Orthopaedic Surgery Residency Program Handbook

2021–2022

LOMA LINDA UNIVERSITY

MEDICAL CENTER

TABLE OF CONTENTS

INSTITUTIONS

PARTICIPATING INSTITUTIONS AND CONTACT INFORMATION

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PROGRAM AND BOARD REQUIREMENTS

REQUIREMENTS FOR TAKING BOARD EXAMINATIONS

The certifying examination is divided into two parts. Part I is a written examination which may be taken after the completion of the educational requirements. Part II is an oral examination which may be taken after passing Part I, completion of the 22-month practice requirement, evaluation of the applicant's practice, and admission to the examination. A candidate must pass both parts of the certifying examination to be certified.

After taking and passing the written examination, candidates have five years to take or retake the oral examination. Candidates who do not pass the oral examination within those five years must retake and repass the written examination before applying to take the oral examination. Time spent in fellowship education after passing Part I will not count as a part of the five-year time limit.

An applicant seeking certification by the American Board of Orthopaedic Surgery must satisfy the educational requirements that were in effect when he or she first enrolled in an accredited orthopedic residency. For all other requirements, an applicant must meet the specifications in effect at the time of application.

Educational requirements

An applicant must satisfactorily complete and document the minimum educational requirements in effect when he or she first enrolled in an accredited orthopedic residency.

Upon successful completion of 51 of the 60 months of required education and upon the recommendation of the program director, a candidate may apply to take Part I of the examination.

In order to be admitted to the examination, the candidate must complete the full 60 months of required education by June 30th if the year of the exam.

An applicant who has received orthopedic surgery residency education in Canada must have fulfilled the requirements of the American Board of Orthopaedic Surgery and must have passed the qualifying examination in orthopedic surgery of the Royal College of Physicians and Surgeons of Canada before applying for either part of the Board's certifying examination by June 30th of the year of the exam.

License requirement

Applicants who are in practice at the time they apply for Part I and all applicants for Part II must either possess a full and unrestricted license to practice medicine in the United States or Canada or be engaged in full-time practice in the United States federal government for which licensure is not required. An applicant will be rendered ineligible for any part of the certifying examination by limitation, suspension, or termination of any right associated with the practice of medicine in any state, province, or country ("jurisdiction") due to violation of a medical practice act or other statute or governmental regulation; to disciplinary action by any medical

licensing authority; by entry into a consent order; by voluntary surrender while under investigation; or suspension of license; provided that an applicant shall not be disqualified solely on the basis of a limitation, suspension, termination or voluntary surrender of a license in any jurisdiction where the applicant does not practice, and where the action of such jurisdiction is based upon and derivative of a prior disciplinary action of/taken by another jurisdiction and the applicant has cleared any such prior disciplinary action and/or has had his or her full and unrestricted license to practice restored in all jurisdictions in which the applicant is practicing and, provided further that any jurisdiction granting the applicant a full and unrestricted license was made aware of and took into account any outstanding disciplinary restrictions and/or license restrictions in other jurisdictions in granting such full and unrestricted license. Entry into and successful participation in a non-disciplinary rehabilitation or diversionary program for chemical dependency authorized by the applicable medical licensing authority shall not, by itself, disqualify an applicant from taking a certification examination.

Board eligible status

Effective July 1, 1996 the Board recognizes those candidates who have successfully completed Part I and are awaiting to take Part II as being "Board Eligible." The limit of Board Eligibility is the five years candidates have to take or retake the oral examination (Part II) after passing Part I. Candidates who do not pass the oral examination (Part II) within those five years will lose their Board Eligible status.

APPLICATION FOR ABOS PART I

Checklist of Requirements for Program Director Sign-off

Time requirements

Anticipated completion of five years (60 months) of accredited post-doctoral residency

- One year (12 months) must be served in an accredited graduate medical education program whose curriculum fulfills the content requirements for the PGY-1 and is determined or approved by the director of an accredited orthopedic surgery residency program. An additional four years (48 months) must be served in an accredited orthopedic surgery residency program whose curriculum is determined by the director of the accredited orthopedic surgery residency

Anticipated satisfactory completion of at least 46 weeks of full-time orthopedic education for each of the four years by June 30 (i.e., maximum leave: 4 weeks vacation and 2 weeks sick leave)

Content requirements

Approved first year rotations

12 months adult orthopedics

12 months fractures/trauma

6 months pediatric orthopedics

6 months basic and/or clinical specialties

Sufficient scope

- Children's orthopedics
- Anatomic areas—upper and lower extremities, spine, and pelvis
- Acute and chronic care
- Related clinical subjects
- Research
- Basic science

Completion of research manuscript requirements

Professional requirements

Maintain up-to-date ACGME case logs

Maintain up-to-date time logs

Comply with ACGME core curriculum requirements

Demonstrate sufficient professional ability to practice competently and independently, as evidenced by passing every clinical rotation as outlined by Rotation-Specific Goals and Objectives

TEACHING PROGRAM

DIDACTIC CONFERENCES

Overall Schedule

	Grand Rounds	Basic Science (2 hrs/wk)	Indications	PGY-2 Core	PGY-3 Core	ARMC Conference	VA Indications	VA Sports Conference	VA Joints Conference	Hand	Pediatrics	Spine	Sports	Joints	QI	Research Conference
PGY2																
Spine	x	x	x	x								x				
Sports/Joints	x	x	x	x									x	x		
Night Float	x	x	x	x												
Hand/UE	x	x	x	x						x						
Tumor/Trauma	x	x	x	x												
PGY3																
ARMC	x	x			x	x										
Pediatrics Jr.	x	x	x		x						x					
VAH	x	x			x		x	x	x							
Pediatrics/Research	x	x	x		x						x					x
Research	x	x	x		x											x
PGY4																
Basic Science	x	x	x													x
Peds	x	x	x								x					
ARMC	x	x				x										
VAH	x	x					x	x	x							
PGY5																
Hand/UE/Foot	x	x	x							x		x			x	
Sports/Joints	x	x	x										x	x	x	
Spine/Tumor/Trauma	x	x	x									x			x	
ARMC	x	x				x										
VAH	x	x					x	x	x							

Core Teaching

Grand Rounds

This conference is conducted on Wednesday mornings, from 6:30 to 7:30.

The educational objectives of this conference enable the participant to:

- Understand compliance issues pertaining to orthopedic practice; gain breadth of knowledge in orthopedics—trauma, pediatric issues, adult reconstructive challenges, spine diseases, and upper and lower extremity musculoskeletal problems; learn radiation and x-ray applications for diagnosis; and develop cultural/linguistic competency.

The curriculum is based on core topics, which are repeated every two years. Miscellaneous lectures are also added to complete the schedule. Core topics include (0 = every year, 1 = odd year [2014-2015], 2 = even year [2013-2014]):

CATEGORY	TOPIC	YEAR
General	Evaluation and management services	0
General	Principles of coding	0
Radiography	Fundamentals of MRI evaluation	0
Ankle	Ankle fractures	1
Elbow	Elbow fractures and dislocations	1
Elbow	Shoulder and elbow pathology in the throwing athlete	1
Foot	Calcaneal fractures	1
Foot	Fractures and dislocations of the mid and forefoot	1
Foot	Adult acquired flatfoot deformity	
General	Principles of bone fixation	1
General	Soft tissue coverage of the upper extremity	1
General	Open fracture treatment	1
General	Compartment syndrome	1
Hand	Fingertip injuries	1
Hand	Carpal instability	1
Hand	Upper extremity nerve injuries, paralysis, and tendon transfers	1
Hand	Brachial plexus palsy, obstetrical and adult	1
Hand	Extensor tendon injury, repair, and late reconstruction	1
Hand	Infections of the hand	1
Hand	Degenerative arthritis of the hand and wrist	1
Hand	Distal radius fracture	1
Hip	Concepts of total hip arthroplasty	1
Hip	Femoral neck and intertrochanteric fractures	1
Inflam	Seronegative spondyloarthropathies	1
Knee	Basic concepts of total knee arthroplasty	1
Knee	Unicompartmental knee arthroplasty	1
Knee	Ligamentous injuries of the knee	1
Knee	Cartilage and meniscus surgery	1
Peds	Pediatric spine disorders, scoliosis, kyphosis, instability	1
Peds	Neuromuscular disorders	1
Peds	Developmental dysplasia of the hip	1

Peds	Slipped capital femoral epiphysis	1
Peds	Pediatric foot deformities	1
Pelvis	Acetabular fractures	1
Radiography	Spinal imaging	1
Shoulder	Shoulder instability	1
Shoulder	Fractures and dislocations of the shoulder girdle	1
Spine	Cervical spondylosis and stenosis	1
Spine	Fractures of the spine	1
Spine	Spondylolisthesis	1
Tibia	Tibial shaft fractures	1
Tumors	Soft tissue tumors	1
Tumors	Benign bone tumors	1
Tumors	Pediatric tumors	1
Ankle	Tibial plafond fractures	2
Ankle	Ankle instability	2
Elbow	Elbow arthroscopy	2
Femur	Femoral shaft fractures, adult and pediatric	2
Foot	Talar fractures and dislocations	2
Foot	Forefoot deformities	2
Foot	Achilles tendon injuries	
Forearm	Radius and ulnar shaft fractures	2
General	Flaps and soft tissue coverage of the lower extremity	2
General	Gait, amputations, and prosthesis	2
General	Orthopedic infections	2
General	Electrodiagnostic studies	2
Hand	Replantation	2
Hand	Scaphoid fracture	2
Hand	Compressive neuropathies of the upper extremity	2
Hand	Flexor tendon injury, repair, and late reconstruction	2
Hand	Rheumatoid arthritis, upper extremity	2
Hand	Dupuytren's disease	2
Hand	Fractures of the hand	2
Hip	Concepts of revision hip arthroplasty	2
Humerus	Humeral shaft fractures	2
Inflam	Rheumatoid arthritis	2
Inflam	Metabolic bone disease	2
Knee	Revision knee arthroplasty	2
Knee	ACL reconstruction	2
Knee	Patellar malalignment and instability	2
Knee	Tibial plateau fractures	2
Peds	Cerebral palsy	2
Peds	Deformities of the lower extremity, rotational, alignment, length	2
Peds	Legg-Calve-Perthes disease	2
Peds	Lower limb deficiencies	2
Pelvis	Pelvic ring fractures	2
Radiography	Nuclear medicine	2
Shoulder	Prosthetic shoulder reconstruction	2
Shoulder	Shoulder impingement and rotator cuff pathology	2

Spine	Spinal cord injuries	2
Spine	Spinal stenosis	2
Spine	Lumbar disk disease	2
Tumors	Malignant bone tumors	2
Tumors	Metastatic tumors	2
Tumors	Tumors of the hand	2

Basic Science

This is a two-hour conference, held on Tuesday evenings, from 6:30 to 8:30.

The content of this conference includes instruction in anatomy, biomechanics, pathology, oncology, physiology, embryology, immunology, pharmacology, biochemistry, microbiology, and radiology, as they relate to the musculoskeletal system and the practice of orthopedic surgery.

Anatomy sessions include formal lectures and anatomic dissections.

Pathology lectures encompass gross and microscopic pathology with correlations with clinical and radiographic findings.

Biomechanical instruction focuses on principles, terminology, and musculoskeletal applications.

Radiographic sessions include formal lectures relating roentgenographic findings, computed tomography and magnetic resonance imaging interpretation and clinical correlation.

Journal clubs, scheduled throughout the year, include discussion on specific topics and critical evaluation of historic and current literature.

Other lectures cover the breadth of orthopedic basic science. Occasionally, core competency lectures are included in this series, including but not limited to: ethics, patient relations, and communication.

Indications

This conference is held on Wednesday mornings, from 7:30 to 8:30.

The focus of this conference is on surgical indications, mechanisms of disorders, operative approaches, complications, and clinical outcomes.

One Wednesday of the month is reserved for Morbidity and Mortality Conference. Cases are presented by senior residents for each service, are critically reviewed, and referred to QI committee as necessary. Cases that should be reported to Morbidity and Mortality Conference include, but are not limited to:

- Unplanned return to the operating room during the same hospitalization
- Unplanned readmission for a related problem within 30 days
- Intraoperative/postoperative complication (e.g., infection, deep venous thrombosis, etc.)
- Death

PGY-2 Core

This conference is held on Thursday mornings, from 6:30 to 7:30, and moderated by an orthopedic attending.

It is attended by members of the PGY-2 class. The content focuses on the basic orthopedic fracture text.

- Rockwood and Green's Fractures in Adults
- Rockwood and Wilkins' Fractures in Children.

PGY-3 Core

This conference is held on Thursday mornings, from 6:30 to 7:30, and moderated by an orthopedic attending.

It is attended by members of the PGY-3 class. The content focuses on pediatric orthopedics and basic orthopedic surgical technique. The texts used for this conference are:

- Lovell and Winter's Pediatric Orthopedics
- Campbell's Operative Orthopedics

Resident Reading Conference

This conference is held on Friday mornings, covering selected topics chosen by the senior residents.

Satellite

ARMC Clinical Care Conference

This conference is held on Tuesday mornings, from 8:00 to 9:00.

The content of this conference includes review of cases, patient management, operative techniques, and case presentations.

VA Indications

This conference is held on Tuesday afternoons, at the end of clinic.

The focus of this conference is on surgical indications, mechanisms of disorders, operative approaches, complications, and clinical outcomes relating to the upcoming cases of the week.

VA Sports Conference

This conference is held on Thursdays during the noon hour.

The focus of this conference is on didactic teaching in Sports topics along with case-based discussions.

Subspecialty

Hand

This conference is held on Tuesday mornings, from 6:30 to 7:30.

Interesting hand surgery cases for the upcoming week are presented and discussed at this conference. Furthermore, a rotating topics list for core Hand material is covered during the course of each rotation.

Pediatrics

This conference is held on Monday mornings, from 6:30 to 7:30.

Interesting Pediatric orthopedic cases for the week and their indications are discussed. Specific topics may also be assigned.

Spine

This conference is held on Monday mornings, from 6:45 to 8:00.

The content of this conference revolves around a core reading curriculum, which covers the basics of spine surgery.

Sports

This conference is held on Friday mornings, from 6:30 to 7:30.

The content of this conference revolves around a core reading curriculum, which covers the basics of sports medicine.

Joints

These conferences are held on Monday and Friday mornings, from 6:30 to 7:30.

Total joint cases of the week are presented along with pre- and post-operative radiographs. Discussion is led by attending staff.

Miscellaneous

QI

This conference is held every other month, usually on Wednesday evenings, usually from 6:00 to 7:00.

The agenda is set by the QI chair in conjunction with the Quality Resource Management staff. This allows the residents to participate in a forum to gain experience in professionalism and systems-based practice.

Research

This conference is held as scheduled by the research committee and research faculty.

The content includes discussions based on selected papers focused on research and information analysis and assimilation. Furthermore, under staff supervision, the resident will critically analyze research papers. The educational objectives are to enable the learner to:

- Locate and appraise and use evidence from scientific studies; apply knowledge of study designs and statistical methods; and use information technology to access medical information to support their own education.

Remediation and Corrective Procedures

Remediation

Any resident that attends less than 90% of required conferences when averaged over three months (excluding vacation and formal leave days) shall be required to perform remedial work.

Remediation for any missed conference shall include a one-page single-spaced typewritten report pertaining to the topic discussed in the missed conference. The minimum content requirement shall be no less than a summary of standard textbook recommendations and review of current literature.

Disciplinary Action

A Letter of Warning shall be sent to any resident that attends less than 80% of required conferences when averaged over three months (excluding vacation and formal leave days).

When any resident has two consecutive quarters with less than 80% attendance, or when attendance falls below 70% in any quarter, that resident shall be placed on probation for one year and/or suspended for one month, at the Program Director's discretion.

CLINICAL PERFORMANCE EXPECTATIONS

Daily Schedule

The attending will make rounds at his/her discretion. After hospital rounds and didactic conferences, the resident will proceed with other responsibilities (clinic, surgery).

Inpatient Ward

Role of the Junior Resident

The junior resident on each service shall round on all patients on the service. Junior residents should be in communication with the responsible senior resident. Ultimate decisions regarding patient care shall be coordinated with the attending physician.

Each evening and prior to leaving for the weekend or other extended period, each junior resident shall conduct a verbal sign-out with the incoming on-duty resident.

Role of the Intern

The intern shall assist in gathering information (follow-up on labs and x-rays) and performing minor bedside procedures.

The Trauma Team

The Trauma Team shall consist of the intern, nurse practitioner, chief resident, and the Orthopedic Trauma attending. The on-call night resident and the day team will participate in formalized hand-offs.

Rounding

Upon arriving at a bedside, the resident responsible for the patient should present an abbreviated status report including vital signs, test reports and plan of treatment including changes since the previous day.

The general care plan for the patient(s) will ultimately be determined by the attending physician who was on call and accepted responsibility for the care of the patient.

All inpatients that have had surgery should have a documented post-op check by either the resident on the respective service or the on-call resident. Any patient admitted for observation (e.g. for monitoring compartment syndromes) should also have documented checks every few hours.

The resident involved in the surgical case shall make rounds, see the patient, and be involved in the post-operative inpatient care.

Any critical patient or patient with serious ongoing issues (such as ICU, concern for threatened limb) should be seen and evaluated during the day by the chief/senior resident on service.

Weekend Rounds

The senior resident's role on weekends and holidays is to coordinate the entire service. The senior may leave the hospital only after all rounding has been completed and in the absence of surgical cases.

Prior to the start of the weekend, the senior resident from the trauma service need to communicate to the senior resident on call over the weekend regarding potential operative cases for the weekend, critical in-house patients, and any other potential in-house issues regarding the trauma service. Junior residents off duty shall sign out to the on-call resident prior to leaving for the weekend.

Notification to Attending Physician

It is the responsibility of the resident on call to notify the attending orthopedic surgeon on call of any admissions, potential operative cases, changes of medical status (such as transfer to ICU) as soon as possible.

It is the responsibility of the resident to consult with the patients' family members and keep them updated on the status of the patient.

It is the responsibility of the resident to maintain documentation of information and consults on the patient's chart.

Interdisciplinary Rounds

Interdisciplinary rounds are instituted to maximize resident learning in the domains of Patient Care, Communication, Professionalism, and Systems-Based Practice. Residents are given opportunity to develop skills in working effectively as a member of the health care team. Members of the team include the nurse practitioner, charge nurse, bedside nurse, physical therapist, pharmacist, case manager, chaplain, and social worker. The responsibility of the resident is to streamline each patient's experience through coordinating activities. This encompasses communication skills at the bedside, between healthcare professionals, and systems-based facilitation of patient care.

On-call Duties

Inpatient Consults

Consults are to be performed on a timely basis by the intern or resident on call. Following notification, the intern or resident is to assess the patient including the physical exam, review of pertinent lab values and x-rays. A differential diagnosis and treatment plan should be prepared. A synopsis of this information should be presented in an organized fashion with selected x-rays

(when appropriate) to the orthopedic junior resident, senior resident, or attending on call. The junior orthopedic resident is responsible for supervising all intern-performed consultations.

The formal consult shall be confirmed by the attending on call within 24 hours. It is the responsibility of the intern/resident to notify the appropriate attending.

Emergency Department Consults

The intern or junior resident shall evaluate consults from the Emergency Department in a timely manner. In most cases, this shall be within two hours. All manipulative procedures and all cases requiring surgery shall be evaluated and supervised by the junior resident.

Scheduling of cases from the Emergency Department shall be coordinated by the senior resident, with appropriate communication with the on-call attending.

Chiefing of consultations shall proceed along the following chain: intern/PA, junior resident, senior resident, attending staff.

Surgeries

The senior resident shall coordinate all operative cases. To facilitate hands-on learning, the junior resident should learn to work efficiently to take advantage of operative opportunities while on call.

Nightly Check Out and Duties

The senior resident on call shall receive a check out from the day call junior resident. This will allow the senior to check to see if any traumas or other consults have occurred. The senior resident will also check with the operating room to see if there has been trauma that has bypassed the day call resident and will also analyze the coverage of attending surgery in the operating room. The senior resident shall only be utilized for trauma coverage.

From Monday through Friday, the intern(s) on the orthopedic service shall commence signout to the night call resident at 18:00, and an additional 30 minutes may be utilized to complete sign out. The senior on-call resident shall ensure that the intern should be off duty at 18:30 but no later than 19:00. The exception is on Tuesday, where the intern may be used to cover until 20:00.

The senior resident shall coordinate dismissal strategies for the other residents while assigning responsibility to the night float resident.

Backup Call

The backup call resident shall remain in the vicinity, no more than 90 minutes away.

Orthopedic Emergencies

All orthopedic emergencies require notification of the surgeon on call as soon as possible. These include, but are not limited to:

- Open fractures
- Displaced supracondylar fractures
- Compartment syndrome
- Ischemic extremity
- Hip dislocations
- Flexor tendon injuries
- Spine injuries with progressive nerve loss

Transfers

All requests for transfer(s) of patient(s) from other facilities are to be referred to the attending on call.

Clinic Appointments

Return appointments to the clinic are scheduled on the basis of urgency of diagnosis and possibility of changes during the interim. Therefore, all fractures which may displace are to be seen weekly for the first three weeks following reduction. Those that are not likely to displace (because of no original displacement, etc.) should be scheduled as availability permits.

Post-call Duties

Post-call Sign-out Rounds

Sign-out Rounds shall be carried out during weekdays at 06:00 am, in room A511. The intern, all junior residents, the post-call senior resident, and the Trauma senior resident are required to attend. Attending presence is discretionary. The responsible attending at morning sign-out rounds shall engage and include the entire team in the hand-off conversation. To foster learning in the domains of Communication and Professionalism, the senior resident(s) shall remain a critical part of the decision-making before reaching the attending level and be responsible for presenting consultations and cases at Sign-out Rounds. The senior on call resident should be aware and help facilitate the flow of all consults presented at sign out rounds. In addition to evening resident sign out, consults from the night previous should be discussed and evaluated radiographically by the senior on call resident prior to morning sign out rounds. Before Sign-out Rounds, the junior resident shall gather information and prepare for presentation.

Transfer of Care

In transferring care of a patient to another orthopedic surgeon, communication should be directed from the current attending physician to the attending physician assuming care of the patient. Residents shall not be used to shop other attendings to solicit care transfers.

Patient List

The Orthopedic Service patient list shall be updated before 06:00 am on the morning following call.

Pagers

Residents are encouraged to wear their pagers, turned on, while awake and on duty.

Attending Physician Expectations

Priorities

Because one resident cannot be in more than one place at any given time, and because there are more attendings than there are residents, the utilization of residents shall be prioritized.

Attendance priorities for the junior residents are in the following order, from most important to least important:

- Conference attendance
- Emergency Department coverage
- Inpatient ward coverage
- Clinic coverage

Attendance priorities for the senior residents are in the following order, from most important to least important:

- Conference attendance
- Surgical experience
- Coordination of inpatient and emergency care
- No less than one-half day of clinic experience

Attending Vacations

Attendings shall communicate with each other, such as during faculty and departmental meetings, to coordinate utilization of residents during attending vacation time. Sharing of the free resident shall be pre-arranged, prior to the 15th day of the month before.

Coverage

Attendings are not expected to demand coverage for operative and clinic assistance when their resident is on vacation, unless pre-arrangements have been made prior to the 15th day of the month before. Attendings should not expect coverage when they choose to operate during academic time. Research and Basic Science time is protected; however, residents on these rotations may be used in limited cases for special circumstances, with approval from the Program Director and/or Department Chair. For further details, see the Leave Policies and Procedures.

Operating Room

Patient preparation

Each resident is expected to see the patient no later than 20 minutes before surgery. If required, the resident shall complete the 24-hour Update Form and verify the Informed Consent. The resident shall also mark the surgical site after appropriate assessment.

