteoporosis and its differential diagnosis
• To review the possible causes of osteoporosis and its diagnostic evaluation
• To review the epidemiology of osteoporotic fractures
• To review the ramifications of osteoporotic fractures including utilization of resources, financial impact and disability and mortality
• To understand the options for fracture prevention in osteoporotic patients
• To review and understand treatment options for osteoporosis and its impact on fracture rates.
• To briefly review the treatment of the more common types of osteoporotic fractures
• To understand the issues specific to the post-operative treatment in patients with osteoporotic fractures
• To review the fracture outcomes and functional outcomes in patients with osteoporotic fractures

15. Fat Embolism Syndrome and Thromboembolic Disorders in the Injured Patient
• To understand the definition of fat embolism syndrome
• To review the etiology, the diagnosis and the pathophysiology of fat embolism syndrome
• To review the significance of fat embolism syndrome as it relates to the treatment of fractures
• To review the treatment of fat embolism syndrome
• To understand the expected outcomes of patients with fat embolism syndrome
• To understand the definitions associated with thromboembolic disorders
• To review the pathophysiology and potential etiologies of thromboembolic disorders in trauma patients
• To review and understand the relationship of injured patients and concerns with thromboembolic disorders to include the incidence of deep vein thrombosis and pulmonary emboli in trauma patients
• To review and understand the mechanisms of action of the possible techniques for prophylaxis against deep vein thrombosis in trauma patients
• To discuss the indications for deep vein thrombosis prophylaxis in trauma patients
• To understand the available screening methods and methods of diagnosis of deep vein thrombosis and pulmonary emboli
• To review and discuss indications for vena caval filters
• To review the treatment of deep vein thrombosis

ORT 4 Educational Experience:

1. General Principles in the Assessment and Treatment of Nonunions
   • To review and understand the definitions of delayed union and nonunion
   • To review and understand the etiologies of nonunions to include systemic fractures affecting bone healing and the local mechanical and biologic conditions affecting bone healing
   • To understand factors important in the patient’s history, physical exam and evaluation as related to treatment planning for nonunions
   • To review and understand the diagnosis of nonunions by clinical and radiographic examination
   • To understand the principles of nonunion treatment
   • To review nonoperative treatment of nonunions to include a review of the role of bone stimulators to treat nonunions
   • To understand operative treatment methods for nonunions and the potential advantages and disadvantages of all of these methods and to also understand their indications and contradictions

2. Nonunions with a Large Bony Defect
   • To review potential etiologies of nonunions with large bony defects
   • To understand treatment options to include cancellous bone grafting, vascularized free bone grafts and bone transport (distraction histogenesis) and to review the advantages and disadvantages with each method
   • Discussion of cancellous bone grafting techniques for boney defects
   • Discussion of techniques of free fibular grafting
   • Understanding the histology of distraction histogenesis (bone transport) and to discuss and to understand the techniques of bone transport

3. General Principles and the Assessment and Treatment of Malunions
   • To understand the definition of malunion and how this definition was determined
   • To review and understand the natural history of malunited fractures
   • To review the indications for treatment of malunions
   • To review the radiographic evaluation and preoperative planning in patients with malunited fractures
   • To review the treatment options and understand the different types of
4. Functional Outcome Tools and Physical Impairment Ratings in Trauma Patients

- To understand the methods of assessing functional outcomes
- Review of functional outcomes in traumatized patients
- Understanding methods of assigning physical impairment ratings
- Understand work issues as they relate to patients who have sustained injuries

5. Pathophysiology and Treatment Decisions for the Treatment of Osteomyelitis

- Understand the diagnosis of osteomyelitis, both acute and chronic
- To understand the etiology of osteomyelitis
- Understanding the natural history of both treated and untreated osteomyelitis
- Understanding the classification systems of osteomyelitis and how these relate to treatment decisions
- Understand the bacteriology and histology as related to the pathophysiology of osteomyelitis
- Understanding surgical treatment options and techniques for osteomyelitis
- Understanding antibiotic treatment and suppressive treatment for osteomyelitis

6. Fractures Secondary to Gunshot Wounds

- To review the epidemiology of gunshot wounds and its impact on our society and health care system
- To review and understand the ballistics of bullets and guns
- To review and understand injuries associated with gunshot wounds to include vascular injuries and nerve injuries and their evaluation and treatment with penetrating trauma
- To review and understand the principles of treatment of a soft tissue injury associated with a gunshot wound
- To review and understand the principles of treatment of a bony injury secondary to a gunshot wound to include the timing and indications for surgical treatment
- To review the principles and concepts of treatment of the musculoskeletal injury specifically related to close range shotgun wounds
- To review the use of antibiotics in patients with fractures secondary to gunshot wounds
- To review and discuss the principles for treatment of intr-articular injuries from gunshot wounds both with and without fractures
7. Fracture Classification

- To review the significance and use of fracture classification system
- To understand the criteria of a useful classification system
- To review the universal classification system adopted by the Orthopaedic Trauma Association in details stressing basic principles

8. Basic Principles in the Assessment and Treatment of Fractures in the Skeletally Immature Patient and Physeal Injuries

- To review and understand the anatomy unique to skeletally immature bones
- To understand the anatomy and histology of the physis
- To identify issues specific to the examination of the injured child
- To understand the principles and specifics of the radiographic evaluation in the injured child to include the indications for more extensive evaluation including arthograms, MRI scans and bone scans
- To become familiar with fractures common only in the skeletally immature patient
- To become familiar with physeal fractures and the Salter-Harris classification system
- To understand the principles and methods of fracture treatment in children
- To understand complications of fracture treatment in children
- To review the capacity for remodeling of bones in the skeletally immature patients
- To review the complication of growth arrest secondary to physeal injuries and its subsequent treatment

9. Nonaccidental Trauma in Pediatric Patients

- To review and become familiar with the epidemiology of nonaccidental trauma in the pediatric patient population
- To be able to identify individuals at risk for child abuse
- To understand and be familiar with the signs from a thorough history and physical examination which would be characteristic of child abuse
- To become familiar with fractures commonly seen with nonaccidental trauma
- To understand the differential diagnosis for nonaccidental trauma and its workup
- To become familiar with the further evaluation and management of a child with nonaccidental trauma
- To be familiar with the process of reporting children with nonaccidental trauma
and the legal aspects associated with this

10. Injuries of the Clavicle, Acromioclavicular Joint and Sternoclavicular Joint

- To review the anatomy pertinent to injuries in these areas
- To review the etiology and mechanism of injury for clavicle fractures
- To review the physical examination and radiographic evaluation for fractures of the clavicle and acromioclavicular joint
- To understand treatment options for clavicle fractures
- To understand the indications for acute surgical treatment of clavicle fractures
- To review complications of clavicle fractures and its treatment
- To review and understand the principles for the treatment of clavicle fractures
- To review and become familiar with the classification of distal clavicle fractures and understand the relevant anatomy associated with this classification system. Also to review expected outcomes with operative and nonoperative treatment with these fractures
- A review of the indications and techniques for acute operative treatment of distal clavicle fractures
- To review and understand the indications and techniques for late surgery for distal clavicle fractures
- To review the classification of acromioclavicular joint injuries
- To review and understand the principles of treatment options for acromioclavicular joint injuries
- To review the indications and techniques for acute surgical treatment of acromioclavicular injuries
- To review the anatomy of the sternoclavicular joint including its medial physis
- To understand the radiographic techniques for assessing the sternoclavicular joint in patients with a suspected injury
- Understanding injuries associated with sternoclavicular joint dislocations
- To review the treatment of anterior sternoclavicular dislocations
- To review the treatment of posterior sternoclavicular dislocations

11. Scapular Fractures and Scapulothoracic Dissociation

- To review the anatomy of the scapula and shoulder girdle
- To understand the mechanisms of injury and associated injuries with scapula fractures and scapulothoracic dislocation
- To understand the appearance on physical examination and radiographic evaluation of patients with scapula fractures and scapulothoracic dissociations
12. Fractures of the Proximal Humerus and Glenohumeral Dislocation

- To review the pertinent anatomy and functional requirements of the proximal humerus and glenohumeral joint
- To review the etiology and mechanism of injury for proximal humerus fractures
- To review the physical examination and radiographic evaluation in patients with proximal humerus fractures
- To review the classification of proximal humerus fractures
- Treatment options and principles for decision making in patients with proximal humerus fractures
- To review the indications for surgical treatment for each fracture classification of the proximal humerus
- To review the indications and techniques for hemiarthroplasty in patients with humerus fractures
- To review the post-operative management, rehabilitation and complications for patients with proximal humerus fractures
- To review the etiology and mechanism of injury for glenohumeral dislocations
- To review the pathoanatomy with glenohumeral dislocations
- To review the physical examination and radiographic evaluation for patients with glenohumeral dislocations
- To review and understand methods of closed reduction of glenohumeral dislocations after reduction and the prognosis for recover to include the prognosis for recurrent dislocations

13. Fractures of the Humeral Shaft

- To review the relevant anatomy and deforming forces for fractures about the humeral shaft
- Review of classifications system of humeral shaft fractures
- To review and understand the mechanism of injury, pertinent history and
physical examination in patients with humeral shaft fractures

- To review and understand methods of closed management in patients with humeral shaft fractures
- To understand the surgical options of humeral shaft fractures with specific attention to intramedullary fixation versus plate fixation
- Review of the issues regarding a radial nerve injury at the time of presentation in a patient with a humeral shaft fracture
- Review of the surgical techniques for the treatment of humeral shaft fractures
- To review the outcome and complications of the treatment of humeral shaft fractures
- To understand factors that may lead to humeral shaft nonunions and to understand the basic principles for the treatment of humeral shaft nonunions

14. Fractures of the Distal Humerus

- A review of the pertinent surgical and functional anatomy about the elbow
- To review the classification of fractures at the distal humerus
- To review and understand the mechanism of injury, history and physical exam in patients with distal humerus fractures
- A review of the radiographic evaluation of distal humerus fractures
- To review and understand treatment options and techniques for all types of distal humerus fractures including extra-articular fractures and intra-articular fractures, unicondylar and bicondylar intra-articular features and capitellar fractures
- To understand the principles of post-operative management for fractures about the distal humerus with expected outcomes and potential complications

15. Elbow Dislocations and Elbow Instability

- To understand the mechanisms of injury, history and physical exam in patients with elbow dislocations
- To review the radiographic evaluation of elbow dislocations
- To review the pathoanatomy with elbow dislocations and it’s possible effects on post-reduction stability
- To become familiar with associated injuries about the elbow in patients with elbow dislocations
- To review the classification of elbow dislocations
- To review and understand the techniques for reduction of elbow dislocations and subsequent determination of stability
- To understand the principles of management after reduction of the elbow if the
elbow is stable. Also, to understand the potential, early and late complications

- To understand the principles of assessment of the elbow if the elbow remains unstable after reduction
- To understand the principles for treatment of recurrent dislocations or instability at the elbow after a closed reduction of the elbow dislocation to include surgical approaches, techniques, the use of external fixation and open reduction internal fixation of associated fractures (coronoid fractures)

16. Olecranon Fractures and Radial Head Fractures

- To review the pertinent anatomy of the olecranon and the radial head
- To review and understand the mechanisms of injury, history and physical in patients with olecranon fractures
- To understand principles of radiographic evaluation of olecranon fractures
- To understand the classification of olecranon fractures
- To review treatment options for patients with olecranon fractures and the indication for surgery
- To review and understand the surgical techniques with their biomechanical considerations, advantages and disadvantages of these techniques for treatment of olecranon fractures
- To review the expected outcomes and complications of patients treated for olecranon fractures
- To review the mechanism of injury, history and physical exam in patients with radial head fractures
- To review the radiographic evaluation of patients with radial head fractures
- To review the classification of patients with radial head fractures and specific treatment recommendations for each classification
- To understand the indications and surgical techniques for operative treatment of radial head fractures
- To understand the role of the radial head in a patient with a radial head fracture and elbow dislocation
- To review the expected outcomes and complications of treatment in patients with radial head fractures

17. Fractures and Dislocations About the Shoulder in the Pediatric Patient

- Review of the developmental anatomy and appearance of ossification centers about the scapula, clavicle and proximal humerus
- Review of the incidence, etiology and treatment methods for fractures of the clavicle and acromioclavicular joint and scapula in the pediatric patient
• Review of the incidence, etiology and treatment of glenohumeral dislocations in the pediatric patient with review of issues unique to the skeletally immature patient
• Review of fractures of the proximal humerus and how it relates to the specific developmental anatomy
• Review of the diagnosis of proximal humerus fractures related to the physical exam and radiographic evaluation
• Review of the classification of proximal humerus fractures in pediatric patients
• To understand the options and techniques for treatment principles based on the age of the patient, fracture classification and displacement

18. Fractures and Dislocations About the Elbow in the Pediatric Patient

• Review of the developmental anatomy and appearance of ossification centers about the elbow
• To review the relevant anatomy and radiographic evaluation of the elbow in the pediatric patient
• To understand all relevant issues with fractures of the distal humerus to include supracondylar fractures, complete separation of the distal humeral physis, lateral condyle fractures, medial condyle fractures, medial epicondyle fractures, lateral epicondyle fractures and T-condylar fractures
• To understand all relevant issues with fractures at the proximal radius and the olecranon in the pediatric patient

19. Forearm Fractures

• To review all pertinent anatomy and function of the forearm
• To review the incidence of mechanisms of injury and clinical findings related to forearm fractures
• To review the classification of forearm fractures
• To understand all treatment options and techniques for forearm fractures
• To review the indications for surgical treatment of forearm fractures
• To review the surgical approaches to the forearm with the advantages and disadvantages as related to the approach and the fracture location and pattern
• To review the indications, techniques and current recommendations for surgical treatment of forearm fractures
• To review Galeazzi fractures to include the treatment considerations for the distal radial ulnar joint dislocation
The following pages include rotation objectives for the following services that PGY1 residents rotate through:

- Neurological Surgery
- Trauma/Acute Care and Burn/Wound Surgery
- Plastic Surgery
  - VA Plastic Surgery Service
  - Shands Plastic Surgery Service
- Pediatric Surgery
- Vascular Surgery
- Emergency Medicine
- Critical Care Medicine
- Musculoskeletal Radiology
- Anesthesia Acute Pain Medicine Rotation

Please note that the PGY 1 Goals and Objectives for Orthopaedic Trauma and Orthopaedic Oncology can be found above under each rotation’s main goals and objectives
NEUROLOGICAL SURGERY COMPETENCY-BASED ROTATION GOALS AND OBJECTIVES FOR ROTATING INTERNS

DEPARTMENT OF NEUROLOGICAL SURGERY

UNIVERSITY OF FLORIDA
COLLEGE OF MEDICINE
GOALS AND OBJECTIVES OF ROTATIONS

Please refer to the Department of Neurological Surgery at the University of Florida College of Medicine COMPETENCY BASED ROTATION GOALS AND OBJECTIVES for an in depth description of the ACGME General Competencies.

Briefly, the ACGME has outlined six general competencies that residency programs are required to train their residents, which are the following:

1. **Patient care** that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health with specific reference to neurosurgical conditions.

2. **Medical Knowledge**: Residents must demonstrate knowledge about established and evolving biomedical, clinical, and cognate sciences, with specific reference to basic and clinical neurosciences, as well as the application of this knowledge to patient care.

3. **Practice-based learning and improvement** that involves the investigation and evaluation of care for their patients, the appraisal and assimilation of scientific evidence, and improvements in patient care.

4. Residents must be able to demonstrate **interpersonal and communication skills** that result in the effective exchange of information and collaboration with patients, their families, and other health professionals.

5. **Professionalism**, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to patients of diverse backgrounds.

6. **Systems-based practice**, as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.
**Work Hours**

Each intern will strictly abide by the 80-hour/week ACGME work hour regulations. There are additional ACGME regulations specific to the intern year. Please see below for the details as outlined by the ACGME.”

Interns will be required to submit their hours electronically via the New Innovations system by 8:30 am each Monday morning.

The Department of Neurosurgery adheres strictly to the ACGME policies on resident work hours. Duty hours for interns are as follows:

1. Interns will not take any night call.
2. Interns will work 5am to 7pm Monday-Friday (14 hour shifts).
3. Interns will work 5am to 12:00pm one weekend day a week.
4. Interns will not take any home call.
5. Interns will not work any shifts unsupervised by a senior resident or an attending.

The Department monitors compliance with these policies by requiring each resident to accurately record their duty hours via New Innovations on a weekly basis. These are reviewed each Monday morning a 8:30 a.m.

**Failure to submit completed forms on time can result in suspension. Intentional misrepresentation of hours worked will result in termination.**

**Evaluation Process**

The rotating intern will meet with Dr. Hoh at the beginning of the rotation to discuss the objectives of the rotation. The rotating intern will then meet with Dr. Hoh at least once mid-way through the rotation, and upon completion of the rotation to discuss progress towards meeting the objectives of the rotation and for a final evaluation.
Signature Requirements

Summary of signature guidelines -- acceptable forms of authentication

The following methods of authentication have been deemed acceptable by CMS:

- Handwritten signature -- a mark or a sign placed on a medical document to signify knowledge, approval, acceptance, or obligation by the individual who provided or ordered the services specified in the medical entry. Requirements for this form of authentication are dependent upon whether the signature is considered legible or illegible.
- Legible signature -- acceptable forms of presentation:
  - Legible full signature
  - Legible first initial and last name
  - Initials placed above a typed or printed name
  - Initials accompanied by a signature log -- lists the typed or printed name of the author associated with initials or an illegible signature. Signature logs may be included on the page where the initials or illegible signature is used, or it may be submitted as a separate document.
  - Initials accompanied by an attestation statement -- must be signed and dated by the author of the medical record entry, must be associated with a specific medical entry, and must contain sufficient information to identify the beneficiary.

Summary of signature guidelines -- unacceptable forms of authentication

The following methods of authentication have been deemed unacceptable by CMS and may result in a Comprehensive Error Rate Testing (CERT) finding:

- Unsigned, typed note with provider's typed name.
- Unsigned, typed note without provider's typed name
- Unsigned, handwritten note (only entry on the page)
- Illegible signature that is not placed above a typed or printed name
- Illegible signature that is not identified in a letterhead or addressograph
- Illegible signature that is not accompanied by a signature log or attestation statement
- Stamp signature
- "Signature on file"
Neurosurgery Services & Teams

The neurosurgery rotation for interns rotating on neurosurgery is four weeks. While on the neurosurgical service, the intern will be the junior resident on the Spine service on a team that consists of a junior and senior neurosurgery resident.

Neurosurgery has five main service teams: Vascular, Spine and Peds, Functional and General, the Chairman’s Service and the TTP Service

SERVICES AND ROTATIONS

Vascular Service
The Vascular Service has patients admitted to Drs. Brian Hoh, and Blackburn. One senior and one junior resident are assigned to the service. The Vascular Service faculty includes Drs. Brian Hoh and Spiros Blackburn. The subspecialty areas represented by this faculty are vascular/endovascular neurosurgery as well as other aspects of general adult neurosurgery. The vascular service rotation includes preoperative clinical patient evaluation, surgical training, postoperative patient care, and emergency consultation services. The goals and objectives of the Vascular Service rotation are to introduce residents to:

- All aspects of cerebrovascular/endovascular neurosurgery (including aneurysms, arteriovenous malformations, and extracranial carotid disease)
- Other general adult neurosurgical disorders (including trauma, infection, tumors, and degenerative disorders)

Functional and General Service
The Functional and General Service has patients admitted to Drs. Foote, Roper, and Murad and one senior and one junior resident are assigned to the Vascular and Functional/General services. The subspecialty areas represented by this faculty are brain tumor surgery, skull base surgery, and
epilepsy surgery, as well as other aspects of general adult neurosurgery. The Functional/General Service rotation includes preoperative clinical patient evaluation, surgical training, postoperative patient care, and emergency consultation services. The goals and objectives of the Blue service rotation are to introduce residents to:

- Intracranial neoplasms, including complex surgical approaches and techniques.
- Stereotactic neurosurgery and radiosurgery.
- The principles and practice underlying the selection, localization procedures, and curative surgery for intractable epilepsy.
- Other general adult neurosurgical disorders (including trauma, infection, tumors, and degenerative disorders).

Spine and Pediatric Service
The Spine and Pediatric Service has patients admitted to Drs. Jacob, D. Hoh, and Pincus. A junior residents and the Intern are assigned to the Spine and Pediatric Service. The subspecialty areas represented by this faculty are complex spinal surgery, movement disorders, pediatric surgery and general adult neurosurgery. The Spine and Pediatric Service includes preoperative clinical patient evaluation, surgical training, postoperative patient care, and emergency consultation services. The goals and objectives of the Red service rotation are to introduce residents to:

- All aspects of complex spinal neurosurgery.
- General adult neurosurgical disorders (including trauma, infection, tumors and degenerative disorders).
- All aspects of pediatric neurosurgery, including hydrocephalus, myelodysplasia, spasticity, craniosynostosis, brain tumors, and vascular disease.

Chairman’s Service
The Chairman’s Service has patients admitted to Dr. Friedman. A senior resident is assigned to this service. The subspecialty areas represented by this faculty are radiosurgery, trigeminal neuralgia and general adult neurosurgery. The Chairman’s Service includes preoperative clinical patient evaluation, surgical training, postoperative patient care, and emergency consultation services.

- Radiosurgery
- Trigeminal Neuraglia
- Practice Management
- General adult neurosurgical disorders (including trauma, infection, tumors and degenerative disorders).

TTP Service
The TTP Service has patients admitted to the TTP and the team consists of a Junior resident and an Intern. The subspecialty areas represented by this faculty are general adult neurosurgery. The TTP Service includes preoperative clinical patient evaluation, surgical training, postoperative patient care, and emergency consultation services. The goals and objectives of the Red service rotation are to
introduce residents to:
- General adult neurosurgical disorders (including trauma, infection, tumors and degenerative
- All aspects of pediatric neurosurgery, including hydrocephalus, myelodysplasia, spasticity, craniosynostosis, brain tumors, and vascular disease.

**Specific Competency Based Rotation Goals and Objectives**

Rotating interns are required to be first or second assistant on at least one operation per week, with strong encouragement for at least one day in the O.R. per week.

Rotating interns will not have specific competencies as required by the neurosurgery department; however, we have chosen the following specific competencies for emphasis for rotating interns.

**Patient Care**

*Spinal surgery:*
1. Perform a complete history and physical examination on patients with spinal disorders.
2. Interpret plain x-rays, dynamic x-rays, myelograms, CT scans and MR scans of patients with spinal disorders.
3. Perform lumbar punctures
4. Demonstrate proper postoperative wound care.
5. Demonstrate appropriate postoperative management of patients who have undergone spinal procedures.

*Neurotrauma:*
1. Perform and document pertinent history, physical findings, and radiologic findings in a multitrauma patient.
2. Differentiate central from peripheral nervous system injuries.
3. Insert intracranial pressure monitoring devices

*Movement disorders:*
1. Obtain a history and physical examination on a patient with a movement disorder.
2. Obtain appropriate ancillary tests: MRI, EEG, functional imaging.
3. Formulate a differential diagnosis for movement disorders.
4. Perform at least one stereotactic frame application.

**Medical Knowledge**

**Spinal surgery:**
1. Review the anatomy of the craniocervical junction, cervical, thoracic, and lumbar spine, sacrum.
2. Interpret plain and dynamic radiographs, bone scans, myelograms, computerized tomographic (CT) scans, and magnetic resonance (MR) scans of patients with spinal disorders.
3. Review the signs, symptoms, and pathophysiology of common syndromes of degenerative spinal disorders: radiculopathy, myelopathy, instability, and neurogenic claudication.
4. Identify the common syndromes of spinal cord injury, including complete transverse injury, anterior cord injury, Brown-Sequard injury, central cord injury, cruciate paralysis, syringomyelia, conus syndrome, and sacral sparing. Describe the pathophysiology of spinal cord injury.
5. Describe the cauda equina syndrome.
6. Recite the differential diagnosis of cervical, thoracic, and lumbar pain.
7. Discuss the indications for cervical, thoracic, and lumbar discectomy.
8. Review the initial management of spine and spinal cord injured patients including immobilization, traction, reduction, appropriate radiographic studies, and medical management.
9. Classify fractures, dislocations, and ligament injuries of the craniocervical region, subaxial cervical spine, thoracic, thoracolumbar junction, lumbar, and sacral spine. Describe the mechanism of injury and classify the injuries as stable or unstable. Review the indications for surgical management.

**Neurotrauma:**
1. Describe the systematic assessment of multitrauma patients.
2. Rank management priorities in multitrauma patients appropriately.
3. Discuss principles of resuscitation of multitrauma patients including appropriate fluid resuscitation, and explain the anticipated effects of shock and resuscitation on fluid shifts and on electrolyte balance.
4. Explain the treatment of posttraumatic seizures.
5. Outline basic principles of ICU management of patients with spinal cord injury.
6. Name the major structures supplied by the major vessels of the brain and spinal cord.
7. Define brain death and discuss methods of making such a diagnosis.

Movement disorders:

1. Discuss the considerations of stereotactic frame placement in regard to target localization and purpose of procedure (biopsy, craniotomy, functional, radiosurgery).
2. Define and distinguish each of the following entities:
   a. tremor
   b. rigidity
   c. dystonia
   d. chorea
   e. athetosis
3. Describe the pathophysiology of Parkinson’s disease and cerebellar tremor.

Practice Based Learning and Improvement

1. Case discussions with service-specific faculty.
2. Apply knowledge of study design and statistical methods to appraise the literature during journal club meetings.

Interpersonal and Communication Skills/ Professionalism

1. Develop an effective and respectful relationship with patients and families with neurosurgical problems.
2. Help to lead the health care team involved in neurosurgical management.
3. Maintain relevant medical records in a timely manner.
4. Constantly work on effective communication skills.

Professionalism
1. Learn to treat patients and families with respect.
2. Demonstrate sensitivity to the patient’s problems.
3. Learn to deal constructively with severe complications and death.

**Systems Based Practice**

1. Utilize all components of the health care system in the care of neurosurgical patients (i.e. consultants, physical therapy, speech therapy, discharge planning).
2. Learn to practice cost-effective health care by ordering only those tests, medications, and therapies which are effective for these disorders.
3. Learn to identify and intervene in patient safety issues pertaining to these patients (i.e. consultants, physical therapy, speech therapy, discharge planning).

**Specific Emphasis for Anesthesia Interns**

Anesthesia interns will be encouraged to emphasize the following during this rotation.

3. Positioning of patients for various types of neurological surgeries

**Specific Emphasis for Orthopedic Interns**

Orthopedic interns will be encouraged to emphasize the following during this rotation:

1. Spinal Injury
   a. Orthopedic interns will be strongly encouraged to 1st or 2nd assist on spinal injury procedures during the rotation.
   b. Orthopedic interns are strongly encouraged to spend at least one day during the month on rotation in the clinic with Dr. Jacob to learn how to perform a proper history and physical examination, and to understand indications, work-up, differential diagnosis, and management for patients with spinal disorders.
2. Orthopedic interns will be exposed to the management of trauma patients as part of the Spine Service.
3. Trauma - orthopedic interns will be exposed to the management of trauma patients as part of the Spine Service.
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Trauma / Acute Care and Burn/Wound Surgery Rotation

Surgery residents from most levels will rotate on the Trauma Service. Residents are an integral part of the care from the Emergency Department to the ICU, to the operating room to the floor and then finally post-discharge in the outpatient clinic. The residents are part of the multidisciplinary team that has sit-down rounds twice weekly and walk round on a daily basis. Numerous opportunities are provided for resident presentation; work-up, management and didactic teaching opportunities exist on the service in three (3) trauma/emergency surgery/burn conferences and journal club. At the completion of the rotation the resident should:

Demonstrate complete understanding of the initial management of the injured patient including resuscitation, fluid management, airway management and all aspects of surgical critical care.

Demonstrate the ability to evaluate, manage and operate on the emergency surgical patient including the acute abdomen and all aspects of soft tissue infection.

Patient Care

PGY 1

1) Demonstrate recognition of shock in the initial assessment of the acutely injured patient.
2) Demonstrate appropriate pre- and post-operative management of acutely injured and acute surgery patients on the inpatient ward.
3) Demonstrate effective, safe performance of techniques to stop hemorrhage, close simple lacerations, and place gastric and bladder catheters.