Educational preparation

The resident should under no circumstances expect to simply walk in and operate. Furthermore, in scheduled cases, the resident is expected to have read up on the case. Adequate preparation includes, but is not limited to, familiarity with the patient's history and exam findings, diagnostic studies, indications for surgery, surgical approach, common complications, and post-operative care.

The scheduled cases can be anticipated by contacting the surgery scheduler.

Clinic

Residents are expected to arrive to clinic on time.

Clinic responsibilities vary from service to service, and shall be dictated by the supervising attending physician.

RESIDENT SUPERVISION PROCESS

The Orthopedic Surgery Residency Program adheres to the basic policy established by the Graduate Medical Education Committee of Loma Linda University Medical Center and the Bylaws of the Medical Staffs of LLUMC and ARMC.

Inpatient duties

Residents shall be supervised by members of the Medical Staff with appropriate privileges and with the authorization of the Program Director. This supervision shall be exercised by daily rounds, telephone consultations, and other means when needed.

Documentation of this supervision shall be demonstrated by counter-signing the resident's notes.

Patient evaluation

The supervising physician shall personally interview and examine the patient on a regular basis to confirm the resident's findings and to provide the opportunity to evaluate and educate the resident in clinical care.

Procedures

The supervising physician shall be physically present for any procedures for which the resident is not capable of performing without direct supervision. If another resident has been designated as being capable of performing this procedure without direct supervision, that resident can be designated to substitute for the presence of the supervising physician.

Admissions, transfers, and discharges

The designated member of the Medical Staff must approve any admission of a patient to the service. This will allow discussion of the resident's preliminary medical decision making.

The designated member of the Medical Staff shall be informed immediately of any unexpected transfer of a patient to another service or to another level of care (ICU, intermediate, basic).

The designated member of the Medical Staff shall be informed immediately of any unexpected discharge or death of a patient.

The designated member of the Medical Staff must approve of any recommendation to discharge a patient from the Emergency Department.

Consultation and testing

The resident shall order consultations and testing on behalf of the attending physician following discussion with the attending physician. This may be documented by the resident or by the attending in the physicians' orders or in the doctors' notes.

Any consultation requested by another service may be initially seen by the intern. All consults should also be discussed with the junior orthopedic resident on duty. The resident shall immediately discuss the consultation with the designated member of the Medical Staff for any critically ill patient. The consulting physician shall personally evaluate the patient within one day of the request for consultation, or sooner if warranted.

Outpatient Clinics

The attending physician shall be present and supervise all evaluation and management services, including key components of the history, physical examination, and medical decision making.

Exceptions to attending physician presence and supervision include

- Pre-op evaluations
- Post-op care within the 90-day global period for major surgeries

Surgery

The supervising physician shall be physically present and in the operating room for the critical portion of the case. The critical portion of the case shall be determined by the supervising physician. Other than during the critical portion, the attending physician must be immediately available within five minutes and remain within the same building.

Compliance and Oversight

The purpose of the Resident Supervision Process is to allow for maximum educational effectiveness in patient care related instruction. It is the responsibility of the attending physician to provide an adequate level of supervision.

When there is non-compliance with the Resident Supervision Process and the policies outlined herein, the resident shall report such behavior to the Department Chair, Program Director, and Quality Resource Management.

Non-compliant behavior includes, but is not limited to:

- Failure to chief inpatient consults within 24 hours.
- Allowing residents to perform surgery without being immediately available.
- Allowing residents to perform evaluation and management services without verifying the history, physical examination, and medical decision making.

CASE LOG SYSTEM

Purpose

Systems are reviewed by the Program Director when completing the final Record of Resident Assignment forms for the American Board of Orthopaedic Surgery.

This is to confirm that a resident is prepared for the independent practice of operative orthopedics

What Should Be Reported

All operative procedures

Manipulative reductions

What Should Not Be Reported

Closed treatments without manipulation

Simple splint or cast applications

Joint aspirations

Steinmann pin placements

Time Frame

Residents shall be no more than two weeks behind when logging in cases. Ideally, residents should enter all their data for one rotation before beginning the next rotation.

Minimum Cases

The ACGME has established minimum case numbers for each category. Details are posted at http://www.acgme.org/acWebsite/RRC_260/260_ORS_Case_Log_Minimum_Numbers.pdf

- Knee arthroscopy 30
- Shoulder arthroscopy 20
- ACL reconstruction 10
- Total hip arthroplasty 30
- Total knee arthroplasty 30
- Hip fractures 30
- Carpal tunnel release 10
- Spine decompression/posterior spine fusion 15
- Ankle fracture fixation 15
- Closed reduction forearm/wrist 20
- Ankle & hind & mid-foot arthrodesis 5

- Supracondylar humerus percutaneous treatment 5
- Femur and tibia intramedullary fixation 25
- All pediatric procedures 200
- All oncology procedures 10

RESEARCH ACTIVITY GUIDELINES

Purpose

The research program is designed to enable the resident to develop abilities to critically evaluate medical literature, research, and other scholarly activity. Activities include instruction on experimental design, hypothesis testing, research methods, and information dissemination.

Program Structure

Research time

While residents may participate in research at any time during residency, dedicated research time is provided during PGY-1, PGY-3, and PGY-4 training.

In addition to research, the resident on the research rotation may be scheduled to have call duties. Use of the research resident to simply cover cases and clinics is discouraged. Protection of research time is a priority.

When clinical duty coverage by the research resident is anticipated, arrangements shall be made by the 15th of the month prior. Coverage shall be arranged through joint discussion of (1) the resident going on leave, (2) the research resident, and (3) the Program Director. Whether the research resident is used for the requested coverage shall be determined at the discretion of the Program Director. Factors involved in such determination shall be based on (1) the progress of the research resident's project and (2) the educational value of anticipated coverage duties.

Educational materials

Materials used for instruction shall include, but are not limited to:

- Selected reading materials describing research methods and authorship standards
- Information supplied by the Office of Sponsored Research, available at research.llu.edu
- Information systems, such as Pubmed

Record of research activity

The Orthopedic Research Coordinator shall keep a record of departmental research activity.

Research in publishable form, submitted for publication, or already published, shall be filed in printed form in the respective resident's chart.

Research Steps and Process Flow

Project selection

This can be from a list, generated by the department and attached with a Primary Investigator, or it may come from the resident's own idea.

Types of projects

Research may be clinical/human, animal, biomechanical, or miscellaneous.

Specific steps involved

Some steps may or may not apply, depending on the project.

- Detailed literature search
- Discussion with Primary Investigator
- Proposal
    - Introduction of the problem
    - Hypothesis
    - Methods
    - Statistical tests to be used
    - Power calculation
    - Expected findings and results
    - Anticipated grant application
    - Anticipated presentation/publication venue
    - Budget calculations
    - References
- Proposal approval by the Orthopedic Research Committee
- IRB/IACUC approval if applicable
- Grant proposal submission
- Begin project
- Gather data
- Analyze data
- Write the abstract
- Submit the abstract to the Orthopedic Research Committee
- Write the manuscript
- Submit manuscript to a journal
- Revise manuscript
- Publication

Research Requirements

Before engaging in the research activity, the resident shall propose the research to the Orthopedic Research Committee. Such proposal shall include, at the minimum, an introduction, anticipated materials and methods (including statistical analysis), potential funding sources, and references. The resident is expected to defend the rationale behind the research and to

provide an explanation regarding clinical significance. Proposal presentation shall be formal, which would include the use of PowerPoint or other presentation platform. Approval shall be granted by the Orthopedic Research Committee once clinical relevance and scientific soundness has been determined, and the Committee shall determine whether the research is considered as a two-point major project or a one-point minor project. Residents shall not be granted credit for research performed outside of Orthopedic Research Committee oversight and approval. Prior to advance beyond PGY-2, the resident shall have at least one project reviewed and approved by the Orthopedic Research Committee.

Once the research project is completed, the resident shall submit an abstract to the Orthopedic Research Committee for approval. In order to be eligible to present at the Orthopedic Research Seminar, the resident shall submit the abstract prior to the due date set by the Committee, which shall be before March 1 of the same year. Furthermore, one month prior to the Orthopedic Research Seminar, the resident shall turn in a full length manuscript in a form ready for submission to a specific peer-reviewed journal of the resident's or faculty's choice, including formatting in adherence to the journal's Instructions for Authors. Specific deadlines shall be set by the Orthopedic Research Committee.

The resident shall present one of the projects on or before the Seminar of the PGY-4 year, and shall present the second project on or before the Seminar of the PGY-5 year. See Specific Criteria for Advancement under Outcomes Evaluations and Promotions for more details.

The research project shall be deemed to be *completed* after (1) approval of research proposal by the Orthopedic Research Committee, (2) completion of data gathering and analysis, (3) approval of abstract by the Orthopedic Research Committee, (4) submission of full manuscript to a peer-reviewed journal, (5) approval of full manuscript by the faculty advisor *and* the Orthopedic Research Committee, and (6) presentation at the Orthopedic Research Seminar.

A point system shall be utilized for credit-based evaluation. Two points shall be awarded to research involving hypothesis testing performed to completion as outlined in the paragraph above. An additional point is awarded upon successful acceptance of a manuscript involving hypothesis testing research. Non-hypothesis testing projects such as case reports, technique papers, review papers, anatomic descriptions, completed according to the above guidelines shall be awarded one point only upon acceptance to a journal. Assistance in another resident's project may be awarded one point only if the manuscript results in publication, subject to Orthopedic Research Committee approval. Patient safety quality improvement (QI) projects will be awarded one point, subject to approval. The above designation is determined and granted by the Orthopedic Research Committee. In addition, one month of international or mission elective, with oral presentation and manuscript submission to a non-profit or charitable organization (e.g., AIMS, Scope, LLU Today) for publication shall be awarded one point, which may be used to offset one of the hypothesis-testing research required. A total of four points is required for completion of residency research requirements, and at least one of which must be from a two-point project.

Summary of General Deadlines

Research proposal

At least one project must be presented, discussed, and approved by the Orthopedic Research Committee prior to the end of PGY-2 training. This is a requirement for advancement into the PGY-3 level.

First research project

Submit first research proposal for Orthopedic Research Committee review and approval by early PGY-4 training, but preferably before.

Perform approved research during or before December, PGY-4.

Submit research abstract (including introduction, materials/methods, results, discussion, conclusion, and references) to the Orthopedic Research Committee by the deadline set by said Committee, which shall be no later than March 1, PGY-4.

After approval of the research abstract, submit a full manuscript (in a form ready for submission to a specific peer-reviewed journal as specified above) to the Orthopedic Research Committee by the deadline set by said Committee, which shall be no later than May 1, PGY-4.

Present the approved research at the Orthopedic Research Seminar, PGY-4. The date shall be set by the Orthopedic Research Committee.

In lieu of the above, the resident may substitute the requirement with two points from minor projects or assistance credit per the section above.

Second research project

Submit first research proposal for Orthopedic Research Committee review and approval by early PGY-5 training, but preferably before.

Perform approved research during or before December, PGY-5.

Submit and receive manuscript confirmation from a journal's online manuscript system by December, PGY-5, for both the first and second research projects.

Submit research abstract (including introduction, materials/methods, results, discussion, conclusion, and references) to the Orthopedic Research Committee by the deadline set by said Committee, which shall be no later than March 1, PGY-5.

After approval of the research abstract, submit a full manuscript (in a form ready for submission to a specific peer-reviewed journal as specified above) to the Orthopedic Research Committee by the deadline set by said Committee, which shall be no later than May 1, PGY-5.

Present the approved research at the Orthopedic Research Seminar, PGY-5. The date shall be set by the Orthopedic Research Committee.

In lieu of the above, the resident may substitute the requirement with one-point and half-point projects per the section above, but at least one hypothesis-testing research project must be completed prior to said deadline in this section.

Deadline for proof of manuscript submission

Submission to a peer-reviewed journal is one of the requirements of research project completion. For each project, the submission confirmation email and PDF generated by the journal's online manuscript system shall be used as proof of submission. Submission is defined as (1) successful submission and provisional acceptance to a journal listed in PubMed, including PMID designation for articles, or (2) resubmission to such a journal after rejection. Therefore, any manuscript that is rejected needs to be resubmitted to one additional journal.

Before ABOS application can be signed (this is usually due in December, PGY-5), both research projects must have proof of manuscript submission. This requirement may be waived at the request of the Primary Investigator and approval of the Orthopedic Research Committee.

Meetings

Residents are encouraged to submit their work to regional and national meetings with approval from the principle investigator; international meetings are excluded. Residents do not need to pre-submit travel budgets when applying to present research at meetings on the pre-approved list (see below). The maximum travel / registration budget for reimbursement for all expenses is $1200. Expenses beyond that will need to be presented to the Orthopedic Research Committee for approval (extra expenses must be requested PRIOR to submitting to the meeting). Research must be accepted for a podium presentation (not poster or simple abstract listing) at a meeting held within the United States.

For meetings not on the pre-approved list, residents need get approval PRIOR to applying and will need a faculty member to support the legitimacy of the meeting itself.

The following list serves as a guideline of meetings that residents may submit to:

- AAOS - American Academy of Orthopaedic Surgeons
- AOA - American Orthopaedic Association
- AOFAS - American Orthopaedic Foot and Ankle Society
- ASSH - American Society for Surgery of the Hand
- AAHS - American Association for Hand Surgery
- OTA - Orthopaedic Trauma Association
- SRS - Scoliosis Research Society
- LLRS - Limb Lengthening and Reconstruction Society
- MSIS - Musculoskeletal Infection Society
- MSTS – Musculoskeletal Tumor Society
- CTOS – Connective Tissue Oncology Society
- ISOLS – International Society of Limb Salvage
- ASES - American Shoulder and Elbow Society
- AANA - Arthroscopy Association of North America
- AOSSM - American Orthopaedic Society for Sports Medicine

- NASS - North American Spine Society
- AANS - American Association of Neurological Surgeons
- LSRS - Lumbar Spine Research Society
- WOA - Western Orthopaedic Association

OUTCOMES EVALUATION AND PROMOTION

Introduction

The Orthopedic Surgery Residency Program adheres to the basic policy established by the GMEC of LLUMC. Outcomes measurements as recommended by the ACGME shall be incorporated into the evaluation process.

Evaluation

Rotation evaluation

Each resident shall be evaluated by each supervising attending at the end of the rotation. The evaluation shall be a face-to-face encounter. An opportunity for resident feedback shall be provided.

Annual evaluation

Utilizing the Clinical Competency Committee's recommendations, the Program Director shall summarize for the faculty the resident's progress in educational attainment, clinical skills, professionalism and other areas. Based on the criteria set forth, the faculty as a whole shall determine whether promotion shall occur. The faculty may instruct the Program Director to notify the resident of specific concerns or conditions for advancement. The faculty may recommend to the GMEC one or more of the following:

- Promote the resident
- Place the resident on probation
- Require a portion of the year or the entire year to be repeated
- Not renew the resident's contract
- Terminate the resident

General Criteria

To be promoted to the next PGY level, or to graduate from residency, the resident must pass every rotation. The resident must also demonstrate competency in all six core domains. It is recognized that many of these domains have overlapping areas.

Patient care outcomes evaluation

The resident must demonstrate patient care that is compassionate, appropriate, and effective for the treatment of health programs and the promotion of health.

- Caring, respectful, and compassionate behavior shall be assessed through patient surveys.
- Informed decision making and patient management skills shall be evaluated through direct observation in the clinical setting.
- The ability to work within a team shall be assessed using the 360° Global Rating tool.

The resident must have mastered the appropriate surgical skills for level of training.

- Surgical skills are evaluated on an ongoing basis and documented at the end-of-rotation evaluation.
- Case logs must be maintained for PGY-2 residents and above.

Medical knowledge outcomes evaluation

The resident must possess medical knowledge about established and evolving biomedical, clinical, and cognate sciences, as well as the application of this knowledge to patient care, appropriate for the level of training.

- Investigatory and analytical thinking shall be assessed by formal or informal oral examinations given by the supervising faculty or Program Director.
- Knowledge and application of basic sciences shall be determined through the Orthopaedic In-Training Examination.

The resident must have adequately attended educational conferences (no less than four hours per week).

Residents scoring below the 40th percentile on the Orthopaedic In-training Examination shall be required to participate in a remediation program set forth by the Program Director. Failure to comply with remediation program or unsatisfactory remediation performance may result in reappointment without advancement to the next training level.

Practice-based learning and improvement outcomes evaluation

The resident must utilize 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.

- Progressive learning as related to patient care management and improvement should be evident, as assessed by formal or informal oral examinations by the supervising faculty.

Interpersonal and communication skills outcomes evaluation

The resident must effectively exchange information and collaborate with patients, their families, and other health professionals.

The resident must receive positive evaluations concerning their professionalism, communication skills and teamwork from nurses, staff, residency coordinator, students, and fellow residents.

- Effectiveness of communication with patients shall be measured through patient surveys.
- Interpersonal and communication skills within the healthcare team shall be evaluated through the 360° Global Rating tool.

Professionalism outcomes evaluation

The resident must demonstrate professionalism, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to patients of diverse backgrounds.

- Professionalism in the patient care setting, including respectful attitude and sensitivity to the patients' situations, shall be assessed using patient surveys.
- Professionalism in the workplace shall be evaluated using the 360° Global Rating tool.
- For PGY-2 and higher levels, additional assessments of professionalism include audits of the resident's ability to maintain time logs, case logs, and sign-in sheets for conferences. Up-to-date maintenance is expected, and delinquencies are noted during spot audits when records are more than two weeks behind.

Systems-based practice outcomes evaluation

The resident must 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.

- Patient advocacy shall be evaluated using the patient survey.
- Facilitation of patient care in the larger context of healthcare and the practice of cost-effective care shall be assessed by direct observation and documentation by the supervising faculty.

The resident is expected to appropriately code patient encounters and surgeries, in compliance with the current heath care regulations.

Specific Criteria for Advancement

Advancement to the next training level is determined by successful completion of specific criteria as detailed in this Handbook and by the House Staff Office. Final determination shall be made by the Residency Program Evaluation Committee. The following criteria shall serve as guidelines.

PGY-1

- Pass every clinical rotation
- Pass USMLE Step III

PGY-2

- Pass every clinical rotation as outlined by Rotation-Specific Goals and Objectives
- Maintain Professional behavior, as exhibited by audits relating to conference attendance, case and time logs, and sign-in sheets upkeep
- Obtain approval from the Orthopedic Research Committee for at least one project
- Obtain satisfactory marks in all Competencies as adjudicated by the Clinical Competency Committee

PGY-3

- Pass every clinical rotation as outlined by Rotation-Specific Goals and Objectives
- Maintain Professional behavior, as exhibited by audits relating to conference attendance, case and time logs, and sign-in sheets upkeep
- Obtain satisfactory marks in all Competencies as adjudicated by the Clinical Competency Committee

PGY-4

- Pass every clinical rotation as outlined by Rotation-Specific Goals and Objectives
- Possess a valid California Medical License
- Maintain Professional behavior, as exhibited by audits relating to conference attendance, case and time logs, and sign-in sheets upkeep
- Fulfill research requirements for fourth-year level
- Obtain satisfactory marks in all Competencies as adjudicated by the Clinical Competency Committee

PGY-5

- Pass every clinical rotation as outlined by Rotation-Specific Goals and Objectives
- Possess a valid California Medical License
- Maintain Professional behavior, as exhibited by audits relating to conference attendance, and case and time logs
- Fulfill research requirements for fifth-year level
- Demonstrate sufficient professional ability to practice competently and independently.

Disciplinary Action

Failure to meet Core Curriculum, Licensing, or other requirements may result in disciplinary action. The resident may be suspended until requirements are met, or other arrangements may be made at the discretion of the Program Director and the House Staff Office.

PROGRAM ADMINISTRATION

PROGRAM ADMINISTRATION

Calendar of Tasks

July
- Publish important dates
- Publish Improvement Implementation Plan

August
- Convene the Resident Representation Committee
- Conduct Patient Surveys, 360° Evaluations, and Case Management Evaluations

September
- Assemble Resident Selection Committee

November
- Orient members of the Resident Selection Committee
- Draft agenda for the Residency Program Evaluation Committee, to include duty hours report and fatigue education
- Draft agenda for the Resident Forum
- Perform practice audits for residents
- Convene the Resident Representation Committee
- Conduct Patient Surveys, 360° Evaluations, and Case Management Evaluations
- Convene Clinical Competency Committee
- Remind senior residents regarding ABOS and graduation requirements

December
- Consider nomination of one or more residents to Alpha Omega Alpha Honor Medical Society
- Conduct the Residency Program Evaluation Committee
- Meet with individual residents for semi-annual review

January
- Interview residency applicants and submit rank order list
- Arrange boards review course for PGY-5 residents
- Remind faculty members about attending School of Medicine commencement

February
- Confirm Grand Rounds scheduling
- Arrange AO Course for upcoming PGY-3 residents
- Convene the Resident Representation Committee
- Conduct Patient Surveys, 360° Evaluations, and Case Management Evaluations
- Review abstracts submitted to the Orthopedic Research Committee for presentation at the Orthopedic Research Seminar

March

- Send out goals and objectives to all services for updates and revisions
- Schedule Orthopedic Research Seminar activity details

April

- Draft conference schedules for the next academic year
- Plan residency graduation events

May

- Update Residency Program Policies and Procedures
- Draft agenda for the Residency Program Evaluation Committee, to include duty hours report and fatigue education
- Draft agenda for the Resident Forum, to include guest professor nomination
- Invite guest professor for next year's Orthopedic Research Seminar
- Solicit evaluations from faculty members, residents, and past graduates regarding the training program
- Performpractice audits for residents
- Convene the Resident Representation Committee
- Conduct Patient Surveys, 360° Evaluations, and Case Management Evaluations
- Convene Clinical Competency Committee
- Attend School of Medicine commencement events

June

- Perform exit interviews with senior residents
- Conduct the Residency Program Evaluation Committee
- Meet with individual residents for semi-annual review
- Attend residency graduation
- Meet with the Chair to discuss faculty development and advancement

RESIDENT ADMINISTRATIVE DUTIES

Chief Residents

LLUMC

Coordinate resident vacations at LLUMC.

Formulate senior resident call schedule for LLUMC, which is due before the 15th of the month prior.

Participate in Morbidity/Mortality Conference and QI Committee.

Participate in the Residency Program Evaluation Committee.

ARMC

Coordinate resident vacations at ARMC.

Formulate senior resident call schedule for ARMC.

VAH

Coordinate resident vacations at VAH.

Formulate senior resident call schedule for VAH.

Basic Science Resident

Coordinate conference activities, which include: facilitating needs of the speakers, managing coverage for dinners, assuring audiovisual setup for Basic Science and Indications Conference, and maintaining responsibility for said equipment.

With the assistance of the sponsoring faculty, select peer-reviewed articles for Journal Club.

Junior Resident on the Trauma Rotation

Formulate junior resident call schedule at LLUMC, which shall be turned in before the 15th of the month prior.

Resident Representation

One resident from each year (PGY-1 through PGY-5) shall be elected from within each PGY-year to serve on the Resident Representation Committee.

RESIDENCY PROGRAM COMMITTEES

Residency Program Evaluation Committee

Purpose

The purpose of this committee is to formally evaluate the teaching effectiveness of the residency program.

Composition

All physician and non-physician faculty from LLUMC, ARMC, and VAH

Chief resident at LLUMC (ex officio)

Process

The Residency Program Evaluation Committee shall meet on a semi-annual basis.

The first meeting shall take place before beginning the third quarter of the academic year. The specific areas of review include, but are not limited to:

- Resident progress
- Conference attendance oversight
- Duty hour oversight
- Fatigue and stress oversight
- Boards pass rate from the July administration

The second meeting shall take place near the close of the academic year. The specific purpose is to conduct a formal comprehensive evaluation of the teaching program. Areas included in this review are:

- Resident evaluations and individual progress
- Conference attendance oversight
- Faculty evaluations
- Service evaluations
- Program evaluations from residents
- Program evaluations from faculty members
- Program evaluations from post-graduates
- Duty hour oversight
- Fatigue and stress oversight

When deficiencies are found, the committee shall prepare an explicit plan of action.

Resident Representation Committee

Purpose

The purpose of this committee is to provide a forum for residents to voice concerns regarding their own educational experience.

Composition

Members of each PGY-year (1 through 5) shall elect one representative to serve on this committee.

This committee shall be composed of five residents and the Program Director. One additional faculty representative may be present.

Process

The Resident Representation Committee shall meet on a quarterly basis or as needed.

The meeting shall be called by the Program Director, and shall serve as a forum for residents to provide feedback regarding the program setup, educational value, and other concerns.

Orthopedic Research Committee

Purpose

The purpose of this committee is to ensure that quality research is performed by the residents.

Composition

Program Director

Department Chair

Additional faculty member(s) as designated by the Program Director

Process

The Orthopedic Research Committee shall meet no less than twice a year, usually in the spring and in the fall quarters. Additional meetings may be called as necessary. Prior to starting on a research project, the resident shall present the project idea, supporting evidence, proposed methods, and expected findings to the Committee for approval. Residents will not receive credit for research performed outside of Committee approval. Prior to the Resident Research Seminar, the resident is expected to present research findings to the Committee. Final determination of whether a research meets minimum standards for presentation shall be made by the Committee.

Clinical Competency Committee

Purpose

The purpose of this committee is to oversee global evaluation of each resident based on clinical milestones and other metrics deemed appropriate.

Composition

Program Director

Assistant Program Director

Additional faculty member(s) as designated by the Program Director

Process

The Clinical Competency Committee shall meet twice a year, usually in May and in November.

DUTY HOURS AND LEAVE

RESIDENT DUTY HOURS

Specific regulations

See the Appendix under ACGME Program Requirements for Graduate Medical Education in Orthopedic Surgery.

Moonlighting

In general, moonlighting is prohibited, with the following exceptions.

Residents may participate in the C&P Program at the VA Hospital. To participate, the resident must meet the following criteria:

- Latest OITE score above 50th percentile.
- Not more than 50% delinquent on case log and time log audits, year-to-date (delinquent defined as being more than two weeks behind).
- In good standing, without being on probationary or disciplinary status (formal or informal).
- An upper level resident, being in the 4th or 5th postgraduate level.
- Up-to-date case logs and time records (no more than two weeks behind), with minimums of 750 cases for PGY-4 residents and 1000 cases for PGY-5 residents.

Residents may be evaluated for other moonlighting opportunities on a case-by-case basis if the following criteria are met:

- All criteria are met as outlined in the C&P Program at the VA Hospital.
- Research requirements have been met for the training level.
- Addition of moonlighting hours does not violate adherence to duty hour requirements.

Specific process

- PGY-2 residents will be assigned primarily for Emergency Department coverage beginning at 13:00 each afternoon. (Starting with April, the PGY-2 day call schedule will be pre-determined, such that a certain service's resident will take a particular weekday.) Clinic and operating room coverage will be secondary—only when there are no pending consults.
- Consults shall be supervised by a PGY-2 resident within 60 minutes of the consult order being placed and called in. The nurse should be asked to document the arrival time of the PGY-2 resident.
- Evening sign-out shall be face-to-face, at 18:30 in A511, with the senior on call resident chiefing the sign-out. The senior on call, intern, day call PGY-2, and night float residents are expected to be present. Exception is made for Tuesdays, where sign-out shall take place before Basic Science Conference. During sign-out, the on call senior shall delegate unfinished work and shall leave no earlier than the day call team's departure.
- Day duty residents (not on night float) shall be relieved of their duties ideally by 20:00 and must not be later than 22:00.
- In line with existing policy, there shall be no pre-rounding before 06:00 by day duty residents.
- Residents should only cover attendings on their assigned service. If cross-service coverage is requested, the administrative senior resident may make the reassignments beforehand, prior to the beginning of the month. For instance, Hand/Foot service junior resident should only cover Hand/Foot attendings during the weekday, unless on call.

- Existing policy shall be upheld, where protected time is granted to the Research, Basic Science, and Peds/Research residents, unless approved by the Chair.

Oversight

Compliance with duty hour guidelines shall be monitored on a monthly basis to ensure an appropriate balance between education and service.

Residents and faculty shall be educated to recognize the signs of fatigue and to apply policies to prevent and counteract the potential negative effects.

LEAVE POLICIES AND PROCEDURES

Vacation

Days available

Residents are entitled to one week (5 days) of leave rotation block, not including weekends. Carry-over of time into the next rotation will not be approved except for unusual circumstances. The same policy applies to the intern rotating on the Orthopedic Service. Leave is not to be taken during the first or last month of your residency, except by special arrangement.

The PGY-2 through 5 residents may each take up to one week (5 days) during each quarterly block, except as make-up days for holiday coverage as outlined by the House Staff Office. The total annual allowance is 20 days.

In each quarter, PGY-2 residents shall take vacation days consecutively, beginning on a Monday and including the four days following. If a holiday falls within this period, the resident may extend the vacation by the same number of days.

No vacation is granted to residents during the Night Float Trauma rotation.

Holidays

The Orthopedic Department observes the following holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Day after Thanksgiving, and Christmas Day.

Educational Leave

Regular meetings

The only regular meeting times allowed without using leave days are as follows:

- PGY-5 AAOS
- PGY-5 Boards review course of choice
- PGY-2/3 AO Fracture course or equivalent

Research presentations

If presenting at a national or regional meeting, subject to distance, the resident is allowed three days (one for presentation and two for travel). More days may be granted at the discretion of the Program Director.

Approved meetings

These include the American Orthopedic Association Resident Leadership Forum for a selected PGY-4 resident each year.

Also included are pre-approved meetings to foster interest in generalization or subspecialization. See the Meeting Allowance section.

Fellowship interviews

Leave for fellowship interviews will be considered educational/administrative time away and must be requested.

Leave Procedures

Form completion

Fill out the leave request electronically. Account for each day of leave, including weekends, presentations, meetings, and personal days.

It is the residents responsibility, with the assistance of the Chief Resident (PGY-5 Senior I), to find coverage during their absence for all clinic, O.R, and inpatient rounds responsibilities. Attending surgeons are reminded that resident coverage may not be possible, and according to current policy, pulling the Research or Basic Science or other resident to cover is prohibited. Coverage gaps are assigned by the Chief Resident.

Leave Request must be verified by:

- Resident requesting leave (house staff physician).
- Chief Resident on service (residents who are rotating at ARMC or VA must have seniors who are rotating there sign leave requests.)
- Program Director or Associate Program Director

Vacation requests shall be due by the 10th of the month before the beginning of each quarter. When the request is not received by the 10th, the resident shall be assigned the vacation time by the attending(s)/Program Director. Requests are processed on a first come, first served basis.

Vacation calendar

A vacation calendar is maintained by the Residency Coordinator. Please consult this when considering your vacation request.

Miscellaneous Rules

Days where no vacation is allowable

Vacations will not be granted for the following days

- First and last month of your residency (July of PGY-1 and June of PGY-5)

- Week of the American Academy of Orthopaedic Surgeons (AAOS) Annual Meeting
- Sunday and Monday of the Alumni Post-graduate Convention
- Orthopedic Research Seminar
- Miller Review Course
- Orthopedic Residency Graduation Banquet
- ACGME site visit
- Orthopaedic In-Training Examination day

Service Coverage

No more than one resident from any given service (Sports, Hand, Pediatrics, ARMC, VA, etc.) may be away on any given workday (except in cases of regular meetings; i.e., PGY-3 residents to AO conference, PGY-5 residents to AAOS). This includes junior and senior residents on the same service.

No more than one resident from the LLUMC junior call/service may be away on any given non-holiday weekday. The orthopedic intern and the PGY-2 residents may not take vacation at the same time.

Sick leave procedure

Residents are allowed ten sick leave days per year. On the morning of calling in sick, the resident shall notify the service-specific senior resident, who shall then notify the Program Director and Residency Coordinator.

Maximum allowable leave

Due to American Board of Orthopaedic Surgery regulations, no more than six weeks shall be granted for vacation, educational leave, and sick leave.

The resident shall make up time for any leave exceeding a total of six weeks, regardless of reason. This shall be arranged by the Program Director.

MEETING ALLOWANCE

Conference Attendance Period

Residents will be able to attend another conference during PGY-3 to PGY-4 time. This is in addition to the other pre-approved conferences, which include; for all residents: (1) basic fracture course, (2) boards review course, (3) American Academy of Orthopaedic Surgeons annual meeting; and for select residents, (4) research presentations according to set policy, and (5) American Orthopedic Association Resident Leadership Forum.

Approved Meetings

The list below represents the pre-approved meetings you may choose from, with the idea of fostering interest in generalization or subspecialization. Choose one meeting, and attendance is to occur during the PGY-3 or PGY-4 level. Prior to course registration and attendance, submit a leave request and a budget to include fees, travel, lodging, and per diem expenses. The department will reimburse up to $1,200. Requests for meetings not listed here will be considered on a case-by-case basis.

- American Academy of Orthopaedic Surgeons
- American Association for Hand Surgery
- American Association of Hip and Knee Surgeons
- American Orthopaedic Foot and Ankle Society
- American Orthopaedic Society for Sports Medicine
- American Shoulder and Elbow Surgeons
- American Society for Surgery of the Hand
- American Spinal Injury Association
- AO North America Trauma Advanced Course
- Arthroscopy Association of North America
- Cervical Spine Research Society
- Current Concepts in Joint Replacement
- Hip Society
- International Congress for Joint Reconstruction
- Knee Society
- Limb Lengthening and Reconstruction Society
- Lumbar Spine Research Society
- Musculoskeletal Tumor Society
- North American Spine Society
- Orthopaedic Rehabilitation Association
- Orthopaedic Research Society
- Orthopaedic Trauma Association
- Pediatric Orthopaedic Society of North America
- Scoliosis Research Society
- Society of Military Orthopaedic Surgeons
- Other non-industry-sponsored courses where scholarship is provided, with support from faculty, certifying educational validity of the content, and with approval from the Program Director

FATIGUE AND STRESS POLICY

Introduction

Fatigue and stress are expected to occur periodically in the setting of residency training. Not unexpectedly, residents may, on occasion, experience some effects of inadequate sleep and/or stress. The concern is caused by residents who are so fatigued that they may make serious errors in medical care.

Signs and symptoms of fatigue

Inconsistent performance

Overt sleepiness

Verbal complaints

- Not having the energy to perform routine tasks
- Feelings of irritability
- Difficulty concentrating

Concerns from colleagues' observations

Education

Faculty and residents shall be educated to recognize the signs of fatigue, and adopt and apply policies to prevent and counteract its potential negative effects.

Such education shall take place in the following settings:

- Grand Rounds and other conference presentation(s)
- Committee discussions
- Review of printed materials

Response

Resident responsibilities

Residents who perceive that they are manifesting excess fatigue or stress shall immediately notify the supervising attending, the chief resident of their service, and the program director, without fear of reprisal.

Residents recognizing signs of fatigue or stress in fellow residents shall immediately report their observations and concerns to the supervising attending, the chief resident of their service, and the Program Director.

Residents shall report all traffic accidents and near-accidents related to fatigue to the Program Director's office.

Attending physician responsibilities

Recognition that a resident is demonstrating evidence of excess fatigue or stress requires the attending to consider immediate release of the resident from any further patient care responsibilities at the time of recognition.

The supervising attending shall privately discuss with the resident, attempt to identify the reason for excess fatigue or stress, and estimate the amount of rest that will be required to alleviate the situation.

Once the decision to release the resident from further patient care responsibilities has been made, the supervising attending shall notify the Program Director's office.

If applicable, the supervising attending may advise the resident to rest for a period that is adequate to relieve the fatigue before operating a motorized vehicle. This may mean that the resident should first go to the call room for a sleep interval of no less than thirty minutes. The resident may also be advised to consider calling someone to provide transportation home.

The backup call resident may be utilized in cases where the primary call resident is relieved of duties due to fatigue.

Oversight

Registry

The Program Director's office shall compile statistics regarding (1) release of residents from clinical responsibilities due to fatigue or stress and (2) traffic accidents or near-accidents related to resident fatigue.

Program Director responsibilities

Following removal of a resident from duty, the Program Director, in association with the chief resident, shall determine the need for program adjustments and duty assignments. The Program Director shall also review the resident's call schedules, work hour time cards, extent of clinical responsibilities, any known personal problems, and stressors contributing to this resident's situation.

In situations of resident stress, the Program Director shall direct the resident for evaluation and treatment by the Employee Assistance Program, which provides confidential counseling services. If the problem is not resolved in a timely manner, or if the problem is recurrent, the Program Director, in conjunction with an evaluation from the Employee Assistance Program representative, shall have the authority to release the resident from patient care duties. In such situations, the Program Director shall allow the resident back to resume patient care only upon acceptable advisement from the Employee Assistance Program representative. When the resident is undergoing continued counseling, the Program Director shall receive periodic updates from the Employee Assistance Program representative. Extended periods of release

from duty assignments that exceed requirements for completion of training must be made up to meet ACGME and ABOS training guidelines.

Committee review

The Program Director shall present the above compiled statistics at least on a semi-annual basis, during the Residency Program Evaluation Committee.

At least on an annual basis, and prior to the year-end Residency Program Evaluation Committee, the Program Director shall assess the level of burnout among residents. One validated instrument includes the Maslach Burnout Inventory. An additional instrument is the Epworth Sleepiness Scale. Results shall be reported at Committee proceedings.

MISCELLANEOUS POLICIES

RESPONSIVENESS TO CALLS

Living Proximity

Benefits of closer living proximity

Benefits include better safety with driving shorter distances, especially after overnight duty; availability for home call; and availability in the event of disasters.

Maximum distance

All residents are expected to live within a driving distance of within 30 miles to LLUMC. Residents who live more than 30 miles must provide a plan for mitigating any concerns.

Residents who take call from home must be available at the hospital within 20 minutes of being called.

Residents who feel it unwise for them to drive home after duty should take a cab home. LLUMC will reimburse round-trp cab fare to and from home if presented with a receipt within one week. Cab fare reimbursement is limited to addresses within 45 miles driving distance of LLUMC.

Pagers

Responsiveness

Residents are responsible for maintaining active pagers during working hours. This means making sure the pager is working, changing/charging the battery when necessary.

In addition, residents are expected to return pages within five minutes, but not to exceed ten minutes. When in the operating room or in other situations where answering is not possible, the resident must be responsible to ask the nurse or other personnel to return the page in timely fashion.

Duties while on Research and Basic Science Rotations

Even though much of the Research and Basic Science rotations involve self-motivated study and work, residents are on duty and expected to respond to pages. Proximity rules apply. Residents are not considered to be on vacation while on these rotations.

The unreachable resident

In cases where the resident cannot be reached because the resident turns off the pager and behaves as if on vacation, or in cases when the resident travels away beyond the

aforementioned expections, the resident will be recorded as an absence without approved leave. This shall be considered a suspension without pay or as a vacation day, to be determined at the discretion of the Program Director.

DISCIPLINARY ACTION

Introduction

This document outlines the rules and procedures pertaining to disciplinary action toward a resident. Additional stipulations from the House Staff Office may apply.

Provisions

Types of disciplinary action

Letter of Warning documents the cause for concern and becomes part of the resident's permanent record.

Probation involves placement of the resident on probationary status, which will be specified together with the following stipulations:

- Length of probation
- Reason for placement on probation
- The criteria the resident must meet to satisfy the terms of probation
- The approximate date at which the resident's probationary status will be reviewed

Suspension involves the temporary removal of the resident from the residency program for a definite period of time.

Reappointment without advancement involves reappointment of the resident to the residency program without advancement to the next training level.

Decision not to reappoint involves a decision not to reappoint the resident following the expiration of the term of the current contract.

Termination involves permanent dismissal from the residency program.

Criteria for initiation

Failure of the resident to fulfill all obligations as imposed by the terms of employment and residency training.

Any action, conduct, or health status of the resident that is adverse to the best interests of patient care or the institutions to which the resident is assigned.

Specific criteria and examples

Breach of professional ethics, as defined by the American Academy of Orthopaedic Surgeons, in *Code of Medical Ethics and Professionalism for Orthopedic Surgeons*.

Violation of the rules of the residency program, the institution to which the resident is assigned, or the law, which include, but not limited to the following:

- Absence without approved leave

- Unacceptable level of attendance to scheduled educational activities
- Unacceptable completion of medical records
- Failure to adequately complete Core Curriculum assignments

Inadequate medical knowledge, deficient application of medical knowledge to either patient care or research, deficient technical skills, or any other deficiency that adversely affects the resident's performance.

Misrepresentation of research results.

Unacceptable level of conference attendance.

Parties who may initiate corrective action

Any of the following parties may initiate corrective action:

- Department Chair
- Program Director
- Department or section chief to which the resident is assigned

Separate corrective action

- In addition to the corrective action described above, the resident may, in accordance with the policies and procedures of the hospital, have his or her privileges limited, restricted, suspended, or revoked. Such action by the hospital does not require the initiation of corrective action under this policy.

Notice

The resident shall be notified in writing, with reference to the specific activity, conduct, deficiency, or other basis constituting grounds for disciplinary action.

Specific procedures are outlined by the House Staff Office.

RESIDENT RECOGNITION AND AWARDS PROTOCOL

Annual Orthopedic Surgery Research Seminar Awards

Evaluation

Evaluation forms are given to Loma Linda University faculty and guest faculty.

The two residents, irrespective of PGY, who receive the two highest marks are awarded first and second place.

Awards

The first place recipient receives a check for $1000 and a plaque or certificate at the Orthopedic Residency Graduation Banquet.

The second place recipient receives a check for $500 and a plaque or certificate at the Orthopedic Residency Graduation Banquet.

The monetary award shall be drawn from the research seminar budget, which may include the Orthopedic Research Center account.

Election for AOA Resident Leadership Forum

The faculty shall elect one PGY-4 resident to attend the AOA Resident Leadership Forum. This election shall be based on the individual's overall performance and potential to participate in academic leadership.

Nomination to the Alpha Omega Alpha Honor Medical Society

There may be one or more residents that are deemed to be exceptional in all aspects, including academic performance, leadership ability, and scholarly activity. The Program Director and the faculty may choose to nominate outstanding residents to the Alpha Omega Alpha Honor Medical Society.

RESIDENT SELECTION POLICY

Introduction

The Program Director of the Orthopedic Surgery Department, Loma Linda University Medical Center (LLUMC) sponsored Graduate Medical Education programs must assure that each resident admitted into the program is qualified on the basis of previous education and experience to assume the responsibilities that she/he will be given as a resident. This assurance must be based on an evaluation of the credentials of each applicant. Medical education recognizes the criteria of knowledge, skills (including judgment), values and attitudes as separately important in the evaluation of students. The quality of each applicant for a resident position should be evaluated in light of these separate criteria. The program director must comply with the criteria for resident eligibility as specified in the Institutional Requirements. The Orthopedic Surgery Residency Program recognizes the value and importance of recruiting qualified men, women and minority students.

Program Directors of LLUMC sponsored GME programs are to fulfill the Mission of LLUMC to support the international medical efforts of the Seventh-day Adventist Church.

All residents and fellows must be able to support the Mission of LLUMC "to continue the healing ministry of Jesus Christ, 'to make man whole' in a setting of advancing medical science and to provide a stimulating clinical and research environment for the education of physicians, nurses, and other health professionals." Further, they must agree to be subject to the standards or conduct and ethics which are not in conflict with the ethics, principles and philosophy of the Seventh-day Adventist Church.

Basic Criteria

Quality assessment

The Orthopedic Surgery faculty and Program Director of LLUMC sponsored residency programs are most familiar with the relationship between undergraduate performance and success as a resident when the applicant is a recent graduate of Loma Linda University School of Medicine (LLUSM). Because of the accreditation process and standards shared by the Liaison Council on Medical Education (LCME) accredited medical schools, similar familiarity is recognized with the relationship between undergraduate performance and resident performance when the applicant is a graduate of a LCME accredited medical school. These two groups, first, recent graduates of LLUSM and second, recent graduates of other LCME accredited medical schools form the "reference group" against which Program Directors should try to infer the relative quality of all other applicants.

Data gathering

The most accurate information for those individuals applying to enter a residency immediately after graduating from medical school, will be the academic record of the applicant while in medical school. Students presenting credentials from schools that have not been subjected to the same accreditation process and standards as LCME accredited medical schools may be more difficult to evaluate. The Program Director must use tools available to allow a qualitative comparison with the "reference group" in evaluating such students. A Dean's letter provided by LCME schools contains evaluations by multiple preceptors that should address such areas as skills, values, attitudes, etc.

Subjective evaluation tools such as review of an applicant's CV, Personal Statement or evaluation of applicants by interview should be considered as supplementary tools.

Equal employment opportunity

Graduate medical education has no gender specific requirements and discrimination on the basis of gender will not be practiced.

Discrimination on the basis of race, national origin or ethnicity will not be practiced.

Selection criteria

Appointments will be based on the ability of the individual to perform the tasks required for that position. Discrimination based on disability will not be practiced. All potential residents must possess the minimal physical and cognitive requirements (with reasonable accommodations if needed) for this residency program. These include but are not limited to:

- Mental, emotional and social attributes to be a successful orthopedic surgeon.
- Vision—ability to see out of both eyes, with adequate acuity for the fine techniques involved in surgery, including working under a microscope or viewing/working through microsurgical equipment.
- Team Effort—must possess ability to work well with colleagues, medical personnel and auxiliary personnel as well as have a good rapport with the patients and families under our care.
- Dexterity—must be adept in fine movements of both hands with the ability to perform microsurgical techniques.
- Stamina—must possess the ability to sit or stand for long periods of time with maximum concentration on the procedure at hand. This endurance could be limited due to neurological or skeletal muscular impairment.

Physical and mental requirements

Candidates must be able to perform the following activities, with or without the use of accommodation:

- Seeing (both eyes)
- Hearing
- Manual Tasks (one hand)
- Manual Tasks (two hands)
- Fine Motor Skills

- Sitting
- Standing
- Walking
- Lifting
- Reaching
- Concentrating
- Interaction/others under stressful situations
- Writing
- Reading
- Maintaining consciousness
- Thinking
- Learning

Selection pool

The Orthopedic Surgery Department will consider applications for residency or fellowship programs from qualified physicians who meet one of the following criteria:

- Graduates of medical schools accredited by the LCME;
- Graduates of osteopathic schools accredited by the American Osteopathic Association (AOA)
- Graduates of medical schools actively affiliated with LLUSM including Montemorelos University, Universidad Adventista del Plata, Kasturba Medical College, Obafemi Awalowo University and Christian Medical College
- Graduates of other medical schools who have successfully completed one or more years of a residency program approved by the Accreditation Council for Graduate Medical Education (ACGME)
- Graduates of other medical schools who have successfully passed the CSA examination offered by ECFMG
- Graduates of other medical schools who are under contract with Seventh-day Adventist institutions affiliated with Loma Linda University may nominate physicians who require residency training in order to enhance their employment for such entities. In order to be eligible to make application based upon such nomination, a copy of a binding contract between the entity and applicant must be provided with an application. Such nomination and contract will allow the physician to be considered for a residency position, but does not guarantee that the applicant will be accepted for training at Loma Linda University Medical Center.

LLUMC will NOT consider applications of individuals who have violated the rules of the National Resident Matching Program.