Medical Knowledge

PGY 1

1) Articulate essential concepts for the initial assessment and management of acutely injured patients.
2) Describe the assessment, differential diagnosis, and initial resuscitation of patients with acute abdominal disease.
3) Discuss the basic science that drives pre-operative and post-operative care, to include fluids and electrolytes, pain management, and anticipated complications.
Practice-Based Learning and Improvement

PGY 1
1) Describe successful management of post-operative problems for specific patients.
2) Discuss injury and disease characteristics related to specific ward patients.
3) Identify opportunities for care improvement in individual patient cases.

Interpersonal and Communication Skills

PGY 1
1) Demonstrate clear and accurate written communication in ward progress notes and discharge summaries.
2) Demonstrate clear and accurate verbal communication in the care of service ward patients.
3) Demonstrates respectful and appropriate communication with patients, families, nurses, consultants, peers, and faculty.

Professionalism

PGY 1
1) Demonstrates equanimity in interactions with patients, families, and all members of the health care team.
2) Demonstrates appropriate appearance and affect for specific health care settings.
3) Demonstrates effective time management (punctual, available, tasks completed on time).

Systems-Based Practice

PGY 1
1) Explain the role of pre-hospital care in supporting evaluation and management of acutely injured patients.
2) Describe resources available to facilitate the recovery of patients following definitive management of traumatic injury and acute surgical disease.
3) Discuss behaviors that lead to traumatic injury and acute surgical disease.
Plastic Surgery Rotation:

VA Plastic Surgery Rotation

Shand’s Plastic Surgery Rotation
VA Plastic Surgery Rotation

This service sees the full spectrum of Plastic and Reconstructive surgery patients for the North Florida/South Georgia Veteran population. There is one fellow on the service, one PGY 1 resident, two plastic surgery faculty attendings, and an ARNP to assist with the management of the patients. Surgeries are staffed by faculty and by contract physicians in the community. UF/VA plastic surgery faculty staffs the clinic. The plastic surgery service covers hand surgery for the NF/SG VA system and shares facial trauma with the ENT division.

This rotation provides an introduction to plastic surgery for the first year general surgery resident. The intern sees new consults with the fellow and the attending in the clinic, ER, and wards. He performs histories and physicals prior to surgery, participates in procedures, and follows up with the patient in the clinic. The new resident is expected to develop a familiarity with the broad spectrum of plastic surgery elective, urgent, and emergent issues. At the completion of the rotation, the resident should be able to:

PGY 1

Medical Knowledge

1) Demonstrate awareness of anatomy of the hand and forearm
2) Demonstrate awareness of anatomy of facial and motor nerves in the head and neck
3) Demonstrate awareness of different types of material available for wound closure (sutures, dressings, tissue adhesives)
4) Understand the indications for ordering nerve conduction studies both pre and postoperatively
5) Understand the criteria for sending patients to hand therapy
6) Understand the different types of splints and indications for using them
7) Understand the indications for dupuytren’s surgery
8) Demonstrate ability to recognize degenerative joint disease on x-rays
9) Understand the indication for use of fluoroscopy in the ER and OR
10) Understand the threshold to reperfusion after placing upper extremity tourniquets
11) Diagnose upper extremity compartment syndrome
12) Learn indications for referral to Moh’s surgery
13) Understand the appropriate time-frame for postoperative follow up and suture removal
14) Understand the different options available in breast reconstruction from purely implant-based to purely autologous
15) Understand the need to obtain informed consent and “time-outs” prior to performing surgical procedures
16) Demonstrate knowledge of breast reduction surgery and the indications for the same
17) Understand risk factors for chronic wounds and indications for surgery

Patient Care
1) Demonstrate ability to perform a hand exam
2) Demonstrate ability to perform simple and complex wound closures
3) Demonstrate ability to read x-ray evidence of hand and finger fractures and dislocations
4) Demonstrate the ability to administer local anesthesia prior to minor surgery on the hands and face in the clinic, OR, and ER
5) Demonstrate ability to diagnose and treat skin cancers on the head, neck, and hand both in the office and OR
6) Demonstrate ability to evaluate hand trauma patients in urgent care and in the ER
7) Demonstrate ability to surgically and medically treat hand and digit infections in urgent care, ER, and OR
8) Demonstrate ability to place digit, forearm, and arm tourniquets
9) Demonstrate ability to perform primary closure and skin grafts to cover acquired defects in the digits and face secondary to trauma or oncologic resection
10) Demonstrate ability to diagnose and manage acute facial trauma in the ER (lacerations and fractures)
11) Demonstrate ability to diagnose and treat hand and finger burns

Practice-Based Learning and Improvement
1) The resident will investigate and evaluate his or her own patient care practices, appraise and assimilate scientific evidence, and improve patient care practices.
2) Identify and discuss appropriate management of postoperative complications.
3) Understand the indications for denying elective surgery.
4) Be committed to scholarly pursuits through the conduct and evaluation of research.
5) Value lifelong learning as a necessary prerequisite to maintaining surgical knowledge and skill.

Interpersonal and Communication Skills
1) Demonstrate effective communication, both written and verbal, with other members of the healthcare team.
2) Counsel and educate patients and families.
3) Effectively document practice activities.
4) Teach and share knowledge with colleagues, residents, students, and other healthcare providers.
Professionalism
1) Respect the cultural and religious needs of patients and their families, and provide surgical care in accordance with those needs.
2) Make sound ethical and legal judgments appropriate for a qualified surgeon.
3) Demonstrate a commitment to continuity of patient care.

Systems-Based Practice
1) Demonstrate understanding of planning and utilizing OR resources
2) Provide cost-effective care to surgical patients and families within the community.
3) Demonstrate knowledge of risk-benefit analysis.
4) Demonstrate an understanding of the role of different specialists and other healthcare professionals in overall patient management.
**Shand’s Plastic Surgery Rotation**

The Plastic and Reconstructive Surgery service at UF & Shands encompasses the entire field of our specialty. There are five Plastic Surgery faculty, two Plastic Surgery fellows and one surgical intern. There are also two Physician Assistants and one Nurse Practitioner to assist with the management of the patients. Surgery is performed at Shands Teaching Hospital, Florida Surgical Center, Children’s Surgical Center and the Millennium Center. Clinic is held at the Millennium Center. The Plastic Surgery Service shares hand call with Orthopaedic Surgery and face call with Otolaryngology and Oral Surgery.

This rotation provides an introduction to plastic surgery for the first year surgical resident. The intern sees new consults with the fellow, physician extender and/or the attending on the floor, emergency room, and clinic. The intern is expected to develop a familiarity with the broad spectrum of plastic surgery elective, urgent, and emergent issues. At the completion of the rotation, the intern should be able to:

**Medical Knowledge**

1) Demonstrate awareness of anatomy of the hand and upper extremity

2) Demonstrate awareness of anatomy of face including cranial nerves in the head and neck

3) Demonstrate awareness of different types of material available for wound closure (sutures, dressings, tissue adhesives)

4) Demonstrate knowledge of breast reduction surgery

5) Understand the different options available in breast reconstruction from implants to autologous tissue and everything in between

6) Understand congenital anomalies in children including cleft lip/palate and vascular anomalies

7) Understand the appropriate time-frame for postoperative follow up and suture removal

8) Understand the need to obtain informed consent and “time-outs” prior to performing surgical procedures

9) Understand risk factors for chronic wounds and indications for surgery

10) Understand reconstructive options for ablative and traumatic wounds including grafts and flaps

11) Understand the evaluation and management of the cosmetic patient

**Patient Care**

1) Demonstrate ability to perform a hand exam
2) Demonstrate ability to perform a head and neck exam
3) Demonstrate ability to perform simple and complex wound closures
4) Demonstrate the ability to administer local anesthesia prior to procedures on the hands and face
5) Demonstrate knowledge of inpatients and consult patients
6) Demonstrate ability to evaluate acute and chronic wounds
7) Demonstrate ability to harvest split thickness skin grafts
8) Demonstrate ability to read x-ray evidence of hand trauma
9) Demonstrate ability to diagnose and manage acute facial trauma in the ER (lacerations and fractures)

Practice-Based Learning and Improvement

1) The resident will investigate and evaluate his or her own patient care practices, appraise and assimilate scientific evidence, and improve patient care practices.
2) Identify and discuss appropriate management of postoperative complications.
3) Understand the indications for denying elective surgery.
4) Be committed to scholarly pursuits through the conduct and evaluation of research.
5) Value lifelong learning as a necessary prerequisite to maintaining surgical knowledge and skill.
6) Attend Plastic Surgery Journal Club – every third Wednesday of each month at 6:30PM

Interpersonal and Communication Skills

1) Demonstrate effective communication, both written and verbal, with other members of the healthcare team.
2) Counsel and educate patients and families.
3) Effectively document practice activities.
4) Teach and share knowledge with colleagues, residents, students, and other healthcare providers.

Professionalism

1) Respect the cultural and religious needs of patients and their families, and provide surgical care in accordance with those needs.
2) Make sound ethical and legal judgments appropriate for a qualified surgeon.
3) Demonstrate a commitment to continuity of patient care.

Systems-Based Practice

1) Demonstrate understanding of planning and utilizing OR resources
2) Provide cost-effective care to surgical patients and families within the community.
3) Demonstrate knowledge of risk-benefit analysis.
4) Demonstrate an understanding of the role of different specialists and other healthcare professionals in overall patient management.
Pediatric Surgery Rotation

Pediatric general surgery is truly one of the last bastions of ‘general’ surgery, where the service deals with problems involving the head and neck, chest, abdomen, as well as multiple organ systems (airway, renal, GU, etc). The variability in the age also makes things interesting with very different conditions noted in newborns, as opposed to 18-year-old patients.

This service does more than 2,000 operative procedures per year including routine and complex childhood and neonatal operations. The service currently has 3 attendings and 2 fellows, in addition to a number of mid level providers as well. Besides the usual pediatric surgical expertise there is special interest in ECMO, trauma, burns, airway management and minimally invasive surgery.

The ultimate goal of the rotation is to have an ideal mix of service and clinical requirements to help teach the basic and important concepts of pediatric surgery. That balance is challenging to achieve and may be different for all residents.

Two PGY 1’s and a PGY 3 are assigned to the service. Responsibilities and general learning objectives include:

PGY I - The first year resident manages the non-intensive care unit patients and is responsible for the coordination of preoperative and postoperative care. The intern will be expected to write notes, see and evaluate consults, learn how to interpret lab and radiologic data, and how to function as part of a team delivering care to patients. The mid level providers are a huge asset that should be utilized whenever possible.

The resident will be covering either night or day time duties. The schedule will be arranged to ensure compliance with the 16 and 80 hour work rules. The day time resident will be sent to perform outpatient surgery at least once a week depending on the schedule. Getting the chance to do surgery is a privilege as an intern and is dependent upon good performance. Please see the reading list below to supplement your knowledge base and come to the conferences on Monday morning prepared. You will be sent the reading materials for those conferences ahead of time.

The resident must understand the anatomic and physiologic differences between children and adults and become adept at dealing with the pediatric patient and family. At the completion of the rotation the resident should be able to:

Patient Care
1. Use critical thinking when making decisions affecting the life of a patient and the patient's
Teach patients and their families about the patient's health needs.

3. Learn principles of routine postoperative care and postoperative critical care management.

4. Obtain a history and perform a directed physical recognizing the changing values of “normal” findings as the patient’s age changes.

5. Manage fluids and electrolytes, resuscitation, and ongoing fluid losses in each age group encountered.

**Medical Knowledge**

1. Manage surgical disorders based on a thorough knowledge of basic and clinical science.

2. Understand the unique congenital and acquired diseases and disorders that affect children.

3. Have a broad basic knowledge of underlying pathophysiology, genetic conditions, and environmental factors contributing to these problems.

4. Understand the anatomic and physiologic principles that guide successful operative repair of pediatric diseases, and develop technical skill in performing surgical procedures on children.

5. Summarize development of the newborn throughout childhood and be able to describe common congenital malformations.

6. Outline the basic diagnosis and management of more common surgical problems such as pyloric stenosis, appendicitis, hernia, malrotation, intussusception, and necrotizing enterocolitis.

**Practice-Based Learning and Improvement**

1. Value lifelong learning as a necessary prerequisite to maintaining surgical knowledge and skill.

2. Utilize appropriate skill in those surgical techniques required of a qualified surgeon.

3. Learn the principles of stabilization, appropriate preoperative diagnosis, and preparation of the sick or injured child.

4. Increase expertise in care of infants and children.

**Interpersonal and Communication Skills**

1. Collaborate effectively with colleagues and other health professionals.

2. Teach and share knowledge with colleagues, residents, students, and other health care providers.

3. Understand how to work within the framework of a team.

**Professionalism**

1. Respect the cultural and religious needs of patients and their families, and provide surgical care in accordance with those needs.

2. Make sound ethical and legal judgments appropriate for a qualified surgeon.

3. Be committed to scholarly pursuits through the conduct and evaluation of research as is available to those interested.
**Systems-Based Practice**

1. Provide cost-effective care to surgical patients and families within the community.
2. Be prepared to manage complex programs and organizations.

Assessment of the residents will be based on their performance on the whole covering the six core competencies as well as technical skills. This will be judged from input with the fellows, the ARNP and PA’s, office staff feedback and others. The resident should get mid term feedback and constructive criticism to improve for the remaining part of the rotation. *If not scheduled, the resident should ask to have mid term feedback.*

Finally, we are **VERY** receptive to feedback from the residents and will respond to it. In the past we have made major changes to the rotation based on feedback that we received. Please feel free to let us know how we can improve your experience on Pediatric Surgery!

**Reading Materials: Pediatric Surgery Chapters from:**


or

**Sabiston** ([http://www.mdconsult.com/books/page.do?eid=4-u1.0-B978-1-4377-1560-6..00067-6&isbn=978-1-4377-1560-6&uniqId=340643422-2#4-u1.0-B978-1-4377-1560-6..00067-6](http://www.mdconsult.com/books/page.do?eid=4-u1.0-B978-1-4377-1560-6..00067-6&isbn=978-1-4377-1560-6&uniqId=340643422-2#4-u1.0-B978-1-4377-1560-6..00067-6))

or


The helpful links may be cut and pasted into a browser or clicked on and should take you to the electronic versions of these chapters. A PDF version of the Sabiston chapter is available as well.
**Vascular Surgery Rotation**

This service sees the full spectrum of vascular diseases including complex problems and re-operative cases. There are 6 attendings and a vascular resident on the service. There are also several physician extenders with extensive experience in the management of these patients. General surgery residents rotate at the PGY I and PGY II level. The responsibilities of the general surgery residents are similar to those on other services with a special emphasis on learning the unique needs of the patients with vascular diseases. In addition, residents are introduced to the use of the noninvasive vascular laboratory and the principles of hemodynamic testing. The interpretation of angiograms is emphasized as is the decision making process in selecting patients for intervention and the appropriate selection of the type of intervention most supported by data. Responsibilities and general learning objectives include:

**PGY I** - Manages floor patients, does initial history and physicals, and participates in the operating room with supervision. Orders tests, and should become familiar with the capabilities and limitations of the vascular laboratory. Must recognize that vascular disease is a systemic disease and that these patients have numerous associated diseases that potentially complicate their care.

**Patient Care**

1) Perform a directed history and physical emphasizing the multiple problems likely to be seen in this population.
2) Describe the preoperative work-up for patients with common vascular problems such as carotid disease, aortic aneurysms, and lower extremity ischemia including the use of the noninvasive laboratory and invasive techniques.
3) Understand preoperative risk stratification and risk reduction in vascular patients.
4) Manage the routine postoperative recovery of these patients and recognize complications such as myocardial ischemia, wound breakdown, pulmonary problems, and limb ischemia.
5) Perform simple operative procedures under supervision (i.e. wound debridement, digital amputations, some major amputations, and diagnostic arteriography).
6) Appreciate the basic conduct of larger vascular operations, both endovascular and open.

**Medical Knowledge**

1) Formulate a picture of the distribution of a patient’s arterial disease based on physical exam and non-invasive testing.
2) Explain the hemodynamics of the vascular tree and their implications for therapeutic decision-making.
3) Understand the anatomy of the vascular system and be able to interpret angiograms and CT scans as they apply to the blood vessels and associated organs.
4) Understand identification and management of cardiovascular risk factors and “best medical management” for vascular disease.
5) Distinguish between arterial disease and venous disease presentations.

Practice-based Learning and Improvement

1) Show consistent attendance at, preparation for, and active participation in all service conferences.
2) Show attendance and participation in service morbidity and mortality conference.
3) Identify opportunities to improve patient care based on individual patients, but applicable to all similar service patients.

Interpersonal and Communication Skills

1) Demonstrate clear and accurate written communication in progress notes, consults, and discharge summaries.
2) Demonstrate clear and accurate verbal communication to Chief Resident, physician extenders, consultants, nurses, social workers, administrative professionals, and faculty in the care of service patients.
3) Demonstrate respectful and appropriate communication with patients, families, and other support people or caregivers.

Professionalism

1) Demonstrate appropriate appearance and affect for specific health care settings.
2) Maintain composure in all personal and patient-related activities.
3) Demonstrate effective time management while on service (i.e. punctuality, availability, tasks completed on time, paperwork completed in timely manner).
4) Demonstrate enthusiasm for and aptitude in teaching medical students that rotate on the service.

Systems-based Practice

1) Function as an integral member of the vascular surgical team within the larger surgical community and within the hospital structure as a whole.
2) Explain the role of pre-hospital primary care in the prevention and management of cardiovascular disease and its risk factors (i.e. HTN, diabetes, hyperlipidemia, smoking).
3) Understand the resources (both inpatient and outpatient) available to facilitate the recovery of vascular patients following surgery – specifically, social work services, physical therapy and rehabilitation, wound care, smoking cessation, and hospice.

4) Appreciate importance of public awareness of cardiovascular disease.
## Emergency Medicine Rotation

<table>
<thead>
<tr>
<th>Rotation</th>
<th>Emergency Medicine</th>
<th>Year of training</th>
<th>Duration in Months:</th>
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<tbody>
<tr>
<td>Institution</td>
<td>Shands at the University of Florida</td>
<td>PGY 1</td>
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<tr>
<td>Year of training</td>
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<td>PGY 2</td>
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<td>PGY 4</td>
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Educational objectives: The resident is to gain experience in the care of acutely ill and injured patients. During this rotation, the resident will develop acute care skills in the evaluation and initial management of acute, undifferentiated emergency department patients, with a focus on diagnosing or excluding emergency medical conditions and providing appropriate initial management and disposition plans.

Goals:
1. Develop the ability to rapidly evaluate, diagnose, stabilize, and disposition acute, undifferentiated patients.
2. Develop the ability to assess airway, breathing, and circulation for unstable patients.
3. Develop the ability to formulate a ranked differential diagnosis on undifferentiated patients, with a focus on critical or life threatening problems first.
4. Develop cost effective diagnostic approaches to address the generated differential diagnosis.
5. Acquire common procedural skills utilized in treating emergency department patients, such as suturing, splinting, central venous access, lumbar punctures, and other common procedures.
6. Develop appropriate consultation skills.
7. Learn to use appropriate, cost effective treatments for a wide array of acute medical problems.
8. Understand the limitations of emergency department care, and the role that other services

Objectives:
1. Demonstrate ability to perform a focused history and physical exams in undifferentiated emergency department patients.
2. Demonstrate an assessment of airway, breathing, and circulation for acutely ill patients.
3. Demonstrate an ability to utilize alternate sources of information to obtain needed information when necessary, such as medical records, nursing facility staff, and physician offices.
4. Demonstrate the ability to develop and justify a ranked differential diagnosis based on the focused history and physical exam.
5. Demonstrate a cost effective, organized approach to diagnostic test ordering including laboratory evaluations and imaging.
6. Demonstrate the ability to provide initial management and resuscitation of acutely ill or injured patients.
7. Demonstrate the ability to interpret clinical data to arrive at a most likely diagnosis.
8. Demonstrate the ability to recognize the need for further inpatient evaluation and management.
9. Demonstrate an ability to utilize consultants appropriately with accurate information and the need for the consultation (admission, help with management in the ED, etc).
10. Demonstrate the ability to provide outpatient treatment for many common problems such as infections and soft tissue injuries.
11. Demonstrate the ability to secure appropriate outpatient referrals and follow up for patient not requiring hospital admission.
12. Demonstrate ability to function as a member of a health care team, including attendings, other residents, ED nurses, and other ancillary staff.
13. Maintain clear, accurate and complete medical records for each patient managed.
14. Demonstrate the ability to multi-task and develop priorities in managing multiple patients.
15. Demonstrate the ability to communicate with patients and families to explain the evaluation, diagnosis and management plans proposed, and provide instructions on potential complications that should prompt return.
16. Demonstrate a recognition of limitations, and the ability to obtain help when needed.
17. Demonstrate an understanding of informed consent and advance directives when making medical decisions in the emergency department.
Evaluation process: Residents receive core-competency based evaluations of their global performance from the senior residents and the attendings staffing the ED, primarily based on direct observation. These evaluations are sent to the respective program directors for review.

Residents are to be trained and assessed with the core competencies as defined by the ACGME serving as the principle foundation (see below).

General Competencies, **Minimum Program Requirements Language (Approved by the ACGME, September 28, 1999)**

The residency program must require its residents to obtain competencies in the 6 areas below to the level expected of a new practitioner. Toward this end, programs must define the specific knowledge, skills, and attitudes required and provide educational experiences as needed in order for their residents to demonstrate:

- **Patient Care** that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health
- **Medical Knowledge** about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care
- **Practice-Based Learning and Improvement** that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care
- **Interpersonal and Communication Skills** that result in effective information exchange and teaming with patients, their families, and other health professionals
- **Professionalism**, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population
- **Systems-Based Practice**, 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

* Denotes those competencies taught and assessed during this rotation.

Residents receive core-competency based evaluations of their performance from both the senior resident and the attendings on service.

Feedback Mechanisms: Residents are directly supervised by the Emergency Medicine faculty and senior residents, who give immediate and directed feedback for improved job performance and increased patient care skills. Summative written evaluations are provided to the resident’s respective program director.
Critical Care Medicine Rotation

Educational Objectives for Rotation:

1) PATIENT CARE

Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Residents are expected to:

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families
- Gather essential and accurate information about their patients
- Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment
- Develop and carry out patient management plans
- Counsel and educate patients and their families
- Use information technology to support patient care decisions and patient education
- Perform competently all medical and invasive procedures considered essential for the area of practice
- Provide health care services aimed at preventing health problems or maintaining health
- Work with health care professionals, including those from other disciplines, to provide patient-focused care
- Perform an appropriate history and physical examination of the critically ill patient
- Develop competence in the placement of invasive monitors

2) MEDICAL KNOWLEDGE

Residents must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care. Residents are expected to:

- Demonstrate an investigatory and analytic thinking approach to clinical situations
- Know and apply the basic and clinically supportive sciences which are relevant to
critical care medicine
- Articulate essential concepts for the initial assessment and management of acutely injured patients.
- Describe the assessment, differential diagnosis, and initial resuscitation of patient with acute abdominal disease
- Discuss the basic science that drives pre-operative and post-operative care, to include fluids and electrolytes, pain management, and anticipated complications.
- Describe the workup of a patient with decreased urine output
- Describe the workup of a patient with hypotension
- Describe the workup of a patient with septic shock
- Describe the workup of a patient with fever
- Understand the algorithm for difficult airway in the ICU
- Describe the workup of a patient with coagulopathy
- Understand principles of prevention and treatment of perioperative cardiac ischemia
- Understand the principles of resuscitation in the multiply injured patient

3) PRACTICE-BASED LEARNING AND IMPROVEMENT

Residents must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. Residents are expected to:

- Analyze practice experience and perform practice-based improvement activities using a systematic methodology
- Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems
- Obtain and use information about their own population of patients and the larger population from which their patients are drawn
- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
- Use information technology to manage information, access online medical information; and support their own education
- Facilitate the learning of students and other health care professionals

4) INTERPERSONAL AND COMMUNICATION SKILLS
Residents must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients’ families, and professional associates. Residents are expected to:

- Create and sustain a therapeutic and ethically sound relationship with patients
- Use effective listening skills; elicit & provide information using effective nonverbal, explanatory, questioning, and writing skills
- Work effectively with others as a member or leader of a health care team or other professional group

5) PROFESSIONALISM

Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. Residents are expected to:

- Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest; accountability to patients, society, and the profession; and a commitment to excellence and ongoing professional development
- Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices
- Demonstrate sensitivity and responsiveness to patients’ culture, age, gender, and disabilities
- Demonstrate sensitivity and responsiveness to fellow health care professionals’ culture, age, gender, and disabilities.

6) SYSTEMS-BASED PRACTICE

Residents must 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. Residents are expected to:

- Understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice
- Know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources
• Practice cost-effective health care and resource allocation that does not compromise quality of care
• Advocate for quality patient care and assist patients in dealing with system complexities
• Know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance
Musculoskeletal Radiology Rotation

Educational Objectives for Rotation:

1) PATIENT CARE

Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Residents are expected to:

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families
- Gather essential and accurate information about their patients
- Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment
- Use information technology to support patient care decisions and patient education
- Provide health care services aimed at preventing health problems or maintaining health
- Work with health care professionals, including those from other disciplines, to provide patient-focused care
- Understand the role of various imaging modalities in the various aspects of patient care

2) MEDICAL KNOWLEDGE

Residents must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care. Residents are expected to:

- Demonstrate an investigatory and analytic thinking approach to clinical situations
- Know and apply the basic and clinically supportive sciences which are appropriate to musculoskeletal radiology
- Understand the distinctive capabilities and limitations of various imaging modalities
3) **PRACTICE-BASED LEARNING AND IMPROVEMENT**

Residents must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. Residents are expected to:

- Analyze practice experience and perform practice-based improvement activities using a systematic methodology
- Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems
- Obtain and use information about their own population of patients and the larger population from which their patients are drawn
- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
- Use information technology to manage information, access on-line medical information; and support their own education
- Facilitate the learning of students and other health care professionals

4) **INTERPERSONAL AND COMMUNICATION SKILLS**

Residents must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients' families, and professional associates. Residents are expected to:

- Use effective communication skills in understanding the imaging needs of and in conveying findings of imaging studies to ordering physicians
- Use effective listening skills; elicit & provide information using effective nonverbal, explanatory, questioning, and writing skills
- Work effectively with others as a member or leader of a health care team or other professional group

5) **PROFESSIONALISM**

Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. Residents are expected to:
• Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest; accountability to patients, society, and the profession; and a commitment to excellence and on-going professional development

• Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices

• Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities

• Demonstrate sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.

6) SYSTEMS-BASED PRACTICE

Residents must 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. Residents are expected to:

• Understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect their own practice

• Know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources

• Practice cost-effective health care and resource allocation that does not compromise quality of care

• Advocate for quality patient care and assist patients in dealing with system complexities

• Know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance
Anesthesia Acute Pain Medicine Rotation

Guidelines

Welcome to the APMS (Anesthesiology Acute Pain Medicine Service). There are several residents assigned to this rotation. There is a call schedule posted in each Block Room. Any call changes must go through Ellyn and Dr. Haller or Dr. Koyyalamudi. Call schedules are posted for house wide access on the Shands Intranet.

Contacting APMS -
APMS has a cell phone # 494-1496. Please be sure to check the battery status before you leave and charge if needed. DO NOT TAKE THE CHARGER WITH YOU. The pager # is: 413-7900. Currently, the charger and extra battery are in the South Tower Block Room. Other contact numbers: - NT Blockroom 5-0505; ST Blockroom 2-9106; APS Fellow 494-8652; Tammy Neal-ST 2-9946.

Block Room Resident responsibilities:

Where to go in the morning  – Residents should be in the block room by 6:00 each morning ready to work. On the first day all residents should report to the ST block room. However, you should check email the night before starting the rotation just in case there has been a change. For the rest of the rotation, the attendings and fellows will review the blocks scheduled for the next day and evaluate the need for residents in each tower. This rotation requires flexibility on the part of the residents as the blocks and case loads may vary and change throughout the day.