Application Process

Documentation

All applicants are required to provide all documentation as required by the Electronic Residency Application Service (ERAS) application with a signed statement indicating that the information in the application is true and correct. Required information includes:

- Photocopy of medical school diploma (or evidence of anticipated graduation prior to appointment) from a medical school acceptable to the State of California

- Official medical school transcript(s), and translation if not in English
- Evidence of having achieved a passing score on at least one of the following examinations:
- USMLE Step 1
- NBME Part 1
- FLEX Component 1 and 2
- COMLEX 1
- Recommendation letters from each of the following
- Dean's letter from the medical school of graduation
- Program Director for each prior training program
- Letter(s) of good standing from licensing board of any state where applicant has been licensed
- A letter from the Medical Staff Office of any facility where staff privileges have been held
- Minimum of two reference letters from physicians currently acquainted with applicant

Foreign Medical Graduates

International Medical School Graduates are required to submit the following additional documentation:

- "Evaluation Status Letter" from the Medical Board of California (MBC) dated within the past year, indicating acceptance of their medical education in meeting MBC requirements and eligibility to commence postgraduate training in California, should a position be offered.
- ECFMG Standard Certificate with valid date (must include an indication that the CSA was passed successfully, if applicant has no prior U.S. ACGME residency training).
- Scores for examinations used to qualify for the ECFMG Certificate.
- NOTE: LLUMC accepts ONLY the J-1 visa, sponsored by ECFMG.

Application and pre-employment requirements

All applicants must have successfully completed the appropriate training prescribed for beginning orthopedic residency or fellowship program by the Accreditation Council for Graduate Medical Education.

Additional documentation may be required by House Staff Office, the Graduate Medical Education Committee, or the specific GME program prior to acting on a completed application.

Prior to beginning the orthopedic residency program at LLUMC the accepted individual must at a minimum:

- Present evidence that he/she is legally employable in the State of California;
- Present evidence of an unrestricted license to practice medicine in the State of California if he/she has completed training as noted below:
- US Graduate: 24 months of ACGME accredited training;
- International Medical Graduate: 36 months of ACGME accredited training;
- Pass a LLUMC pre-employment physical examination including a urine drug screen
- Pass an extensive background check
- Present evidence of an unexpired Basic CPR Certificate
- Attend required Orientation activities
- Complete all required in-services, including, but not limited to, B.L.U.E. BOOK, P.U.R.P.L.E. BOOK, Compliance, and HIPAA training, as instructed by House Staff Office.

Selection Process

Introduction

This is a multi-faceted process with generalized evaluations and ratings as noted below superseded by an overall plan to best incorporate a cohesive orthopedic team consistent with working in the realm of Loma Linda University Medical Center and its affiliates for the provision of orthopedic care and residency training.

Selection committee composition

The selection committee is comprised of the residency Program Director and Associate Program Director, the departmentChair, one or two attending from LLUMC Orthopedics, and one attending from our affiliates, Arrowhead Regional Medical Center and Veterans Administration Medical Center. Resident(s) may be asked to participate as well. Additional committee members may be selected at the Program Director's discretion.

Preliminary evaluation and screening

We participate in the National Resident Matching Program (NRMP) and accept four residents per year with inclusion of the intern year as is participated through the Department of General Surgery as coordinated under the direction of Orthopedic Surgery. Applicants submit their application through the Electronic Residency Application Services (ERAS). These conditions and applications must be in compliance with House Staff Office and LLUMC requirements. The importance of recognizing LLUMC mission and affirmative action is considered. We average between 250-300 applications. A Step I Board on the USMLE of approximately 235 is used as a general screening tool.

Satisfactory completion of Part I of the Boards depends on being able to compete on the cognitive level with their peers in the orthopedic surgery residency. This screening process reduces the number of applicants to approximately 100. The ERAS applications are then reviewed by each of the five physicians on the selection committee.

Each committee member individually reviews the ERAS applications for what they feel are important characteristics. This can include the USMLE scores, education, class ranking, AOA status, Dean's letter, letters of recommendation, personal statements and rotation grades, if available. Research and volunteer work are also evaluated. No special consideration will be given for students who rotate with our department. Approximately 35 students will be selected for interview.

Interview process

Interviews are also granted to those people doing fourth-year medical student rotations here and LLUMC medical students. Interviewing is performed in one day in January and are coordinated as much as possible with the other orthopedic residency programs in Southern California. Approximately 35 candidates are interviewed personally by the Residency Selection

Committee members on an individual basis. The scoring sheet is used according to the discretion of the interviewer.

Rank list generation

At the conclusion of the interview process, the committee meets with all participants having equal input and then decides on the rank order list using merits as noted above. By general agreement, the rank order list is composed after approximately two hours of discussion and input is elicited from each of the Committee members. The rank order list is submitted to the GME office by the residency coordinator, and the GME office and DIO will have final approval of the list.

GOALS AND OBJECTIVES

OVERALL PROGRAM GOALS AND OBJECTIVES

Overall Goal

To provide an orthopedic residency program dedicated to the superior care of orthopedic patients with an appropriate associated program of scientific research and teaching. Our primary concern is in the superior care of orthopedic patients and the total commitment of returning people to functional lives. Through investigation and restoration, we hope to rehabilitate and restore function and form.

Patient Care

Goals

The orthopedic resident will develop patient care that is compassionate, appropriate, and effective for the treatment of health programs and the promotion of health for orthopedic patients.

Objectives

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families regarding general orthopedic, trauma, and medical issues.
- 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 orthopedic scientific evidence, and clinical judgment.
- Develop and carry out patient management plans.
- Counsel and educate patients and their families regarding orthopedic problems.
- Demonstrate the ability to practice culturally competent medicine.
- Use information technology to support patient care decisions and patient education.
- Perform competently all medical and invasive procedures considered essential to orthopedic surgery.
- 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.

Medical Knowledge

Goals

The orthopedic resident will gain medical knowledge about established and evolving biomedical, clinical, and cognate sciences, as well as the application of this knowledge to patient care.

Objectives

- Demonstrate an investigatory and analytic thinking approach to clinical situations, as measured through assessments made by faculty and on in-training examination performance.
- Know and apply the basic and clinically supportive sciences which are appropriate to orthopedic surgery.

Practice-based Learning and Improvement

Goals

The orthopedic resident will incorporate 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.

Objectives

- 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.

Interpersonal and Communication Skills

Goals

The orthopedic resident will demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and other health professionals.

Objectives

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

Professionalism

Goals

The orthopedic resident will demonstrate professionalism, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to patients of diverse backgrounds.

Objectives

- Demonstrate respect, compassion, and integrity; a responsiveness to the general medical and orthopedic 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 that may have resulted from musculoskeletal injury.
- Demonstrate sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.

Systems-based Practice

Goals

The orthopedic resident will assimilate 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.

Objectives

- Understand how their patient care and other professional practices affect other healthcare professionals, the healthcare 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 healthcare costs and allocating resources.
- Practice cost-effective health care and resources 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 other healthcare providers to assess, coordinate, and improve health care and know how these activities can affect system performance.

INTERN ORTHOPEDIC SURGERY ROTATION

Overall Goal

To provide an orthopedic surgery service program dedicated to the superior care of the orthopedic patient, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of patients with orthopedic problems and total commitment to returning people to useful life.

Patient Care

Goals

The orthopedic surgery intern will experience inpatient care of orthopedic patients under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families regarding general orthopedics, trauma, and medical issues.
- Gather essential and accurate information about their patients.
- With careful supervision, make informed decisions about diagnostic and therapeutic interventions based on patient information and attending guidance.
- Counsel and educate patients and their families regarding orthopedic problems.
- Demonstrate the ability to practice culturally competent medicine.
- Use information technology, such as electronic medical records and electronic radiographic retrieval systems, to support patient care decisions and patient education.
- Under appropriate supervision, perform competently all medical and invasive procedures considered essential for the area of practice.
- Work with health care professionals, including those from other disciplines, such as the Trauma Service, to provide patient-focused care.

Medical Knowledge

Goals

The orthopedic surgery intern will obtain specific knowledge in problems related to musculoskeletal problems. This is through the use of clinical materials, biomedical research data, and didactic learning. The orthopedic surgery intern will apply this knowledge to patient care.

Objectives

- Demonstrate an investigatory and analytic thinking approach to clinical situations, as measured through assessments made by faculty.
- Know and apply basic and fundamental medical knowledge to orthopedic surgery.

Practice-based Learning and Improvement

Goals

The orthopedic surgery intern will appraise and assimilate scientific evidence for the care of the musculoskeletal patient. This involves investigation and evaluation of patient care.

Objectives

- Locate, appraise, and assimilate evidence from standard orthopedic textbooks to improve the patient's care.
- Use information technology to manage information, access on-line medical information, and support their own education.

Interpersonal and Communication Skills

Goals

The orthopedic surgery intern will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

- Create and sustain a therapeutic and ethically sound relationship with patients.
- Use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills.
- Work effectively with others as a member of a healthcare team, acting as a liaison between the Orthopedic Service and the Emergency Department and the Trauma Service.

Professionalism

Goals

The orthopedic surgery intern will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Demonstrate respect, compassion, and integrity; a responsiveness to the general medical and orthopedic 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 that may have resulted from musculoskeletal problems.
- Demonstrate sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.

Systems-based Practice

Goals

The orthopedic surgery intern will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the orthopedic surgery intern will effectively call on other resources in the system to provide optimal health care.

Objectives

- Practice cost-effective health care and resources 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 other healthcare providers to assess, coordinate, and improve health care and know how these activities can affect system performance.

INTERN RHEUMATOLOGY ROTATION

Overall Goal

To provide a rheumatology program dedicated to the provide education in the fundamentals of rheumatologic diseases and their impact on overall musculoskeletal health.

Patient Care

Goals

The rheumatology intern will participate in the care of the rheumatology patient, under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families regarding rheumatologic issues.
- Gather essential and accurate information about their patients.
- With careful supervision, make informed decisions about diagnostic and therapeutic interventions based on patient information and attending guidance.
- Counsel and educate patients and their families regarding rheumatologic problems.
- Demonstrate the ability to practice culturally competent medicine.
- Use information technology, such as electronic medical records and electronic radiographic retrieval systems, to support patient care decisions and patient education.
- Under appropriate supervision, perform competently all medical and invasive procedures considered essential for the area of practice.
- Work with health care professionals, including those from other disciplines to provide patient-focused care.

Medical Knowledge

Goals

The rheumatology intern will obtain specific knowledge in problems related to rheumatologic disease and how these impact musculoskeletal health. This is through the use of clinical materials, biomedical research data, and didactic learning.

Objectives

- Demonstrate an investigatory and analytic thinking approach to clinical situations, as measured through assessments made by faculty.
- Know and apply basic and fundamental medical knowledge to rheumatology.

Practice-based Learning and Improvement

Goals

The rheumatology intern will appraise and assimilate scientific evidence for the care of the rheumatology patient.

Objectives

- Locate, appraise, and assimilate evidence from standard textbooks to improve the patient's care.
- Use information technology to manage information, access on-line medical information, and support their own education.

Interpersonal and Communication Skills

Goals

The rheumatology intern will develop an effective exchange of information and collaboration with patients and their families and other health professionals.

Objectives

- Create and sustain a therapeutic and ethically sound relationship with patients.
- Use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills.
- Work effectively with others as a member of a healthcare team.

Professionalism

Goals

The rheumatology intern will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients and other healthcare professionals of diverse backgrounds.

Objectives

- Demonstrate respect, compassion, and integrity; a responsiveness to the general medical 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 that may have resulted from rheumatologic problems.
- Demonstrate sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.

Systems-based Practice

Goals

The rheumatology intern will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the rheumatology intern will effectively call on other resources in the system to provide optimal health care.

Objectives

- Practice cost-effective health care and resources 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 other healthcare providers to assess, coordinate, and improve health care and know how these activities can affect system performance.

INTERN ORTHOPEDIC REHABILITATION ROTATION

Overall Goal

To provide an orthopedic rehabilitation program dedicated to the provide education in the fundamentals of musculoskeletal diseases and their impact on overall function, and to understand the role of rehabilitation in returning patients to maximum function.

Patient Care

Goals

The orthopedic rehabilitation intern will participate in the care of the musculoskeletal rehabilitation patient, under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families regarding rehabilitation issues.
- Gather essential and accurate information about their patients.
- With careful supervision, make informed decisions about diagnostic and therapeutic interventions based on patient information and attending guidance.
- Counsel and educate patients and their families regarding musculoskeletal and neurologic problems.
- Demonstrate the ability to practice culturally competent medicine.
- Use information technology, such as electronic medical records and electronic radiographic retrieval systems, to support patient care decisions and patient education.
- Under appropriate supervision, perform competently all medical and invasive procedures considered essential for the area of practice.
- Work with health care professionals, including those from other disciplines to provide patient-focused care.

Medical Knowledge

Goals

The orthopedic rehabilitation intern will obtain specific knowledge in problems related to disability and treatment modalities to return patient to maximum function. This is through the use of clinical materials, biomedical research data, and didactic learning.

Objectives

- Demonstrate an investigatory and analytic thinking approach to clinical situations, as measured through assessments made by faculty.

- Know and apply basic and fundamental medical knowledge to orthopedic rehabilitation.

Practice-based Learning and Improvement

Goals

The orthopedic rehabilitation intern will appraise and assimilate scientific evidence for the care of the rehabilitation patient.

Objectives

- Locate, appraise, and assimilate evidence from standard textbooks to improve the care of the musculoskeletal and neurological patient.
- Use information technology to manage information, access on-line medical information, and support their own education.

Interpersonal and Communication Skills

Goals

The orthopedic rehabilitation intern will develop an effective exchange of information and collaboration with patients and their families and other health professionals.

Objectives

- Create and sustain a therapeutic and ethically sound relationship with patients.
- Use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills.
- Work effectively with others as a member of a healthcare team.

Professionalism

Goals

The orthopedic rehabilitation intern will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients and other healthcare professionals of diverse backgrounds.

Objectives

- Demonstrate respect, compassion, and integrity; a responsiveness to the general medical 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.

Systems-based Practice

Goals

The orthopedic rehabilitation intern will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the orthopedic rehabilitation intern will effectively call on other resources in the system to provide optimal health care.

Objectives

- Practice cost-effective health care and resources 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 other healthcare providers to assess, coordinate, and improve health care and know how these activities can affect system performance.

INTERN MUSCULOSKELETAL Radiology ROTATION

Overall Goal

To provide a musculoskeletal radiology program dedicated to the provide education in the fundamentals of diagnostic imaging.

Patient Care

Goals

The musculoskeletal radiology intern will participate in diagnostic imaging related to patient care, under staff supervision.

Objectives

- Gather essential and accurate information about their patients.
- With careful supervision, understand diagnostic modalities based on patient information and attending guidance.
- Use information technology, such as electronic medical records and electronic radiographic retrieval systems, to support patient care decisions and patient education.
- Work with health care professionals, including those from other disciplines, to provide patient-focused care.

Medical Knowledge

Goals

The musculoskeletal radiology intern will obtain specific knowledge in problems related to orthopedic problems. This is through the use of clinical materials, biomedical research data, and didactic learning.

Objectives

- Demonstrate an investigatory and analytic thinking approach to clinical situations, as measured through assessments made by faculty.
- Know and apply basic and fundamental medical knowledge to musculoskeletal radiology.

Practice-based Learning and Improvement

Goals

The musculoskeletal radiology intern will appraise and assimilate scientific evidence for the care of the orthopedic patient, as it relates to radiology.

Objectives

- Locate, appraise, and assimilate evidence from standard textbooks to improve the patient's care.
- Use information technology to manage information, access on-line medical information, and support their own education.
- Engage in learning through the use of teaching files and case studies.

Interpersonal and Communication Skills

Goals

The musculoskeletal radiology intern will develop an effective exchange of information and collaboration with patients and their families (where applicable) and other health professionals.

Objectives

- Create and sustain a therapeutic and ethically sound relationship with patients, where applicable.
- Use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills.
- Work effectively with others as a member of a healthcare team.

Professionalism

Goals

The musculoskeletal radiology intern will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients (where applicable) and other healthcare professionals of diverse backgrounds.

Objectives

- Demonstrate respect, compassion, and integrity; a responsiveness to the general medical 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 that may have resulted from musculoskeletal problems.
- Demonstrate sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.

Systems-based Practice

Goals

The musculoskeletal radiology intern will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the musculoskeletal radiology intern will effectively call on other resources in the system to provide optimal health care.

Objectives

- Practice cost-effective health care and resources allocation that does not compromise quality of care.
- Understand the costs/benefits of different diagnostic modalities and be able to apply this knowledge in decision making.
- Advocate for quality patient care and assist patients in dealing with system complexities.
- Know how to partner with health care managers and other healthcare providers to assess, coordinate, and improve health care and know how these activities can affect system performance.

INTERN PLASTIC SURGERY

Goals

Loma Linda University Medical Center will provide a learning environment for the care, treatment and follow up of plastic and reconstructive surgery patients. Surgical basic science, including fluids, electrolytes, wound healing and nutrition, will be emphasized. Clinically, residents will assess surgical pathology pre-operatively, develop clinical judgment on managing these issues, and learn operative skills to address the problem. Careful postoperative care and follow up will be emphasized.

Medical Knowledge

Objectives

- Outline the components of a comprehensive focused history and physical examination pertinent to the evaluation and correction of congenital or acquired defects under the realm of plastic and reconstructive surgery.
- Discuss and compare skin and connective tissue.
- Explain the basic techniques for surgical repair of superficial incisions and lacerations of the head, neck, trunk, and extremities to include the following considerations:
    - Skin
    - Subcutaneous tissue
    - Superficial muscle and fascia
    - Dressings
    - Splints
    - Suturing and knot tying
- Describe the physiology of various techniques of skin and composite tissue transplantation with particular regard to component tissue circulation:
    - Skin grafts (split- vs. full- thickness)
    - Bone (cartilage grafts)
    - Composite grafts
    - Skin flaps
    - Muscle flaps
    - Myocutaneous flaps
    - Bone flaps
    - Osteocutaneous flaps
    - Myo- osseous flaps
    - Vascularized versus nonvascularized flaps
    - Neurocutaneous flaps
- Explain the assessment of facial skeletal trauma according to the following systems:
    - LeFort I, II, and III classification of maxillary fractures
    - Nasoethmoidal disruption classification
    - Zygomatic, orbit, and mandibular fractures
    - Disruption classification

- Discuss epidemiology, risk factors, treatment, and prevention of cutaneous malignancies in the geriatric patient, including:
    - Skin cancer rates (basal cell carcinoma [BCC], squamous cell carcinoma [SCC])
    - Average age of onset for BCC/ SCC
    - Etiology of BCC/ SCC
    - Usual modes of treatment for BCC/ SCC (Mohs Technique, radiation, chemotherapy)
    - Prevention using medications (isotretinoin, beta- carotene)
- Explain the methods for performing incisional and excisional biopsies of skin and oral cavity.
- Demonstrate the systematic examination of the hand to assess motor and sensory function, including:
    - Intrinsic tendon and muscle function
    - Extensive tendon and muscle function
    - Median nerve
    - Ulnar nerve
    - Radial nerve
    - Circulation
    - Bones
- Outline appropriate diagnostic studies needed to supplement the physical examination when developing a treatment plan for:
    - Surgery of the hand
    - Facial fractures
- Summarize the evaluation of patients with head and neck cancer, and develop a treatment plan according to the following criteria:
    - Location of lesion
    - Size of primary lesion
    - Presence of metastatic disease
- Discuss the use of the reconstructive ladder (including skin grafts, local flaps, and regional and free microvascular flaps) in the definitive management of traumatic or excised wounds.
- Discuss the surgical treatment of:
    - Common hand injuries
    - Surgical repair of facial trauma, soft tissue, and bony defects
    - Resection and reconstruction of the simple, soft tissue defects following resection of neoplasms of the head and neck
    - Resection of skin and soft tissue neoplasms requiring complex reconstruction
- Summarize currently accepted surgical techniques for treating the following:
    - Craniofacial anomalies, including cleft lip and palate
    - Breast reconstruction after mastectomy
    - Reconstruction and ablative head and neck surgery
    - Aesthetic rejuvenation of the face and body

Patient Care

Objectives

- Establish basic proficiency in providing pre-operative and post-operative care (writes appropriate pre-op and post-op orders for floor patients, handles nursing calls appropriately, and manages most routine post-operative care with minimal intervention by supervisor).

- Take an appropriate history to evaluate patients with plastic/reconstructive surgical issues to include:
    - a. A complete history of present illness
    - b. Presence of any co-morbidities
    - c. A review of social and family history impacting the present problem
    - d. A complete review of systems
- Develop a proficiency in evaluation and interpretation of the different diagnostic modalities including: X-rays, ultrasounds CT scans, Contrast studies and MRIs.
- Discuss treatment options, risks and potential complications of patients with plastic surgery issues.
- Assist in the performance of plastic and reconstructive surgery procedures.
- Recognize and manage postoperative surgical complications, including wound infection, dehiscence and leaks, and lymphocele, seroma and hematoma formation.
- Demonstrate skill in basic surgical techniques, including:
    - Knot tying
    - Exposure and retraction
    - Knowledge of instrumentation
    - Incisions
    - Closure of incisions
    - Handling of graft material including mesh
    - Establishing penumoperitoneum
    - Handling of laparoscopic instruments
    - Handling of the laparoscopic camera
- Coordinate pre and post-surgical operative care for patients in the plastic surgery rotation.
- Assist in closure of abdominal incisions and exhibit competency in suture technique.
- Be able to apply and remove all types of dressings.
- Make and close a variety of incisions and tie knots using sterile technique.

Practice-Based Learning & Improvement

Objectives

- Demonstrate the ability to:
    - Evaluate published literature in critically acclaimed journals and texts
    - Apply clinical trials data to patient management
    - Participate in academic and clinical discussions
- Accept responsibility for all dimensions of routine patient management on the wards
- Apply knowledge of scientific data and best practices to the care of the surgical patient
- Facilitate learning of medical students and physician assistant students on the team.
- Use the LLUMC library and databases on on-line resources to obtain up to date information and review recent advances in the care of the surgical patient.
- Demonstrate a consistent pattern of responsible patient care and application of new knowledge to patient management.
- Demonstrate a command and facility with on line educational tools.

Interpersonal & Communication Skills

Objectives

- Work as effective team members
- Cultivate a culture of mutual respect with members of nursing and support staff
- Develop patterns of frequent and accurate communication with team members and attending staff
- Gain an appreciation for both verbal and non verbal communication from patients and staff
- Demonstrate consistent respectful interactions with members of nursing and support staff
- Demonstrate consistent, accurate and timely communication with members of the surgical team
- Demonstrate sensitivity and thoughtfulness to patients concerns, and anxieties.
- The resident will demonstrate the ability to provide and request appropriate consultation from other medical specialists.

Professionalism

Objectives

- The resident should be receptive to feedback on performance, attentive to ethical issues and be involved in end-of-life discussions and decisions.
- Understand the importance of honesty in the doctor-patient relationship and other medical interactions.
- Treat each patient, regardless of social or other circumstances, with the same degree of respect you would afford to your own family members.
- Learn how to participate in discussions and become an effective part of rounds, attending staff conference, etc.
- Complete all assigned patient care tasks for which you are responsible or provide complete sign out to the on-call resident.
- Maintain a presentable appearance that sets the standard for the hospital that includes but is not limited to adequate hygiene and appropriate dress. Scrubs should be worn only when operating or while on call.
- Assist with families of critically injured/ill patients and guidance of families towards or through difficult decisions.
- Demonstrate mentoring and positive role-modeling skills.
- Provide an appropriate orientation and guide all medical student as to their roles and responsibilities during the rotation.
- Provide an appropriate orientation to other junior residents that are about to rotate through the plastic surgery service.

Systems-Based Practice

Objectives

- Understand, review, and contribute to the refinement of clinical pathways
- Understand the cost implications of medical decision-making

- Partner with health care management to facilitate resource efficient utilization of the hospital's resources.
- Describe in general terms the benefits of clinical pathway implementation
- Develop a cost-effective attitude toward patient management.
- Develop an appreciation for the benefits of a multi-disciplinary approach to management of critically ill surgical patients.
- Comply with the Health Insurance Portability and Accountability Act of 1996 (HIPAA) regulations regarding patient privacy and confidentiality.
- Demonstrate knowledge in steps and conduct during major surgical procedures.
- Have clear indications and know when it is appropriate to perform a surgical procedure.
- Have an understanding of when it is not appropriate to operate.
- Demonstrate knowledge of steps to be taken to have a patient ready for surgery including pre-op workup and medical clearance.

NIGHT FLOAT

Overall Goal

To provide an experience dedicated to the care of the patients with acute orthopedic problems. Our primary goal is superior care of patients with acute injuries and total commitment to returning people to useful life.

Patient Care

Goals

The night call resident will experience emercency care of acutely injured patients under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Demonstrate triage, prioritization, and decision-making skills.
- Use information technology, such as electronic medical records and electronic radiographic retrieval systems, to support patient care decisions and patient education.
- Under appropriate supervision, perform competently all medical and invasive procedures considered essential for the area of practice.
- Work with health care professionals, including those from other disciplines, to provide patient-focused care.

Medical Knowledge

Goals

The night call resident will obtain specific knowledge in problems related to acute injuries. This is through the use of clinical materials available in print and online. The night call resident will apply this knowledge to patient care.

Objectives

- Know and apply basic and fundamental medical knowledge to acute orthopedic care.
    - □ Fractures and dislocations
    - □ Orthopedic emergencies
    - □ Care of the multiply injuried patient

Practice-based Learning and Improvement

Goals

The night call resident will appraise and assimilate scientific evidence for the care of patients with acute orthopedic injuries. This involves investigation and evaluation of patient care.

Objectives

- Locate, appraise, and assimilate evidence from standard orthopedic textbooks to improve the patient's care.
- 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.

Interpersonal and Communication Skills

Goals

The night call resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals.

Objectives

- Create and sustain a therapeutic and ethically sound relationship with patients.
- Use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills.
- Work effectively with others as a member of a healthcare team.

Professionalism

Goals

The night call resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Demonstrate respect, compassion, and integrity; a responsiveness to the general medical and orthopedic 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 that may have resulted from musculoskeletal injury.

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

Systems-based Practice

Goals

The night call resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the night call resident will effectively call on other resources in the system to provide optimal health care.

Objectives

- Practice cost-effective health care and resources allocation that does not compromise quality of care.
- Practice efficient management utilizing resources available during night call hours.

JUNIOR TRAUMA ROTATION

Overall Goal

To provide a trauma service program dedicated to the superior care of the multiply injured patient, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of patients with multiple injuries and total commitment to returning people to useful life.

Patient Care

Goals

The junior trauma resident will experience inpatient, outpatient, and surgical care of multiply injured patients under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Surgical
    - Competency in sterile technique, patient site preparation, patient positioning, and aseptic draping;
    - Mastery of basic suturing technique, including multi-layer wound closure and complex wound management;
    - Mastery of basic surgical instrument skills (tools for exposure, hemostasis, retraction, tissue handling, and closure) including aseptic technique and atraumatic soft-tissue handling;
    - Understanding of common surgical approaches for fracture care. Examples include lateral approach to the ankle, lateral approach to the femur, deltopectoral approach to the shoulder, volar approach to the forearm;
    - Ability to perform the approach and find the starting point for femoral and tibial nails. Knowledge of the steps for medullary nailing for diaphyseal fractures;
    - Ability to insert free hand interlocks in intramedullary nails;
    - Ability to reduce basic fracture patterns with manipulation, clamps, and K-wires;
    - Understanding of basic AO techniques including knowledge of screw and plate design. Ability to perform basic plate osteosynthesis;
    - Ability to drill, measure, and tap bone for screw placement including lag screw technique.
- Office/Emergency Department/Clinical Practice
    - Ability to efficiently and thoroughly evaluate patient with orthopedic issues in the clinic and emergency department settings including the ability to effectively communicate findings with chief residents, fellows, and attending;
    - Ability to work with multiple surgical specialties in the triage and management of the polytraumatized patient;
    - Ability to identify the appropriate imaging required to evaluate an injury;
    - Ability to interpret diagnostic plain films, CTs, and MRIs;

    - Ability to perform closed reduction and manipulations of fractures and dislocations including appropriate casting, splinting, and immobilization;
    - Ability to acutely manage open fractures including, irrigation & debridement, antibiotic selection, tetanus prophylaxis, reduction, immobilization, and assessment of associated injuries (typically vascular or neurologic);
    - Ability to perform local nerve blocks, joint aspirations.
    - Ability to identify patient in need of medical consultation early in the hospital course;
    - Ability to counsel and educate patients and families;
    - Effectively use information technology to support patient care decisions and patient education.
- Ward Management
    - Ability to manage a substantial inpatient load according to principles of good inpatient hospital care and with respect to the preferences of the attendings on service.
    - Ability to work with the nurse practitioners and physician assistants to ensure equitable distribution of the work load and deliver high quality patient care;
    - Ability to identify potential complications of traumatic injuries such as compartmental syndrome, cognitive impairment, and depression;
    - Daily review of anticoagulation, activity, and antibiotic plan for each patient;
    - Ability to accurately document physical exams and patient care plan in the electronic medical record;
    - Ability to maintain an up to date sign-out list of inpatients and their active issues.

Medical Knowledge

Goals

The junior trauma resident will obtain specific knowledge in problems related to trauma. This is through the use of clinical materials, biomedical research data, and didactic learning. The trauma resident will apply this knowledge to patient care.

Objectives

- Ability to appropriately manage pre and post operative orthopedic patients;
- Knowledge of / ability to appropriately manage acutely injured patients (examples: required imaging, when/how to sheet a pelvis or reduce cervical spine dislocation, and indications for traction);
- Knowledge of common orthopedic traumatic injuries and their acute management (examples: distal radius, tibia, femur, & humerus fractures, shoulder & hip dislocations, hand lacerations, and open fractures);
- Knowledge of expected risk of common surgical interventions (examples: malrotation of transverse/comminuted femur fractures, nonunion of segmental bone loss, knee pain following IMN of the tibia, etc);
- Knowledge of reduction and splinting principles and techniques;
- Knowledge of appropriate indications for surgical and non operative management of traumatic orthopedic injuries;
- Knowledge of relative and absolute contraindications for surgical management of traumatic orthopedic injuries;

- Knowledge of fracture patterns, classifications, and means of fixation;
- Knowledge of AO fracture fixation including lag screw, plate function, modes of fracture healing, material properties, and basic biomechanics;

Practice-based Learning and Improvement

Goals

The junior trauma resident will appraise and assimilate scientific evidence for the care of the multiply injured patient. This involves investigation and evaluation of patient care.

Objectives

- Prepares for and presents the cases at the weekly Indications Conference.
- Presents cases during morning signout rounds;
- The resident has demonstrated the ability and desire to identify errors in care, management, or understanding of clinical presentations that (s)he made or observed, and to learn from them;
- The resident has demonstrated the ability and desire to self-assess his/her performance as a surgeon or assistant surgeon in the operating room;
- Locate, appraise and assimilate evidence from scientific studies related to their patients' health problems;
- Apply knowledge of study design and statistical methods to the appraisal of clinical studies and other medical information;
- Facilitate the learning of medical students and other health care professionals.

Interpersonal and Communication Skills

Goals

The junior trauma resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

- Ability to create and sustain therapeutic and ethically sound relationships with patients;
- Ability to maintain open conversation between team members to ensure dissemination of important information;
- Ability to effectively communicate with other services within the hospital;
- Maintain verbal and written sign-out during transition of patient care;
- Maintained appropriate daily communication with each of the faculty members regarding inpatients according to the standards of each faculty member (defined, in part, in the guide below);
- Able to communicate appropriately, clearly, and in a timely fashion any important changes in status on ER patients, inpatients and outpatients to fellow residents and attending staff.

Professionalism

Goals

The junior trauma resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Ability to maintain an appropriately professional demeanor towards and conduct professional relationships with patients;
- Ability to maintain an appropriately professional demeanor towards and conduct professional relationships with support staff;
- Ability to maintain an appropriately professional demeanor towards and conduct professional relationships with peers;
- Ability to maintain an appropriately professional demeanor towards and conduct professional relationships with faculty;
- The resident treated consulting services (including medical students, residents, and faculty on those services) and anesthesia providers with respect and dignity;
- The resident behaved consistently in an ethical fashion;
- Ability to maintain an appropriately professional physical appearance;
- There were no critical incidents: failures of integrity, dereliction of duty, or overt or implied sexism, racism, or cultural insensitivity.

Systems-based Practice

Goals

The junior trauma resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the junior trauma resident will effectively call on other resources in the system to provide optimal health care.

Objectives

- The resident engaged consulting services (including non-medical consulting services, such as social services) appropriately, including calling for consults when indicated, and responding to the recommendations of consultants in a timely and effective manner;
- Demonstrated an understanding of cost effective health care delivery while maintaining high quality patient care;
- The resident ran the service in a time-efficient manner so has to optimize his/her learning, such that demands from the ER were balanced effectively against time in the OR and/or clinic;
- Participation in the clinic and the OR in an efficient and effective manner.

JUNIOR SPINE ROTATION

Overall Goal

To provide a junior spine service program dedicated to the superior care of the spine patient, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of patients with spinal injuries and total commitment to returning people to useful life.

Patient Care

Goals

The junior spine resident will experience inpatient, outpatient, and surgical care of spine patients under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Work up, document, and present a patient with spine problems specifying the working diagnosis, studies to confirm or change the diagnosis, treatment alternatives and expected outcomes.
- Communicate compassionately and effectively with patients and families regarding the above.
- 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.
- Prescribe appropriate spinal orthoses and supervise their application.
- 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 result.
- Perform and assist essential surgical procedures: posterior cervical, thoracic and lumbar exposure and arthrodesis, anterior cervical approach and arthrodesis, discectomy.
- List all equipment, tables, imaging needs and demonstrate correct review of the completeness of surgical set up for all cases.
- Demonstrate attention to detail in the pre- and postoperative care of patients.
- Demonstrate ability to recognize and initiate treatment of all complications.
- Discuss and confirm or challenge diagnoses and treatment plans based upon recent literature.
- Make patient treatment decisions and possess a basic understanding of indications for surgical procedures with various elective pathologies as well as non-elective pathologies.
- Possess an understanding of indications for surgical treatment of idiopathic scoliosis, congenital scoliosis, congenital kyphosis, various types of spondylolisthesis, various types of fractures, various types of tumors, and infections of the spine.
- Perform a complete musculoskeletal and neurologic 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 positive Hoffmann or positive Babinski and/or clonus.
- Effectively participates in the decision-making process of issues on in-hospital patients.
- Display competency in performing a full office patient examination, providing a differential diagnosis and treatment plan.
- Exhibit competency in exposing the spine posteriorly, performing straightforward decompressions with Kerrison posteriorly. Display basic familiarity with placing hooks, wires and pedicle screws in the spine. Achieve proficiency with first assisting on operative procedures.
- Effectively communicate and demonstrates care and respectful behavior when interacting with patients and families.
- Demonstrate the ability to practice culturally competent medicine.
- 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 other health care professionals from various disciplines to provide excellent patient-focused care.

Medical Knowledge

Goals

The junior spine resident will obtain specific knowledge in problems related to spinal injuries. This is through the use of clinical materials, biomedical research data, and didactic learning. The junior spine resident will apply this knowledge to patient care.

Objectives

- Apply literature and text obtained knowledge to the above and demonstrate basic science knowledge relevant to spine.
- Prepare and present at least one spine topic in depth for departmental conference.
- Complete reading list with review by attending staff.
- Present a reasonable classification system for all spinal pathologies including cervical disc herniation, lumbar disc herniation, thoracic disc herniation, spinal fractures, spinal tumors, idiopathic scoliosis, idiopathic kyphosis, congenital scoliosis, congenital kyphosis, spondylolisthesis, flaccid paralytic deformities, and spastic paralytic deformities.
- Successfully accomplish basic radiographic measurements such as coronal Cobb measurements and sagittal Cobb angles.
- Accurately define the difference between the anterior, posterior and middle columns.
- Accurately read a basic radiographic, MRI, and CT-myelogram study of the cervical, thoracic and lumbar spine.

Practice-based Learning and Improvement

Goals

The junior spine resident will appraise and assimilate scientific evidence for the care of patients with spine injuries. This involves investigation and evaluation of patient care.

Objectives

- Utilize resources to build medical knowledge relevant to cases seen.
- Identify studies relevant to individual experience.
- Critical appraisal of literature relevant to patients seen.
- Disseminates knowledge to others when relevant.
- Attends Indication Conferences and demonstrates understanding of the surgical treatment and indications for anterior surgery versus posterior surgery versus combined surgery.
- Locate, appraise and assimilate evidence from past and on-going scientific studies related to patient health issues.
- Obtain and use information about his/her patient population and the larger population from which patients are drawn.
- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies.
- Use information technology such as OVID or MEDLINE to manage information, access on-line medical information and support his/her own education.

Interpersonal and Communication Skills

Goals

The junior spine resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

- Incorporate AAOS communication skills course techniques.
- Work effectively with others as a member or leader of a health care team.
- Create and sustain a therapeutic and ethically sound relationship with patients and their families.
- Effectively use listening skills.
- Effectively provide information via various methods.
- Work effectively with others as a member or leader of a health care team.

Professionalism

Goals

The junior spine resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Behavior that supersedes self interest, demonstrates a commitment to excellence and improvement.
- Legible and timely documentation.
- Commitment to ethical behavior, confidentiality.
- Sensitivity and responsiveness to patient and team's culture and demographics.
- Interact in a professional manner with inpatients, outpatients, referring physicians, orthopedic residents, attendings and all patients in the practice.
- Interact effectively with both hospital patients and outpatients.
- Possess some competency in effectively managing hospital patients.
- Demonstrate respect, compassion and integrity in response to the needs of patients and their families.
- Demonstrate ethical principles pertaining to patient confidentiality issues.
- Demonstrate sensitivity to the culture, age, gender and disabilities of patients and fellow health care professionals.

Systems-based Practice

Goals

The junior spine resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the spine resident will effectively call on other resources in the system to provide optimal health care.

Objectives

- Demonstrate an understanding of health care systems and challenges.
- Complete all records and paperwork.
- Demonstrates knowledge of cost effectiveness in health care.
- Advocates for patient when cost and quality issues present.
- Partners with administrative personnel when needed.
- Demonstrate an understanding of how his/her 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 his/her own practice.
- Demonstrate knowledge of how the different 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.
- Demonstrate an understanding the impact of correct coding during patient office visits.
- Acts as an advocate for quality patient care and assists patients in dealing with system complexities.
- Effectively partners with health care managers and health care providers to assess, coordinate and improve health care, and know how these activities can affect system performance.

JUNIOR SPORTS ROTATION

Overall Goal

To provide a sports service program dedicated to the superior care of the sports injury patient, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of patients with sports injuries and total commitment to returning people to useful life.

Patient Care

Goals

The junior sports resident will experience inpatient, outpatient, and surgical care of sports injury patients under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Able to effectively develop the initial patient care and clinical skills to facilitate adequate evaluation of common shoulder, elbow, knee, and ankle problems seen in the athletic patient population.
- Demonstrates clinical skills that include reproducible physical examination of the knee, shoulder, elbow and ankle. Demonstrates physical exam skills that facilitate identification of typical findings of sports medicine problems of these joints including:
    - Knees— ligamentous instability and meniscal pathology.
    - Shoulder—conditions of impingement syndrome, rotator cuff tear, glenohumeral instability and AC joint separation.
    - Elbow—conditions of the medial and lateral epicondylitis and ulnar neuritis.
    - Ankle—ankle sprains, Achilles tendon rupture, and chondral lesions of the talar dome.
- Able to demonstrate surgical skills that include portal placement for and complete diagnostic arthroscopy of the knee and shoulder, arthroscopic partial meniscectomy, harvest of the central-third patella tendon and hamstring tendons for ACL reconstruction, arthroscopic acromioplasty and deltopectoral approach to the shoulder for anterior stabilization, and open debridement of the medial and/or lateral epicondyle of the elbow.
- Demonstrates basic understanding of the information gathering process of the detailed history and physical exam with attention to the mechanism of injury as it relates to the athlete's specific sport as well as the impact of the athlete's complaints on his/her ability to perform the sports-specific tasks required by their chosen sport.
- Effectively communicates and demonstrates care and respectful behaviors when interacting with patients and families.
- Able to develop and carry out patient management plans.
- Demonstrates the ability to practice culturally competent medicine.
- Able to use information technology to support patient care decisions and patient education.
- Able to provide health care services aimed at preventing health problems or maintaining health (Rehab, OT, PT).

- Able to work with other health care professionals from various disciplines to provide excellent patient-focused care.
- Demonstrate a complete exam of the shoulder and the knee. Maneuvers of the scope: pistoning, pivoting and rotating. This includes establishing a pattern of dictating the findings section. The order of dictation should follow your order of examination and include the normal findings. The examples reflect Dr. Jobe's order of examination. Your dictation should reflect yours. Following the same order will help you be inclusive of all of the findings.
    - Example of knee regions and potential findings:
    - Suprapatellar pouch: synovium, loose bodies
    - Patellofemoral joint: condition of cartilage, plicae
    - Medial gutter: synovium, osteophytes
    - Medial joint: cartilage, meniscus
    - Intercondylar notch: cruciates, synovium, osteophytes, loose bodies
    - Lateral joint: cartilage, meniscus, popliteus
    - Lateral gutter: osteophytes, shelf, synovium, loose bodies
    - Example Shoulder regions and potential findings:
    - Anterior Superior quadrant: this is the region of the most normal labral variations; superior GH ligament; middle GH ligament; recess(es); loose bodies; subscapularis
    - Anterior Inferior quadrant: labrum and its attachment; Inferior GH Ligament
    - Inferior Pouch: synovium; capacity
    - Posterior Inferior quadrant: labrum and Inferior GH Ligament
    - Posterior Superior quadrant: labrum and attachment; Biceps origin
    - Biceps Long Head tendon: injection; fraying; translation
    - Rotator cuff: Pulley of the Biceps; Cuff attachment; Cable; tearing; bare area
    - Humeral head: condition of cartilage; denting
    - Glenoid: condition of cartilage

Medical Knowledge

Goals

The junior sports resident will obtain specific knowledge in problems related to sports injuries. This is through the use of clinical materials, biomedical research data, and didactic learning. The sports resident will apply this knowledge to patient care.

Objectives

- Able to demonstrate basic preoperative and postoperative patient evaluation and assessment skills.
- Possesses a basic understanding of the anatomy of the shoulder, elbow, knee, and ankle as it relates to common sports injuries.
- Possesses knowledge of appropriate imaging studies to recommend for the more common clinical conditions encountered in the athletically active population including anterior cruciate ligament injury, collateral ligament injury of the knee, shoulder instability, rotator cuff conditions, suspected meniscal pathology, osteochondral injuries, and ankle injuries.
- Able to read and interpret these imaging studies mentioned above.

- Possesses basic arthroscopy skills of the knee and shoulder. This is to include an understanding of the surface anatomy as it applies to portal placement, the intraarticular arthroscopic anatomy including common pathologic entities and the development of a systematic approach to diagnostic arthroscopy of the knee and shoulder joints.
- Attends and participates in the weekly Indications Conference.

Practice-based Learning and Improvement

Goals

The junior sports resident will appraise and assimilate scientific evidence for the care of the sports injury patient. This involves investigation and evaluation of patient care.

Objectives

- Able to locate, appraise and assimilate evidence from scientific studies related to patients' health issues.
- Able to obtain and use information about his/her patient population and the larger population from which patients are drawn.
- Able to apply knowledge of study designs and statistical methods to the appraisal of clinical studies.
- Able to use information technology to manage information, access on-line medical information and support his/her own education.
- Able to facilitate the learning of medical students on the Sports Medicine service and other health care professionals on an informal basis in clinics, operating rooms and conferences.
- Attends and participates in the weeklyIndications Conference.

Interpersonal and Communication Skills

Goals

The junior sports resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

- Communicates with radiology and sports physical therapy personnel for rehab purposes to coordinate patient care effectively.
- Specifically:
    - Effectively communicates to radiology consultants the general requirement of the necessary imaging study including the specific question the imaging study seeks to address.
    - Effectively communicates the basic principles of rehab protocols for procedures such as ACL reconstruction, partial meniscectomy, acromioplasty, and anterior stabilization.

- Able to create and sustain a therapeutic and ethically sound relationship with patients and their families.
- Able to effective use listening skills.
- Able to effectively provide information via various methods.
- Able to work effectively with others as a member or leader of a health care team.

Professionalism

Goals

The junior sports resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Maintains the strictest confidence in any and all interactions dealing with all patients, especially professional athletes with some measure of local, regional or national celebrity. Refrains from the discussion of the athlete with family, friends or colleagues.
- Demonstrates respect, compassion and integrity in response to the needs of patients and their families.
- Demonstrates ethical principles pertaining to patient confidentiality issues.
- Demonstrates sensitivity to the culture, age, gender and disabilties of patients and fellow health care professionals.

Systems-based Practice

Goals

The junior sports resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the junior sports resident will effectively call on other resources in the system to provide optimal health care.

Objectives

- Maintains the strictest confidence in any and all interactions dealing with all patients, especially professional athletes with some measure of local, regional or national celebrity. Refrains from the discussion of the athlete with family, friends or colleagues.
- Demonstrates knowledge of indications and their impact on cost-effectiveness and efficiency of patient care.
- Acts as an advocate for quality of patient care.
- Able to assess, coordinate and improve the care of patients within the current health care model(s) or systems in the program [OT, PT and Rehab].

JUNIOR ADULT RECONSTRUCTION ROTATION

Overall Goal

To provide a joints service program dedicated to the superior care of patients with degenerative joint disease of the lower extremities, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of patients with arthritis and total commitment to returning people to useful life.

Patient Care

Goals

The junior joints resident will experience inpatient, outpatient, and surgical care of patients with degenerative joint disease under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Communicates effectively with patient/families.
- Effectively evaluates hip and knee pain in adult patients.
- Able to accurately and competently perform history and physical examinations.
- Demonstrates competency in the postoperative care of patients and treatment of postoperative complications.
- Communicates effectively with all members of the health care team.
- Able to formulate long-term patient care plan.
- Demonstrates competency with surgical approaches to hip and knee (surgical competence)

Medical Knowledge

Goals

The junior joints resident will obtain specific knowledge in problems related to degenerative joint disease. This is through the use of clinical materials, biomedical research data, and didactic learning. The junior joints resident will apply this knowledge to patient care.

Objectives

- Demonstrates basic knowledge of hip and knee implant design.
- Demonstrates basic knowledge of anatomy of hip and knee.
- Demonstrates knowledge of preoperative planning techniques.
- Demonstrates knowledge of diagnosis and treatment of complications related to reconstructive procedures of hip and knee.
- Demonstrates development of case presentation skills.

Practice-based Learning and Improvement

Goals

The junior joints resident will appraise and assimilate scientific evidence for the care of patients with degenerative joint disease. This involves investigation and evaluation of patient care.

Objectives

- Demonstrates basic understanding of knowledge presented through curriculum materials and is able to effectively assimilate into patient care practices.
- Demonstrates development of case presentation skills.
- Read case-specific articles from reading list.
- Use information technology such as OVID and Medline to enhance practice-based learning.

Interpersonal and Communication Skills

Goals

The junior joints resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

- Able to create and sustain a therapeutic and ethically sound relationship with patients and their families.
- Able to effective use listening skills.
- Able to effectively provide information via various methods.
- Able to work effectively with others as a member or leader of a health care team.

Professionalism

Goals

The junior joints resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Exhibits a commitment to sound ethical principle in all aspects of patient care.
- Interacts with patients and families in a respectful, ethical and compassionate manner.
- Develops and exhibits sensitivity to diverse patient and workforce population – with respect to age, culture, gender, etc.