The Patient log - A patient log is maintained for all patients on the service. An ongoing list is kept during the day. This list is printed for AM and PM rounds after modifications. Please make note of problems such as disconnects, dressings that have fallen off, tape burns, blisters, pump problems, nurse problems etc. Also, keep track of any changes to the dose made overnight. Please leave a copy of your list and the phone and beeper on the desk in the South Tower block room for Ellyn in the morning. Residents are ultimately responsible
for the list and will be assisted by Ellyn in updating when she is available. Ellyn will teach everyone how to do this on the first day.

Rounds – All residents are responsible for preparing notes for rounds. The CA-1 should be starting to do paperwork by 7:30, and the rest of the residents will join the CA-1, and Ellyn when available, in doing the notes once the first start blocks have been completed. The resident on call should do most if not all of the skeleton notes for the next day's rounds. In general, the CA-1 should always be on rounds as their rotation centers on managing catheters. The post-call resident and on-call resident should also be on rounds unless otherwise needed by the block room. The residents should contact the NT attending at 8:00 to plan where and when to meet to begin rounds.

The time of afternoon rounds will vary with each day and the needs of the block room. Everyone should assume they are going on afternoon rounds as well unless they are told otherwise and dismissed for the day by a block room attending.

Rounds on the weekends will be with a resident and an attending, and sometimes there will be a fellow. On those days it is the responsibility of the resident on call to do all the notes the morning before rounds. The time of rounds should be discussed with the attending the night before.

The purpose of AM rounds is to:

1. Assess adequacy of pain control.
2. Check presence and severity of side effects.
3. Establish a continued pain management plan.

Assessment of patients:

1. Review current medications to assure that there are no inappropriate medications ordered. This includes sedative, analgesics or anticoagulants that are not appropriate with epidurals or PNC.
2. Talk with the patient. Determine a verbal numeric pain rating, both at rest and dynamic pain.
3. Inquire about side effects
4. Assess function by requesting patient to use Incentive spirometer or turn in bed.
5. Perform a sensory motor exam on extremities affected by the particular block. e.g. Thoracic epidurals and upper extremity blocks should have an upper extremity assessment as well.
6. Examine the catheter site for: status of dressing
Bleeding

Skin integrity

Infection

Assure that the connection is secure.

The plan:

In general, pain scores below 3 are acceptable and do not require any changes. Pain scores greater than 3 or any interference with function require that we make changes to the plan.

1. **Address inadequate pain control/side effects**
   
   Is the catheter working? – At the bedside, a bolus of the current infusion can be helpful in telling you if the catheter is working. If no response to this, consider a more aggressive test dose (see below). This should be done with monitoring of BP and Pulse OX and only after a negative CSF aspiration. WE DO NOT RECOMMEND THAT THESE BE DONE ON REGULAR NON MONITORED UNITS. DISCUSS WITH THE ATTENDING. If you do a bolus of an epidural or a paravertebral at bedside or replace a catheter outside the block room YOU MUST HAVE EMERGENCY MEDS!!!! Neo, epi, ephedrine and atropine.

   Adjust the epidural/perineural infusion up or down to improve pain control or relieve side effects. It may be necessary to change the infusion medication.

   If the epidural/perineural catheter is clearly not working, contact the service and let them know. They will provide IV medication orders. Discuss removing the catheter with APMS attending

Please advise the nursing staff of changes made to infusions at the bedside. If you bolus the patient through the pump, you should write an order to check vital signs, pain level and sedation in 30min. If you wish to change a solution to improve pain control or decrease side effect, please write STAT or ASAP on the order sheet and request the clerk to fax immediately. We have been assured that this will facilitate turn around time in pharmacy.
**Epidural Catheter Test Dose:** A bolus of 3 mL of 1-1.5% lidocaine with epinephrine is sufficient to make sure that the epidural is still properly placed and not intravascular or intrathecal. The use of more concentrated local anesthetics is unnecessary and increases the risk of complications such as hypotension. When performing a test dose, the vital signs should be taken at 5 minute intervals until it is certain that the patient is hemodynamically stable.* Please check with individual attendings for additional approaches. If you are doing this on the nursing unit, you must stay with the patient for a minimum of 20 minutes and check VS q5. A note should be written in the chart.

2. Check the chart for:
   - Overall surgical plan.
   - Plan for discharge.
   - PO status.
   - Other pain medication and overall pain plan.

Most of the time we work within the confines of the surgical service’s request

**The daily note** - A daily visit note is created for every patient who is seen on the APMS. This is our chart documentation, communication with the primary service and our billing documentation. These are preprinted forms that are to be filled out on rounds. **IT IS CRITICAL THAT THE FOLLOWING ELEMENTS ARE INCLUDED ON EACH APS DAILY VISIT NOTE:**

- Patient name, medical record number and date. WRITTEN LEGIBLY or use Name stickers
- ICD-9 Diagnosis checked in bottom left column
- If you write something on a note you must sign it.
- Attending signature (only if the attending actually saw the patient) with date and time patient was seen.
- The top (white) copy of the visit form is placed in the patient chart in the progress note section when completed. The bottom copy (yellow) can be left in the clip board or placed in the basket in the North Block Room or the cubbie in the South Block Room. These are then submitted for billing.
- Patients with epidurals and paravertebrals should have the anticoagulation section filled out.
- Fill in any other pain meds including IV and PO.
Everyone should have a pain score and something on the note that addresses function.

Vital signs for patients on regular nursing units are available on line. Vitals from the ICU can be obtained at the bedside from the chart or monitors.

**Consults** – Acute/trauma consults will be staffed with the NT attending. Chronic consults will be staffed with Dr. Robert Hurley, who prefers at this time to be contacted by email. After you have seen the patient, call or meet with the attending to discuss options and plan a patient visit. Cancer consults during the week will be seen by one of the Shands Clinical Nurse Specialists who will staff with Dr. Hurley. For trauma consults, please use the guideline for evaluating patients with rib fractures. For any consult involving an epidural or paravertebral block, please see our anticoagulant guidelines.

Requests for consults may be phoned to us. When you take the call tell them to fax the request to 265-0309 for the North Tower and 733-1369 for the South Tower block room, depending on where you are at the time. We do not see patients without a written request/order. Sometimes a conversation with the intern or resident can solve their question. They may need help converting from PO to IV, IV to PO and from drug to drug. Please see the Shands Pain Treatment Guidelines for assistance with this. Chronic pain, addiction and detox issues can be referred to the Department of Psychiatry Consult Service (265-6902) or to Clinical and Health Psychology (265-0294). If we are consulted or caring for a patient who is on an existing methadone maintenance program, remind the primary service that there is a Florida statute that requires that they document in the chart verification of the patient’s participation in a recognized program in order to continue the methadone in the hospital. If you see a patient in consult there is a special multi-page consult form to be completed. They are located in the Block Rooms or in the APMS bin in the Anesthesia Library (NT). Gather information, discuss with fellow or attending, make a plan, see patient with the attending to discuss the plan, Attending MUST sign form. Leave the white copy in the chart and place the yellow copy in the APMS Box or in the basket/cubbie in the Block Rooms.

**Anticoagulation**

In addition to addressing the above assessment and plan in our note, this is the time that we address anticoagulation issues and writes the appropriate orders. Please review the ASRA anticoagulation guidelines and our APMS anticoagulation guidelines. Please review the consensus guidelines at [www.asra.com](http://www.asra.com). Also, please see the block room anticoagulation guidelines.

Address any issues related to the above assessment and formulate a plan on rounds or before the block is placed. Document the assessment and plan on the daily note and write any necessary orders. For epidurals and paravertebral catheters: If continuing,
place a “red” sticker in the progress notes and in the Physician order section. This reminds everyone that the patient SHOULD NOT be given any Lovenox or other low molecular weight heparin or antiplatelet drugs. If the catheter is being discontinued- place a “black” sticker in the progress notes and the orders when the catheter is actually removed. On the sticker, note that anticoagulants may be resumed or started after – 2 hours from the time the catheter was removed or if within the first 24 hours, the time is 24 hours from the time the back was instrumented. (See the block room procedure note or the OR anesthesia record.)** Please note as well that we make exceptions to our rules about Lovenox if the surgical service insists on using it. We have to be aware and check the timing of the doses. In general, we want patients on Lovenox QD to be getting the first dose in the AM so that it can be held the morning we plan to pull the catheter.

**Being prepared**

Please report to your assigned Block Room at 0600 ready to work. Proper attire for rounds is a clean lab coat over scrubs or street clothes. No OR hats, masks, or shoe covers are permitted. No drinks or chewing gum. Review the OR schedule the previous day and prepare by reading and reviewing anticipated block procedures and anatomy. If a block room resident schedules a patient for a regional procedure, call the resident who is providing the operating room anesthesia and inform them of this. This way they may discuss regional as part of the overall patient care plan with their attending. Communication with the OR anesthesia team and the surgeons is vital for the best patient care.

**White Coats** – You should come prepared with a white coat starting the first day of the rotation. We wear our white coats on rounds.

**Resident responsibilities before and after a block**

Review the patient’s chart, pre op, if done and all labs, specifically the PT/INR and platelet count for all central axis blocks and deep peripheral nerve blocks. Question the patient about any antiplatelet medications such as Plavix and low molecular weight heparins like Lovenox. See ASRA guidelines and our anticoagulation guidelines. If needed, obtain a permit for general/regional anesthesia and have witnessed. Once the patient’s pre op, consent are finished, the patient should be presented to a fellow and/or attending. You should be prepared to discuss what block, if any, should be performed for the patient and why. Additionally, you should be prepared to discuss any important medical issues/allergies/medications/airway issues to formulate a sedation plan.

*Nurses in the block room are very busy, especially for first start cases. They have certain things that need to be done before we can perform a block, including gather
paperwork, assess patient needs and and start an IV. It is very important that you do not impede their progress. Our work can go on simultaneously with theirs if they are amenable to it. However, always ask the nurses if we can start to do our work so that we do not get in their way. The nurses in the block room are familiar with the paperwork we need to get done and will allow it whenever possible. If nurses are busy with IV’s, etc., please answer the phone in the block room, especially in the morning. Often they have paged surgical services for patient marking, paperwork and to answer questions and it is our job to help expedite this process whenever possible.

Gather equipment for the desired block and as soon as confirmed, start setting up. You will be expected to set up your block table using sterile technique. This includes: gloves, mask and hat. You should also help position and prep the patient.

The block procedure form is now in Centricity and is completed on the computer at the ST. The nurses will ask for information and often will help us complete it, but ultimately it is your responsibility to fill out the form and check it, and also to make sure you have signed in. Please check with nurses to be sure you are not required to do something with the documentation after a block. Post op orders are to be completed by the resident/fellow or attending.

Patients remain our responsibility even after a block has been completed. Please remember that the airway and hemodynamics is everyone’s responsibility. We have often sedated patients, and once the block is completed they remain sedated, now without any stimulus. Patients remain on monitors until they are transported to the OR.

**Who carries the APS phone and pager?** - The phone and beeper are carried by Ellyn during the day Monday thru Friday, except when she is on vacation or has a nonclinical day. The beeper/phone is to be transferred to the on call resident by Ellyn at 1600. It is our responsibility to be available to address pain management issues. The nurse or resident must be available at all times during the day and night to answer pages and address problems in a timely manner. The post-call resident should return them to the ST in the morning to be handed off the Ellyn when she arrives. Any available resident in the ST block room should answer them before Ellyn comes in.

You will carry the phone and pager when you are on call. Please make sure when you leave for the day that you have contact numbers for a fellow or attending to call overnight. Also, please make sure that the phone and pager are properly charged!!!

**Acute Pain Nurse** – Our wonderful APMS nurse is Ellyn. She usually carries the pager during the day and takes care of the patients while implementing our plans from rounds. However, nurses in Florida are not permitted to bolus dose directly into any epidural or perineural catheter with local anesthetic unless they are a CRNA. Staff nurses at Shands UF DO NOT remove catheters or redress or repair disconnects. Staff nurses DO NOT initiate infusions. They can not connect and reconnect the lines, that is our job. Staff nurses at Shands UF are NOT permitted to bolus dose any epidural or perineural catheter
via the pump. Only APMS may give an additional clinician dose. Nurses may take verbal orders to change the infusion prescription up or down and they can reprogram the pumps and change the bags.

**Catheter disconnects** – Only **witnessed disconnects** should be restarted. If you have questions, contact the APS or OR attending for advice. If the catheter is not grossly contaminated, it is acceptable to cover it with a sterile dressing and leave it in place until the morning. The surgical service will have to resume pain management. In order to expedite pain control, you may write for interim meds until the service is contacted.

**If MRI needed** - New epidural catheters and stimucaths are NOT MRI friendly. YOU may get calls about this. Discuss with the attending.

**APMS CALL**

Afternoon rounds will be made by the on call resident and the APMS attending and/or fellow. Any new patients who require adjustments, test dosing etc should be taken care of prior to leaving. APMS problems must be dealt with in a timely fashion to prevent patient suffering. Acute pain crises are always an emergency to patients and families. It is acceptable to have the call team in the OR or the MOLE team, assess and address an acute problem if they are willing and able to do so. If not, the resident on call will have to return to the hospital to address the problem. Should the APS resident encounter an after hours problem that requires discussion or assistance, contact the APMS on call attending by beeper or phone for guidance.

Please return the list and beeper to the block room. Be sure that you have updated the list

Apsguidelines.doc rev 2/2010
Checklist for APM & RA Rotation

The following is a checklist of subjects for small group discussions with the residents. All of these subjects need to be covered every two weeks. Residents should print this list and have the attending or fellow leading the small group initial and date the topic. This will also serve as their record of small group attendance.

**Anatomy**

- Upper extremity review on plasticized cadaver
- Lower extremity review on plasticized cadaver
- Review neuraxial anatomy
- Microanatomy of the nerve

**Ultrasound Guided Regional**

- U/S physics and equipment
- Scanning technique and sonoanatomy
- Sonographic needle guidance (phantoms)

**Actue Pain Basics**

- Mechanisms, pathways, modulation
- Nociceptive vs. neuropathic
- Acute pain in the chronic setting
- Terms-tolerance, addiction, dependence, etc.

**Pharmacology**

- Local anesthetics
- Opiates-parenteral, neuraxial, side effects
- Multimodal

**Practical**

- Nerve stimulation
- Catheters and pumps
- Sedation and monitoring
- Structure of APS/following pts
**Checklist for APM & RA Rotation**

The following is a checklist of subjects for small group discussions with the residents. All of these subjects need to be covered every two weeks. Residents should print this list and have the attending or fellow leading the small group initial and date the topic. This will also serve as their record of small group attendance.

<table>
<thead>
<tr>
<th><strong>Regional Anesthesia</strong></th>
<th><strong>Initial</strong></th>
<th><strong>Date</strong></th>
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<tbody>
<tr>
<td>Upper extremity</td>
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<tr>
<td>Lower extremity</td>
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<tr>
<td>Neuraxial</td>
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<td>Trunk</td>
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<td>Operative anesthesia vs. postoperative analgesia</td>
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<tr>
<td>Benefits</td>
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</tbody>
</table>

**Complications and pitfalls**

- Epidural hemotoma/Anticoagulation/ASRA guidelines
- Infection/Sterile technique
- Post dural puncture headache
- Sympathectomy/Hypotension

- Nerve Injury-peripheral, cauda equine, TNS
- High spinal/Subdural
- Compartment syndrome
- Weakness, falls, insensate limb
Regional Anesthesia & Perioperative & Pain Medicine
Goals & Expectations

CA 1

Initial exposure to APM & RA. Major focus is didactic, lesser focus is procedural.

GOALS

- Review and obtain high level of competence in anesthetic anatomy
- Review local anesthetic pharmacology
- Understand neuraxial anesthetics
- Exposure to “common” peripheral nerve techniques
  - Brachial Plexus
  - Cervical Paravertebral
  - Infraclavicular
  - Lumbar Plexus
  - Femoral
  - Subgluteal Sciatic
  - Popliteal

Practical

- Management of pumps
- Awareness of the need for vigilance and recognition of serious complications
  - Epidural hematoma/abscess
  - High spinal
  - Local anesthetic toxicity
- Understand nerve stimulation
- Review and reinforce good sterile technique
- Exposure to multimodal Rx
- Ultrasound Guided Regional Anesthesia (UGRA)
  - Understand ultrasound physics and equipment
  - Understand basic scanning technique, nomenclature and sonoanatomy
  - Demonstrate basic sonographic needle guidance (phantoms)

EXPECTATIONS

Before Starting

- Obtain and become familiar with anatomy primer
Read chapter on local anesthetics

**Week One**
- Study lower extremity anatomy in depth
- Review
  - Common neuraxial blocks
  - LE blocks including lumbar plexus
  - LA pharmacology
- Test on Friday on LE anatomy

**Week Two**
- Study upper extremity anatomy in depth
- Review common upper extremity blocks
- Test on Friday on upper extremity anatomy

**CA-2**

Introduce more clinical correlations and more emphasis on low and moderate complexity procedures

**GOALS**
- Integrate knowledge from CA-1 year and understand clinical correlations
- Gain understanding of common peripheral nerve techniques

  - Brachial Plexus
    - Cervical Paravertebral
    - Infracavicular
  - Lumbar Plexus
  - Femoral
  - Subgluteal Sciatic
  - Popliteal
  - Gain better understanding and facility with U/S
  - Obtain novice skill level in selected RA techniques
    - Femoral nerve block/catheter
    - Subgluteal sciatic and posterior popliteal
    - Basic U/S guided needle technique
    - Epidural catheters
  - Gain deeper understanding of concept of multimodal anesthesia

**EXPECTATIONS**

**Before Starting**
- Competence in all CA-1 goals

**Week One**
- Clinical test on
  - LE regional anesthesia
  - RA tools
Multimodal Rx

Week Two
Clinical test on
UE regional anesthesia
Neuroaxial techniques

CA-3

Consolidate didactic and clinical teaching. Broaden procedural experience to improve competency in low to moderately complex procedures and introduce high complexity procedures.

GOALS
Obtain high level of competency in basic regional techniques and obtain novice level in additional blocks
Exposure to wider range of regional anesthetic techniques including
Thoraic paravertebral
Additional approaches to brachial plexus- Supraclavicular, interscalene, axilllary
Sacral plexus block
Peripeheral nerve blocks under U/S
Obtain novice level skills in more difficult blocks such as
Lumbar plexus
Cervical paravertebral
Thoracic paravertebral
Exhibit understanding of choice of techniques, awareness of pitfalls, avoidance and management of complications

EXPECTATIONS
Before starting
Competence in all CA-2 goals
Novice level epidural skills from additional experience on OB rotation

During rotation
Successfully complete two oral board exams administered on an APM & RA subject
Demonstrate awareness of pertinent A
DUTY HOURS

Duty hours are defined as all clinical and academic activities related to the residency program: i.e. patient care both inpatient and outpatient, administrative duties related to patient care, time spent in-house during call activities, and scheduled academic activities such as conferences. Duty hours do not include reading, preparation, or study time away from the duty site.

All ACGME & University of Florida College of Medicine policies regarding resident duty hours will be followed. These policies as they pertain to residents in the Department of Orthopaedics & Rehabilitation are as follows:

1) Duty hours must be limited to 80 hours per week, averaged over a four week period, inclusive of all in-house activities and all moonlighting.

2) When residents are called into the hospital from home, the hours the residents spend in-house are counted towards the 80-hour limit.

3) Continuous on-site duty, including all in-house activities, must not exceed 24 consecutive hours. Residents may remain on duty for up to 4 additional hours to maintain the continuity of medical and surgical care, or to transfer care of patients. Residents must not be assigned additional or new clinical responsibilities after 24 hours of continuous in-house duty. In unusual circumstances, residents, on their own initiative, may remain beyond their scheduled period of duty to continue to provide care to a single patient. Justifications for such extensions of duty are limited to reasons of required continuity for a severely ill or unstable patient, academic importance of the events transpiring, or humanistic attention to the needs of a patient or family. Under these circumstances, the resident must:
   a) Appropriately hand over the care of all other patients to the team responsible for their continuing care; and,
   b) Document the reasons for remaining to care for the patient in question and submit that documentation via New Innovations to the program director
   c) The program director must review each submission of additional service and track both individual resident and program wide episodes of additional duty.
4) A ten-hour time for rest and personal activities must be provided between all duty periods and after a 24-hour period of in-house call or in-house activity.
   a) PGY-1 residents will have 10 hours, and must have 8 hours, free of duty between scheduled duty periods.
   b) Intermediate-level residents should have 10 hours free of duty, and must have 8 hours between scheduled duty periods. They must have at least 14 hours free of duty after 24 hours of in-house duty.

5) Residents must be provided with 1 day in 7 free, averaged over a four week period inclusive of all in-house and call activities. One day is defined as a continuous 24-hour period free from all clinical, organized education, and administrative activities.

6) Residents will not be scheduled for more than 6 consecutive nights of night float

**Compliance:** The Department of Orthopaedics & Rehabilitation will monitor resident duty hours through the use of New Innovations.

Each resident utilizing New Innovations software will record their hours. Residents will enter the times when they were at work and the total number of duty hours for each day (which may include hours away from the hospital if pertaining to work – taking a patient’s phone call). They will also note which day or days represent on-call time.

If violations occur (or are anticipated to occur) please let the Program Assistant and Program Director know as soon as possible. Our rotations and night float system are specifically designed to avoid duty hour violations so please provide reason why violation occurred.

Duty hours should be logged soon after completed. Duty hours not logged within 30 days of completion are considered delinquent. Delinquency in logging duty hours over 30 days is subject to sanction including suspension from clinical duties, being placed on probation and other potential sanctions.

Duty hours are closely monitored by both the GME office as well as by the UF Orthopaedic department by reports that are run at least monthly. Any duty hour violations will be brought to the attention of the program director and the violations will be addressed with those in violation.
WORK ENVIRONMENT

SUBJECT: Work Environment

INTENT: The Accreditation Council for Graduate Medical Education Institutional Requirements require policies regarding the work environment of the resident.

POLICY STATEMENT: Sponsoring institutions and hospitals engaged in graduate medical education must provide appropriate support services to minimize the work of residents extraneous to the educational programs.

DESCRIPTION: 1) Residents on duty in the hospital must be provided adequate and appropriate food services and sleeping quarters.

2) Patient support services, such as, intravenous services, phlebotomy services and laboratory services, as well as messenger and transporter services must be provided in a manner appropriate to, and consistent with, educational objectives and patient care.

3) An effective laboratory and radiologic information retrieval system must be in place to provide for appropriate conduct of the educational programs and quality and timely patient care.

4) A medical records system that documents the course of each patient’s illness and care must be available at all times and must be adequate to support the education of residents, quality-assurance activities, and provide a resource for scholarly activity.

5) Appropriate security and personal safety measures must be provided to residents in all locations including, but not limited to, parking facilities, on-call quarters, hospital and institutional grounds, and related clinical facilities.

6) Educational materials to support patient care in the working environment (computer with internet access, library material, etc.)
must be immediately available at all times.

Accordingly, the Graduate Medical Education Committee will monitor these issues during the internal review process.

Last Review and Approved: Graduate Medical Education Committee
January 14, 2010
RESIDENT EDUCATION

RESIDENT RESPONSIBILITIES IN THE EDUCATION PROGRAM

The resident’s responsibilities in the education program at the University of Florida include the following:

1. Development of a personal program of self-study and professional growth with guidance from the teaching staff. This should include both self-directed (and self-motivated) learning and self-directed critical appraisal of your work.

2. Development and adherence to the highest standards of professionalism in patient care and medical practice

3. Participation in safe, effective, and compassionate patient care under supervision, commensurate with your level of advancement and responsibility.

4. Respect for patients and their families and other health care providers at all times

5. Full participation in the education activities of the program and, as appropriate, assumption of the responsibility for teaching and supervising other residents and students and other health care providers.

6. Participation in institutional programs and activities involving the medical staff and adherence to established practices, procedures, policies, and rules of the University and of affiliated institutions as applicable.
EDUCATION RELATED MEETINGS

1) Travel to Meetings related to education/CME:
Funds are made available through the Department of Orthopaedics for resident travel to educational meetings and instructional courses. These include meetings such as the AO or OTA Fracture Courses, AAOS Instructional Courses, the annual AAOS meeting, and subspecialty orthopaedic society meetings, or an AAOS sponsored review course. Currently funds are allocated for the residents to attend two meetings of this type during their five year residency program.

2) University of Florida Course in Musculoskeletal Pathology
All of the orthopaedic residents will attend the path course at sometime during their residency, usually during the ORT 3 or 4 year. This will be considered as educational leave (not vacation) and is separate from #1 above (i.e. it does not count as one of your two meetings).

3) Presentations at meetings.
Submission of manuscripts and abstracts for presentation at peer-reviewed orthopaedic meetings is encouraged. The department will provide funding for residents to attend meetings when a resident submission has been accepted for a podium presentation. In general, the department will consider funding the resident to present at a local or regional orthopaedic meeting & at one national meeting. Multiple additional presentations of the same material will not be funded.

Please note: Submission of manuscripts and abstracts must be approved by the residents faculty mentor for the project and by the Department of Orthopaedics research committee. This is to ensure that submissions are optimized in terms of content and quality, and that they are made correctly in accordance with college of Medicine policies, and that they are submitted to the most appropriate meeting(s).

4) Educational Grants
Additional funding for meetings and education related activities may be available as educational grants and gifts are received from various sources (alumni contributions, research grants, equipment vendors, pharmaceutical companies, and UF funds). The policies regarding educational grants from industry are listed.
Residents will be notified by email of the availability of these educational opportunities. The selection process will be coordinated by the program director. The selection will be based on appropriateness of the educational opportunity for ORT year, seniority, previous attendance at the same or similar meetings, and the career goals and interest of the residents.

**Note:** ALL travel for meetings must be approved in advance. If this is not done in accordance with current travel policies of the Department and the University of Florida then the resident will not be re-reimbursed for any of their expenses. As the travel policies are subject to frequent change, please check with the Orthopaedic HOUSE STAFF Office regarding proper forms, approvals, travel rules, etc. before scheduling any such travel.

**EDUCATIONAL GRANTS FROM INDUSTRY PROVIDERS**

Issues related to grants and gifts from industry involve medical, legal, and ethical considerations.

In order to comply with AAOS, industry, and University of Florida rules and guidelines and avoid any conflict of interest the following rules will govern the receipt and use of educational gifts and grants from industry providers:

1) All funds must be contributed in the form of unrestricted educational grants
2) For all Industry sponsored or funded resident education meetings the industry sponsor must send a letter to the orthopaedic program director with the following information:

- Name of Course
- Dates of Course
- Course syllabus
- Expenses to be covered by educational grant: Meeting Registration, Travel, Lodging, Meals, etc
- Mechanism by which expenses will be paid
- Number of Residents to attend

Residents may not solicit such support or receive any payments directly to themselves. The final selection of residents to attend must be made by the program director.
EDUCATION RESOURCES

The University of Florida maintains a full service medical library located on the first floor of the Communicore Building. This library has most major textbooks related to orthopaedics and a complete set of most journals relating to the musculoskeletal system. Interlibrary loans can also be arranged as needed. Information from the library & using free on-line searching can be accessed at

http://www.library.health.ufl.edu/index.htm

The Orthopaedic Library in the Department on the third floor of the Orthopaedic and Sports Medicine Institute has the major surgical texts and journals available. The Department also has a collection of journals and textbooks on CD. Current materials available include:

- Journal of Bone & Joint Surgery (Am & Br)
- Journal of American Academy of Orthopaedic Surgeons
- Instructional Course Lectures
- Musculo-skeletal Pathology
- Orthopaedic Basic Science (AAOS)
- Campbell Operative Orthopaedics
- Skeletal Trauma
- Rockwood & Green: Fractures in Adults & Children
- Numerous OSAE & Specialty Self-Assessment Examinations

There are multiple access portals to the Internet from the department, clinic, resident office, hospital, etc. The options for finding information are too numerous to list. If you have questions the faculty, research staff, or IT staff can assist you. Ability to access information and use searching tools is an essential part of medical education. **Is should be noted that responsible use of the Internet is expected at of our residents and students at all times.**

Many faculty also have an office library which contains books and journals. Consult with faculty if you find that the library does not have some of the subspecialty journals. Faculty may have these in office or at home.

The textbook Skeletal Trauma (3 volumes) will be purchased by the Department for all incoming ORT 1 residents (budget permitting. Note: if you leave the program before graduation you have to return the books). It is also the responsibility of each resident to invest in their own education including the purchase of commonly referenced textbooks and subscription to journals.
Psychomotor and Surgical Skills Lab

General Policies for Use of the Psychomotor and Surgical Skills Lab

Policy and Purpose

It is the policy of the University of Florida Department of Orthopaedics and Rehabilitation to prevent and minimize, to the fullest extent practical, all risks to the health, safety, and well being of employees and the public while at the Orthopaedics and Sports Medicine Institute. Implementing and maintaining a comprehensive and effective safety and health program will safeguard our employees, property and the environment. Our programs and activities will meet or exceed the requirements of health, safety and environmental regulations issues by Federal, State of Florida and local agencies.

Universal Precautions

1. **Barrier protection** should be used at all times to prevent skin and mucous membrane contamination with blood, body fluids containing visible blood, or other body fluids (cerebrospinal, synovial, pleural, peritoneal, pericardial, and amniotic fluids, semen and vaginal secretions).
   - a. Barrier protection should be used with ALL tissues.
   - b. The type of barrier protection used should be appropriate for the type of procedures being performed and the type of exposure anticipated. Examples of barrier protection include disposable lab coats, gloves and eye and face protection.
2. **Gloves** are to be worn when there is potential for hand or skin contact with blood, other potentially infectious materials, or items and surfaces contaminated with these materials.
3. Wear **face protection** (face shield) during procedures that are likely to generate droplets of blood or body fluid to prevent exposure to mucous membranes of the mouth, nose and eyes.
4. Wear **protective body clothing** (disposable laboratory coats) when there is a potential for splashing of blood or body fluids.
5. **Wash hands or other skin surfaces** thoroughly and immediately if contaminated with blood, body fluids containing visible blood, or other body fluids to which universal precautions apply.
6. **Wash hands immediately** after gloves are removed.
7. **Avoid accidental injuries** that can be caused by needles, scalpel blades, laboratory instruments, etc. when performing procedures, cleaning instruments, handling sharp instruments and disposing of used needles, pipettes, etc.
a. Used needles, disposable syringes, scalpel blades, pipettes, and other sharp items are to be placed in puncture resistant containers marked with a biohazard symbol for disposal.

Specific Guidelines:

1. Hand Washing:
   a. Frequent hand washing is an important safety precaution which should be practiced after direct contact with laboratory specimens.
   b. Immediately after accidental skin contact with blood, body fluids or tissues, hands or other skin areas should be thoroughly washed with soap and water. If contact occurs through breaks in gloves, the gloves should be immediately removed and hands thoroughly washed. For needle sticks or wound exposure, wash the infected area first, then contact Infection Control to report the incident for follow-up. The departmental supervisor should be notified.
   c. Hands should be washed before eating, drinking, smoking, applying makeup, changing contact lenses and before and after using bathroom facilities. Hands should be washed at the completion of work and before leaving the laboratory. Hands should be washed before all other activities which entail hand contact with mucous membranes, eyes and breaks in the skin.

2. Disinfection/Decontamination:
   a. Spill. Absorb the spilled material with gauze pads or paper towels and discard in red biohazard trash bags. Disinfect the spill site with bleach, freshly made daily, diluted 1:10 (1 part bleach to 9 parts water to give about 5000 mg/L of chlorine), wear gloves during the entire process.
   b. Decontamination of counters should be done at the end of each procedure and for each spill.
   c. Services and maintenance activities should be carried out under universal precautions. Outside service personnel should wear gloves and other appropriate barrier protection if potentially exposed to blood or body fluids. Instruments to be repaired by services personnel must be decontaminated with bleach diluted 1:10. Instruments or components returned to vendors should be decontaminated before leaving the laboratory.
Personal Protection Policies

Restricted Area Policy
Access to the laboratory is limited to assigned personnel and individuals with a specific need to be in the area. These restrictions are enhanced by locked doors and elevator access to the laboratory, with multiple camera monitoring systems in place. In recognition that some movement of personnel through and near potentially hazardous areas will occur, certain areas may be designated as restricted. Door and wall signs and other markers are used to indicate the degree of restriction.

Protective Clothing Policies
Protective clothing will be provided whenever it is necessary by reason of hazards, processes or environmental conditions. The Institute requires that protective clothing be used when chemical hazards, radiological hazards, or mechanical irritants are encountered in a manner capable of causing injury or impairment through absorption, inhalation, or physical contact.
1. Personal protective clothing is to include approved lab aprons or coats, surgical scrubs, caps, masks, gloves and safety shoes. As a minimum, laboratory gloves should always be worn during laboratory work.
2. In the case of radiological procedures lead aprons and thyroid shields also must be worn during the course of the procedures.
3. During lab procedures, both employees and visitors as dictated by Institute policy must wear protective clothing. Protective clothing will be available only in compromise sizes (e.g. small, medium and large).
4. The use of protective eye and face equipment is required where machines or operations present hazards of glare, flying objects, chemicals or any combination thereof.
5. Sandals and open-toed shoes are prohibited in the laboratory area.
6. Personal protective clothing may not be worn outside of the laboratory area.
7. Upon leaving the laboratory, all disposable protective clothing must be removed and placed in proper receptacles.

Procedures for Visitors
1. All visitors entering the laboratory must comply with applicable health and safety policies and procedures.
2. An Institute employee must escort all visitors entering the laboratory.
3. Visitors must be provided appropriate safety instruction and protective equipment by the accompanying Institute employee.
4. Restricted areas may be visited only by permission of the supervisor in charge of the restricted area.
5. Large tour groups must be escorted by an appropriate number of Institute escorts and must be
given permission by the Laboratory Manager prior to the visit. The Director of Research
should be notified in advance of such visits.

Fire Emergency Plan

Every employee must know the location of fire extinguishers and fire blankets and be
familiar with the fire alarm system. The first person to observe a fire should:
1. Immediately sound the fire alarm by activating the nearest fire alarm pull station.
2. If possible, use available fire extinguishers to extinguish or contain the fire.
3. Immediately evacuate areas should initial fire fighting attempts fail. Shut off gas supplies,
etc. Close door to area to contain fire.
4. Follow instructions given over public address system.

Miscellaneous Safety and Laboratory Policies

General Procedures
1. Good housekeeping is essential for laboratory safety. Shelves, bench tops and floors must be
   free of unnecessary apparatus and materials.
2. Doorways and aisles must not be blocked.
3. Scientific apparatus must be away from the edge of laboratory counters and tables, leaving
   adequate room to work and reducing the possibility of an accident.
4. Heavy items should be placed near the floor to aid in handling.
5. Broken glassware must be placed near the floor to aid in handling.
6. Appropriate carrying trays, carts, or bottle carriers shall be used for transportation of
   chemicals.
7. Food for human consumption will not be kept in laboratory refrigerators.
8. Smoking, eating, drinking, chewing tobacco and/or gum, and the application of cosmetics
   will not be allowed in the laboratory area.
9. Sharp instruments such as syringe needles, scalpel blades, etc. must be disposed of using
   disposal boxes designed for this purpose. These items must not be placed in ordinary trash
   receptacles.

Anatomical Material Management
Anatomical material is not accepted from persons dying from highly communicable diseases
(such as hepatitis or AIDS). The following are conditions under which biological materials must be
used:
1. Secure area with limited access only by approved personnel.
2. Anatomical material used within the Institute must be procured through a reliable and
   authorized distributor and obtained in accordance with biological materials transfer
   regulations.
3. When not being used, tissue must be placed in a red bag, labeled and kept in refrigerated storage at 35 to 45 degrees F or frozen at -20 degrees F.
4. Institute will utilize the services of an entity authorized under applicable law to dispose of biological materials.

Hazardous Material Disposal/Return Policy

The Institute will safely control the disposition of all hazardous wastes generated at the Institute in accordance with OSHA, EPA and other regulations. The following are general guidelines for the preparation and disposition of radioactive, chemical and biological waste. Specific information and procedures for waste disposal are given in the EHS biological Safety Manual.

1. Chemical Wastes
   a. No chemical wastes are to be flushed down the drain except with specific approval by Environmental Health and Safety Division.
   b. All chemical wastes must be clearly identified. If a used solvent/acid bottle is used for collection of solvents, a new label indicating the contents must be affixed to the container and the old label must be removed or crossed out.
   c. Whenever possible, solid wastes should be separated into either the burnable or non-burnable category. This will allow for the incineration of items such as disposable laboratory garments, paper mats, plastic containers, gloves, etc. and reduce the amount of material that must be disposed of off-site.
   d. Pipettes, broken glass or other objects capable of puncturing plastic bags must be packaged by placing a plastic bag in a broken glassware box, hazardous material box or other cardboard container (available from the warehouse). Once the container is ready for disposal, the top must be taped shut. On the top of the box, mark as either burnable items or glassware.
   e. Plastic bags that have been punctured will not be picked up.
   f. The waste pick-up form must be completed and signed by the laboratory manager.

2. Biological Wastes
   a. Except as otherwise provided, all laboratory specimens or materials consisting of, containing or contaminated with blood, plasma, serum, urine, feces, or other human or animal tissues or fluids, as well as inoculated media, cultures and other potentially infectious materials must be either incinerated or sterilized by autoclaving or by use of a chemical sterilant (in cases where autoclaving or incineration is not possible) approved by the Environmental Health and Safety before disposal.
   b. Hypodermic syringes and needles shall be disposed of in such a manner as to prevent accidental injection of those individuals charged with disposal of waste materials. Hypodermic syringes and needles shall be placed in approved sharps containers after use.
Animal Handling Policies
The use of animals for research or education purposes at the Institute is strictly prohibited.

Psychomotor and Surgical Skills Lab

POLICY STATEMENT: “The University of Florida Department of Orthopaedics and Rehabilitation is committed to maintaining the highest level of ethical and legal integrity concerning human tissue use. Tissue is only used for the purpose of approved research and educational advances. All employees, representatives, agents and guests are expected to uphold all local, state and federal statutes, laws, rules and regulations concerning tissue use, handling, storage and disposal.”

1. If you would like to perform a dissection on human tissue, please contact Chris Koenig, 352-273-7372.
2. NO FOOD OR DRINK ALLOWED IN LAB!
3. If you are collecting tissue from a patient or cadaver that you would like to use for a dissection or research study, please contact Chris Koenig. Specimens that are brought to the lab from surgery MUST have a medical record number and a signed patient informed consent as well as completed permission request below.
4. All participants and observers must sign Pledge of Respect form prior to working in lab.
5. NEVER REMOVE TISSUE FROM THE LAB!
6. When finished with tissue from either a dissection or research study, put it in a red bag, label it, update the Freezer Log and put the specimen back in the freezer. If possible replace tissue into the same location in the freezer it was taken from so we can keep track of where the specimens are for future reference.
7. DO NOT dispose of any human tissue. DO NOT put human tissue in a regular trash bin, a biohazard box or down the sink drain. Put tissue back into the freezer when you are finished with it.
8. Clean up after yourself. All disposable dissection and cleaning supplies that come into contact with human tissue or fluids should be put into a biohazard box when you are finished with them. After a dissection, refreeze ALL tissue pieces.

<table>
<thead>
<tr>
<th>Lab contacts:</th>
<th>Office</th>
<th>Mobile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chris Koenig</td>
<td>(Psychomotor and Surgical Skills Lab contact)</td>
<td>273-7372</td>
</tr>
<tr>
<td>Dr MaryBeth Horodyski</td>
<td>(Director of Research)</td>
<td>273-7074</td>
</tr>
</tbody>
</table>

Keep some key factors in mind.

1. Chris needs at least 1 week advance notice (2 weeks preferred) to set up the lab and two weeks to order specimens.
   a. Chris also works as a clinical research coordinator in the Sports Division. If he is working with one of the physicians recruiting patients into studies or collecting data, he can't be in the lab.
   b. Chris may already have an activity scheduled in the lab and would not be able to accommodate a last minute request for lab time.
   c. We may not have the specimens you need readily available (Chris must adhere to strict tissue accrual and storage regulations).
2. Typically it takes at least 24 hours to properly thaw a specimen for use.
3. Chris needs to make sure all equipment you need is available.
4. Please make every effort to use the information on the website to put in your lab use request. [www.ufsurgicalskillslab.com](http://www.ufsurgicalskillslab.com)
5. We do have specific rules on when companies will be charged for use of the lab and when they will not be charged. Please do not bring a company rep into the lab without talking to Chris first.
   a. Specimens cannot be brought into the lab by outside agencies without proper paperwork. If the specimens do not come with proper paperwork we cannot dispose of the specimens at the end of the lab session. Specimens cannot be left in the lab without prior arrangements with Chris. Leaving specimens in the lab results in disposal charges to the department.
6. Finally, if you have concerns about lab use time that you feel cannot be resolved by talking directly to Chris (office: 273-7372; cell: 318-0524), please contact me.
ELECTIVE ROTATIONS

The education curriculum contains options for a resident to spend some time working with other orthopaedic surgeons either in private practice or at other medical centers. All electives must be approved and scheduled in advance. For all electives outside of the University of Florida system in which you would participate in patient care in any manner, an Affiliation Agreement Form must be completed in advance. This must be completed by the UF college of Medicine and by the institution(s) /hospital(s) at which you would be doing your elective. This may take several months or longer to get approved. Without this approval you will not be permitted to go on an elective.

Some funding is available in support of elective time. This should be discussed with the program director also well in advance of your anticipated elective.
EVALUATIONS

EVALUATION POLICIES:

A) Evaluation of ORTHOPAEDIC RESIDENTS

Residents and Fellows in the Department of Orthopaedics are appointed or reappointed on an annual basis. Promotion to the next level of training or completion of the training program is based on:

1. Completion of ACGME (Accreditation Council on Graduate Medical Education) requirements for training in orthopaedic surgery. These requirements are listed at the ACGME website and are appended to the resident’s manual.

2. Compliance with University of Florida Medical Center and/or affiliated medical center policies regarding patient care activities, medical records, and/or other housestaff requirements. These regulations and requirements are listed in the University of Florida Housestaff Manual which is provided to all new house staff, available in the GME office, and available in the Department of Orthopaedics.

3. Evaluation by the faculty of the Department of Orthopaedics. This evaluation will consist of:

   a) Evaluation of resident/fellow performance at the end of each rotation by all of the faculty member(s) responsible for the rotation. The resident evaluation sheet will be filled out and become part of the residents personnel file. Copies of this evaluation will be provided to the resident. Faculty should also discuss this evaluation with the resident.

      If the resident disagrees with the faculty assessment of his/her performance on a rotation, the resident may notify the Program Director for further review.

   b) The faculty on each rotation will meet with the resident midway through the rotation and any additional times as needed to provide the resident with
feedback regarding his/her performance in the above listed areas. Areas of performance requiring improvement will be identified and recommendations made to achieve these performance goals.

3) 360 evaluation of residents.

This type of evaluation is requested from others in the patient care environment that interacts with the residents. This may include clinic staff, operating room personnel, administration, physicians from other programs (i.e. non-orthopaedic), patients and their families (health care surrogates). These evaluations will be obtained on a rotating basis.

4) Semi-annual review of resident performance.

The clinical competency committee will meet with each resident on a semi-annual basis. This review will include discussion of resident performance evaluations, OITE (In-training scores), conference performance, and any other pertinent information. Additional discussions will take place as needed. There will be written documentation of this meeting, which will be included in the residents personnel file.

Areas of performance that need improvement or change will be discussed with the resident either by the clinical competency committee, associate program director, program director and/or department chairman. A plan of action will be developed with input from the resident. Guidelines will be given as to how and when progress will be reevaluated. Continued problems regarding performance will be reviewed by the Department Chairman and/or Department faculty. Please see mission statement for Clinical Competency Committee for further information at the end of this section.

The resident may be placed on probation, in accordance with the policies established in the University of Florida college of Medicine policies which are further detailed in the UF Housestaff manual and in the orthopaedic residents manual.

Guidelines will be given as to how and when the probationary status will be reevaluated. Continued problems may result in suspension or termination. The resident retains the right of appeal for any decision and may follow the appeal
and grievance procedures proscribed by the University of Florida College of Medicine.

NOTE: A Copy of Department of Orthopaedic RESIDENT EVALUATION FORM is found in forms
Clinical Competency Committee

Mission statement

To create and follow measures to evaluate the educational and clinical progress of orthopaedic residents at the University of Florida to ensure preparation for competent clinical practice after graduating.

Committee

Residency Director, four faculty members in the Department of Orthopaedics and the residency coordinator.

Current members:
(Mark Scarborough, MD, Department Chairman – Currently not sitting on committee secondary to Departmental Chairman duties)
Robert Decker, MD, Committee Chair
Hari Parvataneni, MD
Parker Gibbs, MD
Bob Vander Griend, MD
Kendra Gallaugher-Gordon, Residency Coordinator

Competencies Reviewed

1. OITE score
   a. Trend
      i. Decreasing percentile demonstrates at risk
   b. Percentile compared to level of training nationally
      i. Resident scoring below 30% is at risk

2. Morning conference
   a. Attendance
   b. Evaluation of conferences (Attending/Resident)

3. Rotation evaluations

4. 360° Evaluation
   a. OSMI Staff – December 2010/May 2011
   b. 6W

5. Academic Productivity
   a. Research Project
      i. Documented progress
   b. Published papers/chapters/case reviews
   c. Presentations (Intradepartmental and National)
   d. Grants/Funding

6. Issues/Alerts
7. Duty hour violations
8. Physical impairment  
   a. Substance abuse
9. Additional departmental and institutional committees participation
10. ACGME competencies
11. Development of new outcome measurements for residents

**Resident Academic Curriculum Vitae (CV)**

Residents will self-organize an academic CV for their biannual review with the Competency Committee. The contents will include at least:

1. Academic Productivity  
   a. Morning conferences presentations  
   b. Research project and current status  
   c. Published papers/chapters/case reviews  
   d. Presentations at Local/Regional/National Conferences  
   e. Local/Regional/National conferences attended  
   f. Courses attended
2. Duty hours report
3. Case log report

**Clinical Competency Meetings**

The Clinical Competency Committee will meet to evaluate all residents on a biannual basis. The meeting schedule will roughly be:

Meeting 1 (December/January) – Clinical Competency Meeting with Residents (Midyear)
Meeting 2 (June) – Clinical Competency Meeting with Residents (Year End)

General resident competency business will be discussed at each meeting. Additional meetings will involve the Clinical Competency Committee and residents if competency issues need to be addressed between meeting times. The individual residents will be present at biannual meetings to discuss and review their academic as well as competency progress privately with the committee.

If necessary, the committee will convene to discuss an issue between scheduled meetings if warranted.

After review of the resident’s performance at each meeting, a review will be filled and the committee will decide on intervention/no intervention. Minutes will be taken at committee meetings and will be kept on record at the Department of Orthopaedics for ten years. If the meeting is only biannual meetings than the minutes will be the evaluation letters derived from the meeting.

**Meeting outcomes/interventions:**

1. Letter of commendation  
   a. Placed in chart for excellence above the expected.
2. Acceptable competency  
   a. This is the expected normal outcome for each meeting if the resident remains on track to graduate.
b. The “Biannual Clinical Competency Committee Resident Evaluation” will be utilized for the biannual review conducted with the resident. A letter will be generated for the resident’s file

3. Increased need for education
   a. One-on-one review in indicated subspecialty of Orthopaedics if a specific subspecialty weakness can be determined
   b. Specialty targeted conferences
   c. Earlier attendance at review course

4. Adjuvant services referral required
   a. GME Office
   b. Counseling, Medical, Psychological

5. Probation
   a. 6 months
   b. All probation cases will be reviewed at each meeting. The resident on probation will be asked to be in attendance to review their progress. Probation may be extended beyond 6 months if needed at the completion of the initial 6 months if the committee feels that it is justified.
   c. The clinical committee must approve the removal of probation.

6. Non-promotion
7. Non-renewal of appointment
8. Immediate termination of appointment

If an intervention is felt necessary after committee review, the resident in question will meet with the full committee to discuss the cause of concern and actions that the committee recommends.

**Outcomes of Meetings**

If the decision of the committee is that the resident is on track to graduate on time and they have met all the competencies reviewed this will be noted on the evaluation form and placed in their chart. If exceptional work has been done a letter of commendation will be placed in the resident’s file.

If the decision of the committee is to increase the educational component of the resident’s education that will commence immediately as soon as a proper channel can be elucidated. A memorandum of understanding will be completed between the committee and the resident outlining specifically what deficiencies have been noted and what improvements must be made to avoid additional academic sanctions.

If the decision of the committee is for adjuvant services a consult to the applicable service will be made as soon as possible. The resident will be provided confidential access to counseling, medical and psychological support services as per GME guidelines. A memorandum of understanding will be completed between the committee and the resident outlining specifically what deficiencies have been noted and what improvements must be made to avoid additional academic sanctions.

If the decision of the committee is for probation then a written notice will be formulated at the meeting with the resident and the period of probation will commence immediately following adjournment of the committee meeting. The written notice will contain:

1. Specific information about the deficiencies in the resident’s performance
2. Specific improvements that must be made to return to good standing
3. Consequences of failure to improve in the allotted time period

The period of probation will last a minimum of 3 months. After 3 and 6 months, the committee will
determine if the resident can be returned to good standing. The resident will be provided with all applicable College of Medicine Grievance and appeals policies for any decision for probation.

If the decision of the committee is for non-promotion or non-renewal of appointment written notice of intent will be provided no later than four months prior to the end of the resident’s current agreement. If the primary reason(s) for the non-renewal or non-promotion occurs within the four months prior to the end of the agreement, as much written notice of the intent not to renew or not to promote as circumstances will reasonably allow.

If the decision of the committee is for adjuvant services a consult to the applicable service will be made as soon as possible. The resident will be provided confidential access to counseling, medical and psychological support services as per GME guidelines.

**Meeting with Resident**

Minutes will be kept to document the meeting’s discussion and decision and will be signed by all participating parties including the resident as to what has been discussed.

Two lines will be present for the resident’s signature. The first will be entitled “Topics discussed” and will confirm that the minutes accurately represent what was discussed at the meeting. The second line “Agree with Intervention” will be signed if they agree to the action determined appropriate by the committee. If the resident should disagree with the intervention recommended and wish to appeal or file a grievance the second signature line may be left blank.

If the resident does not wish to sign the “Agree with Intervention” line the Competency Committee Chair (other committee members will be invited to attend but their presence will not be mandatory) will meet with the Chairman of Orthopaedics (or another University of Florida Residency Program Director outside of the Department of Orthopaedics if a conflict exists) with the resident present to review the committee’s decision (resident’s chart as well as committee minutes will be provided ahead of time for Chairman/Outside Program Director’s review). Minutes will be kept to document the meeting’s discussion and decision and will be signed by all participating parties including the resident as to what has been discussed. Two lines will be present for the resident’s signature. The first will be entitled “Topics discussed” and will confirm that the minutes accurately represent what was discussed at the meeting. The second line “Agree with Intervention” will be signed if they agree to the intervention after discussion with the Chairman of Orthopaedics/Outside Program Director. If the resident should disagree with the decision of the intervention and wish to appeal or file a grievance the second signature line may be left blank. If this occurs also after meeting with the Departmental Chairman/Outside Program Director the issue will be referred to the Designated Institutional Officer (DIO) for appeal.

The signed meeting minutes will be kept on file in the Orthopaedic department for 10 years. If a meeting should involve more than one resident each discussion will be kept separate and signed separately. All discussions on a single day will be kept together. A copy of the signed meeting notes will also be placed in the resident’s academic file permanently.

**Grievance**

Residents will be allowed to implement the institution’s grievance procedures if they receive a written notice of probation, intent not to renew their agreement(s) or intent to renew their agreement(s) but not to promote them to the next level of training.
Biannual Clinical Competency Committee Resident Evaluation

Resident's name: ____________________________________________

☐ Present  ☐ Not Present

Level of residency: ____________________________________________

Date of review: ______________________________________________

Committee members present:

☐ Robert Decker, MD, Committee Chair
☐ Hari Parvataneni, MD
☐ Parker Gibbs, MD
☐ Bob Vander Griend, MD
☐ Kendra Gallaugher Gordon
☐ Other: ______________________________________________________

☐ Resident’s File Reviewed

Resident Review

☐ OITE
  ☐ Trend

☐ Morning Conference

☐ Rotation Evaluations
  Rotations since last biannual meeting:
  ☐ Review of evaluations

☐ 360° Evaluations

☐ Academic Productivity
  ☐ Research Project
    ☐ Progress

☐ Grants/Funding

Notes

Department of Orthopaedics & Rehabilitation Resident/Fellow Manual 162
☐ Written work (journal articles/chapters/etc)
☐ Presentations
☐ Conferences
☐ Courses

☐ Work Related Issues
☐ Issue (Discussion at right)
☐ None

☐ Case Log Review
☐ Up to date in logging  ☐ Behind in logging  ☐ Behind in case volume
☐ Case volume okay  ☐ Lagging in case volume

☐ Duty Hour Review
☐ Compliant
☐ Non-compliant

☐ ACGME competencies acceptable

☐ Other:

**Meeting Outcome**

☐ Acceptable progress/competency at this time

☐ Intervention recommended
☐ Increased education
☐ Adjuvant Service
☐ Probation
☐ Non-promotion
☐ Non-renewal of appointment
☐ Immediate termination of appointment

☐ Next meeting with committee
☐ Next biannual meeting (on track)
☐ Next Clinical Competency Committee meeting
☐ Other: ____________________________________________

**Notes:**
B) Evaluation of FACULTY by Orthopaedic Residents

Faculty evaluations will be completed at the end of each academic year. Each resident will evaluate the entire faculty they have worked with during the course of the academic year. The evaluation form required by the University of Florida will be used. This is accessible using the on-line evaluation system of the UF College of Medicine & this site will be open to new entries at the end of each academic year. The program director will notify residents when they can enter their evaluations for the current academic year.

Each resident will receive a password to access this system and all of his or her entries will remain confidential and anonymous. The results are tabulated and will be provided to the respective faculty member, program director, and the department chairman.

NOTE: A Copy of the University of Florida EVALUATION OF FACULTY FORM is found in forms

C) Evaluation of ORTHOPAEDIC RESIDENCY PROGRAM by the Orthopaedic Residents

The orthopaedic residents will evaluate the orthopaedic residency program on an annual basis. This will be done at the end of each academic year. Program evaluations will be distributed to all residents by the administrative chief resident and collected by same. Evaluations will be labeled only by ORT year.

The program director will compile the results and present this to the faculty and the Department Chairman.
At any time any resident can provide comments, suggestions, and/or feedback on any aspect of the orthopaedic residency program. This can be accomplished by: meeting with any of the faculty, the program director, or the department chairman; representative of resident concerns-specifically via the administrative chief resident; or in any other way deemed appropriate.

**NOTE:** A Copy of Department of Orthopaedic PROGRAM EVALUATION FORM is found in forms

**SUMMARY (Final) EVALUATION:**

A final evaluation of each resident will be done prior to graduation from the program. This evaluation will be placed in the permanent record and will be a review of the resident's performance during the residency program. This evaluation will also verify that the resident has completed all of the requirements of residency training in orthopaedic surgery and will be eligible to take Part I of the American Board of Orthopaedic Surgeons Certification Examination. If the resident is to graduate the letter will contain the phrase, “verify that the resident has demonstrated sufficient competence to enter practice without direct supervision.” (Per ACGME Program Requirements for Orthopaedic Surgery – V.A.2)
Resident/Fellow Supervision Policy

Job Description

Introduction:

Graduate medical education is based on the principle of progressively increasing levels of responsibility in caring for patients under the supervision of the faculty. In the clinical environment, each patient must have an identifiable, appropriately credentialed and privileged attending physician (or licensed independent practitioner as approved by each Review Committee) who is ultimately responsible for that patient’s care. This information should be available to residents, faculty members and patients. Residents and faculty members should inform patients of their respective roles in each patient’s care.