Systems-based Practice

Goals

The junior joints resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the junior joints resident will effectively call on other resources in the system to provide optimal health care.

Objectives

- Demonstrates understanding how total joint replacement surgery affects other members of health care team.
- Demonstrates awareness of economic issues in total joint arthroplasty surgery.
- Demonstrates awareness of health care workers' involvement in integrated care of total joint arthroplasty patient.
- Practices cost-effective medical care within the system or practice model without compromising quality of care.
- Acted as an advocate for quality of patient care.

JUNIOR TRAUMA ROTATION

Overall Goal

To provide a trauma service program dedicated to the superior care of the multiply injured patient, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of patients with multiple injuries and total commitment to returning people to useful life.

Patient Care

Goals

The junior trauma resident will experience inpatient, outpatient, and surgical care of multiply injured patients under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Surgical
    - Competency in sterile technique, patient site preparation, patient positioning, and aseptic draping;
    - Mastery of basic suturing technique, including multi-layer wound closure and complex wound management;
    - Mastery of basic surgical instrument skills (tools for exposure, hemostasis, retraction, tissue handling, and closure) including aseptic technique and atraumatic soft-tissue handling;
    - Understanding of common surgical approaches for fracture care. Examples include lateral approach to the ankle, lateral approach to the femur, deltopectoral approach to the shoulder, volar approach to the forearm;
    - Ability to perform the approach and find the starting point for femoral and tibial nails. Knowledge of the steps for medullary nailing for diaphyseal fractures;
    - Ability to insert free hand interlocks in intramedullary nails;
    - Ability to reduce basic fracture patterns with manipulation, clamps, and K-wires;
    - Understanding of basic AO techniques including knowledge of screw and plate design. Ability to perform basic plate osteosynthesis;
    - Ability to drill, measure, and tap bone for screw placement including lag screw technique.
- Office/Emergency Department/Clinical Practice
    - Ability to efficiently and thoroughly evaluate patient with orthopedic issues in the clinic and emergency department settings including the ability to effectively communicate findings with chief residents, fellows, and attending;
    - Ability to work with multiple surgical specialties in the triage and management of the polytraumatized patient;
    - Ability to identify the appropriate imaging required to evaluate an injury;
    - Ability to interpret diagnostic plain films, CTs, and MRIs;

    - Ability to perform closed reduction and manipulations of fractures and dislocations including appropriate casting, splinting, and immobilization;
    - Ability to acutely manage open fractures including, irrigation & debridement, antibiotic selection, tetanus prophylaxis, reduction, immobilization, and assessment of associated injuries (typically vascular or neurologic);
    - Ability to perform local nerve blocks, joint aspirations.
    - Ability to identify patient in need of medical consultation early in the hospital course;
    - Ability to counsel and educate patients and families;
    - Effectively use information technology to support patient care decisions and patient education.
- Ward Management
    - Ability to manage a substantial inpatient load according to principles of good inpatient hospital care and with respect to the preferences of the attendings on service.
    - Ability to work with the nurse practitioners and physician assistants to ensure equitable distribution of the work load and deliver high quality patient care;
    - Ability to identify potential complications of traumatic injuries such as compartmental syndrome, cognitive impairment, and depression;
    - Daily review of anticoagulation, activity, and antibiotic plan for each patient;
    - Ability to accurately document physical exams and patient care plan in the electronic medical record;
    - Ability to maintain an up to date sign-out list of inpatients and their active issues.

Medical Knowledge

Goals

The junior trauma resident will obtain specific knowledge in problems related to trauma. This is through the use of clinical materials, biomedical research data, and didactic learning. The trauma resident will apply this knowledge to patient care.

Objectives

- Ability to appropriately manage pre and post operative orthopedic patients;
- Knowledge of / ability to appropriately manage acutely injured patients (examples: required imaging, when/how to sheet a pelvis or reduce cervical spine dislocation, and indications for traction);
- Knowledge of common orthopedic traumatic injuries and their acute management (examples: distal radius, tibia, femur, & humerus fractures, shoulder & hip dislocations, hand lacerations, and open fractures);
- Knowledge of expected risk of common surgical interventions (examples: malrotation of transverse/comminuted femur fractures, nonunion of segmental bone loss, knee pain following IMN of the tibia, etc);
- Knowledge of reduction and splinting principles and techniques;
- Knowledge of appropriate indications for surgical and non operative management of traumatic orthopedic injuries;
- Knowledge of relative and absolute contraindications for surgical management of traumatic orthopedic injuries;

- Knowledge of fracture patterns, classifications, and means of fixation;
- Knowledge of AO fracture fixation including lag screw, plate function, modes of fracture healing, material properties, and basic biomechanics;

Practice-based Learning and Improvement

Goals

The junior trauma resident will appraise and assimilate scientific evidence for the care of the multiply injured patient. This involves investigation and evaluation of patient care.

Objectives

- Prepares for and presents the cases at the weekly Indications Conference.
- Presents cases during morning signout rounds;
- The resident has demonstrated the ability and desire to identify errors in care, management, or understanding of clinical presentations that (s)he made or observed, and to learn from them;
- The resident has demonstrated the ability and desire to self-assess his/her performance as a surgeon or assistant surgeon in the operating room;
- Locate, appraise and assimilate evidence from scientific studies related to their patients' health problems;
- Apply knowledge of study design and statistical methods to the appraisal of clinical studies and other medical information;
- Facilitate the learning of medical students and other health care professionals.

Interpersonal and Communication Skills

Goals

The junior trauma resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

- Ability to create and sustain therapeutic and ethically sound relationships with patients;
- Ability to maintain open conversation between team members to ensure dissemination of important information;
- Ability to effectively communicate with other services within the hospital;
- Maintain verbal and written sign-out during transition of patient care;
- Maintained appropriate daily communication with each of the faculty members regarding inpatients according to the standards of each faculty member (defined, in part, in the guide below);
- Able to communicate appropriately, clearly, and in a timely fashion any important changes in status on ER patients, inpatients and outpatients to fellow residents and attending staff.

Professionalism

Goals

The junior trauma resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Ability to maintain an appropriately professional demeanor towards and conduct professional relationships with patients;
- Ability to maintain an appropriately professional demeanor towards and conduct professional relationships with support staff;
- Ability to maintain an appropriately professional demeanor towards and conduct professional relationships with peers;
- Ability to maintain an appropriately professional demeanor towards and conduct professional relationships with faculty;
- The resident treated consulting services (including medical students, residents, and faculty on those services) and anesthesia providers with respect and dignity;
- The resident behaved consistently in an ethical fashion;
- Ability to maintain an appropriately professional physical appearance;
- There were no critical incidents: failures of integrity, dereliction of duty, or overt or implied sexism, racism, or cultural insensitivity.

Systems-based Practice

Goals

The junior trauma resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the junior trauma resident will effectively call on other resources in the system to provide optimal health care.

Objectives

- The resident engaged consulting services (including non-medical consulting services, such as social services) appropriately, including calling for consults when indicated, and responding to the recommendations of consultants in a timely and effective manner;
- Demonstrated an understanding of cost effective health care delivery while maintaining high quality patient care;
- The resident ran the service in a time-efficient manner so has to optimize his/her learning, such that demands from the ER were balanced effectively against time in the OR and/or clinic;
- Participation in the clinic and the OR in an efficient and effective manner.

JUNIOR TUMOR ROTATION

Overall Goal

To provide a tumor service program dedicated to the superior care of the patient, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of patients with musculoskeletal lesions and total commitment to returning people to useful life.

Patient Care

Goals

The junior tumor resident will experience inpatient, outpatient, and surgical care of patients with musculoskeletal tumors under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Able to effectively develop the initial patient care and clinical skills to facilitate adequate evaluation of common bone and soft-tissue neoplastic conditions seen in the pediatric and adult patient population.
- Demonstrates clinical skills that include reproducible physical examination of the musculoskeletal system including an evaluation of palpable masses, including a physical examination of the skin, muscle, bone, and joint that includes a vascular, lymphatic, and neurological evaluation.
- Able to demonstrate surgical skills with attending supervision appropriate to the level of training that includes the performance of an open biopsy of a soft-tissue mass and bone lesion with special attention paid to the location and direction of any skin incisions, the avoidance of contamination, and the prevention of a hematoma or pathologic fracture.
- Able to perform toe, foot, below knee and above knee amputations.
- Able to place intramedullary fixation for lower extremity metastases.
- Demonstrates basic understanding of the information gathering process of the detailed history and physical exam with attention to a history of trauma, infection, systemic disease, familial syndromes and a careful assessment of the factors related to the patient's complaint. This would specifically include the duration of pain or of a mass, and identify alleviating factors, aggravating factors, duration of symptoms, a history of cancer, risk factors for cancer and prior treatments including imaging studies.
  Participate in Outpatient evaluation of new and return oncology service patients.
- Demonstrate ability to manage inpatient care including fluid and blood resuscitation, antibiotics, drains, physical therapy and nursing orders, and discharge planning.
- Effectively communicates and demonstrates care and respectful behaviors when interacting with patients and families.
- Able to develop and carry out patient management plans.
- Demonstrates the ability to practice culturally competent medicine.
- Able to use information technology to support patient care decisions and patient education.

- Able to coordinate health care services aimed at preventing health problems or maintaining health (OT, PT).
- Able to work with other health care professionals from various disciplines to provide excellent patient-focused care.
- Ability to recognize common postoperative or treatment related complications and initiate strategies including appropriate consultation with the supervising physician.

Medical Knowledge

Goals

The junior tumor resident will obtain specific knowledge in problems related to trauma. This is through the use of clinical materials, biomedical research data, and didactic learning. The tumor resident will apply this knowledge to patient care.

Objectives

- Able to demonstrate basic preoperative and postoperative patient evaluation and assessment skills.
- Possesses a basic understanding of the anatomy including the concept of anatomic compartments and the location of important nerves and vessels to the extremity.
- Possesses knowledge of appropriate imaging studies to recommend for the more common clinical conditions encountered in those with neoplastic conditions.
- Able to read and interpret these imaging studies mentioned above in light of characteristics that help in distinguishing neoplasm from non-neoplastic conditions (infection and trauma) as well as benign from malignant disease.
- Able to recommend a strategy for evaluating an adult with a malignant appearing bone lesion including the correct tests and images to detect a primary tumor, metastatic disease, or myeloma.
- Able to recommend a staging workup for an individual with primary bone or soft-tissue sarcoma that reflects knowledge about the behavior of these tumors.
- Understand staging systems commonly used for patients with bone and soft-tissue tumors.
- Ability to interpret histological specimens and contrast benign and malignant characteristics for common soft-tissue and bone tumors.
- The ability to distinguish between radical, wide, marginal and intralesional resections and amputations.
- Understand the rationale for the use of neoadjuvant and adjuvant chemotherapy and radiation therapy.
- Understand the indications and contra-indications for limb salvage surgery and the comparative effectiveness of limb salvage options and amputations.
- Understand those factors that are associated with the development of a pathologic fracture in patients with metastatic disease.
- Ability on the basis of history, examination and laboratory findings to diagnose postoperative complications such as infection, compartment syndrome, nerve or vascular injury, deep venous thrombosis, etc.

Practice-based Learning and Improvement

Goals

The junior tumor resident will appraise and assimilate scientific evidence for patient care. This involves investigation and evaluation of patient care.

Objectives

- Able to locate, appraise and assimilate evidence from scientific studies related to patients' health issues.
- Able to obtain and use information about his/her patient population and the larger population from which patients are drawn.
- Able to apply knowledge of study designs and statistical methods to the appraisal of clinical studies.
- Able to use information technology to manage information, access on-line medical information and support his/her own education.
- Able to facilitate the learning of medical students and other learners on the Oncology service and other health care professionals on an informal basis in clinics, operating rooms and conferences.
- Ability to critically evaluate literature regarding patients with bone and soft-tissue tumors.
- Ability to analyze the circumstances surrounding a complication and to formulate an improvement plan to improve future care.

Interpersonal and Communication Skills

Goals

The junior tumor resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

- Communicates with radiology, consulting physicians and services in order to coordinate patient care effectively.
- Invites questions from patients and their families providing education regarding the patient's condition and the treatment plan.
- Able to create and sustain a therapeutic and ethically sound relationship with patients and their families.
- Able to effective use listening skills.
- Able to effectively provide information via various methods.
- Able to work effectively with others as a member or leader of a health care team.
- Provides necessary reporting to more senior residents, fellows and attending staff to ensure good patient care.
- Respond to patient phone calls and communication from allied health professionals.

Professionalism

Goals

The junior tumor resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Maintains the strictest confidence in any and all interactions dealing with all patients.
- Demonstrates compassion and empathy for those being evaluated for bone and soft-tissue neoplasms.
- Demonstrates respect, compassion and integrity in response to the needs of patients and their families.
- Demonstrates ethical principles pertaining to patient confidentiality issues.
- Demonstrates sensitivity to the culture, age, gender and disabilities of patients.
- Provides compassion and understanding about end of life issues.
- Promptly recognizes and acknowledges complications that arise.
- Maintain adequate documentation and timely completion of medical records.
- Complete teaching and rotation evaluations.

Systems-based Practice

Goals

The junior tumor resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the junior trauma resident will effectively call on other resources in the system to provide optimal health care.

Objectives

- Maintains the strictest confidence in any and all interactions dealing with all patients.
- Demonstrates knowledge of treatment plans and their impact on cost-effectiveness and efficiency of patient care.
- Acts as an advocate for quality of patient care.
- Able to assess, coordinate and improve the care of patients within the current health care model(s) or systems in the program [OT, PT and Rehab].
- Complete all requirements for compliance, risk management, and safety education.

JUNIOR HAND ROTATION

Overall Goal

To provide a hand service program dedicated to the superior care of the upper extremity patient, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of patients with upper extremity injuries and total commitment to returning people to useful life.

Patient Care

Goals

The junior hand resident will experience inpatient, outpatient, and surgical care of upper extremity patients under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Perform a thorough and accurate history and physical examination including history of the chief complaint, history and mechanism of the injury, past medical and surgical history, social history. The physical exam should include exam for identification of: peripheral nerve, tendon integrity and chronic tendon disorders (de Quervain's, ECU tendonitis, stenosing tenosynovitis), vascular status, skin and nail disorders, joint evaluation including stability and the presence of arthritis (CMC, PIP, DIP, MCP arthritis) as well as specific and pertinent provocative maneuvers.
- Apply the knowledge of the natural history of upper extremity disorders with and without surgical treatment.
- Evaluate the following conditions thoroughly with history, physical examination and radiographs as appropriate: animal and human bites, carpal tunnel syndrome, cubital tunnel syndrome, de Quervain's tendonitis, fingertip injuries and amputations, flexor and extensor injuries, flexor tenosynovitis, ganglia of the hand and wrist, infections - finger and hand, mallet finger injuries, phalangeal and metacarpal fractures, soft tissue coverage problems (open tibia fracture, dorsal hand trauma), sprains and dislocations of the CMC, MCP, and PIP joints, static carpal instability, tendonitis, thumb basal joint arthritis, trigger finger.
- Effectively communicate the history as taken from the patient and/or the patient's guardian or family in a succinct and accurate fashion.
- Effectively communicate and demonstrate respectful and caring behavior when interacting with patients, their guardians and their families.
- Competent in assuming responsibility for specifically inquiring about the presence or absence of systemic disease relevant to conditions commonly encountered in the hand such as diabetes mellitus, hypothyroidism, seropositive and seronegative arthritides.
- Demonstrate knowledge and application of knowledge of non-operative treatment, which includes anti-inflammatories, hand therapy, application of heat and cold as well as basics of splinting.

- Perform simple invasive procedures for patients suffering from hand-related complaints – such as injections of trigger finger, carpal tunnel and base of thumb arthritis at the CMC joint.
- Demonstrate the ability to systematically and accurately interpret plain and special view radiographs and other imaging methods (MRI, arthrography, computed tomography imaging, angiography) commonly used in the evaluation of upper extremity disorders and understand the indications for ordering such exams, including their applications.
- Assess hand surgery problems/injuries in the emergency department, obtain history, perform pertinent physical exam, develop differential diagnosis, and communicate findings in a succinct and professional manner.
- Demonstrate facility in the more commonly encountered surgical procedure.
- Generate an operative plan and perform a substantial portion of the corrective surgical procedures for the following conditions: animal and human bites, carpal tunnel syndrome, cubital tunnel syndrome, de Quervain's tendonitis, dorsal and volar ganglia of the hand and wrist, drainage of fingertip and hand deep space infections, extensor tendon injuries, fingertip injuries and amputations (initial stabilization and wound care), flexor tenosynovitis (purulent), mallet finger, phalangeal and metacarpal fractures (extra-articular), tendonitis, trigger finger.
- Demonstrate facility in the application of a brachial or forearm tourniquet in the operating room, appropriate prepping and draping of the patient, and the appropriate application of a postoperative dressing to control edema and hematoma formation.
- Manage the basic postoperative hand patient and inpatients with hand conditions including presenting the patients during rounds with the faculty/consultant.
- Demonstrate knowledge of the basics of postoperative hand therapy and be able to generate appropriate orders for hand therapy and splinting.
- Use information technology such as data from current clinical studies as well as information from current journals to support patient care decisions and patient education.
- Demonstrate ability to practice culturally competent medicine.

Medical Knowledge

Goals

The junior hand resident will obtain specific knowledge in problems related to upper extremity injuries. This is through the use of clinical materials, biomedical research data, and didactic learning. The junior hand resident will apply this knowledge to patient care.

Objectives

- Be familiar with bony and soft tissue anatomy of the hand and upper extremity.
- Be familiar with standard surgical approaches to the upper extremity.
- Understand the basic science of fracture healing, wound healing, tendon healing, and nerve regeneration.
- Possess an understanding of the scientific basis of evaluation, diagnosis and treatment of commonly encountered hand surgical conditions including:
    - carpal tunnel syndrome
    - trigger finger, tendonitis
    - de Quervain's, ECU, FCR tendinitis

    - thumb basal joint arthritis (describe the basic management of osteoarthritis of the hand and the radiographic findings, and understand the pathophysiology of arthritis in the hand including osteoarthritis, rheumatoid arthritis, and posttraumatic arthritis)
    - animal and human bites
    - flexor and extensor injuries (classify and describe treatment for tendon lacerations, describe suture techniques for flexor tendon repair, and describe the basic steps of tendon healing)
    - infections of the fingertip, tendon sheaths and deep spaces, recognize and list the classic signs of acute suppurative tenosynovitis
    - fingertip injuries and amputations
    - nail bed injuries
    - phalangeal and metacarpal fractures (describe an algorithm for management, and understand complications and risks associated with treatment)
    - ganglia of the hand and wrist
    - mallet finger injuries
    - sprains and dislocations of the CMC, MCP and PIP joints (classify and describe treatment for joint injuries, static carpal instability, and be familiar with the classification and radiographic findings)
    - cubital tunnel syndrome, chronic carpal tunnel syndrome including tendon transfers and indication for arthrodesis (understand the principles of tendon transfer, and describe commonly utilized opponensplasty procedures)
    - describe a classification of flaps (random pattern, axial pattern, island, free. local regional, distant) and cite common examples of each
- Develop and discuss a differential diagnosis of hand and upper extremity conditions based on physical exam and history obtained from patient.
- Demonstrate a working knowledge of the presentation and radiographic findings of common hand and upper extremity conditions.
- Demonstrate knowledge of complete history and physical exam results for patients on whom surgical treatment is being considered.
- Demonstrate knowledge of the indications for basic surgical procedures in hand surgery conditions as listed above.
- Demonstrate knowledge of non-operative treatment and initial management of the above conditions (anti-inflammatories, hand therapy, application of modalities as appropriate based on scientific evidence, basic splinting).
- Demonstrate an understanding of simple invasive procedures for patients suffering from hand related complaints as listed such as injections, anesthetic blocks, suture repair of nail bed injuries and lacerations, closed reductions.
- Demonstrate basic understanding of the classic and contemporary literature pertaining to surgery of the hand and upper extremity.
- Demonstrate knowledge of the basics of postoperative hand therapy.

Practice-based Learning and Improvement

Goals

The junior hand resident will appraise and assimilate scientific evidence for the care of the upper extremity patient. This involves investigation and evaluation of patient care.

Objectives

- Demonstrate familiarity and understanding of reading materials describing the diagnosis and treatment of carpal tunnel, trigger finger, tendinitis and thumb base arthritis.
- Accurately locate, appraise and assimilate evidence from scientific studies relating to the patient's hand surgical problem, which requires knowledge of the pertinent recent literature, as may be obtained from the American and British Journal of Bone and Joint Surgery, American and British Journal of Hand Surgery, and the Journal of the American Academy of Orthopaedic Surgeons.
- Demonstrate facility at using on-line search engines, such as MEDLINE, to locate and access appropriate educational materials and peer review reference articles relevant to patient care.
- Successfully maintain a record of all operative cases via the resident operative log via the ACGME web site.
- Facilitate the learning of 3rd and 4th year medical students and other health care professionals.
- Self-evaluation of performance should include the ability to analyze the effectiveness of his/her own interpretative, problem solving, and surgical skills.
- Search, retrieve, and interpret peer reviewed medical literature relevant to hand diseases and disorders.
- Apply study and case report conclusions to the care of individual patients.
- Reflective learning should include: communicate learned concepts to peers, receptive to constructive criticism, incorporation of feedback into improvement of clinical activity, utilize patient information systems to assess measurable clinical practices and outcomes.

Interpersonal and Communication Skills

Goals

The junior hand resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

- Demonstrate communication skills that result in an effective information exchange with patients, their families and caregivers, and other physicians and members of the health care team.
- Create and sustain a therapeutic and ethically sound relationship with patients and their families.
- Effectively use listening skills in communication with all parties involved in patient care.
- Effectively provide information via various methods – Confidence and effectiveness in transmitting information verbally and written.

- Effectively work with other members of the team, specifically medical assistants, chief residents, and hand therapists.
- Present at conferences, to other physicians, and mentors both formally and informally effectively and succinctly.

Professionalism

Goals

The junior hand resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Patient primacy: trainees are expected to demonstrate an understanding of the importance of patient primacy by placing the interest of the patient above their own interest, providing autonomy to their patients to decide upon treatment once all treatment options and risks have been outlines for them. Understand and demonstrate the ability to obtain an informed consent from a patient, which includes the presentation of the natural history of both surgical and non-surgical care of the patient's condition, giving equitable care to all patients, treating all patients with respect regardless of race, gender and socioeconomic background.
- Physician accountability and responsibility: follow through on duties and clinical tasks. Demonstrate timeliness in required activities, in completing medical records and in responding to patient and colleague calls. Exhibit regular attendance and active participation in hand surgery service and orthopedic departmental training activities and scholarly endeavors. Strive for excellence in care and or scholarly activities as an orthopedic surgeon and hand surgeon. Work to maintain personal physical and emotional health and demonstrate an understanding of and ability to recognize physician impairment in self and colleagues. Demonstrate sensitivity to the culture, age, gender and disabilities of fellow health care professionals and be respectful of the opinions of other healthcare professionals.
- Humanistic qualities and altruism: exhibits empathy and compassion in patient/physician interactions, sensitive to patient needs for comfort and encouragement, courteous and respectful in interactions with patients, staff and colleagues, maintains the welfare of their patients as their primary professional concern.
- Ethical behavior including being trustworthy and cognizant of conflicts of interest. Maintaining integrity as a physician orthopedic surgeon and hand surgeon pervades all of the components of professionalism. Demonstrate integrity when reporting back key clinical findings to supervising physicians. Be trustworthy in following through on clinical questions, laboratory results and other patient care responsibilities. Recognize and address actual and potential conflicts of interest including orthopedic device industry and pharmaceutical industry involvement in their medical education and program funding and guard against this influencing their current and future treatment recommendation habits.

Systems-based Practice

Goals

The junior hand resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the junior hand resident will effectively call on other resources in the system to provide optimal health care.

Objectives

- Demonstrate an understanding of how their patient care and other professional practices affect other health care professionals and the health care organization. Specifically, the identification of a proper site before surgery and a confirmation of the operative procedure to be done with the chief resident in the preoperative holding area are crucial in the duties of the junior resident.
- Successfully teams with the chief resident to ensure that all radiographic and clinical notes are available preoperatively and intraoperatively.
- Demonstrate the ability to partner with other members of the health care team to assess and coordinate the patient's health care. For example, within the context of hand surgery, the resident should demonstrate the ability to interact in the most efficient manner with hand therapists, such that no time is lost in the provision of appropriate hand therapy after injury or surgery.
- Partners – Demonstrate the ability to utilize multiple providers and resources as needed for optimal patient care. Understand the hand surgeon's role as well as when to consult other health professionals (physiatrist, nurse practitioner, visiting nurse, physical therapist, occupational therapist, podiatrist, social worker, vocational rehabilitation counselor, psychologist, others) in the outpatient and inpatient rehabilitation of patient with a hand disease or disorder.
- Demonstrate the ability to educate patients about outside resources, which might be of assistance to their physical, emotional and financial well being.
- Knowledge of the advantages and disadvantages of different health care systems that affect patients with hand diseases and disorders, which include the academic system, various private and public health care delivery systems, the governmental, volunteer and private agencies that are available to educate and assist patients, the bureaucracy faced by disabled patients negotiating these systems and the social and economic burden of hand and orthopedic diseases and disorders.
- Advocacy for the patient: demonstrate the ability to act as effective advocates for their patients in a variety of needs, such as dealing with insurance companies and HMOs for the preauthorization of medications, filing disability claims, preparing for postoperative rehabilitation, return to work issues, etc.
- Cost effective health care: utilization of appropriate, cost-effective diagnostic tests and antibiotics. Knowledge of the range of implants and devices needed in rendering hand surgical care as well as the associated costs. Knowledge of the availably of certain drugs (and unavailability of others) on the trainee's hospital formulary, and knowledge of the mechanisms by which compensation (by CMS and other carriers) is dependent upon the delivery of various levels of service to patients and the methods in place for quality review of inpatient and outpatient practice patterns. Knowledge of the local costs of medications, durable medical equipment, e.g., splints they prescribe, imaging and lab tests they order and costs related to surgical equipment,

devices, and implants. Demonstrate a commitment to the practice of appropriate evidence based cost conscious patient care.

- Systems: demonstrate knowledge about how different health care delivery systems affect the management of patients with hand and orthopedic diseases and disorders. Be familiar with types of practice management, equipment, insurance, economics, personnel, ethical aspects, quality assurance, and managed care issues relating to the practice of hand surgery and orthopedic surgery. Identify the strengths and weaknesses of the system in which they are training and practicing. Demonstrate the ability to develop strategies to overcome systematic problems they have identifies, and or QI projects to improve it. Be familiar with the history of orthopedic and hand surgical history. Understand the influence on hand surgery and orthopedic surgery by the American Society for Surgery of the Hand, the American Academy of Orthopaedic Surgeons, the American Medical Association, food and Drug Administration, HCFA and other governmental agencies involved in health care legislation, peer review organizations.

JUNIOR FOOT & ANKLE ROTATION

Overall Goal

To provide a foot and ankle program dedicated to the superior care of the patient with foot and ankle pathologies, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of patients with foot and ankle pathologies and total commitment to returning people to useful life.

Patient Care

Goals

The Junior Foot & Ankle resident will effectively develop the initial patient care and clinical skills to facilitate adequate evaluation of common Foot and Ankle conditions seen in adolescent and adult patients under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Able to effectively develop the initial patient care and clinical skills to facilitate adequate evaluation of common Foot and Ankle conditions seen in adolescents and adult patients.
- Demonstrates clinical skills that include:
    - □ will demonstrate the ability to perform and document an effective patient interview
    - □ will demonstrate the ability to perform and document an accurate physical examination
    - □ will demonstrate the ability to order the appropriate xrays (if indicated) to evaluate the presenting complaint(s)
        - know when weightbearing xrays of the foot/ankle are indicated
        - know when advanced imaging of the foot/ankle is indicated
    - □ will demonstrate the ability to provide a basic interpretation of the images
    - □ will demonstrate the ability to analyze their findings to form a clinical impression for the cause of the presenting complaint(s)
    - □ will demonstrate the ability to formulate a basic plan of care
        - medications, physical therapy, orthotics, braces, casts, splints
        - formulate a basic operative plan containing the indicated surgical procedures
- Demonstrate procedural and surgical skills with supervision appropriate to the level of training that include:
    - □ will demonstrate the ability to perform the common procedures for outpatients and in-house consult, such as joint aspiration/injection
    - □ will demonstrate the ability to perform basic surgical skills
        - positioning, draping, basic exposure
        - know the steps of the procedure
        - proper postoperative dressing/splinting
- Demonstrate ability to manage inpatients:

- will demonstrate the ability to provide postoperative inpatient care for foot and ankle patients after surgery including pain management and management of medical comorbidities
- will demonstrate ability to develop and implement a management plans and initiate strategies including appropriate consultation with the supervising physician

Medical Knowledge

Goals

The Junior Foot and Ankle resident will obtain specific knowledge in problems related to foot and ankle pathology. This is through the use of clinical materials, biomedical research data, and didactic learning. The resident will apply this knowledge to patient care.

Objectives

- will be able to answer questions appropriate to their level of training in anatomy, physiology, biomechanics, and disease-specific facts through ongoing reading
- will demonstrate a willingness and ability to acquire new information
- attends and participates in the weekly Indications Conference.

Practice-based Learning and Improvement

Goals

The Junior Foot and Ankle resident will recognize gaps in knowledge and experience, use constructive criticism to improve, and apply scientific knowledge in daily duties.

Objectives

- Able to locate, appraise and assimilate evidence from scientific studies related to patients' health issues.
- Able to obtain and use information about his/her patient population and the larger population from which patients are drawn.
- Able to apply knowledge of study designs and statistical methods to the appraisal of clinical studies.
- Able to use information technology to manage information, access on-line medical information and support his/her own education.
- Able to facilitate the learning of medical students on the Foot and Ankle service and other health care professionals on an informal basis in clinics, operating rooms and conferences.
- Ability to critically evaluate literature regarding Foot and Ankle conditions
- Ability to analyze the circumstances surrounding a complication and to formulate an improvement plan to improve future care.

Interpersonal and Communication Skills

Goals

The junior resident communicates effectively with patients, their families, professional colleagues and the allied health staff to work effectively as a member of a treatment team. They are able to interact with the leader and understand the challenges of being a leader of a treatment team.

Objectives

- Creates and sustains a therapeutic and ethically sound relationship with patients and their families, and provides education regarding the patient's condition and the treatment plan
- Able to effectively communicate information via various methods
- Able to work effectively with other members of the health care team
- Provides necessary reporting to more senior residents, fellows and attending staff to ensure good patient care
- Demonstrates good listening skills and presents information in a clear and concise manner highlighting salient features
- Respond to patient phone calls and communication from allied health professionals

Professionalism

Goals

The junior resident will demonstrate high standards of ethical and moral behavior, honesty and integrity, compassion and empathy, reliability and responsibility in his(her) daily activities as a member of the Orthopedic Surgery Residency Program, and also demonstrate sensitivity to patients of diverse backgrounds.

Objectives

- Maintains the strictest confidence in any and all interactions dealing with all patients
- Demonstrates respect, compassion and integrity in response to the needs of patients and their families.
- Demonstrates ethical principles pertaining to patient confidentiality issues.
- Demonstrates sensitivity to the culture, age, gender and disabilities of patients and fellow health care professionals.
- Demonstrates awareness of limitations (seeks advice/assistance when appropriate)

Systems-based Practice

Goals

The junior resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the junior resident will effectively call on other resources in the system to provide optimal health care.

Objectives

- Demonstrates knowledge of treatment plans and their impact on cost-effectiveness and efficiency of patient care.
- Acts as an advocate for quality of patient care.
- Able to assess, coordinate and improve the care of patients within the current health care model(s) or systems in the program [OT, PT and Rehab].
- Able to work with other health care professionals from various disciplines to provide excellent patient-focused care
- Completes all requirements for compliance, risk management, and safety education

JUNIOR ARMC ROTATION

Overall Goal

To provide a county service program dedicated to the superior care of the orthopedic patient, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of patients with orthopedic injuries and total commitment to returning people to useful life.

Patient Care

Goals

The junior ARMC resident will experience inpatient, outpatient, and surgical care of orthopedic patients under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families regarding general orthopedic, trauma, and medical issues.
- Gather essential and accurate information about their patients.
- With careful supervision, make informed decisions about diagnostic and therapeutic interventions based on patient information and attending guidance.
- Develop confidence in performing orthopedic operations.
- Counsel and educate patients and their families regarding orthopedic problems.
- Demonstrate the ability to practice culturally competent medicine.
- Use information technology, such as electronic radiographic archiving, to support patient care decisions and patient education.
- Under appropriate supervision, perform competently all medical and invasive procedures considered essential to orthopedic surgery.
- Work with health care professionals, including those from other disciplines, to provide patient-focused care.

Medical Knowledge

Goals

The junior ARMC resident will obtain specific knowledge in problems related to orthopedics. This is through the use of clinical materials, biomedical research data, and didactic learning. The junior ARMC resident will apply this knowledge to patient care.

Objectives

- Demonstrate an investigatory and analytic thinking approach to clinical situations, as measured through assessments made by faculty and on in-training examination performance.
- Know and apply basic and fundamental medical knowledge to orthopedic surgery.
    - □ Simple and complex fractures
    - □ Open fractures
    - □ Musculoskeletal infections
    - □ Lacerations
    - □ Neurologic disorders
    - □ Circulatory disorders
    - □ Fingertip injuries
    - □ Pain, inflammation, and overuse
    - □ Rotator cuff and impingement
    - □ Lateral epicondylitis
    - □ DeQuervain's tenosynovitis
    - □ Trigger finger

Practice-based Learning and Improvement

Goals

The junior ARMC resident will appraise and assimilate scientific evidence for the care of the orthopedic patient. This involves investigation and evaluation of patient care.

Objectives

- Locate, appraise, and assimilate evidence from standard orthopedic textbooks to improve the patient's care.
- 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.

Interpersonal and Communication Skills

Goals

The junior ARMC resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

- Create and sustain a therapeutic and ethically sound relationship with patients.
- Use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills.
- Work effectively with others as a member of a healthcare team.

Professionalism

Goals

The junior ARMC resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Demonstrate respect, compassion, and integrity; a responsiveness to the general medical and orthopedic needs of patients and society that supersedes self-interest, regardless of patients' socioeconomic status; 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, socioeconomic status, and disabilities that may have resulted from musculoskeletal injury.
- Demonstrate sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.

Systems-based Practice

Goals

The junior ARMC resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the junior ARMC resident will effectively call on other resources in the system to provide optimal health care. The commitment at ARMC is to practice the same philosophy as LLUMC, which is "To Make Man Whole."

Objectives

- Practice cost-effective health care and resources allocation that does not compromise quality of care.
- Advocate for quality patient care and assist patients in dealing with system complexities, which includes obtaining appropriate diagnostic studies, assuring adequate follow-up care, and arranging ancillary services, such as therapy and prosthetics.
- Understand the role of a county medical system in the delivery of healthcare.
- Know how to partner with health care managers and other healthcare providers to assess, coordinate, and improve health care and know how these activities can affect system performance.

JUNIOR PEDIATRIC ORTHOPEDICS ROTATION

Overall Goal

To provide a pediatric service program dedicated to the superior care of the skeletally immature patient, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of pediatric patients and total commitment to returning people to useful life.

Patient Care

Goals

The junior pediatric resident will experience inpatient, outpatient, and surgical care of pediatric patients under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Interact in a caring and respectful manner with patients and families while obtaining necessary history and physical information.
- Develop and present basic treatment plans for pediatric orthopedic conditions utilizing all available and appropriate technology and information.
- Implement treatment plans, both operative and non operative, with appropriate supervision of clinical faculty.
- Perform less complex pediatric orthopedic invasive procedures with faculty support and supervision.
- Assist other health care professionals within the BJC system and provide patient-oriented care.

Medical Knowledge

Goals

The junior pediatric resident will obtain specific knowledge in problems related to pediatric orthopedics. This is through the use of clinical materials, biomedical research data, and didactic learning. The pediatric resident will apply this knowledge to patient care.

Objectives

- Perform a complete pediatric orthopedic history and physical assessment for the infant, toddler, child and adolescent.
- Describe the mechanism of injury of common pediatric fractures (torus fracture, distal radius, forearm, tibia, elbow and distal tibia) and their management.
- Describe the characteristics of fractures secondary to child abuse, and the management of a child with a 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.

Practice-based Learning and Improvement

Goals

The junior pediatric resident will appraise and assimilate scientific evidence for the care of the pediatric patient. This involves investigation and evaluation of patient care.

Objectives

- Utilize the available literature on specific pediatric orthopedic topics as part of the decision-making process prior to the formation of treatment plans.
- Participate in pediatric orthopedic preoperative and postoperative conferences with knowledge of the basic historical studies and data regarding specific topics.
- Assist with the teaching of medical and nursing students within the pediatric orthopedic clinic and while providing in-hospital care.

Interpersonal and Communication Skills

Goals

The junior pediatric resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

- Develop effective listening skills, when working with patients, families and other members of the healthcare team that will maximize diagnosis and management of pediatric orthopedic patients.

Professionalism

Goals

The junior pediatric resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Demonstrate, by his/her behavior in the clinic, operating room, and on the floor, respect for patients, families and other health care professionals.

Systems-based Practice

Goals

The junior pediatric resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the junior pediatric resident will effectively call on other resources in the system to provide optimal health care.

Objectives

- Be aware of the potential difficulties after hospitalization for pediatric orthopedic patients and families due to economic factors and availability of services.
- Work in conjunction with faculty, nursing and discharge planners to ensure necessary home care, therapy, and other orthopedic needs.

JUNIOR VAH ROTATION

Overall Goal

To provide a VA service program dedicated to the superior care of the veteran, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of the veteran and total commitment to returning people to useful life.

Patient Care

Goals

The junior VA resident will experience inpatient, outpatient, and surgical care of veterans under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families regarding general orthopedic, trauma, and medical issues.
- Gather essential and accurate information about their patients.
- With careful supervision, make informed decisions about diagnostic and therapeutic interventions based on patient information and attending guidance.
- Suggest patient management plans.
- Counsel and educate patients and their families regarding orthopedic problems.
- Demonstrate the ability to practice culturally competent medicine.
- Use information technology, such as electronic medical records and electronic radiographic retrieval systems, to support patient care decisions and patient education.
- Under appropriate supervision, perform competently all medical and invasive procedures considered essential for the area of practice.
- Work with health care professionals, including those from other disciplines, to provide patient-focused care.

Medical Knowledge

Goals

The junior VA resident will obtain specific knowledge in problems related to veterans. This is through the use of clinical materials, biomedical research data, and didactic learning. The VA resident will apply this knowledge to patient care.

Objectives

- Demonstrate an investigatory and analytic thinking approach to clinical situations, as measured through assessments made by faculty and on in-training examination performance.

- Know and apply basic and fundamental medical knowledge to orthopedic surgery.
- Teach junior residents and students regarding the care of veterans, including methods of patient assessment and the use of medical knowledge in clinical decision making.

Practice-based Learning and Improvement

Goals

The junior VA resident will appraise and assimilate scientific evidence for the care of the veteran. This involves investigation and evaluation of patient care.

Objectives

- Locate, appraise, and assimilate evidence from standard orthopedic textbooks to improve the patient's care.
- 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.

Interpersonal and Communication Skills

Goals

The junior VA resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

- Create and sustain a therapeutic and ethically sound relationship with patients.
- Use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills.
- Work effectively with others as a member of a healthcare team.

Professionalism

Goals

The junior VA resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Demonstrate respect, compassion, and integrity; a responsiveness to the general medical and orthopedic 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, disabilities that may have resulted from musculoskeletal injury, and combat background.
- Demonstrate sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.

Systems-based Practice

Goals

The junior VA resident will demonstrate an awareness of and responsiveness to the larger context and system of governmental health care. Furthermore, the junior VA resident will effectively call on other resources in the system to provide optimal health care.

Objectives

- Practice cost-effective health care and resources allocation that does not compromise quality of care.
- Advocate for quality patient care and assist patients in dealing with the veterans administration system.
- Understand the opportunities and constraints offered and posed by the veterans administration system.
- Know how to partner with health care managers and other healthcare providers to assess, coordinate, and improve health care and know how these activities can affect system performance.

INTERNATIONAL PEDIATRIC AND LIMB DEFORMITY ROTATION

Condition

At the resident's request, the International Pediatric and Limb Deformity Rotation may be selected in lieu of either: 1) the Senior Pediatric Orthopedic Surgery Rotation or 2) the Basic Science Rotation. In order to participate in the International Pediatric and Limb Deformity Rotation during the Basic Science Rotation, the resident must have either: 1) already fulfilled his Residency Research Requirement or 2) have all data collection completed with the manuscript in process before the start of the International Rotation.

Overall Goal

The international pediatric resident will be responsible for inpatient, outpatient, and surgical care of pediatric patients under staff supervision. The resident will be expected to be compassionate, appropriate, and effective, with a concern for whole patient care.Patient Care

Goals

The international pediatric resident will be responsible for inpatient, outpatient, and surgical care of pediatric patients under staff supervision. The resident will be expected to be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families in a cross culture environment.
- 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 orthopedic scientific evidence, and clinical judgment.
- Develop, supervise, and carry out patient management plans.
- Counsel and educate patients and their families regarding orthopedic problems.
- Demonstrate the ability to practice culturally competent medicine.
- Use information technology to support patient care decisions and patient education.
- Develop an understanding of surgical procedures considered essential in pediatric orthopedics.
- Work with health care professionals, including those from other disciplines, to provide patient-focused care.
- Develop a worldwide perspective on patient needs and delivery of quality health care in a limited resource environment.

Medical Knowledge

Goals

The international pediatric resident will obtain knowledge related to pediatric orthopedics. This is through clinical learning, didactics, and self study.

Objectives

- Demonstrate an investigatory and analytic thinking approach to clinical situations, as measured through assessments made by faculty.
- Understand the unique situations posed by the pediatric patient.
- Use information technology and orthopedic library materials to obtain data pertinent to surgical indications, techniques, patient care and didactics.
- Active participation in didactic conferences.

Suggested Reading

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    - Morrissey R. Weinstein S. Lovell and Winter's Pediatric Orthopedics 6th edition Lippincott Williams & Wilkins Philadelphia, PA 2006.
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- Thonse R, Conway J. Antibiotic Cement-Coated Interlocking Nail for the Treatment of Infected Nonunions and Segmental Bone Defects. J Orthop Trauma 21:258-268, 2007.
- Tuli SM. General principles of osteoarticular tuberculosis. Clin Orthop Rel Res 398:11-19, 2002
- Watts HG, Lifeso RM. Tuberculosis of bones and joints: Current Concepts Review. J Bone Joint Surg 78a:288-298, 1996.

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  - Lee DY, Choi IH, Chung CY, et al. Fixed pelvic obliquity after poliomyelitis. Classification and management. J Bone Joint Surg 79b:190-196, 1997.
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Practice-based Learning and Improvement

Goals

The international pediatric resident will appraise and assimilate scientific evidence for the care of the pediatric patient. The resident will gain hands on experience in the operating room as well as the inpatient and outpatient areas while being supervised by a staff physician.

Objectives

- 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.
- Use information technology to manage information, access on-line medical information, and support their own education, as well as assist in the education of others.
- Facilitate the learning of students, junior residents, and other health care professionals.
- Benefit from an international exchange with other residents rotating at the hospital who are in training programs outside of the United States.
- Gain experience with neglected and mistreated disease processes rarely encountered in a modern health care system.

Interpersonal and Communication Skills

Goals

The international pediatric resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Interpersonal and cross cultural communication skills will be modeled by the faculty.

Objectives

- Create and sustain a therapeutic and ethically sound relationship with patients and their parents/caretakers.

- Use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills.
- Work effectively with others as a member or leader of a healthcare team or other professional group.
- Develop a sense of social responsibility to those with limited resources.

Professionalism

Goals

The international pediatric resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Demonstrate respect, compassion, and integrity; a responsiveness to the general medical and orthopedic needs of patients, their parents/caretakers, 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' and parents'/caretakers' culture, age, gender, developmental differences, and disabilities.
- Demonstrate sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.

Systems-based Practice

Goals

The international pediatric resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the international pediatric resident will effectively call on other resources in the system to provide optimal health care.

Objectives

- Understand how their patient care and other professional practices affect other healthcare professionals, the healthcare organization, and the larger society and how these elements of the system affect their own practice.
- Know how an international healthcare system differs from those in the United States, including methods of controlling healthcare costs and allocating resources.
- Practice cost-effective health care and resources allocation that does not compromise quality of care.
- Understand the differences in the financial and regulatory aspects of healthcare, including coding, billing, and compliance in a domestic and international setting.

- Experience administrative and political factors involved in operating an international academic health care institution.

BASIC SCIENCE ROTATION

Overall Goal

To provide a basic science program dedicated to fostering knowledge in the basic sciences while teaching the skills necessary to critically read the medical literature as it pertains to orthopedic surgery.

Medical Knowledge

Goals

The basic science resident will obtain specific knowledge relating to the critique of orthopedic literature. This is through the use of biomedical research data, didactic learning, and involvement in research methods.

Objectives

- Demonstrate an investigatory and analytic thinking approach to clinical situations.
- Know and apply the basic sciences to orthopedic surgery.

Practice-based Learning and Improvement

Goals

The basic science resident will appraise and assimilate basic science evidence as it relates to orthopedic surgery. The basic science resident will also assist other residents by coordinating didactic activities under the supervision of faculty.

Objectives

- Locate, appraise, and assimilate evidence from basic science studies related to orthopedic surgery.
- Apply knowledge of study designs and statistical methods to the appraisal of clinical and basic science 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.
- Coordinate didactic teaching activities under the supervision of orthopedic faculty.

Professionalism

Goals

The basic science resident will carry out professional responsibilities, adhere to ethical principles in conducting research, and demonstrate sensitivity to faculty and staff.

Objectives

- Demonstrate ethical responsibility and integrity in conducting research.
- Demonstrate sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.
- Demonstrate respect in the interactions with faculty and staff mentors.
- Demonstrate administrative skills through coordinating basic science and other educational activities for the department.
- Demonstrate accountability by meeting with research mentor and/or Research Director on a weekly basis to discuss research progress.

Systems-based Practice

Goals

The basic science resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the basic science resident will effectively call on other resources in the system to facilitate research activities.

Objectives

- Understand how research affects healthcare, how healthcare drives research, and how societal pressures change the practice of research.
- Know how to partner with applicable research organizations within the healthcare system, such as the Institutional Review Board and the Institutional Animal Care and Use Committee, as applicable.

RESEARCH ROTATION

Overall Goal

To provide a research program dedicated to fostering creative and analytical thinking while teaching the skills necessary to critically read the medical literature as it pertains to orthopedic surgery.

Medical Knowledge

Goals

The research resident will obtain specific knowledge relating to the critique of orthopedic literature. This is through the use of biomedical research data, didactic learning, and involvement in research methods.

Objectives

- Demonstrate an investigatory and analytic thinking approach to clinical situations.
- Know and apply the basic and clinically supportive sciences which are appropriate to orthopedic surgery.
- Understand the different types of evidence in the medical literature.
- Learn to apply medical knowledge in an evidence-based practice of orthopedic surgery.

Practice-based Learning and Improvement

Goals

The research resident will appraise and assimilate scientific evidence as it relates to orthopedic surgery.