At each level of training there are both general and specific competencies to learn and put into practice. As these are learned, greater independence is granted the resident in the care of the patient. The faculty remains responsible for all aspects of the care of the patient and is also responsible for evaluating the progress of each resident in acquiring the skills necessary for the resident to progress to the next level of training. Faculty members functioning as supervising physicians should delegate portions of care to residents, based on the needs of the patient and the skills of the residents. Faculty supervision assignments will be of sufficient duration to assess the knowledge and skills of each resident and delegate to him/her the appropriate level of patient care authority and responsibility. Senior residents or fellows should serve in a supervisory role of junior residents in recognition of their progress towards independence, based on the needs of each patient and the skills of the individual resident or fellow. Factors considered in this evaluation include the resident’s clinical experience, judgment, professionalism, cognitive knowledge, and technical skills. These factors will be guided by national standards-based criteria as available. The privilege of progressive authority and responsibility, conditional independence, and a supervisory role in patient care delegated to each resident will be assigned by the program director, the clinical competency committee and faculty members.

To ensure oversight of resident supervision and graded authority and responsibility, the orthopaedic program will use the following classification of supervision:
a. Direct supervision – the supervising physician is physically present with the resident and patient.
b. Indirect supervision
   a. With direct supervision immediately available – the supervising physician is physically within the hospital or other site of patient care, and is immediately available to provide direct supervision.
   b. With direct supervision available – the supervising physician is not physically present within the hospital or other site of patient care, but is immediately available by means of telephonic and/or electronic modalities, and is available to provide Direct Supervision.
   c. Oversight – the supervising physician is available to provide review of procedures/encounters with feedback provided after care is delivered.

Expected competencies and responsibilities for each PGY level are listed below.

**ORT 1**

Senior level residents or faculty closely supervises (either directly or indirectly with direct supervision immediately available) individuals in the ORT 1 year. ORT 1 residents should:

1) Develop the knowledge, attitudes and skills needed to formulate principles and assess, plan and initiate treatment of adult and pediatric patients with surgical and/or medical problems;
2) Be involved in the care of patients with musculoskeletal disorders, multiple organ system trauma, soft tissue wounds, nervous system and vascular system injuries and diseases;
3) Gain experience in the care of critically ill surgical and medical patients;
4) Participate in the pre-, intra- and post-operative care of surgical patients;
5) Develop an understanding of surgical anesthesia, including anesthetic risks and the management of intra-operative anesthetic complications; and
6) Assist in the operating room and perform other invasive procedures under the supervision of the faculty or senior residents

The resident is expected to develop proficiency in the understanding and performance of the general RRC mandated competencies as outlined in the Orthopaedic Resident Manual. The first year resident must develop and implement a plan for study, reading and research of selected topics that promotes personal and professional growth and be able to demonstrate successful use of the literature in dealing with patients.
ORT 2
ORT 2 residents are expected to perform independently the duties learned in the first year. The ORT 2 should be able to demonstrate continued acquisition of knowledge and skills and ability to function independently in evaluating patient problems and developing a plan for patient care. The ORT 2 resident may respond to consults, provide direct evaluation and treatment of patients with musculoskeletal disorders, and perform surgical & other invasive procedures under the direct supervision of faculty or senior level residents. The ORT 2 resident will also be involved in teaching & supervision of the ORT 1 residents and medical students. The ORT 2 should be able to incorporate the principles of professionalism, communication, and systems based practice into patient care and be able to communicate these issues with the patient, their family, and other members of the health care team.

ORT 3
ORT 3 residents are expected to perform independently the duties learned in the previous years of education. The ORT 3 resident should be capable of managing patients with either routine or complicated musculoskeletal problems. ORT 3 residents should be able to perform most routine diagnostic and therapeutic musculo-skeletal procedures, begin to perform more complex procedures under the direct supervision of the faculty. The ORT 3 resident should be capable of supervising the ORT 1 and 2 residents and medical students. The ORT 3 resident should be proficient in the use of the literature and evidence based medicine to facilitate patient care. At the completion of the third year, the resident should be ready to assume senior level responsibility including functioning as the chief resident on selected orthopaedic services.

ORT 4
ORT 4 residents are expected to perform independently the duties learned in the previous years of education. ORT 4 residents assume an increased level of responsibility as the chief or senior resident on the orthopaedic services. ORT 4 residents will have on-call duties involving first call and also chief resident call. The ORT 4 resident should be able to perform the full range of complex musculo-skeletal procedures under the supervision of faculty. The resident should have mastery of the information contained in standard texts and be proficient in using the literature to solve specific problems. The ORT 4 resident should be capable of supervising the ORT 1-3 residents and medical students.
ORT 5/Fellows
ORT 5 residents and Fellows are expected to perform independently the duties learned in the previous years of education. The ORT 5 resident will function as chief residents. The ORT 5 and Fellows should be able to perform all procedures related to treatment of musculo-skeletal disorders with the indirect supervision of the attending physician. During the final year of training the resident should have the opportunity to demonstrate the clinical skills, decision-making skills, judgment, self-directed learning and self-evaluation, and professionalism needed for the independent practice of orthopaedic surgery.

ALL YEARS
All residents must communicate with appropriate supervising faculty members when a patient’s condition deteriorates and requires transfer to intensive care or when end-of-life decisions are required. All residents are expected to develop a program of self-directed learning. This should be a combination of general topics in orthopaedic surgery as well as directed study relating to patients problems and musculo-skeletal disorders encountered in clinical practice. Recommended reading lists will be provided on each clinical service.

The resident should meticulously prepare for all surgical procedures in which they will be involved. This should include a review of patient information, an understanding of the surgical plan & procedure, review of pertinent anatomy and technical aspects of the procedure, preparation for all aspects of the surgical procedure (i.e. preoperative planning), and an understanding of the post-surgical care and rehabilitation protocols.

All residents are expected to attend all morning conferences. The morning conference program is designed to provide a didactic & interactive forum to augment the resident’s reading and clinical experience.

All residents shall follow UF&SHANDS Medical Center, College of Medicine, and Department of Orthopaedics & Rehabilitation policies and procedures.
On Call/Patient Handoff Policy  
Department of Orthopaedics and Rehabilitation

The residents selected this model for coverage. It is similar to the on-call coverage model used in many orthopaedic practices. Since one goal of educational program is to prepare residents for practice, faculty has agreed with this coverage system.

Weekday Schedule

Residents will cover their own service patients Monday 7:00 am to Friday at 5pm. General consults are taken by the Orthopaedic Trauma service during the week.

Note: The orthopaedic services with inpatients commonly have more than one resident (or fellow) on service. These residents are familiar with their service patients and can alternative phone coverage at night as needed if the night float resident is unable to answer a specific question. Phone calls have been monitored closely for more than one year-and rarely exceed 2 calls after hours.

Night Float Resident: (ORT 2)
The two ORT 2 residents on the trauma services take 1-3 weeks of consecutive night float call and then switch. The night float resident is on call Sunday-Thursday night 7PM-9AM = 5 days x 14 hours (70 hours/week)

Weekend Schedule

The call team for the weekend covers all orthopaedic patients from Friday at 7pm to Monday morning at 8 am.

First Call Resident: (ORT 2s and 3s on a rotating basis)
On call duties from 7:00 pm Friday to 6:00 am Saturday, 6:00 am Saturday to 6:00 am Sunday or 6:00 am Sunday to 7:00 pm Sunday.
Call is in house.

Responsibilities:
1) Consults from the Emergency Department  
2) Emergent In-patient consults from Shands & VAMC  
3) After hours urgent patient phone messages  
4) Next morning review and sign-out of all patients seen in consult

Chief Call Resident: (ORT 4s and ORT 5s on a rotating basis)
On call duties from 7:00 am to 7:00 am.
Call is from home.
Responsibilities

1) Provide consultation to first call resident for any issues or questions
2) Evaluate patients in Emergency Department or In-Patient requiring surgical treatment or with complex problems
3) Assist in all surgical procedures
4) Communicate with on-call faculty for any issues or questions
5) Disposition of all patients seen in consult

**Patient transfer is direct to the resident who is covering and occurs at the beginning of shift.** Up to date information is kept on the secure Orthopaedic Intranet with full details of the patient’s treatment plan. The Saturday and Sunday on-call teams use this information during the weekend to keep track of patients and in case of significant changes notify the patient’s service when they resume coverage on Monday morning. All new patients admitted to orthopedics, operated on and consultations are added to the Trauma Online Database.

On call weekend team makes rounds and provides care for all orthopaedic inpatients from Friday at 6 pm to Monday morning at 8 am. The existing orthopaedic service patients will then be transferred back to the original orthopaedic service on Monday by way of direct update. Disposition of patients admitted, as part of on-call duties will be made depending on clinical issues.

In the event of resident fatigue/illness to carry out call or call duties the resident will inform the orthopaedic attending on call as well as the remainder of the on call orthopaedic team (there is always a PGY2/3 and PGY4/5 on call). If the resident who is unable to perform their duties is the PGY 2/3 the PGY4/5 will assume their in-house call coverage roll. The Orthopaedic attending will be ultimately responsible for covering the resident’s responsibilities and ensuring proper care for the orthopaedic patients.

**Call Schedule**

A monthly call schedule will be posted online with the junior, senior, hand fellow and attending for each day so that this information is available to the entire health care team. The administrative chief resident will coordinate the residents call schedule. This chief resident will determine how requests for days or weekends off call will be handled and what the deadline will be for submission of these requests. The call schedule is updated and available on the [UF On-Call Schedule Web Viewer](#).
ORTHOPAEDIC IN-TRAINING EXAMINATION (OITE)

The American Academy of Orthopaedic Surgeons administers a yearly exam to orthopaedic residents. The test is multiple choice and consists of approximately 275 questions covering all aspects of orthopaedics. All ORT 2-5 residents are required to take this examination. It is suggested that the ORT 1 residents take the exam if available.
OUTSIDE EMPLOYMENT:

Residents **may not** accept or participate in outside employment (moonlighting) under any circumstances while an orthopaedic resident. Programmatic opportunities may be available (e.g. OrthoCare Clinic, VA compensation and pension) with approval from the program director.

In order to participate in GME committee approved moonlighting opportunities as listed above, the resident must meet the following criteria and be approved by the program director:

1. PGY 3,4 or 5 (PGY 5 for VA compensation and pension clinic)
2. In good standing per the clinical competency committee
3. OITE > 40% compared to the residents year in training peer group
4. Demonstration of progress towards residency research requirement
5. Extra work hours do not violate work hours and New Innovation logging is up to date
6. Not on call
7. Maximum of 1 shift per week
PROCEDURE CASE DATABASE (CASE LOGS)

All residents ORT 2-ORT 5 are required to keep an ongoing & contemporary record of all of the surgical & procedural cases in which they have participated. This will be done using the on-line RRC Resident Surgical Case Database. ORT 1 residents will also record any orthopaedic cases they participate in.

Access codes and instructions for using this program are available from the program director.

This record is essential to provide documentation of you competency in the performance of orthopaedic procedures. You should include all: surgical cases, closed or manipulative reductions of fracture or dislocations, and any major invasive orthopaedic procedure (e.g. CT guided needle biopsy) in which you participate. The database entry no longer requires any distinction between primary or assistant resident surgeon.

This information is required for documentation of your eligibility to take the American Board of Orthopaedic Surgery Examinations. It is requested by most hospitals and credentialing agencies as documentation of your request for hospital or practice privileges. It is also require for this orthopaedic residency program to remain accredited.

Any resident more than one month behind in entering their cases will be notified by the program director. They will have one week to correct these deficiencies. Failure to bring their case list database up-to-date do so will result in loss of clinical privileges or being placed on probation until these deficiencies are corrected.

Website for case entry: https://www.acgme.org/residentdatacollection/
RESEARCH

One of the missions of the Research Division of the Department of Orthopaedics and Rehabilitation is to facilitate the resident's or fellow's research endeavors. The division will provide research ideas, IRB support, grant writing support (if applicable), realistic timelines for completion of projects, fiscal support, fiscal support for research travel and most importantly, mentoring. Our goal is to bring each resident's or fellow's research expertise to a level capable of producing a publication and presentation for a national meeting. Each Resident will complete a project during their ORT- 4/5 year. Fellows will complete a project during their ORT-6 year. The Resident or Fellow will select a Faculty Mentor and the Research Committee will approve all research. Deadlines and due dates will be established by the Research Committee for each academic year.

ORT 1-5 Residents & Fellows:
Research Project with a Presentation and Preparation of Manuscript

Evaluation:
Each of the steps in carrying out a research project will be reviewed by the research committee. These include formulation of a question/topic; strategies for searching available literature; evaluation of the literature according to levels of evidence and validity; assessment of results; and application to clinical practice. The oral presentation should follow the format as outlined in JBJS current concepts articles. The Research Program Director/Research Committee and the Faculty Mentor will review and approve the final manuscript. Both the oral presentation and the manuscript should become part of the resident's educational portfolio.

References:
I. Users' Guides to the Medical Literature: Essentials of Evidence Based Clinical Practice
II. Evidence-Based Medicine Working Group, Drummond Rennie (Editor) Published by the American Medical Association, 2001
III. Evidence-Based Medicine; DL Sackett, RB Haynes, SE Straus, WS Richardson, W Rosenberg (authors); Published by Elsevier Science, 2000

Websites:
a. Centre for Health Evidence: Users Guides to Evidence Based practice (McMaster
Project Goals:
1. Electronic-based literature search and review
2. In-depth literature review
3. Research methodology
4. Study design
5. Data collection
6. Data interpretation and statistical analysis (including common errors)
7. Reading, writing, and presentation of research information

This project should be of a scope and detail suitable for presentation at a major research meeting and/or publication in an orthopaedic peer reviewed journal. Projects can be clinical, applied basic science, basic science or educational. A Faculty Mentor and the Research Committee must approve the project. Case reports or retrospective reviews of limited clinical series will NOT be acceptable as an "official" senior resident research project. Case reports maybe performed in addition to your official project but will not count for credit towards this project.

The Project:
1. The requirements for graduation from the University of Florida Orthopaedic Residency Program will include, in part, completion of the senior resident research project. Satisfactory completion of the research project will include:
   a. Preparation of a manuscript suitable for submission to an appropriate Journal. A manuscript suitable for submission means that it is written following the guidelines of the selected journal and is complete in all aspects including figures/illustrations and references. That is, all that remains to be done is to put the manuscript in an envelope and place in the outgoing mail basket. The Faculty Mentor and the Research Program Director/Research Committee must approve this manuscript.
   b. Presentation of the research results (15-minute presentation) in front of the department. The members of the research committee will judge the presentation and the research presented and determines if it is significant enough to allow for graduation.
2. Residents should select a research project topic, with the guidance of a Faculty Mentor and Research Program Director, Dr. Horodyski, as early as possible during their residency. It takes considerable time to do a thorough literature search, receiving IRB approval for a clinical project and securing funding (if applicable) will also take time. For Fellows, the time constraints become even more critical as they have, generally, only one year in which to complete their project. Will plan on
imbedding the PGY-1s in an ongoing project so they will be able to obtain research experience while developing their own idea/project.

3. A written proposal will be submitted to the Research Program Director, Dr. Horodyski. The Research Committee will then review this proposal. The proposal format is available from the research office.

4. As part of the approval process, a timeline will be established for completion of each of the components of the project including presentation and preparation of the manuscript.

5. Research should ideally be completed by the spring of the ORT - 4 year for submission to the academy meeting of the resident’s chief’s year. If the research is not deemed sufficient for graduation, then presenting again will be possible in their chief year (PGY 5).

If you are having difficulty in any aspects of this process ask Dr. Horodyski, your Faculty Mentor or Dr. Wright for help. It would be our hope that you would consider presenting your work at a national meeting and possibly the Florida Orthopaedic or Hand meeting. We strongly believe that with consistent hard work (and not leaving everything to the last minute), you will create a project that you can learn a great deal from and have significant pride in.

**Schedule/Topics of Research Conferences:**

1. Introduction to Research at the University of Florida (Boot camp – done DATE)
2. Research terminology and classifications
3. Research questions, how do I come up with my idea?
4. Research design
5. Review of statistics
6. Strategies for successful scholarly publication
7. Journal Club: Would this article change your clinical practice?

Research conferences will be structured with 20-30 minutes of didactic followed by 20-30 minutes of small group discussion and meeting with research faculty (Dr. Horodyski, Dr. Vincent, and Dr. Conrad) based on year in training and status of project to further discuss project specifics and review status.
QUALITY IMPROVEMENT

At the core of proficiency in Practice-Based Learning and Improvement is lifelong learning and quality improvement. These require skills in and the practice of self-evaluation and reflection to engage in habitual Plan-Do-Study-Act cycles for quality improvement at the individual practice level, as well as skills and practice using Evidence Based Medicine.

Each resident is expected to participate in quality improvement project yearly at a minimum. The expectation is that the project be presented yearly at the University of Florida Quality Retreat in July of each year.

In the 2010-2011 academic year a quality initiative was begun to identify areas of improvement within the department and at the hospital. Resident teams were created to tackle identified issues with a PGY 1, 2, 3, 4 and 5 on each team. This has continued to present in order to improve our local practice as well as to educate the residents in a team based interdisciplinary manner. The Orthopaedic and Sports Medicine Quality Council (Drs Decker, Parvataneni, Vincent in conjunction with the OSMI clinical leader as well as the chief administrator of the Orthopaedic Department) helps coordinate direction and support for department based projects.

The orthopaedic faculty on the OSMI Quality Council (Drs Decker and Parvataneni) review each quality project montly during the quality morning conference. Additionally, general and service specific safety issues are addressed.

Each attending is charged with advancing a quality project within the department overseen by the chairman of the department with strong encouragement to include residents.

Morbidity and Mortality conference is held each month on the first Thursday to discuss complications and less than ideal outcomes so that changes can be made to improve outcomes. Quality projects will continue to be sought and initiated from the discussion that the cases spark.
RESOURCE MANAGEMENT

As the nation changes the system of health care delivery, older styles of practice and attitudes must change. In an environment of limited resources, each practitioner must be aware of the financial implications of their style of practice and be accountable for the resources consumed. While it is easy for the resident to lose sight of the importance of cost effective practice, learning this from the start will enhance your future success in whatever practice arrangements you find yourself. Resource management is essential for the survival of the hospital and department. Faculty and house staff must work together to practice in a manner that is best for the patient and best for the system. Excessive tests, unreasonable delays, inappropriate or poorly done procedures all work to the detriment of those that we serve.
SELECTION OF RESIDENTS

Residents are selected based on their academic achievement, personal qualities and ability to excel in the rigors of orthopaedic education. Only qualified applicants from LCGME schools will be invited to interview. All first year residents are appointed through the Match. All applications are done using the ERAS system and all rules and regulations of the match are followed. Residents are accepted as categorical residents with the intent that these residents will continue in the orthopaedic program assuming their performance is satisfactory.

In regard to selection of residents, the Department or Orthopaedic & Rehabilitation will be in total compliance with all of the policies and regulations of the University of Florida College of Medicine, the ACGME, and the ERAS program.
SUPERVISION OF RESIDENTS

All orthopaedic patients at Shands @ UF will be assigned to an individual faculty member who is responsible for all aspects of the care provided to the patient. Residents on that service will work directly with the faculty. The faculty are responsible for providing supervision to all residents and students to ensure that all patients receive care of the highest quality at all times. At the same time supervision must provide an opportunity for the individual resident to assume increasing responsibility for patient care commensurate with their level of training, ability and experience.

In the outpatient clinic the resident(s) will see and evaluate patients under direct faculty supervision. Patients will be scheduled for routine appointments only when faculty will be present in the clinic. Exceptions: patients who must be seen for an urgent problem on non-clinic days or the occasional routine post-op or emergency room follow-ups when no clinic is scheduled. In these cases, other faculty in clinic will provide supervision or consultation as needed.

In surgery, faculty will supervise all residents. The faculty must be present in the operating room for the critical portion of the procedure and immediately available for all other portions of the procedure. It is the responsibility of the faculty and the resident to ensure that this occurs. Faculty should be paged or called when the patient is brought into the operating room so they can be available in a timely manner.

In the emergency room, faculty must be notified for all patients admitted to the hospital with orthopaedic problems regardless of which surgical or medical service to which the patient is admitted. The faculty must be notified for all patients who need to be taken to the operating room regardless of the complexity of the case (e.g. need relaxation anesthesia for a few moments to reduce a dislocated THA). All patients admitted by the on-call service will remain under the supervision of the on-call faculty until such a time as the patient is discharged or there is an agreed upon transfer to another service either within the Department of Orthopaedics.

Faculty must also supervise residents and participate in patient care in accordance the (CMS) Medicare compliance regulations. The University of Florida College of Medicine has mandated that these regulations be applicable to all patients.
LEAVE

ANNUAL LEAVE (VACATION)

Residents will receive three weeks (15 work days) of vacation time per academic year. Vacations will be taken in one-week increments and usually no more than one week vacation per rotation. Vacation time is not accrued from one academic year to the next. Vacation requests should be submitted at the beginning of each rotation.

Vacation requests must be approved in advance by ALL of the faculty on the service rotation and by the program director. Vacation time must also be coordinated with the administrative chief resident to facilitate organization of the monthly call schedule.

Annual leave forms are available from the orthopaedic housestaff office. These must be properly completed or your time away will be considered leave of absence without pay!

SICK LEAVE

Housestaff accrue sick leave at the rate of ten working days per year. Residents may take sick leave for death or severe illness in their immediate family. If it is necessary to take sick leave the resident must inform the service and the program director as soon as possible so that coverage may be arranged. The resident must also notify the department Housestaff office of the dates of sick leave upon return. If excessive time is taken, the house officer may be required to extend the training period to meet the Board requirement of 48 working weeks per year of residency.

NOTE: - All unused leave is considered non-payable leave, and there is no entitlement for lump-sum payment for unused leave upon separation or completion of training.

EDUCATIONAL LEAVE

Educational Assignment - Housestaff shall be eligible for absence pertaining to education and training provided it is allowed by the appropriate board and agreed to, in writing, by the program director.

Housestaff taking American specialty board and/or state licensure examinations will be authorized leave at the discretion of the program director.

Please reference the Travel Related to Education section regarding paperwork for Educational Leave and reimbursements for educational travel expenses.
MATERNITY / PATERNITY LEAVE

Requests for maternity and paternity leave must be submitted to the Program Director for approval. The duration of maternity leave before and/or after delivery will be determined by the housestaff member and her physician in consultation with the program director. Approved absences for greater than six months will be unusual and require special approval. Pay status during such leave will be determined by the length of unused vacation and sick leave accumulated. Accrued annual leave may be used prior to the house officer being placed on leave without pay. Any illness caused or contributed to by pregnancy, miscarriage, abortion, childbirth and recovery there from (including uncomplicated pregnancy) shall be treated as a temporary disability and the house officer shall be allowed to use sick leave credits when certified by his/her physician. When accrued annual and sick leave time has been exhausted, leave will be unpaid. While on unpaid leave, house officers insurance benefits will be covered by the academic department for up to two months. After two months, the house officer will be responsible for payment of insurance premiums. Such coverage may be purchased for a time period consistent with COBRA regulations. The total time allowed away from a program in any given year for the duration of the housestaff program will be determined by the requirements of the specialty board involved. Any absences must be made up in accordance with specialty board policy. The house officer will be paid for makeup or extended time. Schedule accommodations may be made for a house officer who is pregnant if these changes are approved by the program director. In special circumstances, leave may be granted for house officers involved in adoption with the advance approval of the program director. Paternity leave may be granted with the advance approval of the program director.

MILITARY LEAVE

Absences for temporary military duty (e.g. two-week annual training) may be taken from annual leave or if insufficient annual leave is accumulated, the housestaff member must be placed on leave without pay for such absences.
**TRAVEL RELATED TO EDUCATION**

Travel policies of the College of Medicine must be followed for all travel for education and/or research activities and for which you are being reimbursed. This does not pertain to travel during your personal leave time (i.e. vacation)

PLEASE CAREFULLY NOTE: These policies **must be followed** or you cannot be reimbursed for your travel and your educational leave will become leave without pay or vacation time.

1. You must notify all of the faculty on the service that you will be attending a conference, meeting, etc.

2. You must have a **travel request** (TAR) approved and signed in advance of your travel. Blank TARs are available on the resident webpage. You must submit program or course/meeting information with your TAR for program director approval.

3. You will need to pay for all expenses related to your travel (registration, travel, hotel, food, etc). To get reimbursed for expenses you must provide on your return **TWO** types of documentation – receipt and credit card statement.

4. At no time will spouse expenses be allowed in educational expense reimbursement.

**Registration fees**

YOU MUST have a program or invoice or something with the name of the course/meeting somewhere on it. Since you may pay this well in advance of the actual travel make copies or make a folder for everything related to this travel so that when you return this stuff is not “lost”

**Hotel**

YOU MUST have an itemized day by day summary of the bill. This MUST have your name on it somewhere. A statement with the total on it is NOT sufficient-

- This means you may or may not be able to use express check out and some of the other service most hotels and conference centers provide. You need to ask for an itemized bill at checkout!!!
- If you choose to share a room with another resident, you need to request a receipt with both names on it to be eligible for reimbursement.
Airfare
YOU MUST have something that indicates the cost of the travel (invoice from travel company, airline or internet service), copy of the ticket and this MUST state your name.

Your ticket information must include a ticket number – not just a confirmation number (Make sure you get this information or bring the ticket stub back if you reserved your flight online!)

Food
The department per diem is $35.00 for food expenses. If the conference you attend provides meals you will not receive funds for those meals. Breakdown: $6.00 Breakfast, $11.00 Lunch, $19.00 Dinner.

Car Rental
The University has a national agreement with AVIS. Therefore, all rental cars must come from AVIS to be reimbursed (even if Avis is more expensive). When making your reservation let the attendant know that you are a University employee. (You will need to show them your ID badge, so please take it with you to pick up the vehicle!) Rented car must be COMPACT / ECOMONY size car.

Mileage
If you are driving to the conference, on your TAR include the city you will be driving to. Mileage rates vary and are not calculated until the TAR is processed.

Other things like cab fare, parking fees, etc---YOU MUST have a receipt (ask to cab driver for a receipt)

Proof of Payment
Even with invoices that state the bill is paid in full, UF requires proof that YOU paid these (i.e. not your rich grandmother)

YOU MUST have proof of payment that matches each of the above invoices. Usually this will be a copy of your credit card monthly statement. Your name has to be associated with the card that paid the bill.

You might even want to get a 2nd credit card to use for “business” stuff like this and keep separate from your personal account (you will do this in practice)

★★ If you do not have a pre-approved travel request (i.e. approved BEFORE you leave) you will not get reimbursed★★

★★ If you do not have proper invoices and proof of payment you will not get reimbursed ★★
INFORMATION, POLICIES, & PROCEDURES

HOUSE STAFF OFFICES:

1) ORTHOPAEDIC SURGERY HOUSE STAFF OFFICE

The Orthopaedic HOUSE STAFF Office provides administrative support for all orthopaedic residents (ORT 1-5). Kendra Gordon is in charge of the Orthopaedic HOUSE STAFF Office.

2) SHANDS/UF HOUSE STAFF AFFAIRS OFFICE

HOUSE STAFF Affairs Office - The HOUSE STAFF Affairs Office was developed to provide an ombudsman role for all HOUSE STAFF physicians who are rotating through Shands Hospital at the University of Florida in Gainesville. This office was established to support the HOUSE STAFF in a variety of these areas as well as provide support for residents within the hospital environment, overseeing such requirements as sleep room facilities, access to counseling services and facilitating problems that arise within the HOUSE STAFF. The office is located on the 11th floor of Shands Hospital

HOUSE STAFF Lounge - A lounge was established by Shands Hospital and the University of Florida specifically for HOUSE STAFF physicians. Location and the current door lock combination can be obtained from your chief resident or through the HOUSE STAFF Affairs Office personnel.

HOUSE STAFF Exercise Room - Shands Hospital and the University of Florida have developed an exercise room specifically for HOUSE STAFF. The equipment in this area was chosen to support the mental and physical well-being of residents. Aerobic stair steppers, wind and friction resistant bicycles and a universal gym encompass an array of opportunities for HOUSE STAFF to release energy and stress as well as develop a personal fitness program.

HOUSE STAFF Affairs Office handles all loan deferments and forbearance forms. Loans - The University of Florida Alumni has an interest free loan for unplanned emergency situations available to residents and fellows. The forms for this loan are available in the HOUSE STAFF Affairs Office.

A complete listing of all UF GME activities, policies, and procedures can be found at http://housestaff.medinfo.ufl.edu/
BEEPERS

All residents and fellows in the Department of Orthopaedics and Rehabilitation are issued a beeper at the beginning of their residency/fellowship. The resident is responsible for insuring that the beeper is functional, has a charged battery and is on during duty hours. If there is a problem with the beeper, contact the Orthopaedic HOUSE STAFF Office or the page operator of the hospital to which you are assigned for a loaner. Be sure that the page operators are notified if you are carrying a different beeper than that on the call schedule. Upon graduating, all beepers must be turned in to the HOUSE STAFF office.

CALL ROOMS

The HOUSE STAFF Affairs Office retains a copy of every area within the hospital that has been designated as a sleep room for HOUSE STAFF who are required to remain in house overnight to provide coverage for their specialty.

CODE OF CONDUCT

All housestaff are expected to comply with the standards established by the hospital. All housestaff should maintain a professional appearance, conduct, and attitude, as well as exhibit behavior that is exemplary of the medical profession. All housestaff must be identified by their University of Florida identification badge which should be worn at all times.

CONFIDENTIALITY

All physicians and health care providers must recognize that the rights and individual dignity of each patient (including the parents and/or surrogates of minors or incapacitated patients) are to be respected during the delivery of health care services. Reasonable and responsible behavior on the part of the resident with regard to the privacy and feelings of the patient and the patient’s family is expected. Cases are not to be discussed except in the course of the care of the patient. Conversations in the elevator, lunch room or other public places should not involve patient care matters. No specific information about any particular patient should be released without the written consent of the patient. From time to time colleagues, friends or public personages may be admitted to the hospital. Unless you are directly involved in the care of these individuals it is a breach of confidentiality and medical ethics to read the
chart or seek to obtain information on these patients.

Beginning in April 2003 the HIPPA law takes effect which imposes substantial legal and monetary penalties for violations of patient confidentiality standards. Attendance of an annual mandatory training session will become part of College of Medicine policy to ensure that everyone is aware of & in compliance with these standards.

**CONSCIOUS SEDATION**

Anyone administering intravenous drugs that may cause loss of protective airway reflexes must be familiar with the hospital's conscious sedation policy. This includes monitoring standards and familiarity with BCS or ACLS.

To utilize conscious sedation techniques in the Shands Health Care System you must be credentialed by the medical center. This requires a valid certification of completion of either the BLS (basic life support) or ACLS (advanced cardiac life support) courses. This certification must be submitted to the chief of staff's office along with the request form for Privileges in Conscious Sedation.

Copies of the current policy are available from the Chief of Staff’s Office.

**CONTRACT OF EMPLOYMENT**

Each resident is required to sign a written agreement (letter of offer) that is renewable on a yearly basis. This agreement includes information on financial support, leave policies, insurance policies, counseling services, resident responsibilities, duration, conditions for reappointment, outside professional activities and grievance procedures.

See also promotion, probation, and termination

**DEA NUMBER**

A Drug Enforcement Agency number is mandatory for prescribing certain types of medications, especially narcotics. You must have a valid state medical license to apply for a
DEA number. Unlicensed physicians (usually residents in their 1st or 2nd year) will be assigned a Institutional DEA number which will enable them to prescribe restricted medications—but with some limitations.

Your DEA number should be kept secure. It should not be routinely printed on prescription pads or loaned out to another resident or health care provider who does not have a number. If a prescription requiring a DEA number is needed you should do the entire prescription yourself (e.g.: NEVER sign and/or put your DEA number of a bunch of blank scripts so someone without their own number can use them discharge a patient).

The Department will reimburse the residents for the cost of applying for and renewing their DEA certification.

**DRESS CODE**

Appropriate standards of dress are required of all physicians, health care professionals, and students who provide care for patients. While they are in contact with patients housestaff shall wear a white coat, along with shirt and tie for men and properly coordinated attire for women. A suit coat may be substituted for a white coat. Approved attire in patient care areas shall not include shorts, cut-offs, jeans, or similar casual clothing. Name badges shall be worn when on duty within the hospital. Footwear shall be clean and appropriate to the occasion. Men shall wear socks. No thongs or heavy boots shall be permitted. Hair shall be trimmed and groomed. Hospital-supplied scrub clothing shall be worn by those working in specified areas and should not routinely be worn in other areas of the hospital. If circumstances require the resident to be out of the OR, ICU or ER and there is no time to change, scrubs should be covered with a clean white coat. Scrubs are to be changed upon return to the OR even when covered. Shoe coverings, caps or masks should never be worn out of the OR.

**FLORIDA MEDICAL LICENSE**

All interns, residents and clinical fellows must be registered with the Department of Professional Regulations - Board of Medicine, either as a licensed physician or an unlicensed physician.

Unlicensed Physician - Registration Application for Unlicensed Physician form is required upon acceptance to the program and must be resubmitted every two (2) years if a license is
not secured. The initial registration fee for Unlicensed Physicians is paid for by Shands Hospital.

Licensed Physician. Resident must past the USMLE parts I, II, and III to be eligible to apply for a Florida license. Residents should arrange to take Part III as soon as they are eligible to do so. **Residents must PASS USMLE Part III in order to progress to PGY III. Failure to pass USMLE Part III by June 30th of PGY-2 can result in being placed on probation, no salary increase, temporary or permanent suspension.** Application can they be made to obtain a Florida Medical License. The Orthopaedic Housestaff Office will assist in obtaining and submitting the proper forms. Provided funds are available the resident will be reimbursed for the cost of applying for a Florida medical license and for renewal of the license if this is needed during the residency.

**PLEASE NOTE:** Florida Medical Licenses must be renewed every 2 years. The time for and to renewal will depend upon when your license was received. You are responsible for keeping track of when your medical license must be renewed. You (not the department) will be notified by the licensing bureau at the address you listed on your application when your license must be renewed. The Orthopaedic Housestaff Office will assist in submitting the proper forms for renewal.

If you ignore the renewal notice and allow your medical license to expire and continue to practice medicine you will be in very serious trouble. Practicing medicine without a proper license is a felony offense in the state of Florida. (FYI- the last orthopaedic resident who ignored renewal was arrested. It then took six months of legal maneuvering with the assistance of UF attorneys and the resident=s own private attorney to get the license reinstated and escape with only a reprimand).
GRIEVANCES - DUE PROCESS POLICY

Procedure for Grievance, Suspension, Nonrenewal or Dismissal

INTENT: Each training program is responsible for the conduct of that training program and for the policy on defining satisfactory performance of the resident as a student. The sponsoring institution wishes to ensure that the application of such policies are not arbitrarily illegal, unjust or create unnecessary hardship. Therefore, a policy and procedure for addressing resident dissatisfaction is established.

Article II. POLICY

STATEMENT: Context of the institutional and program requirements. Each program must develop fair and consistent standards for the residents. If a resident feels that a decision by the program violates standards of fairness then the resident is afforded a process whereby individuals outside the program may review such decisions.

DESCRIPTION: The position of the resident presents the dual aspect of a student in graduate training while participating in the delivery of patient care.

The University of Florida College of Medicine is committed to the maintenance of a supportive educational environment in which residents are given the opportunity to learn and grow. Inappropriate behavior in any form in this professional setting is not permissible. A resident's continuation in the training program is dependent upon satisfactory performance as a student, including the maintenance of satisfactory professional standards in the care of patients and interactions with others on the health care team. The resident's academic evaluation will include assessment of behavioral components, including conduct that reflects poorly on professional standards, ethics, and collegiality. Disqualification of a resident as a student or as a member of the health care team from patient care duties disqualifies the resident from further continuation in the program.

Grievances: A grievance is defined as dissatisfaction when a resident believes that any decision, act or condition affecting his or her program of study is arbitrary, illegal, unjust or creates unnecessary hardship. Such grievance may concern, but is not limited to, the following: academic progress, mistreatment by any University employee or student, wrongful assessment of fees, records and registration errors, discipline (other than nonrenewal or dismissal)
and discrimination because of race, national origin, gender, marital status, religion, age or disability, subject to the exception that complaints of sexual harassment will be handled in accordance with the specific published policies of the University of Florida College of Medicine.

Prior to invoking the grievance procedures described herein, the resident is strongly encouraged to discuss his or her grievance with the person(s) alleged to have caused the grievance. The discussion should be held as soon as the resident becomes aware of the act or condition that is the basis for the grievance. In addition, or alternatively, the resident may wish to present his or her grievance in writing to the person(s) alleged to have caused the grievance. In either situation, the person(s) alleged to have caused the grievance may respond orally or in writing to the resident.

If a resident decides against discussing the grievance with the person(s) alleged to have caused such, or if the resident is not satisfied with the response, he or she may present the grievance to the Chair. If, after discussion, the grievances cannot be resolved, the resident may contact the Associate Dean of Graduate Medical Education (ADGME). The ADGME will meet with the resident and will review the grievance. The decision of the ADGME will be communicated in writing to the resident and constitute the final action of the University.

**Suspension:** The Chief of Staff of a participating and/or affiliated hospital where the resident is assigned, the Dean, the President of the Hospital, the Chair, or Program Director may at any time suspend a resident from patient care responsibilities. The resident will be informed of the reasons for the suspension and will be given an opportunity to provide information in response.

The resident suspended from patient care may be assigned to other duties as determined and approved by the Chair. The resident will either be reinstated (with or without the imposition of academic probation or other conditions) or dismissal proceedings will commence by the University against the resident within thirty (30) days of the date of suspension.

Any suspension and reassignment of the resident to other duties may continue until final conclusion of the decision-making or appeal.
process. The resident will be afforded due process and may appeal to the ADGME for resolution, as set forth below.

**Nonrenewal**: In the event that the Program Director decides not to renew a resident's appointment, the resident will be provided written notice which will include a statement specifying the reason(s) for nonrenewal. This should be done at least 4 months prior to the end of the resident's current agreement.

If requested in writing by the resident, the Chair will meet with the resident; this meeting should occur within 10 working days of the written request. The resident may present relevant information regarding the proposed nonrenewal decision. The resident may be accompanied by an advisor during any meeting held pursuant to these procedures, but the advisor may not speak on behalf of the resident. If the Chair determines that nonrenewal is appropriate, he or she will use their best efforts to present the decision in writing to the resident within 10 working days of the meeting. The resident will be informed of the right to appeal to the ADGME as described below.

**Dismissal**: In the event the Program Director of a training program concludes a resident should be dismissed prior to completion of the program, the Program Director will inform the Chair in writing of this decision and the reason(s) for the decision. The resident will be notified and provided a copy of the letter of proposed dismissal; and, upon request, will be provided previous evaluations, complaints, counseling, letters and other documents that relate to the decision to dismiss the resident.

If requested in writing by the resident, the Chair will meet with the resident; this meeting should occur within 10 working days of the written request. The resident may present relevant information regarding the proposed dismissal. The resident may be accompanied by an advisor during any meeting held pursuant to these procedures, but the advisor may not speak on behalf of the resident. If the Chair determines that dismissal is appropriate, he or she will use their best efforts to present the decision in writing to the resident within 10 working days of the meeting. The resident will be informed of the right to appeal to the ADGME as described below.

**Appeal**: If the resident appeals a decision for suspension, nonrenewal or dismissal, this appeal must be made in writing to the ADGME within 10 working days from the resident's receipt of the decision of the person suspending the resident or the Chair. Failure to file such an appeal within 10 working days will render the decision of the person suspending
the resident or the Chair the final agency action of the University.

The ADGME will conduct a review of the action and may review documents or any other information relevant to the decision. The resident will be notified of the date of the meeting with the ADGME; it should occur within 15 working days of the ADGME's receipt of the appeal. The ADGME may conduct an investigation and uphold, modify or reverse the recommendation for suspension, nonrenewal or dismissal. The ADGME will notify the resident in writing of the ADGME's decision. If the decision is to uphold a suspension, the decision of the ADGME is the final agency action of the University. If the decision is to uphold the nonrenewal or dismissal, the resident may file within 10 working days a written appeal to the Dean of the College of Medicine. Failure to file such an appeal within 10 working days will render the decision of the ADGME the final action of the University.

The Dean will inform the ADGME of the appeal. The ADGME will provide the Dean a copy of the decision and accompanying documents and any other material submitted by the resident or considered in the appeal process. The Dean will use his or her best efforts to render a decision within 15 working days, but failure to do so is not grounds for reversal of the decision under appeal. The Dean will notify in writing the Chair, the ADGME, the Program Director and resident of the decision. The decision of the Dean will be the final agency action of the University. The resident will be informed of the steps necessary for the resident to further challenge the action of the University.

Last Review and Approved: Graduate Medical Education Committee
January 14, 2010

HOSPITAL COMMITTEES

Residents are encouraged to participate in hospital committees as time permits. If any member of the HOUSE STAFF wishes to be involved, they should contact the HOUSE STAFF Affairs Office.
IMPAIRED PHYSICIAN

Faculty, staff, peers, family or other individuals who suspect that a member of the housestaff is suffering from a psychological or substance abuse problem are obligated to report such problems. Individuals suspecting such impairment can either report directly to the Physician's Recovery Network (PRN) or can discuss their concerns with the Program Director, Chairman, or Director of Graduate Medical Education.

1. It is the intent of the sponsoring institution that all appropriate rules that govern the practice of medicine be strictly enforced.
2. All referrals to the PRN are confidential and are evaluated by the professionals of the PRN. Decisions about intervention, treatment and after care are determined by the PRN.
3. As long as the practitioner satisfactorily participates in the PRN program, no regulatory action would normally be anticipated by the Board of Medicine.
4. Resumption of clinical activity and residency program will be contingent upon the continued successful participation in the PRN and continuation of the resident in the program will be determined in consultation between the program director and the professionals at the PRN.
5. Information on the Physician's Recovery Network (PRN) and its program can be obtained by calling 1-800-888-8PRN

INFORMED CONSENT/OPERATIVE PERMITS

Every patient receiving treatment has the right to informed participation in decisions involving their health care. Diagnostic/therapeutic treatment will be undertaken only with the prior informed, voluntary consent of the patient or the patient's representative. Informed consent implies a careful, thoughtful dialogue between the practitioner and the patient in the presence of witnesses. This conversation should include details about the proposed procedure, indications for the procedure, expected benefits, and the risks, complications and side effects that may be expected. The patient must be informed of any alternatives that may exist to the proposed treatment and the implications of not doing the procedure. The language must be at a level that the patient would reasonably be expected to comprehend and the patient must be given the opportunity to ask questions and indicate understanding of the procedure and risks. The patient has the right to refuse treatment without coercion or jeopardizing future treatment. The person obtaining consent should enter a progress note describing the conversation with the patient and indicating the patient's understanding of the proposed procedure.
Each hospital has specific memoranda describing the consent process and the residents should familiarize themselves with these when providing patient care at these hospitals and clinical settings.

INSURANCE

1. **HEALTH INSURANCE** The College of Medicine group health plan provides for both individual and dependent coverage. Premiums are paid by the College of Medicine. The policy is administered by Humana.

2. **LIFE INSURANCE** Term life insurance is provided at no cost. Coverage is through Provident/UNUM Life Insurance Company.

3. **ACCIDENTAL DEATH AND DISMEMBERMENT** - Premiums are paid by the College of Medicine. Coverage is through Provident/UNUM Life Insurance Company.

4. **DISABILITY INSURANCE** - All active full-time College of Medicine housestaff members working at least 30 hours a week are provided Long Term Disability Insurance. This policy is underwritten by Provident Life and Accident.

5. **PROFESSIONAL LIABILITY INSURANCE** - Personal professional liability protection is afforded you by the University of Florida Self Insurance Trust Fund.

Please see the College of Medicine Division of Fringe Benefits website for complete information and details at [www.med.ufl.edu/benefits](http://www.med.ufl.edu/benefits)

LABORATORIES

USE OF ORTHOPAEDIC LABORATORIES

*Use of Biologic Materials & Dissection Specifications*

Tissue, non-tissue & non-sharps, and sharps MUST be separated. The disposal of each of these three classes of biowaste is different!

*Human Tissue*
Permission must be obtained to store any human tissue. Check with laboratory personnel for details. All tissue must be double bagged. The specimen must be labeled with the date, your name, and the type of specimen. Any specimen not properly labeled will be destroyed.

**NOTE** Utilization of this material must be coordinated in advance with laboratory staff. All of the universal precautions must be followed at all times. This includes use of gloves, masks, and protective gowns. Consider yourself as in the operating room and utilize sterile technique and universal precautions both for yourself and consider others who also use this space. (e.g. you cannot use the lab phone or go looking for dissection tools without removing your gloves)

The time-scheduling of your utilization of these tissues must be approved by the laboratory staff since the laboratory space is also used for other projects. You must allocate time for the specimens to be defrosted and time for you to complete your planned dissection (incomplete dissections cannot be left in the lab).

When the use of the specimen(s) is completed the tissue must be placed in a red bag for disposal. Double bagging is recommended. All tissue must go in the red bag. NONE must be placed in the sink disposal systems or in standard waste containers. The tops of the red bags must be completely secured with tape or loops. If for some reason this material is to be put back into the freezer it MUST have been labeled with the date of dissection, your name, and section/limb identification on the bag exterior.

Disposal of the red bags is the responsibility of the resident or residents utilizing the tissue NOT the laboratory staff. This disposal should be coordinated with laboratory staff since the policies and site for disposal may change.

**Separate Out Non Tissue Items (gloves, masks, clean-up paper towels etc) & Non-sharps** - These Items go into a separate Red Bag. Again secure the top of the red bag and label the bag as "Non-Tissue".

**Sharps** - All sharps go into the sharps receptacle.

**Surface Clean-Up** - Wear gloves for clean-up. All surfaces must be cleaned with a cleaner and then dilute bleach as a disinfectant. Provided in the lab are the following: 1) wipe down all surfaces that have been contaminated during your dissection. 2) Clorox clean-up for human tissue disinfection - spray Clorox clean-up over area that has been cleaned with amphot solution. Allow the bleach solution to stand for 10 minutes then wipe-off. 3) spray the area with Lysol disinfecting spray. All paper towels used in the clean-up must be placed in the non-tissue red bag for disposal.

**Instrument Clean-up** - Proper instrument clean-up is essential especially if you are using instruments from the laboratory and/or experimental surgery carts. Coordinate this with laboratory staff. Soak all instruments except sharps overnight in the dilute amphot solution provided. Use the basin provided. Do not add additional water to the solution.
Failure to follow these rules is a violation of the University of Florida & OSHA regulations regarding utilization of biologic materials. Violations are subject to fines and dismissal from the University.

MAIL BOXES

Each resident is assigned a mailbox in the Orthopaedic Clinic. Residents should check their mail at least twice weekly as the program communicates with the residents via the mail. In addition the program director periodically sends articles and other items of interest to the residents through the campus mail. The residents will be responsible for information distributed in this manner. There is also a bulletin board in the department that has information of interest to the residents.

MEDICAL RECORDS/DICTATIONS/EPIC

The medical record is a critically important document. It is beyond the scope of this manual to address all of the issues relating to medical records. There are frequent changes in procedures and policies in accordance with the changes in medical practice and regulations imposed by third party payers. It is essential that all residents understand the rules and policies for proper documentation of evaluation and treatment. The stated policy of the University of Florida College of Medicine is that all physicians and providers will be in compliance with these regulations at all times.

The educational curriculum will include information and training related to these issues. This will occur during orientation at the beginning of each academic year and at the beginning of each rotation, as there are specialty specific compliance requirements. There will also be training seminars held several times each year as part of the mandated compliance policies. The educational curriculum will also have scheduled educational conferences that are devoted to specifically to practice related issues (as part of the general competency requirements).

MEDICAL STUDENTS

It is very important to keep a professional relationship with the medical students. The student is on the service to learn the basic principles of orthopaedic surgery and it is part of the resident’s responsibility to teach the student about the care of the surgical patient. The students should be made to feel that they are a welcome part of the team. Ignoring the
students, telling them not to ask questions, or abusing them in any way is not acceptable and will not be tolerated.

Since the resident may participate in evaluating the student, social contact with the student outside of the hospital should be limited to group activities as long as the student is on the resident's service.

Residents are expected to take the “Residents As Teachers Program” to help facilitate their ability to teach fellow residents and medical students.

**MEDICAL REQUIREMENTS**

All residents and fellows must comply with the employee Health requirements. These include:

**MMR-Measles, Mumps, Rubella** - If born in or before 1957, the following documentation is needed: (1) proof or 2 MMRS, (2) proof of 1 MMR and 1 Live Measles (Rubeola) vaccination given after 1968, (3) physician documentation of proof of disease, or (4) proof of serological immunity. If born before 1957 you will not need the vaccination or titer if you bring documented proof of (1) Mumps vaccination or history of the disease, (2) Rubeola vaccine or history of the disease, and (3) history of Rubella documented with positive Rubella titer or documentation of Rubella vaccination.

**Hepatitis B Vaccine** - All Housestaff are strongly encouraged to have a Hepatitis B Vaccine series. If you have had the series, documentation is needed and antibody response if available. The Hepatitis B vaccine will be offered at no cost the week of orientation. If you refuse the vaccine, you will be required to sign a declination form.

**Varicella (Chicken Pox)** - A varicella (chicken pox) titer will be done on all housestaff with an unknown or negative history of chicken pox. Please bring documentation of a positive varicella titer if available. The varicella vaccination will be offered to housestaff with negative varicella titers and available by appointment only in the Employee Health Department.

**Tuberculosis Screening - PPD** - All Housestaff will be screened for tuberculosis. A tuberculin skin test (PPD) will be required unless you can provide (1) signed documentation of a negative skin test within the previous 6 months, (2) documentation of history of previous positive reaction, and/or (3) documentation of completion of adequate preventative therapy or adequate therapy for active disease. Housestaff must have the PPD read 48-72 hours after administration. Self-reads are not permitted. The PPD may be read by an Employee Health practitioner, a designee from your department, or a Department of Nursing Team Coordinator (evening/night/weekend shifts). A baseline chest
x-ray will be required for persons who have the PPD waived unless proof is provided of a negative chest x-ray result within 12 months.

PARKING PERMITS

All residents are should purchase at least a Blue level decal through parking services. Other options are available and information can be obtained from the House Staff office or from the parking services. In addition, the department is allotted a number of on call permits which allow the residents to transport between Shands Hospital, Florida Surgical Center and the Orthopaedic Clinic. These permits are given to the administrative chief resident who is responsible for distribution.

NOTE: University police department is very diligent in enforcing parking regulations at ALL campus parking areas!!

PROMOTION/PROBATION/TERMINATION

Appointments are renewed annually and continued retention in the training program depends on your satisfactory performance/training progress, including adherence to acceptable professional behavior, as well as the continuation of requisite funding for the program.

Reappointment and promotion to the next level of training will be based on the results of periodic reviews of the resident’s educational and professional achievements; their competence in achieving the goals and objectives for each rotation and for each ORT year; their academic performance including conferences, presentations, in training examinations; and continued appropriate moral, ethical and professional conduct by the resident. Biannual review will be conducted through the Clinical Competency Committee.

If the faculty determines that a resident’s progress is not satisfactory, the faculty may decide to place the resident on probation. If the decision is to place the resident on probation, the program director will meet with the resident and also send the resident an official letter of probation. This letter will outline the resident's deficiencies, make suggestions and recommendations for remedial action provide a time line to achieve these goals, and indicate the methods and criteria that will be used to evaluate the resident during this period of probation. In some circumstances, the conditions of probation may require that the resident repeat the entire ORT year, repeat all or portions of a rotation, address deficiencies in a specially designed rotation either at University of Florida or designated outside institution, or extend the period of residency training.
The resident must return a signed copy of the letter of probation indicating their understanding of the terms of probation and the circumstances that will result in lifting the probation or proceeding to termination. The resident has the right to appeal the decision of probation as outlined in the grievance/due process policy of the University of Florida.

If the conditions of probation are not met the resident can be released from the residency program either by non-renewal of contract and the end of an academic year or termination during the academic year with appropriate notice as governed by University of Florida policies.

PLEASE NOTE CAREFULLY: Probation is and is meant to be a very serious warning to the resident that their performance does not meet the standards set by the Department of Orthopaedics. If you are placed on probation this remains on your academic record even if the conditions of probation are met and the deficiencies are corrected. Every subsequent application for the remainder of your medical career (for medical licensure, specialty societies, hospital privileges, board certification, insurance contracts, etc.) will require you to disclose that you have been on probation during your training and provide a letter of explanation.

Summary Termination: Serious violations of hospital policy, acts that endanger patient safety, breaches of accepted moral or ethical standards, and/or criminal misconduct may result in immediate and summary termination at the discretion of the University of Florida College of Medicine and/or the Department of Orthopaedics & Rehabilitation chairperson, program director, and/or faculty.

The resident will be notified of this action and immediately relieved of all clinical responsibilities. The resident will retain the right to appeal as outlined in the governance/due process policy of the University of Florida.

WORK RELATED INJURY

All HOUSE STAFF who are injured on the job should immediately go to the Shands Emergency Department. Blood and body fluid exposures are treated exclusively through the Shands Department of Employee Health. Incident reports should be filled out within 24 hours and can be obtained through each department training office.

Exposure to body Fluids/ Needle Stick Injuries: If you have a needle stick or an exposure to a patient's blood &/or body fluids, you must follow the following instructions in order for it to be covered by workers compensation:

If the incident happens Monday - Friday between 7:30am and 4:30pm, please go immediately to Shands Occupational Health (formerly called Employee Health Dept.) All other hours, go immediately to the corresponding Shands Emergency Department. You will be evaluated for treatment and follow up.
There will be forms to complete regarding this injury including forms for obtaining appropriate blood work from yourself as well as the patient.

Further details of the current protocols used for prophylaxis and follow-up after a needle stick or other body fluid exposure can be obtained from Employee Health or the Emergency Department.

**DO NOT** ignore this type of injury. All exposures should be reported within 24 hours. If you were to become ill as a result of an body fluid exposure or needle stick- failure to document the initial exposure could compromise your ability to receive workers compensation or disability related to the injury.

Further inquiries can be made to Employee health, Emergency Department or the UF Workers Comp office.
GUIDE TO THE ETHICAL PRACTICE
OF ORTHOPAEDIC SURGERY
UF Orthopaedic Residency Program

Principles of Medical Ethics & Professionalism in Orthopaedic Surgery (pg 2)
Code of Medical Ethics & Professionalism for Orthopaedic Surgeons (pg 3-6)
Medical Professionalism in the New Millennium: A Physician Charter (pg 7-9)

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Wrong Site Surgery (pg 25-27)
From
GUIDE TO THE ETHICAL PRACTICE OF ORTHOPAEDIC SURGERY Published by the American Academy of Orthopaedic Surgeons – 2008

The complete Guide to the Ethical Practice of Orthopaedic Surgery is available at:
UF Orthopaedic Web site--Residents Manual—Guide to Ethical Practice of Orthopedic Surgery

AAOS Website http://www.aaos.org/wordhtml/library.htm
PRINCIPLES OF MEDICAL ETHICS & PROFESSIONALISM IN ORTHOPAEDIC SURGERY

The following Principles of Medical Ethics and Professionalism in Orthopaedic Surgery have been adopted by the Board of Directors of the American Academy of Orthopaedic Surgeons. They are not laws, but rather standards of conduct that define the essentials of honorable behavior.

I. Physician-Patient Relationship. The orthopaedic profession exists for the primary purpose of caring for the patient. The physician-patient relationship is the central focus of all ethical concerns. The orthopaedic surgeon should be dedicated to providing competent medical service with compassion and respect.

II. Integrity. The orthopaedic surgeon should maintain a reputation for truth and honesty with patients and colleagues, and should strive to expose through the appropriate review process those physicians who are deficient in character or competence or who engage in fraud or deception.

III. Legalities and Honor. The orthopaedic surgeon must obey the law, uphold the dignity and honor of the profession, and accept the profession’s self-imposed discipline. The orthopaedic surgeon also has a responsibility to seek changes in legal requirements that are contrary to the best interest of the patient.

IV. Conflicts of Interest. The practice of medicine inherently presents potential conflicts of interest. Wherever a conflict of interest arises, it must be resolved in the best interest of the patient. The orthopaedic surgeon should exercise all reasonable alternatives to ensure that the most appropriate care is provided to the patient. If a conflict of interest cannot be resolved, the orthopaedic surgeon should notify the patient of his or her intention to withdraw from the care of the patient.

V. Confidentiality. The orthopaedic surgeon should respect the rights of patients, of colleagues, and of other health professionals and must safeguard patient confidences within the constraints of the law.

VI. Medical Knowledge. The orthopaedic surgeon continually must strive to maintain and improve medical knowledge and to make relevant information available to patients, colleagues, and the public.

VII. Cooperation. Good relationships among physicians, nurses, and health care professionals are essential for good patient care. The orthopaedic surgeon should promote the development of an expert health care team that will work together harmoniously to provide optimal patient care.

VIII. Remuneration. Remuneration for orthopaedic services should be commensurate with the services rendered. Orthopaedic surgeons should deliver high quality, cost-effective care without discrimination.
IX. Publicity. The orthopaedic surgeon should not publicize himself or herself through any medium or form of public communication in an untruthful, misleading, or deceptive manner.

X. Societal Responsibility. The orthopaedic surgeon has a responsibility not only to the individual patient, to colleagues and orthopaedic surgeons-in-training, but also to society as a whole. Activities that have the purpose of improving the health and well-being of the patient and/or the community in a cost-effective way deserve the interest, support, and participation of the orthopaedic surgeon.

CODE OF MEDICAL ETHICS AND PROFESSIONALISM FOR ORTHOPAEDIC SURGEONS

PREAMBLE

The Academy’s Principles of Medical Ethics and Professionalism in Orthopaedic Surgery and Code of Medical Ethics and Professionalism for Orthopaedic Surgeons provide standards of conduct that define the essentials of honorable behavior for the orthopaedic surgeon. The Principles of Medical Ethics and Professionalism in Orthopaedic Surgery and Code of Medical Ethics and Professionalism for Orthopaedic Surgeons, while taking into account the legal requirements of medical practice, call for and espouse a standard of behavior that is higher than that required by the law.

Orthopaedic surgeons should recognize that they are role models for orthopaedic surgeons-in-training and other health care professionals and should by their deeds and actions comply with the Academy’s Principles of Medical Ethics and Professionalism in Orthopaedic Surgery and Code of Medical Ethics and Professionalism for Orthopaedic Surgeons.

I. The Physician-Patient Relationship

I. A. The orthopaedic profession exists for the primary purpose of caring for the patient. The physician-patient relationship is the central focus of all ethical concerns.

I. B. The physician-patient relationship has a contractual basis and is based on confidentiality, trust, and honesty. Both the patient and the orthopaedic surgeon are free to enter or discontinue the relationship within any existing constraints of a contract with a third party. An orthopaedic surgeon has an obligation to render care only for those conditions that he or she is competent to treat. The orthopaedist shall not decline to accept patients solely on the basis of race, color, gender, sexual orientation, religion, or national origin or on any basis that would constitute illegal discrimination.
I. C. The orthopaedic surgeon may choose whom he or she will serve. An orthopaedic surgeon should render services to the best of his or her ability. Having undertaken the care of a patient, the orthopaedic surgeon may not neglect that person. Unless discharged by the patient, the orthopaedic surgeon may discontinue service only after giving adequate notice to the patient so that the patient can secure alternative care. Managed care agreements may contain provisions which alter the method by which patients are discharged. If the enrollment of a physician or patient is discontinued in a managed care plan, the physician will have an ethical responsibility to assist the patient in obtaining follow-up care. In this instance, the physician will be responsible to provide medically necessary care for the patient until appropriate referrals can be arranged.

I. D. When obtaining informed consent for treatment, the orthopaedic surgeon is obligated to present to the patient or to the person responsible for the patient, in understandable terms, pertinent medical facts and recommendations consistent with good medical practice. Such information should include alternative modes of treatment, the objectives, risk and possible complications of such treatment, and the complications and consequences of no treatment.

II. Personnel Conduct

II. A. The orthopaedic surgeon should maintain a reputation for truth and honesty. In all professional conduct, the orthopaedic surgeon is expected to provide competent and compassionate patient care, exercise appropriate respect for other health care professionals, and maintain the patient’s best interests as paramount.

II. B. The orthopaedic surgeon should conduct himself or herself morally and ethically, so as to merit the confidence of patients entrusted to the orthopaedic surgeon’s care, rendering to each a full measure of service and devotion.

II. C. The orthopaedic surgeon should obey all laws, uphold the dignity and honor of the profession, and accept the profession’s self-imposed discipline. Within legal and other constraints, if the orthopaedic surgeon has a reasonable basis for believing that a physician or other health care provider has been involved in any unethical or illegal activity, he or she should attempt to prevent the continuation of this activity by communicating with that person and/or identifying that person to a duly-constituted peer review authority or the appropriate regulatory agency. In addition, the orthopaedic surgeon should cooperate with peer review and other authorities in their professional and legal efforts to prevent the continuation of unethical or illegal conduct.

II. D. Because of the orthopaedic surgeon’s responsibility for the patient’s life and future welfare, substance abuse is a special threat that must be recognized and stopped. The orthopaedic surgeon must avoid substance abuse and, when necessary, seek rehabilitation. It is ethical for an orthopaedic surgeon to take actions to encourage colleagues who are chemically dependent to seek
rehabilitation.

III. Conflicts of Interest

III. A. The practice of medicine inherently presents potential conflicts of interest. When a conflict of interest arises, it must be resolved in the best interest of the patient. The orthopaedic surgeon should exercise all reasonable alternatives to ensure that the most appropriate care is provided to the patient. If the conflict of interest cannot be resolved, the orthopaedic surgeon should notify the patient of his or her intention to withdraw from the relationship.

III. B. If the orthopaedic surgeon has a financial or ownership interest in a durable medical goods provider, imaging center, surgery center or other health care facility where the orthopaedic surgeon’s financial interest is not immediately obvious, the orthopaedic surgeon must disclose this interest to the patient. The orthopaedic surgeon has an obligation to know the applicable laws regarding physician ownership, compensation and control of these services and facilities.

III. C. When an orthopaedic surgeon receives anything of significant value from industry, a potential conflict exists which should be disclosed to the patient. When an orthopaedic surgeon receives inventor royalties from industry, the orthopaedic surgeon should disclose this fact to the patient if such royalties relate to the patient’s treatment. It is unethical for an orthopaedic surgeon to receive compensation of any kind from industry for using a particular device or medication. Reimbursement for reasonable administrative costs in conducting or participating in a scientifically sound research clinical trial is acceptable.

III. D. An orthopaedic surgeon reporting on clinical research or experience with a given procedure or device must disclose any financial interest in that procedure or device if the orthopaedic surgeon or any institution with which that orthopaedic surgeon is connected has received anything of value from its inventor or manufacturer.

III. E. Except when inconsistent with applicable law, orthopaedic surgeons have a right to dispense medication, assistive devices, orthopaedic appliances, and similar related patient-care items, and to provide facilities and render services as long as their doing so provides a convenience or an accommodation to the patient without taking financial advantage of the patient. Ultimately, the patient must have the choice of accepting the dispensed medication or patient-care items or obtaining them outside the physician’s office.

IV. Maintenance of Competence

IV. A. The orthopaedic surgeon continually should strive to maintain and improve medical knowledge and skill and should make available to patients and colleagues the benefits of his or her professional attainments. Each orthopaedic surgeon should participate in continuing medical educational activities.

V. Relationships With Orthopaedic Surgeons, Nurses, and Allied Health
**Personnel**

V. A. Good relationship among physicians, nurses, and other health care professionals are essential for good patient care. The orthopaedic surgeon should promote the development of an expert health care team that will work together harmoniously to provide optimal patient care.

V. B. The professional conduct of the orthopaedic surgeon will be scrutinized by local professional associations, hospital(s), managed care organization(s), peer review committees, and state medical and/or licensing boards. These groups deserve the participation and cooperation of orthopaedic surgeons.

V. C. Orthopaedic surgeons are frequently called upon to provide expert medical testimony in courts of law. In providing testimony, the orthopaedic surgeon should exercise extreme caution to ensure that the testimony provided is non-partisan, scientifically correct, and clinically accurate. The orthopaedic surgeon should not testify concerning matters about which the orthopaedic surgeon is not knowledgeable. It is unethical for an orthopaedic surgeon to accept compensation that is contingent upon the outcome of litigation.

**VI. Relationship to the Public**

VI. A. The orthopaedic surgeon should not publicize himself or herself through any medium or form of public communication in an untruthful, misleading, or deceptive manner. Competition between and among surgeons and other health care practitioners is ethical and acceptable.

VI. B. Professional fees should be commensurate with the services provided. It is unethical for orthopaedic surgeons to bill individually for services that are properly considered a part of the “global service” package where defined, i.e., services that are a necessary part of the surgical procedure. It is unethical for orthopaedic surgeons to submit billing codes that reflect higher levels of service or complexity than those that were actually required. It is unethical for orthopaedic surgeons to charge for services not provided.

VI. C. Physicians should be encouraged to devote some time and work to provide care for individuals who have no means of paying.

VI. D. The orthopaedic surgeon may enter into a contractual relationship with a group, a prepaid practice plan, or a hospital. The physician has an obligation to serve as the patient’s advocate and to ensure that the patient’s welfare remains the paramount concern.

**VII. General Principles of Care**

VII. A. An orthopaedic surgeon should practice only within the scope of his or her personal education, training, and experience. If an orthopaedic surgeon contracts to provide comprehensive musculoskeletal care, then he or she has the obligation to ensure that appropriate care is provided in areas outside of his or
her personal expertise.

VII. B. It is unethical to prescribe, provide, or seek compensation for unnecessary services or not to provide services that are medically necessary. It is unethical to prescribe controlled substances when they are not medically indicated. It is also unethical to prescribe substances for the sole purpose of enhancing athletic performance.

VII. C. The orthopaedic surgeon should not perform a surgical operation under circumstances in which the responsibility for diagnosis or care of the patient is delegated to another who is not qualified to undertake it.

VII. D. When a patient submits a proper request for records, the patient is entitled to a copy of such records as they pertain to that patient individually. Charges should be commensurate with the services provided to reproduce the medical records. Certain correspondence from insurance carriers or attorneys may call for conclusions on the part of the orthopaedic surgeon. As such, a reasonable fee for professional services is permissible.

VIII. Research and Academic Responsibilities

VIII. A. All research and academic activities must be conducted under conditions of full compliance with ethical, institutional, and government guidelines. Patients participating in research programs must have given full informed consent and retain the right to withdraw from the research protocol at any time.

VIII. B. Orthopaedic surgeons should not claim as their own intellectual property that which is not theirs. Plagiarism or the use of others’ work without attribution is unethical.

VIII. C. The principal investigator of a scientific research project or clinical research project is responsible for proposing, designing, and reporting the research. The principal investigator may delegate portions of the work to other individuals, but this does not relieve the principal investigator of the responsibility for work conducted by the other individuals.

VIII. D. The principal investigator or senior author of a scientific report is responsible for ensuring that appropriate credit is given for contributions to the research described.

IX. Community Responsibility

IX. A. The honored ideals of the medical profession imply that the responsibility of the orthopaedic surgeon extends not only to the individual but also to society as a whole. Activities that have the purpose of improving the health and well being of the patient and/or the community in a cost-effective way deserve the interest, support, and participation of the orthopaedic surgeon.
MEDICAL PROFESSIONALISM IN THE NEW MILLENNIUM:
A PHYSICIAN CHARTER

Project of the ABIM Foundation, ACP-ASIM Foundation, and European Federation of Internal Medicine*

[Note: The Board of Directors of the American Academy of Orthopaedic Surgeons adopted this statement on “Medical Professionalism in the New Millennium: A Physician Charter” as Academy policy during its meeting on May 17, 2002.]

Physicians today are experiencing frustration as changes in the health care delivery systems in virtually all industrialized countries threaten the very nature and values of medical professionalism. Meetings among the European Federation of Internal Medicine, The American College of Physician-American Society of Internal Medicine (ACP-ASIM), and the American Board of Internal Medicine (ABIM) have confirmed that physician views on professionalism are similar in quite diverse systems of health care delivery. We share the view that medicine’s commitment to the patient is being challenged by external forces of change within our societies.

Recently, voices from many countries have begun calling for a renewed sense of professionalism, one that is activist in reforming health care systems. Responding to this challenge, the European Federation of Internal Medicine, the ACP-ASIM Foundation, and the ABIM Foundation combined efforts to launch the Medical Professionalism Project (www.professionalism.org) in late 1999. These three organizations designated members to develop a “charter” to encompass a set of principles to which all medical professionals can and should aspire. The charter supports physicians’ efforts to ensure that the health care systems and the physicians working within them remain committed both to patient welfare and to the basic tenets to be applicable to different cultures and political systems.

PREAMBLE

Professionalism is the basis of medicine’s contract with society. It demands placing the interests of patients above those of the physician, setting and maintaining standards of competence and integrity, and providing expert advice to society on matters of health. The principles and responsibilities of medical professionalism must be clearly understood by both the profession and society. Essential to this contract is public trust in physicians, which depends on the integrity of both individual physicians and the whole profession.

At present, the medical profession is confronted by an explosion of technology, changing market forces, problems in health care delivery, bioterrorism, and globalization. As a result, physicians find it increasingly difficult to meet their responsibilities to patients and society. In these circumstances, reaffirming the fundamental and universal principles and values of medical professionalism, which remain ideals to be pursued by all physicians, becomes all the more important.

The medical profession everywhere is embedded in diverse cultures and national traditions, but its members share the role of healer, which has roots extending back to
Hippocrates. Indeed, the medical profession must contend with complicated political, legal, and market forces. Moreover, there are wide variations in medical delivery and practice through which any general principles may be expressed in both complex and subtle ways. Despite these differences, common themes emerge and form the basis of this charter in the form of three fundamental principles and as a set of definitive professional responsibilities.

**FUNDAMENTAL PRINCIPLES**

*Principle of primacy of patient welfare.* The principle is based on a dedication to serving the interest of the patient. Altruism contributes to the trust that is central to the physician-patient relationship. Market forces, societal pressures, and administrative exigencies must not compromise this principle.

*Principle of patient autonomy.* Physicians must have respect for patient autonomy. Physicians must be honest with their patients and empower them to make informed decisions about their treatment. Patients' decisions about their care must be paramount, as long as those decisions are in keeping with ethical practice and do not lead to demands for inappropriate care.

*Principle of social justice.* The medical profession must promote justice in the health care system, including the fair distribution of health care resources. Physicians should work actively to eliminate discrimination in health care, whether based on race, gender, socioeconomic status, ethnicity, religion, or any other social category.

**A SET OF PROFESSIONAL RESPONSIBILITIES**

*Commitment to professional competence.* Physicians must be committed to lifelong learning and be responsible for maintaining the medical knowledge and clinical and team skills necessary for the provision of quality care. More broadly, the profession as a whole must strive to see that all of its members are competent and must ensure that appropriate mechanisms are available for physicians to accomplish this goal.

*Commitment to honesty with patients.* Physicians must ensure that patients are completely and honestly informed before the patient has consented to treatment and after treatment has occurred. This expectation does not mean that patients should be involved in every minute decision about medical care; rather, they must be empowered to decide on the course of therapy. Physicians should also acknowledge that in health care, medical errors that injure patients do sometime occur. Whenever patients are injured as a consequence of medical care, patient should be informed promptly because failure to do so seriously compromises patient and societal trust. Reporting and analyzing medical mistakes provide the basis for appropriate prevention and improvement strategies and for appropriate compensation to injured parties.

*Commitment to patient confidentiality.* Earning the trust and confidence of patients requires that appropriate confidentiality safeguards be applied to disclosure of patient information. This commitment extends to discussions with persons acting on a patient’s behalf when obtaining the patient’s own consent is not feasible. Fulfilling the commitment to confidentiality is more pressing now than ever before, given the
widespread use of electronic information systems for compiling patient data and an increasing availability of genetic information. Physicians recognize, however, that their commitment to patient confidentiality must occasionally yield to overriding considerations in the public interest (for example, when patients endanger others).

_Commitment to maintaining appropriate relations with patients._ Given the inherent vulnerability and dependency of patients, certain relationships between physicians and patients must be avoided. In particular, physicians should never exploit patients for any sexual advantage, personal financial gain, or other private purpose.

_Commitment to improving quality of care._ Physicians must be dedicated to continuous improvement in the quality of health care. This commitment entails not only maintaining clinical competence but also working collaboratively with other professionals to reduce medical error, increase patient safety, minimize overuse of health care resources, and optimize the outcomes of care. Physicians must actively participate in the development of better measures of quality of care and the application of quality measures to assess routinely the performance of all individuals, institutions, and systems responsible for health care delivery. Physicians, both individually and through their professional associations, must take responsibility for assisting in the creation and implementation of mechanisms designed to encourage continuous improvement in the quality of care.

_Commitment to improving access to care._ Medical professionalism demands that the objective of all health care systems be the availability of a uniform and adequate standard care. Physicians must individually and collectively strive to reduce barriers to equitable health care. Within each system, the physician should work to eliminate barriers to access based on education, laws, finances, geography, and social discrimination. A commitment to equity entails the promotion of public health and preventive medicine, as well as public advocacy on the part of each physician, without concern for the self-interest of the physician or the profession.

_Commitment to a just distribution of finite resources._ While meeting the needs of individual patients, physicians are required to provide health care that is based on the wise and cost-effective management of limited clinical resources. They should be committed to working with other physicians, hospitals, and payers to develop guidelines for cost-effective care. The physician’s professional responsibility for appropriate allocation of resources requires scrupulous avoidance of superfluous tests and procedures. The provision of unnecessary services not only exposes one’s patients to avoidable harm and expense but also diminishes the resources available for others.

_Commitment to scientific knowledge._ Much of medicine’s contract with society is based on the integrity and appropriate use of scientific knowledge and technology. Physicians have a duty to uphold scientific standards, to promote research, and to create new knowledge and ensure its appropriate use. The profession is responsible for the integrity of this knowledge, which is based on scientific evidence and physician experience.

_Commitment to maintaining trust by managing conflicts of interest._ Medical professionals and their organizations have many opportunities to compromise their professional responsibilities by pursuing private gain or personal advantage. Such
compromises are especially threatening in the pursuit of personal or organizational interactions with for-profit industries, including medical equipment manufacturers, insurance companies, and pharmaceutical firms. Physicians have an obligation to recognize, disclose to the general public, and deal with conflicts of interest that arise in the course of their professional duties and activities. Relationships between industry and opinion leaders should be disclosed, especially when the latter determine the criteria for conducting and reporting clinical trials, writing editorials or therapeutic guidelines, or serving as editors of scientific journals.

Commitment to professional responsibilities. As members of a profession, physicians are expected to work collaboratively to maximize patient care, be respectful of one another, and participate in the processes of self-regulation, including remediation and discipline of members who have failed to meet professional standards. The profession should also define and organize the educational and standard-setting process for current and future members. Physicians have both individual and collective obligations to participate in these processes. These obligations include engaging in internal assessment and accepting external scrutiny of all aspects of their professional performance.

SUMMARY

The practice of medicine in the modern era is beset with unprecedented challenges in virtually all cultures and societies. These challenges center on increasing disparities among the legitimate needs of patients, the available resources to meet those needs, the increasing dependence on market forces to transform health care systems, and the temptation for physicians to forsake their traditional commitment to the primacy of patients' interests. To maintain the fidelity of medicine's social contract during this turbulent time, we believe that physicians must reaffirm their active dedication to the principles of professionalism, which entails not only their personal commitment to the welfare of their patients but also collective efforts to improve the health care system for the welfare of society. This Charter on Medical Professionalism is intended to encourage such dedication and to promote an action agenda for the profession of medicine that is universal in scope and purpose.
Opinions on Ethics and Professionalism

Advertising by Orthopaedic Surgeons

Issues raised

What parameters exist to guide orthopaedic surgeons regarding advertising?

Applicable provision of the Principles of Medical Ethics and Professionalism in Orthopaedic Surgery

“IX. The orthopaedic surgeon should not publicize himself or herself through any medium or form of public communication in an untruthful, misleading, or deceptive manner.”

Applicable provisions of the Code of Medical Ethics and Professionalism for Orthopaedic Surgeons

“I.D. When obtaining informed consent for treatment, the orthopaedic surgeon is obligated to present to the patient or to the person responsible for the patient, in understandable terms, pertinent medical facts and recommendations consistent with good medical practice. Such information should include alternative modes of treatment, the objectives, risks and possible complications of such treatment, and the complications and consequences of no treatment.”

II. A. The orthopaedic surgeon should maintain a reputation for truth and honesty. In all professional conduct, the orthopaedic surgeon is expected to provide competent and compassionate patient care, exercise appropriate respect for other health care professionals, and maintain the patient’s best interests as paramount.

“VI.A. The orthopaedic surgeon should not publicize himself or herself through any medium or form of public communication in an untruthful, misleading, or deceptive manner. Competition between and among surgeons and other health care practitioners is ethical and acceptable.”

Other references

American Medical Association, Current Opinions of the Council of Ethical and Judicial Affairs:

Section 5.01 (“Advertising and HMOs”)
Section 5.02 (“Advertising and Publicity”)

Legal analysis

Federal and state antitrust laws prohibit medical associations like the Academy from impeding physicians who use truthful advertising. The reason for this prohibition is to preserve and promote a free and open market by enabling physicians to disseminate information about their services to patients. Policy makers at the federal and state level believe that truthful advertising may assist patients in making better informed judgments and choices.
Although truthful advertising has substantial legal protections, physician advertising that is not truthful is not protected by federal or state antitrust laws nor is it protected from state regulation by the First Amendment. In fact, physician advertising that is false, deceptive, or misleading within the meaning of Section 5 of the Federal Trade Commission (FTC) Act is illegal. [15 U.S.C. Sect. 45]. The FTC has the authority to sue physicians who disseminate false or deceptive advertising. In addition, the FTC may enjoin them from further dissemination of misleading advertisements, and under some circumstances, may levy fines. Furthermore, physicians who violate an FTC order which prohibits the dissemination of false or deceptive advertising are subject to substantial fines.

In addition, many state consumer protection laws and medical practice acts prohibit false or deceptive physician advertising. These laws generally empower state attorneys general to sue physicians who engage in false advertising for fines or to enjoin further illegal activity. State medical licensure boards often have the authority to discipline physicians who engage in false advertising. In addition, patients who have been injured by false or misleading physician advertising may be able to sue the physician involved for damages under consumer protection statutes or common law fraud claims.

**Ethical analysis**

Orthopaedic surgeons, like all physicians, have an ethical obligation to present themselves and the services they provide to patients in a clear and accurate manner. This principle of ethical conduct is buttressed by its enforcement in law.

A successful physician-patient relationship is based on trust. The patient trusts that the physician has the appropriate training and skills, will listen to the patient's complaints and symptoms, and will advise the patient accurately and objectively about the alternative courses of treatment. It is essential to this relationship that the patient have confidence that the physician is honest and is not manipulating the information presented for any purpose. Because the patient is often in a relatively uninformed position, patients usually assume that the physician is telling them all they need to know and that what they are told is accurate. Consequently, patients are especially at risk for untruthful, misleading or deceptive advertising.

For this reason, false and deceptive advertising by physicians destroys the trust relationship between the physician and patient which is essential to quality medical care. A physician’s misrepresentation may harm patients by making them less likely to seek out treatments they need or vulnerable to accepting treatments that are not essential.

The FTC has developed four general rules to determine whether physician advertisements are truthful and not false, deceptive or misleading. The four rules are:

1. Advertisements should be accurate and not contain explicit false claims or misrepresentations of material fact. Generally, a false claim or a misrepresentation of fact would be material if it would be likely to affect the behavior or actions of an ordinary and prudent person regarding a physician or physician service.
2. Advertisements should not contain material implied false claims or implied misrepresentations of material fact. An advertisement that does not contain direct false claims or misrepresentations should not by implication create false or unjustified expectations about the physician or physician services being publicized. An implied false claim or misrepresentation would be material if it would be likely to affect the behavior of an ordinary and prudent person towards a physician or physician service.

3. There should be no omissions of material fact from advertisements. In advertisements, disclosures of information are necessary where omission would make the advertisement as a whole misleading to an ordinary and prudent person or an average member of the audience to whom it is directed.

4. Physicians should be able to substantiate material claims and personal representations made in an advertisement.

The ultimate question of whether an advertisement is truthful can be determined by addressing whether all four of these rules of truthful advertising have been followed in the development and dissemination of the advertisement.

Specific issues

- **Endorsements and Pictures**

Endorsements and pictures are sometimes used to represent the benefits of specific orthopaedic services, such as the degree of relief, recovery, or other benefits that may be attained if the services are used. The primary concern raised by endorsements and pictures is whether they communicate benefits of orthopaedic services that are representative of the benefits ordinarily attained by the average patient. If they communicate a degree of relief or recovery that is exceptional or otherwise not representative of the average patient, they may mislead patients into having unjustified medical expectations about the orthopaedic services advertised.

- **Claims: “Painless”**

The degree of comfort, ease, or pain involved in the provision of an orthopaedic service is difficult to measure by objective standards. How these factors are experienced by an individual is subjective and varies from patient to patient. Therefore, claims or representations about the degree of comfort, care or lack of pain involved in an orthopaedic service may be difficult to substantiate and may be misleading if not used with care.

Statements that an orthopaedic procedure does not cause pain or is painless raise concerns if the services advertised are invasive. It is highly unlikely that an invasive orthopaedic procedure will not cause some degree of pain.

- **Claims: “Safe” or “Effective”**
General representations about the safety or effectiveness of specific orthopaedic services should not be misleading. Such representations may cause a layperson to lack appreciation for the nature of any risks or adverse effects associated with the orthopaedic procedure, even if the likelihood that adverse effects may occur is low. More specific representations can also cause concerns. For example, a statement that an orthopaedic surgeon has cured or successfully treated a large number of cases involving a particular serious ailment is deceptive if it implies a certainty of result and creates unjustified and misleading expectations in prospective patients.

Representations about the safety or effectiveness of orthopaedic services should be substantiated with sound scientific support, such as peer reviewed publications in medical literature or other authoritative sources of scientific information. Such claims should not contradict or be inconsistent with conclusions reached by authoritative federal agencies, such as the National Institutes of Health, the Centers for Medicare and Medicaid Services, the Food and Drug Administration or others, unless such a contradiction or inconsistency can be substantiated with sound scientific evidence.

Simply using a phrase such as “safe” is likely to deceive prospective patients by implying an absolute or binary (“safe” versus “unsafe”) standard, when in fact the “safety” of an orthopaedic procedure is necessarily a qualified concept. The failure to qualify the claim is particularly objectionable since a variety of phrases could easily be employed to communicate the safety/risk relationship (e.g. “relatively safe,” “safe for most patients,” or “among the safer types of orthopaedic surgery”).

- **Claims: “Cure”**

Use of the term “cure” with reference to a problem is often deceptive. To “cure” a condition means to alter the circumstances so that the condition no longer exists and will not recur. In order not to be misleading, the term “cure” should almost always be further explained and qualified to give the patient an accurate understanding of his/her prospects for improvement.

- **Claims: Physician Qualifications**

Orthopaedic surgeon qualifications include education, training, and other indicators of status or achievement within the profession. The lay public does not have a good understanding about what various qualifications represent. Most patients will assume that physician qualifications in an advertisement indicate training, knowledge, expertise, and competence with respect to the services being advertised. That assumption is likely because patients will conclude that qualifications are listed in an advertisement to substantiate the orthopaedic surgeon’s ability to perform the services being advertised. It is possible for patients to be misled if the qualifications listed imply a level of education or training which the orthopaedic surgeon did not receive; if they imply a degree of scrutiny of the orthopaedic surgeon’s knowledge, training and competence that did not in fact occur; if they imply a qualification which the orthopaedic surgeon does not have; if the qualifications are inaccurately listed; or if the qualifications do not indicate education, training, knowledge, expertise, or competence with respect to the services being advertised.
• Claims: “World Famous,” “Top Surgeon,” “Pioneer”

Only a small fraction of all orthopaedic surgeons can justifiably claim to be “world-famous.” These may include some orthopaedic surgeons who are editors of major journals, who have authored widely used texts, or who have made major, original contributions to medical techniques. However, it is the very elusiveness of measures of “fame” which makes invoking them in trying to lure patients misleading. Merely traveling extensively, presenting addresses at professional meetings or treating patients from abroad does not mean that an orthopaedic surgeon is “world-famous.” To so indicate is to use the inherent imprecision of the concept of fame to mislead patients. There can be little question that such claims are employed in order to give patients the impression that the orthopaedic surgeon meets some objective, high level of competence, skill or recognition - which probably does not exist with respect to the advertiser. The same is true of advertising oneself as a “top orthopaedic surgeon.”

Saying that one has “pioneered advances in orthopaedic surgery” is also deceptive. Such a phrase connotes a major breakthrough, not a minor alteration or refinement of conventional procedures. Simply being one of many “investigators” for a type of orthopaedic prosthesis, using one piece of equipment, or using a slightly refined surgical procedure does not justify use of the term “pioneer.” Since all orthopaedic surgery requires some degree of innovation, an orthopaedic surgeon cannot meaningfully claim to be an originator or developer of a technique or product simply because he or she has modified what existed before in some minor way.

• Claims: Fees and Costs

Orthopaedic surgeons may advertise truthful information about fees and costs. However, statements about fee information can be misleading if they do not fairly inform the public about the costs likely to be incurred when patronizing the advertised physician. For example, the description of any service for which a fee or a range of fees is advertised must not be deceptive or misleading, and the statement should also indicate whether there may be additional fees for related services that are commonly required when the advertised service is obtained.
Opinions on Ethics and Professionalism
Care and Treatment of the Medically Underserved

Issue raised

What are the orthopaedic surgeon’s obligations to care and/or treat the medically underserved, i.e., patients who do not have insurance and who are unable to pay for such services?

Applicable provisions of the Principles of Medical Ethics and Professionalism in Orthopaedic Surgery

“X. Societal Responsibility. The orthopaedic surgeon has a responsibility not only to the individual patient, to colleagues and orthopaedic surgeons-in-training, but also to society as a whole. Activities that have the purpose of improving the health and well-being of the patient and/or the community in a cost-effective way deserve the interest, support and participation of the orthopaedic surgeon.”

Applicable provisions of the Code of Medical Ethics and Professionalism for Orthopaedic Surgeons

“I.B. The physician-patient relationship has a contractual basis and is based on confidentiality, trust and honesty. Both the patient and the orthopaedic surgeon are free to enter or discontinue the relationship within any existing constraints of a contract with a third party. An orthopaedist has an obligation to render care only for those conditions that he or she is competent to treat. The orthopaedist shall not decline to accept patients solely on the basis of race, color, gender, sexual orientation, religion or national origin or on any basis that would constitute illegal discrimination.”

“I.C. The orthopaedic surgeon may choose whom he or she will serve. An orthopaedic surgeon should render services to the best of his or her ability. Having undertaken the care of a patient, the orthopaedic surgeon may not neglect that person. Unless discharged by the patient, the orthopaedic surgeon may discontinue services only after giving adequate notice to the patient so that the patient can secure alternative care. Managed care agreements may contain provisions which alter the method by which patients are discharged. If the enrollment of a physician or patient is discontinued in a managed care plan, the physician will have an ethical responsibility to assist the patient in obtaining follow-up care. In this instance, the physician will be responsible to provide medically necessary care for the patient until appropriate referrals can be arranged.”

“VI.C. Physicians should be encouraged to devote some time and work to provide care for individuals who have no means of paying.”

“IX.A. The honored ideals of the medical profession imply that the responsibility of the orthopaedic surgeon extends not only to the individual but also to society as a whole. Activities that have the purpose of improving the health and well-being of the patient and/or the community in a cost-effective way deserve the interest, support, and participation of the orthopaedic surgeon.”

Background

A significant portion of the citizens in the United States have inadequate access to medical care. According to a 1992 study, 17 percent of Americans had inadequate access to physicians, reflected in such factors as premature death and disability caused
by controllable illnesses and high rates of infant and child mortality. A 1996 study by the Harvard School of Public Health found that 37 million Americans (31 percent) were without health insurance or had difficulty getting or paying for medical care at some time during 1995. Since 1988, the number of uninsured persons in the United States has increased steadily each year. The non-elderly uninsured population grew from 33.5 million in 1988 to nearly 40 million in 1994, the year of the most recent national estimate.

The number of American under age 65 with private insurance who are underinsured is estimated to be between 25 to 48 million, or ten to twenty percent of the population. These figures are 50% larger than figures for 1987 and may be growing, since employers are offering less generous health insurance policies than in the past. The percentage of Americans with employer-sponsored health insurance is decreasing; nearly 6% fewer American under age 65 had such insurance in 1995 than in 1988.

While a lack of insurance or underinsurance do not necessarily result in reduced access to medical care, it clearly has an impact. People who are uninsured report up to 47% fewer visits to physicians and fewer hospitalizations than those who have insurance, even though they are in worse health.

The lack of access to health care in the United States is disproportionately distributed throughout the population. Well over half of U.S. population living under the poverty level are women and children. One in seven children in the United States is without health insurance. This is nearly one-fourth of the total uninsured population. When compared to the insured, they are four times more likely to report needing, but not receiving health care. In addition, strong differences in access to and utilization of health care persist for various racial and ethnic groups. The lack of access to health care, particularly primary and preventative health care, has pronounced consequences both for the health care system and for society in general.

In addition, as the health care environment changes, there has been tendency by many Managed Care Organization (MCOs) not to cover those without insurance or those who are underinsured.

**Ethical Considerations**

I. **Obligation of Individual Physicians To Treat the Medically Underserved**

Organized medicine has long recognized that the individual physician has an ethical obligation to treat the medically underserved. For example, the first *Code of Ethics* of the American Medical Association (AMA) in 1847 provided that “to individuals in indigent circumstances, professional services should be cheerfully and freely accorded.” More recently, in 1993, the AMA Council on Ethical and Judicial Affairs stated that medical professionals should reaffirm their responsibility for making health care available to the needy.

Each physician has a moral and ethical obligation to care for the medically underserved. The objective of the medical professional is to care for the sick, to treat the ill without regard for who they may be, what their diseases are or whether
they can pay. While reimbursement may follow, the pursuit of material gain is not the primary end of the medical profession.

The obligation of individual physicians to help care for the medically underserved is based in the concept of professionalism, including its pursuit of moral ideals such as justice and beneficence. By drawing on the physician’s mercy, compassion and empathy, charity care strengthens the bond between physician and patient that have often been weakened by increased commercialization of medicine. Providing care to patients without expectation of payment reaffirms the primacy of medicine as a helping profession.

Although physicians provide considerable charity care, improvements can and should occur. For example, in 1996, the AMA House of Delegates recognized a growing need for voluntary physician efforts to care for the uninsured in an era of increased fiscal constraint in both public and private sector programs. While most physicians provide free or reduced fee care within their practices, in 1993 as many as one-quarter to one-third failed to provide services to the medically underserved.

What Care Individual Physicians and Orthopaedic Surgeons Are Providing

In 1994, the AMA reported that 68% of all practicing physicians provided some free or reduced fee care, and devoted an average of 12% of their work time, 7.2 hours per week, to caring for the medically underserved, up from 6.5 hours per week in 1990.

According to *Orthopaedic Practice in the United States: 1996/7*, approximately ten percent of the care provided by orthopaedic surgeons is uncompensated or is paid by the Medicaid program. Four percent of the care is entirely uncompensated. In the most recent Orthopaedic Census Survey that specifically dealt with the issue of orthopaedic surgeon’s providing uncompensated care, the Academy found:

- Eighty-one percent of orthopaedic surgeons regularly provide care for patient from whom they neither expect nor receive compensation (including charity care clinics);

- Orthopaedic surgeons provide, on average, 37 professional hours per month on uncompensated care or where compensation is Medicaid or other reduced payment. This includes 9.1 hours where compensation is neither expected nor received; 13.3 hours where compensation is expected but not received; and 14.8 hours where compensation is Medicaid or similar reduced payment; and

- Sixty percent of orthopaedic surgeons indicate they are providing more uncompensated or reduced compensated care than they were five years ago. The average increase in hours per month indicated was 31 percent.

Recommendation of the AMA Council on Ethical and Judicial Affairs

In 1993, the Council on Ethical and Judicial Affairs of the AMA adopted a guideline
regarding the individual physician’s obligation to treat the medically underserved. The Academy generally endorses this guideline and has revised it as appears below:

Caring for the medically underserved should be a normal part of each physician's overall service to patients. Although the measure of what constitutes an appropriate contribution may vary with circumstances such as community characteristics and geographical location, orthopaedic surgeons should work to ensure that the needs of the medically underserved in their communities are met. Since a large number of the medically underserved are children, the orthopaedic surgeon has a special obligation to treat them without discrimination based on the ability to pay.

Orthopaedic surgeons should devote their energy, knowledge, and prestige to designing and lobbying at all levels to better programs to provide care for the medically underserved.

II. Obligation of Society & Medical Profession To Treat Medically Underserved

The duty to care for the medically underserved rests not only with individual physicians, but also with society and the medical profession as a whole. The policies of the Academy make improved access to medical care a clear priority. Since 1992, the Academy has publicly supported universal, affordable health care available to all. In its response to health care reform, the Academy stated that this country “must provide an essential and universally accepted health package for all Americans, regardless of ability to pay. This health care package must include a basic level of high quality health services, including musculoskeletal services. In 1992, the Academy also stated that the medically underserved should be covered through “an expansion of the federal-state health care financing system.

Recommendation of the AMA Council on Ethical and Judicial Affairs

In 1993, the Council of Ethical and Judicial Affairs of the AMA adopted a guideline regarding the obligation of society and the medical profession to treat the medically underserved. The Academy generally endorses the guideline and has revised it as appears below:

The American Academy of Orthopaedic Surgeons and state and local medical societies should help society meet its obligations to provide health care services to the medically underserved. By working together in providing care for little or no compensation, by volunteering at local free clinics and/or by participating in active professional organizations and their affiliated alliances, orthopaedic surgeons and other physicians can be directly involved in and can encourage the provision of coordinated quality care for the medically underserved.

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Opinions on Ethics and Professionalism

Gifts and the Orthopaedic Surgeon’s Relationship with Industry

Issue raised

Under what, if any, circumstances is it appropriate for orthopaedic surgeons to accept gifts or other financial support from industry, including pharmaceutical, biomaterial or device manufacturers?

Applicable provisions of the Principles of Medical Ethics and Professionalism in Orthopaedic Surgery

"I. The orthopaedic profession exists for the primary purpose of caring for the patient. The physician-patient relationship is the central focus of all ethical concerns. The orthopaedic surgeon should be dedicated to providing competent medical service with compassion and respect."

Applicable provisions of the Code of Medical Ethics and Professionalism for Orthopaedic Surgeons

"I.A. The orthopaedic profession exists for the primary purpose of caring for the patient. The physician-patient relationship is the central focus of all ethical concerns."

"III.C. When an orthopaedic surgeon receives anything of significant value from industry, a potential conflict exists which should be disclosed to the patient. When an orthopaedic surgeon receives inventor royalties from industry, the orthopaedic surgeon should disclose this fact to the patient if such royalties relate to the patient’s treatment. It is unethical for an orthopaedic surgeon to receive compensation of any kind from industry for using a particular device or medication. Reimbursement for reasonable administrative costs in conducting or participating in a scientifically sound research clinical trial is acceptable."

"IV.A. The orthopaedic surgeon continually should strive to maintain and improve medical knowledge and skill and should make available to patients and colleagues the benefits of his or her professional attainments. Each orthopaedic surgeon should participate in continuing medical educational activities.

Other references:

American Medical Association, Section 8.061 (Gifts to Physicians from Industry) of the Current Opinions of the Council on Ethical and Judicial Affairs.


Discussion

Orthopaedic surgeons have long recognized the importance of continuing medical education in maintaining their professional skills. Both orthopaedists-in-training and practicing orthopaedic surgeons attend and participate in numerous continuing medical educational programs and seminars. Industry, including pharmaceutical, biomaterial and device manufacturers, has
generously supported many of these beneficial programs.

For several years, there has been concern about industry making gifts to physicians. Some of these gifts that reflect customary marketing practices of industry may not be consistent with basic principles of medical ethics. The line is sometimes blurred between industry’s providing funds for an actual continuing medical educational experience and providing funds to promote the use or purchase of a particular pharmaceutical, biomaterial or piece of orthopaedic equipment.

Generally, the American Academy of Orthopaedic Surgeons (AAOS) believes that it is acceptable for industry to provide financial and other support to orthopaedic surgeons if such support has significant educational value and has the purpose of improving patient care. All dealings between orthopaedic surgeons and industry should benefit the patient and be able to withstand public scrutiny.

Guidelines
To avoid acceptance of inappropriate gifts or other financial support, the AAOS recommends that orthopaedic surgeons observe the following guidelines:

1. Benefit to Patients.
   The patient’s best interest is paramount. Therefore, it is of utmost importance that any gift or other financial support accepted by an orthopaedic surgeon should primarily entail a benefit to his or her patient. A gift of any kind from industry should in no way influence the orthopaedic surgeon in determining the most appropriate treatment for his or her patient. It is only by strict adherence to this principle that the orthopaedic surgeon may maintain the patient’s trust.

2. Gifts With Conditions Attached.
   Orthopaedic surgeons should not accept gifts or other financial support with conditions attached. No gifts (including goods, meals, accommodations, meeting registrations, travel, etc. to attend educational meetings or learning new skills under the tutelage of an expert) should be accepted with the explicit or implicit requirement that the orthopaedic surgeon use the products or services provided by that particular industry.

   Although the AAOS is generally opposed to social events sponsored by industry, social functions supported by industry in combination with significant continuing medical education events are acceptable. However, social functions supported by industry (e.g. dinners, tickets to sporting events or theater, golf outings, etc.) where there is no educational element should not be offered to nor accepted by orthopaedic surgeons.

   Cash gifts from industry to orthopaedic surgeons must not be offered nor accepted.

5. Continuing Medical Education (CME) Events.
   A. Subsidies. Subsidies by industry to underwrite the costs of educational events where CME credits are provided can contribute to the improvement of patient care and are acceptable. A corporate subsidy received by the conference’s sponsor is appropriate and acceptable so long as such support is publicly acknowledged and the location, curriculum, faculty, and educational methods of the conference or meeting are determined solely by the organization sponsoring the educational course, not industry. Industry reimbursement, whether direct or indirect, for an orthopaedic surgeon to attend an educational event is not appropriate.

   B. Faculty Expenses and Honoraria for Continuing Medical Education Activities. It is
appropriate for faculty at educational events where CME credits are provided to accept reasonable honoraria and to accept reimbursement for reasonable travel, lodging and meal expenses from the conference’s sponsor.

6. Other Educational Events.
Educational events sponsored by industry may be of educational value and improve patient care. Orthopaedic surgeons are responsible for insuring that decisions to accept subsidies from industry are in the best interest of their patients. The AAOS believes a potential conflict of interest exists when an orthopaedic surgeon receives such subsidies.

Special circumstances may arise in which orthopaedic surgeons may be required to learn new surgical techniques demonstrated by an expert in the field in his/her institution or to review new implants or other devices on-site. On-site education provides the added benefit of educating a larger number of attendees per session and offers important insights into the function of ancillary staff and institutional protocols. In these circumstances, reimbursement for expenses may be appropriate.

Reimbursement should be limited to expenses that are strictly necessary and able to withstand public scrutiny. In no case should honoraria or reimbursement for time off to attend the course be offered or accepted. In addition, attending the course and learning the technique must not require or imply that the orthopaedic surgeon must subsequently use that technique.

7. Consultant Expenses and Honoraria.
It is appropriate for consultants to industry who provide genuine services to receive reasonable compensation and to accept reimbursement for reasonable travel, lodging and meal expenses. Token consulting or advisory arrangements cannot be used to justify compensating orthopaedic surgeons for their time, travel, lodging or other out-of-pocket expenses.

Scholarships or other special funds from industry to permit orthopaedic surgeons-in-training to attend continuing medical education conferences are appropriate as long as the selection of students, residents or fellows who will receive the funds is made by the orthopaedist-in-training’s program director.

Orthopaedic surgeons should never lose sight of their primary ethical responsibility to provide competent, compassionate patient care, maintaining professionalism and objectivity at all times.
Advisory Statement

Communicating Adverse Outcomes

The responsibility to inform a patient or his/her family of an adverse health care outcome is an inevitable part of the practice of medicine. Adverse events, or disappointing outcomes, do not necessarily occur as a result of an error or negligent care; these results occur for multiple reasons, including uncorrected "unreasonable" expectations, complicating biological factors and courses of treatment or surgery that don't work out as anticipated.

When such an event happens, a patient often wants acknowledgement and understanding, an assurance that the physician will take steps so that the event will not occur again or risks of a similar occurrence will be minimized, an apology (if appropriate) and consideration of the financial impact on the patient.

Consistent with Joint Commission on Accreditation of Healthcare Organizations (JCAHO) standards and the American Academy of Orthopaedic Surgeon's (AAOS) Principles of Medical Ethics and Professionalism, the AAOS believes that an orthopaedic surgeon should put the interests of the patient first and communicate directly with a patient/family member in an honest, compassionate manner as soon as possible after an adverse event occurs.

As stated in the AAOS Advisory Statement on The Importance of Good Communication in the Physician-Patient Relationship, good communication with patients has always been essential in orthopaedic practice and is the cornerstone of the physician – patient relationship. Open, honest communication favorably affects patient behavior, health outcomes, patient satisfaction, and often reduces the incidence of malpractice actions.

After an adverse event occurs, it is the orthopaedic surgeon's responsibility to assure the event is investigated immediately and all facts are collected. The patient's health care needs should be addressed as soon as possible.

When an adverse outcome has occurred, the orthopaedic surgeon should communicate in an honest, empathic manner with the patient or his/her family as soon as feasible after the event. During the course of the discussion, the orthopaedic surgeon should refrain from commenting about reasons for the event until the medical investigation is concluded. Currently understood facts related to the patient's condition should be discussed and follow up with the patient after the investigation is completed should occur. Blame should not be assigned and speculation about fault should be avoided. An honest disclosure of what happened to the patient will reduce anger and mistrust, as will an apology that avoids a suggestion of fault or conjecture, if appropriate. The orthopaedic surgeon should describe precautions that will be taken so that risk of the same event happening again will be minimized. The discussion should also include recommendations and steps for follow-up care and an offer to transfer the patient's care to another physician, if appropriate. An administrator or patient liaison should be present, if possible, both to serve as a witness and to assist with the patient's resulting needs and requests.

If an error is the cause of the adverse event, the orthopaedic surgeon should coordinate with the risk manager or legal counsel to determine the amount of detail that should be provided in any discussion. Some information, such as peer review matters, root cause analysis material, results of disciplinary actions and legal counsel communications are privileged and should not be a part
of the discussion with the patient. Similarly, if the event could escalate to a claim, in certain states expressions of sympathy relating to the pain, suffering or death of a patient made to the patient/family member are not admissible in court as evidence of an admission of liability, whereas statements of fault are considered admissible evidence.

The physician-patient relationship is built upon trust and honesty. The AAOS Code of Medical Ethics and Professionalism reinforces these principles in section II.A. which states: “The orthopaedic surgeon should maintain a reputation for truth and honesty. In all professional conduct, the orthopaedic surgeon is expected to provide competent and compassionate patient care, exercise appropriate respect for other health care professionals, and maintain the patient’s best interests as paramount.” Consistent with these principles, the AAOS urges orthopaedic surgeons to behave in a manner consistent with these recommendations when communicating about adverse events with their patients and their family members.
Advisory Statement
The Importance of Good Communication in the Physician-Patient Relationship

Good communication with patients has always been essential in orthopaedic practice. It is the “cornerstone” of the physician-patient relationship. Open, honest communication builds trust and promotes healing. It favorably impacts patient behavior, health outcomes, patient satisfaction, and often reduces the incidence of malpractice actions. For physicians, good communication with patients can also increase professional satisfaction, enhance community image, and provide a competitive economic advantage for the medical practice.

Increasing demands on orthopaedic surgeons in today’s healthcare environment often leave less time to provide care to a greater number of patients. While time constraints can make it difficult to communicate as effectively as one would like, the quality of time spent with the patient remains very important. For this reason, effective patient-focused communication skills are essential. They can be applied quickly and effectively within the normal patient encounter.

The American Academy of Orthopaedic Surgeons and the American Association of Orthopaedic Surgeons (AAOS) urge orthopaedic surgeons to use patient-focused communication skills during their direct patient encounters. These include:

- Showing empathy and respect
- Listening attentively
- Eliciting concerns and calming fears
- Answering questions honestly
- Informing and educating patients about treatment options and the course of care
- Involving patients in decisions concerning their medical care
- Demonstrating sensitivity to patients’ cultural and ethnic diversity

When time counts, it is the quality and not necessarily the quantity of physician-patient communication that is vital. To the patient, quality is often measured by how well the physician listens and acknowledges patient concerns. It is measured by how thoroughly the physician explains the diagnosis and treatment options, and how well the physician involves the patient in decisions concerning his or her care. These factors play an important part in the way patients perceive, recall, and evaluate their visits with the physician.

AAOS believes that orthopaedic surgeons must place an emphasis on good communication with patients and the quality of the interaction, especially when time is limited.

Good communication between the orthopaedic surgeon and patient can be an effective risk management tool. While poor treatment outcome is one of the primary causes of malpractice actions, poor communication is also a factor in a majority of cases. Patients who sue often cite the failure of physicians to listen or the physician’s unwillingness to answer questions. Patients who are well informed about treatment options, the course of care, expected outcomes, and possible complications are more satisfied patients, and are less likely to file malpractice claims.

AAOS urges orthopaedic surgeons to provide information and education to their patients about treatment alternatives, and the course of care, especially expectations for surgical outcomes. Discussing the risks of surgery and possible complications, in a kind and compassionate manner, can create realistic expectations on the part of the patient, increase patient satisfaction, and minimize the risk of malpractice claims.
Advisory Statement

WRONG-SITE SURGERY

Wrong-site surgery is a devastating problem that affects both the patient and surgeon and results from poor preoperative planning, lack of institutional controls, failure of the surgeon to exercise due care, or a simple mistake in communication between the patient and the surgeon.

Wrong-site surgery is not just an orthopaedic surgery problem that occurs because the surgeon operates on the wrong limb. This is a system problem that affects other surgical specialties as well. While the number of reported orthopaedic surgery cases is not high relative to the total number of orthopaedic professional liability insurance claims, a retrospective study of a sample of insurers across the country provides evidence that 84 percent of the cases involving wrong-site orthopaedic surgery claims resulted in indemnity payments over a 10-year period, compared to all other types of orthopaedic surgery claims where indemnity payments were made in 30 percent of orthopaedic surgery claims during this same time period.

Recommendations for Eliminating Wrong-Site Surgery

Although the wrong-site surgery problem has been addressed on a local level in many areas of the country, prior to the American Academy of Orthopaedic Surgeons’ (AAOS) effort and the Joint Commission on Accreditation of Health care Organizations (JCAHO) focus in 2003, there has been no organized national effort to eliminate wrong-site surgery. The Canadian Orthopaedic Association mounted a significant educational program from 1994-1996 to eliminate this problem and has reported that the number of known wrong-site orthopaedic surgery claims in Canada has subsequently dropped dramatically.

The American Academy of Orthopaedic Surgeons (AAOS) believes that a unified effort among surgeons, hospitals and other health care providers to initiate preoperative and other institutional regulations can effectively eliminate wrong-site surgery in the United States.

Consequently, the AAOS urges other surgical and health care provider groups to join the effort in implementing effective controls to eliminate this system problem for both inpatient and outpatient procedures.

Effective Methods of Eliminating Wrong-Site Surgery

Wrong-site surgery is preventable by having the surgeon, in consultation with the patient when possible, place his or her initials on the operative site using a permanent marking pen and then operating through or adjacent to his or her initials. Spinal surgery done at the wrong level can be prevented with an intraoperative X-ray that marks the exact vertebral level (site) of surgery. Similarly, institutional protocols should include these recommendations and involve operating room nurses and technicians, hospital room committees, anesthesiologists, residents and other preoperative allied health personnel.

Consequently, eliminating wrong-site surgery means the surgeon, in consultation with the patient when possible, places his or her initials on the operative site in a way that cannot be overlooked and in a manner that will be clearly incorrect if transferred onto another body area prior to surgery. The intended site should be marked such that the mark will be visible after the patient has been prepped and draped. The patient's records also should be available in the operating facility.

Once the patient has been moved into the operating room, the surgical team should pause to take a “time-out” to communicate about the specific patient and procedure. A time-out should include confirmation of the patient’s identity, correct procedure, site, equipment and implants/devices, as applicable. The time-out should also include a double-check of the patient's medical record and x-rays. Missing information or discrepancies must be addressed before starting the procedure. All members of the team (including the orthopaedic
surgeon, anesthesiologist, circulating nurse, and scrub nurse) should participate in the time-out to communicate with other members of the team and to raise any questions or concerns.

In keeping with its Code of Medical Ethics and Professionalism, the AAOS believes that in any communication with the patient or patient's family regarding care rendered, particularly in relation to an untoward event such as wrong-site surgery, orthopaedic surgeons must be truthful in all circumstances.

As indicated in the attached recommendations, particular circumstances of individual cases require specific and different actions on the part of the surgeon in the event that wrong-site surgery is discovered, but in all cases the patient's choice and the best interest of the patient should be the determining factors in decision-making.

Recommendations for Management
Following the Discovery of Wrong-Site Surgery

A. General

If, during the course of a surgical procedure, or after surgery has been completed, it is determined that the surgery is being or has been performed at the wrong site, the surgeon should always

1. Act in accord with the patient's best interests and to promote the patient's well-being;
2. Record the events in appropriate medical records

B. General Anesthesia

If the procedure is being performed under general anesthesia, when it is determined that the surgery is being performed at the wrong site, the surgeon should:

1. Take appropriate steps to return the patient, as nearly as possible, to the patient's preoperative condition;
2. Perform the desired procedure at the correct site, unless there are medical reasons not to proceed, e.g., if proceeding with the surgery at the correct site would materially increase the risk associated with extended length of the surgical procedure or if correct-site surgery would likely result in an additional and unacceptable disability;
3. Advise the patient, and the patient's family, if appropriate, as soon as reasonably possible, of what occurred and the likely consequences, if any, of the wrong-site surgery.

C. Local Anesthesia

If the procedure is being performed under a local anesthesia and the patient is clearly able to comprehend what has occurred and competent to exercise judgment, the surgeon should:

1. Take appropriate steps to return the patient, as nearly as possible, to the patient's preoperative condition;
2. Advise the patient of what has occurred, recommend to the patient what, in the surgeon's best judgment, is the appropriate course for the patient to follow under the circumstances; and
3. Truthfully answer any relevant question posed by the patient and then proceed as directed by the patient.

D. Discovery after Surgery

If, after the surgical procedure has been completed, it is determined that the surgery was performed at the
wrong site, the surgeon should: as soon as reasonably possible, discuss the mistake with the patient and, if appropriate, with the patient's family and recommend an immediate plan to rectify the mistake unless there is a medical reason not to proceed.

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SIGN-YOUR-SITE
A Sample Checklist for Safety

_____ Surgeon involves the patient in confirming the operative site during the marking of the operative site by the surgeon. Copies of the operative permit should state the site and side of surgery.

_____ Surgeon signs initials to the operative site in permanent marking pen.

_____ Other members of the operative team verify the correct site.

_____ Surgeon verifies that X-rays and medical records are for the correct patient, as well as confirming the identity of the patient.

_____ Member of the operative team double-checks each of the following items against the marked site:

_____ Medical records, X-rays, and other imaging studies
_____ Informed consent
_____ Operating room/anesthesia record
_____ Correct equipment/implant/device available

_____ In spine surgery or when the bone or level is not identifiable visually, surgeon takes an intraoperative X-ray using markers that do not move to confirm the site.

Complete all the items on this page. Relying on a single preventive effort only can result in errors!

Patient Name:
Physician:
Procedure(s):
Date:

Signature of Person Competing the Checklist:
Checklist materials derived from and modified with the permission of the North American Spine Society