Objectives

- Locate, appraise, and assimilate evidence from scientific studies related to orthopedic surgery.
- 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.

Professionalism

Goals

The research resident will carry out professional responsibilities, adhere to ethical principles in research, and demonstrate sensitivity to faculty and staff.

Objectives

- Demonstrate ethical responsibility and integrity in conducting research.
- Demonstrate sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.
- Demonstrate respect in the interactions with faculty and staff mentors.
- When involved in human studies, demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.
- When involved in human studies, demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.
- Demonstrate accountability by meeting with research mentor and/or Research Director on a weekly basis to discuss research progress.

Systems-based Practice

Goals

The research resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the research resident will effectively call on other resources in the system to facilitate research activities.

Objectives

- Understand how research affects healthcare, how healthcare drives research, and how societal pressures change the practice of research.
- Know how to partner with applicable research organizations within the healthcare system, such as the Institutional Review Board and the Institutional Animal Care and Use Committee, as applicable.

SENIOR VAH ROTATION

Overall Goal

To provide a V.A. service program dedicated to the superior care of the veteran, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of the veteran and total commitment to returning people to useful life.

Patient Care

Goals

The senior VA resident will experience inpatient, outpatient, and surgical care of veterans under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families regarding general orthopedic, trauma, and medical issues.
- 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 orthopedic scientific evidence, and clinical judgment.
- Develop, supervise, and carry out patient management plans.
- Counsel and educate patients and their families regarding orthopedic problems.
- Demonstrate the ability to practice culturally competent medicine.
- Use information technology, such as electronic medical records and electronic radiographic retrieval systems, as provided by the veterans administration system to support patient care decisions and patient education.
- Perform competently all medical and invasive procedures considered essential to orthopedic surgery.
- Supervise junior residents, under the direction of faculty and chief resident, in the administration of patient care in the VA setting.
- Work with health care professionals, including those from other disciplines, to provide patient-focused care.

Medical Knowledge

Goals

The senior VA resident will obtain specific knowledge in problems related to veterans. This is through the use of clinical materials, biomedical research data, and didactic learning. The senior VA resident will apply this knowledge to patient care and will actively teach junior residents and students.

Objectives

- Demonstrate an investigatory and analytic thinking approach to clinical situations, as measured through assessments made by faculty and on in-training examination performance.
- Know and apply the basic and clinically supportive sciences which are appropriate to orthopedic surgery in the veterans administration setting.
- Teach junior residents and students regarding the care of veterans, including methods of patient assessment and the use of medical knowledge in clinical decision making.

Practice-based Learning and Improvement

Goals

The senior VA resident will appraise and assimilate scientific evidence for the care of the veteran. This involves investigation and evaluation of patient care.

Objectives

- 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, as well as assist in the education of others.
- Facilitate the learning of students, junior residents, and other health care professionals.

Interpersonal and Communication Skills

Goals

The senior VA resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

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

Professionalism

Goals

The senior VA resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Demonstrate respect, compassion, and integrity; a responsiveness to the general medical and orthopedic 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, disabilities that may have resulted from musculoskeletal injury, and combat background.
- Demonstrate sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.

Systems-based Practice

Goals

The senior VA resident will demonstrate an awareness of and responsiveness to the larger context and system of governmental health care. Furthermore, the senior VA resident will assist the chief resident and effectively call on other resources in the system to provide optimal health care.

Objectives

- Understand how their patient care and other professional practices affect other healthcare professionals, the healthcare organization, and the larger society and how these elements of the system affect their own practice.
- Know how the VA system differs from other healthcare systems, including methods of controlling healthcare costs and allocating resources.
- Advocate for quality patient care and assist patients in dealing with the veterans administration system, which includes obtaining appropriate diagnostic studies, assuring adequate follow-up care, and arranging ancillary services, such as therapy and prosthetics.
- Understand the opportunities and constraints offered and posed by the veterans administration system.
- Practice cost-effective health care and resources allocation that does not compromise quality of care.
- Advocate for quality patient care and assist patients in dealing with the veterans administration system.

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

SENIOR ARMC ROTATION

Overall Goal

To provide a county service program dedicated to the superior care of the orthopedic patient, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of patients with orthopedic injuries and total commitment to returning people to useful life.

Patient Care

Goals

The senior ARMC resident will experience inpatient, outpatient, and surgical care of orthopedic patients under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families regarding general orthopedic, trauma, and medical issues.
- 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 orthopedic scientific evidence, and clinical judgment.
- Develop, supervise, and carry out patient management plans.
- Counsel and educate patients and their families regarding orthopedic problems.
- Demonstrate the ability to practice culturally competent medicine.
- Use information technology as provided by the county system, such as electronic radiographic archiving, to support patient care decisions and patient education.
- Perform competently all medical and invasive procedures considered essential to orthopedic surgery.
- Supervise junior residents, under the direction of faculty, in the administration of patient care in the county setting.
- Work with health care professionals, including those from other disciplines, to provide patient-focused care.

Medical Knowledge

Goals

The senior ARMC resident will obtain specific knowledge in problems related to orthopedic patients. This is through the use of clinical materials, biomedical research data, and didactic learning. The senior ARMC resident will apply this knowledge to patient care and will actively teach junior residents and students.

Objectives

- Demonstrate an investigatory and analytic thinking approach to clinical situations, as measured through assessments made by faculty and on in-training examination performance.
- Know and apply the basic and clinically supportive sciences which are appropriate to orthopedic surgery in the county medical delivery setting.
    - Simple and complex fractures
    - Open fractures
    - Musculoskeletal infections
    - Lacerations
    - Neurologic disorders
    - Circulatory disorders
    - Fingertip injuries
    - Pain, inflammation, and overuse
    - Rotator cuff and impingement
    - Lateral epicondylitis
    - DeQuervain's tenosynovitis
    - Trigger finger
    - Spine injuries
    - Pelvis and acetabulum fractures
- Teach junior residents and students regarding the care of orthopedic patients, including methods of patient assessment and the use of medical knowledge in clinical decision making.

Practice-based Learning and Improvement

Goals

The senior ARMC resident will appraise and assimilate scientific evidence for the care of the orthopedic patient. This involves investigation and evaluation of patient care.

Objectives

- 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, as well as assist in the education of others.
- Facilitate the learning of students, junior residents, and other health care professionals.

Interpersonal and Communication Skills

Goals

The senior ARMC resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

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

Professionalism

Goals

The senior ARMC resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Demonstrate respect, compassion, and integrity; a responsiveness to the general medical and orthopedic needs of patients and society that supersedes self-interest, regardless of patients' socioeconomic status; 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, disabilities that may have resulted from musculoskeletal injury, and socioeconomic status.
- Demonstrate sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.

Systems-based Practice

Goals

The senior ARMC resident will demonstrate an awareness of and responsiveness to the larger context and system of governmental health care. Furthermore, the senior ARMC resident will effectively call on other resources in the system to provide optimal health care. The commitment at ARMC is to practice the same philosophy as LLUMC, which is "To Make Man Whole."

Objectives

- Understand how their patient care and other professional practices affect other healthcare professionals, the healthcare organization, and the larger society and how these elements of the system affect their own practice.
- Know how the county healthcare system differs from university, private practice, and VA systems, including methods of controlling healthcare costs and allocating resources.
- Advocate for quality patient care and assist patients in dealing with the county healthcare system, which includes obtaining appropriate diagnostic studies, assuring adequate follow-up care, and arranging ancillary services, such as therapy and prosthetics.
- Understand the opportunities and constraints offered and posed by the county healthcare system.
- Practice cost-effective health care and resources 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 other healthcare providers to assess, coordinate, and improve health care and know how these activities can affect system performance.

SENIOR PEDIATRIC ORTHOPEDICS ROTATION

Overall Goal

To provide a positive learning experience in which established residents can expand their exposure to common and rare conditions encountered by this subspecialty, increase their knowledge base about these problems, further develop clinical judgment and surgical and skills, and gain confidence in managing the social and emotional needs of our patients.

Patient Care

Goals

The senior pediatric resident will experience inpatient, outpatient, and surgical care of pediatric patients under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Interact in a caring and respectful manner with patients and families while taking necessary histories and physical information in the clinic and in the hospital setting.
- Develop and present treatment plans for pediatric orthopedic conditions utilizing all available and appropriate technology and information.
- Implement treatment plans, both operative and non-operative, with the appropriate supervision of clinical faculty.
- Perform more complicated pediatric orthopedic invasive procedures with faculty support and supervision.
- Demonstrate technical ability in the treatment of, but not limited to, supracondylar fractures of the humerus, forearm, femoral and tibial fractures, stable and unstable sub capital femoral epiphysis (SCFE).

Medical Knowledge

Goals

The senior pediatric resident will obtain specific knowledge in problems related to pediatric orthopedics. This is through the use of clinical materials, biomedical research data, and didactic learning. The senior pediatric resident will apply this knowledge to patient care and will actively teach junior residents and students.

Objectives

- Familiarity and satisfaction of POSNA pediatric orthopedic objectives.
- Discuss and participate in the management of both common and unusual pediatric fractures.

Practice-based Learning and Improvement

Goals

The senior pediatric resident will appraise and assimilate scientific evidence for the care of the pediatric patient. This involves investigation and evaluation of patient care.

Objectives

- Utilize the available literature specific to pediatric orthopedic topics as part of the decision-making process, prior to the formation of treatment plans;
- Participate in pediatric preoperative and postoperative conference with the knowledge of the basis and complex historical studies and data regarding specific topics;
- Assist with the teaching of medical and nursing students with in the pediatric orthopedic clinic, and while providing in hospital care;
- Mentor residents and students in pediatric orthopedics in the cognitive, affective and psychomotor skill domain related to pediatric orthopedics, and interact with the faculty.

Interpersonal and Communication Skills

Goals

The senior pediatric resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

- Develop effective listening skills, when working with patients, families, and other members of the healthcare team, that will maximize diagnosis, care and management of pediatric orthopedic patients.

Professionalism

Goals

The senior pediatric resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Demonstrate, by his/her behavior in the clinic, operating room, and on the floor, respect for patients, families and other health care professionals.

Systems-based Practice

Goals

The senior pediatric resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the senior pediatric resident will effectively call on other resources in the system to provide optimal health care.

Objectives

- Be aware of the potential difficulties after hospitalization for pediatric orthopedic patients and families due to economic factors and availability of services;
- Work in conjunction with faculty, nursing, discharge planners and the other resident to ensure required home care, therapy, and other orthopedic needs.

SENIOR TRAUMA ROTATION

Overall Goal

To provide a trauma service program dedicated to the superior care of the multiply injured patient, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of patients with multiple injuries and total commitment to returning people to useful life.

Patient Care

Goals

The senior trauma resident will experience inpatient, outpatient, and surgical care of multiply injured patients under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Surgical
    - Mastery of sterile technique, patient site preparation, patient positioning, and aseptic draping for all surgical exposures;
    - Mastery of surgical approaches for fracture care and advance understanding of complex exposures including those used for pelvic fixation;
    - Ability perform common trauma operations without dependence on attending staff, including IMN femur, IMN tibia, ORIF of the ankle, forearm, elbow, & humerus, hip hemiarthroplasty, ORIF of the lateral tibial plateau, shoulder hemiarthroplasty and application of external fixators;
    - Understanding of and participation in complex trauma operations with direct attending guidance inculding ORIF pilon, bicondylar tibial plateau, calcaneous, talus, elbow, & LisFranc fractures;
    - Understanding of surgical techniques required to perform ORIF acetabulum/pelvis, percutaneous screw fixation of pelvic ring injuries, and osteotomies for non-union;
    - Ability to take a junior residents though a case while teaching basic surgical technique and AO principles;
    - Ability to lead a surgical team including implant & instrument selection, directing ancillary staff, and time management;
    - Ability to manage the operating room schedule to ensure timely and seamless surgical care of traumatized patients.
- Office/Emergency Department/Clinical Practice
    - Ability to assist junior residents in clinical decision making, fracture care, and system navigation;
    - Ability to teach the junior resident reduction and splinting of all fractures and dislocation;
    - Availability to see patients in the emergency department when the junior becomes backed-up with consultations;

    - Ability to review each consultation and perform complete pre-operative evaluation of each surgical candidate including assessment of risk and potential complications;
    - Ability to counsel and educate patients and families;
    - Effectively use information technology to support patient care decisions and patient education.
- Ward Management
    - Ability to manage a team of care providers to ensure excellent inpatient hospital care with respect to the preferences of the attendings on service;
    - Ability to provide a daily plan of care for each inpatient on service and advise on the necessary steps required to implement said plan including the need to consult other services;
    - Ability to recognize and approve/refuse transfer of patient care to/from the orthopedic service;
    - Daily review of anticoagulation, activity, and antibiotic plan for each patient.

Medical Knowledge

Goals

The senior trauma resident will obtain specific knowledge in problems related to trauma. This is through the use of clinical materials, biomedical research data, and didactic learning. The trauma resident will apply this knowledge to patient care.

Objectives

- Advanced knowledge of / ability to appropriately manage injured patients ;
- Knowledge of appropriate indications for surgical management of common complications of traumatic orthopedic surgical care (examples: osteotomy for varus collapse of a femoral neck fracture, IMN exchange for tibial non-union, derotation of the femur);
- Knowledge of advanced AO fracture fixation technique;
- Knowledge of the advantages / disadvantages of commonly used implants;
- Ability to generate multiple options for fracture fixation and knowledge of each method's advantages and disadvantages;
- Sound understanding of pelvic and acetabular fractures and approaches;

Practice-based Learning and Improvement

Goals

The senior trauma resident will appraise and assimilate scientific evidence for the care of the multiply injured patient. This involves investigation and evaluation of patient care.

Objectives

- Active participation in weekly fracture conference;
- Prepares for and presents the cases at the monthly M&M conference;

- Participation in didactic conferences including journal club, Wednesday morning conference, and M&M;
- The resident has demonstrated the ability and desire to identify errors in care, management, or understanding of clinical presentations that (s)he made or observed, and to learn from them;
- The resident has demonstrated the ability and desire to self-assess his/her performance as a surgeon or assistant surgeon in the operating room;
- Locate, appraise and assimilate evidence from scientific studies related to their patients' health problems;
- Apply knowledge of study design and statistical methods to the appraisal of clinical studies and other medical information;
- Facilitate the learning of medical students, residents and other health care professionals.

Interpersonal and Communication Skills

Goals

The senior trauma resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

- Ability to create and sustain therapeutic and ethically sound relationships with patients;
- Ability to maintain open conversation between team members to ensure dissemination of important information;
- Ability to effectively communicate with other services within the hospital;
- Maintain verbal and written sign-out during transition of patient care;
- Maintained appropriate daily communication with each of the faculty members regarding inpatients according to the standards of each faculty member (defined, in part, in the guide below);
- Able to communicate appropriately, clearly, and in a timely fashion any important changes in status on ER patients, inpatients and outpatients to fellow residents and attending staff;
- Effectively function as the leader of the health care team.

Professionalism

Goals

The senior trauma resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Ability to maintain an appropriately professional physical appearance;

- Ability to maintain an appropriately professional demeanor towards and conduct professional relationships with patients;
- Ability to maintain an appropriately professional demeanor towards and conduct professional relationships with support staff;
- Ability to maintain an appropriately professional demeanor towards and conduct professional relationships with peers;
- Ability to maintain an appropriately professional demeanor towards and conduct professional relationships with faculty;
- The resident treated consulting services (including medical students, residents, and faculty on those services) and anesthesia providers with respect and dignity;
- The resident behaved consistently in an ethical fashion;
- There were no critical incidents: failures of integrity, dereliction of duty, or overt or implied sexism, racism, or cultural insensitivity.

Systems-based Practice

Goals

The senior trauma resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the senior trauma resident will effectively call on other resources in the system to provide optimal health care.

Objectives

- The resident engaged consulting services (including non-medical consulting services, such as social services) appropriately, including calling for consults when indicated, and responding to the recommendations of consultants in a timely and effective manner;
- Demonstrated an understanding of cost effective health care delivery while maintaining high quality patient care;
- The resident ran the service in a time-efficient manner so has to optimize his/her learning, such that demands from the ER were balanced effectively against time in the OR and/or clinic;
- Participation in the clinic and the OR in an efficient and effective manner;
- Participate in the organization of the daily OR schedule.

SENIOR TUMOR ROTATION

Overall Goal

To provide a tumor service program dedicated to the superior care of the patient, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of patients with musculoskeletal lesions and total commitment to returning people to a useful life.

Patient Care

Goals

The senior tumor resident will experience inpatient, outpatient, and surgical care of patients with musculoskeletal tumors under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Participate in Outpatient evaluation of new and return oncology service patients;
- Demonstrate a refined and advanced patient care evaluation of patients with suspected bone and soft-tissue tumors, such as: Able to take a detailed history, complete an appropriate and accurate physical exam, and review appropriate imaging studies to allow integration of information to formulate an appropriate diagnosis and treatment plan including observation, additional imaging or operative intervention;
- Possesses advanced physical exam skills that permit the detection of distant sites of disease, familial syndromes, and other clues that assist in making a diagnosis;
- Demonstrates basic understanding of the appropriate indications for non-operative versus operative treatment. Specifically understands the role and timing of biopsy and the options regarding biopsy of a soft-tissue mass or bone lesion;
- Is familiar with common limb salvage techniques and capable of directing a biopsy site that will facilitate future limb salvage procedures;
- Possesses and is able to apply an appropriate understanding of the expected postoperative progression and rehabilitation of patients following common tumor resections, amputations and limb salvage surgeries;
- Able to recommend strategies to minimize the possibility of pathologic fracture;
- Demonstrates ability to perform incisional and percutaneous biopsies of bone and soft-tissue masses, amputations of the lower extremity and prophylactic internal fixation of lower extremity metastases independently;
- Possesses and demonstrates more advanced and refined surgical skills with faculty supervision appropriate to level of training including advanced tumor resection and reconstructive skills :
    - Wide Resection of the Distal Femur, Proximal Femur. Proximal Tibia, proximal humerus and Distal Humerus;
    - Endoprosthetic and allograft reconstructions of long bone defects and joints;
    - Prophylactic fixation of impending pathologic fractures of patients with metastatic disease;

    - Curettage and grafting of benign bone lesions;
    - Wide and marginal resection of soft-tissue masses;
- Manage operative complications such as infection, wound dehiscence, prosthetic dislocation, and tumor recurrence;
- Effectively oversees the appropriate care of inpatients under the supervision of the R2 junior resident;
- Attends the weekly Multidisciplinary Tumor board;
- Effectively communicates and demonstrates care and respectful behaviors when interacting with patients and families;
- Able to counsel and educate patients and their families;
- Demonstrates the ability to practice culturally competent medicine;
- Able to use information technology to support patient care decisions and patient education;
- Able to provide health care services aimed at preventing health problems or maintaining health;
- Able to work with other health care professionals from various disciplines to provide excellent patient-focused care (radiation oncology, medical oncology, radiology, pathology, rehab, OT, PT, etc);
- Communicates patient care issues to the Attending Physician.

Medical Knowledge

Goals

The senior tumor resident will obtain specific knowledge in problems related to trauma. This is through the use of clinical materials, biomedical research data, and didactic learning. The tumor resident will apply this knowledge to patient care.

Objectives

- Possesses in depth knowledge of the pathogenesis and behavior of common bone and soft-tissue tumors;
- Possesses a strong working knowledge of biopsy alternatives and techniques including common limb salvage approaches;
- Recognize incidentally noted bone and soft-tissue lesions that merit observation as opposed to intervention;
- Advanced ability to interpret the results of imaging studies in order to arrive at a narrow differential diagnosis;
- Able to recommend a strategy for evaluating an adult with a malignant appearing bone lesion including the correct tests and images to detect a primary tumor, metastatic disease, or myeloma;
- Demonstrates an understanding of the various surgical options to treat benign, malignant and metastatic bone and soft-tissue tumors. And to recommend a specific treatment approach including adjuvant therapy;
- Demonstrate the ability to accurately stage a patient with neoplastic disease;
- Ability to delineate those factors place a patient at risk of pathologic fracture;.
- Ability to correctly make histological diagnosis for osteosarcoma, chondrosarcoma, giant cell tumor of bone, small blue cell tumors, soft tissue lipomas and soft tissue sarcomas;
- Ability to recognize and institute appropriate care for complications arising from treatment;

- Attends and participates in the weekly Multidisciplinary Tumor board and weekly subspecialty conference or journal club;
- Make recommendations regarding a treatment plan that reflects an understanding the indications and contra-indications for limb salvage surgery and the comparative effectiveness of limb salvage options and amputations;
- Ability on the basis of history, examination and laboratory findings to diagnose postoperative complications such as infection, compartment syndrome, nerve or vascular injury, deep venous thrombosis, etc.

Practice-based Learning and Improvement

Goals

The senior tumor resident will appraise and assimilate scientific evidence for patient care. This involves investigation and evaluation of patient care.

Objectives

- Able to locate, appraise and assimilate evidence from scientific studies related to patients' health issues;
- Able to obtain and use information about his/her patient population and the larger population from which patients are drawn;
- Able to apply knowledge of study designs and statistical methods to the appraisal of clinical studies;
- Able to use information technology to manage information, access on-line medical information and support his/her own education;
- Able to facilitate the learning of Junior Residents as well as medical students and other learners on the Oncology service;
- Demonstrates leadership and responsibility for overseeing the appropriate care of inpatients under the supervision of the R2 junior resident;
- Efficiently and effectively interprets advanced imaging studies commonly used to evaluate patients suspected of having tumors;
- Assures that learners on the service are exposed to the breadth and depth of experience including the distribution of operative cases and procedures to ensure competency at all levels;
- Participates in the Morbidity and Mortality Conference;
- Ability to critically evaluate literature regarding patients with bone and soft-tissue tumors;
- Ability to analyze the circumstances surrounding a complication and to formulate an improvement plan to improve future care.

Interpersonal and Communication Skills

Goals

The senior tumor resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

- Communicates with radiology, consulting physicians and services in order to coordinate patient care effectively;
- Invites questions from patients and their families providing education regarding the patient's condition and the treatment plan;
- Able to create and sustain a therapeutic and ethically sound relationship with patients and their families;
- Able to effective use listening skills;
- Able to effectively provide information via various methods;
- Able to work effectively with others as a member or leader of a health care team;
- Provide timely and informative communication to the supervising physician when necessary based on a change in patient condition or potential complication;
- Respond to patient phone calls and communication from allied health professionals.

Professionalism

Goals

The senior tumor resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Maintains the strictest confidence in any and all interactions dealing with all patients;
- Demonstrates respect, compassion and integrity in response to the needs of patients and their families;
- Demonstrates ethical principles pertaining to patient confidentiality issues;
- Demonstrates sensitivity to the culture, age, gender and disabilities of patients;
- Demonstrates ability to break bad news in an empathetic way that is informative and reassuring to the patient and their family;
- Maintains contact with patient and family through end of life issues as appropriate;
- Promptly recognizes and acknowledges complications that arise;
- Maintain adequate documentation and timely completion of medical records;
- Complete teaching and rotation evaluations

Systems-based Practice

Goals

The senior tumor resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the junior trauma resident will effectively call on other resources in the system to provide optimal health care.

Objectives

- Maintains the strictest confidence in any and all interactions dealing with all patients;
- Demonstrates knowledge of indications and their impact on cost-effectiveness and efficiency of patient care;
- Acts as an advocate for quality of patient care;
- Able to assess, coordinate and improve the care of patients within the current health care model(s) or systems in the program;
- Work as a effective member of a multidisciplinary team including radiologists, pathologists, medical oncologists and radiation oncologists;
- Complete all requirements for compliance, risk management, and safety education.

SENIOR SPINE ROTATION

Overall Goal

To provide a senior spine service program dedicated to the superior care of the spine patient, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of patients with spinal injuries and total commitment to returning people to useful life.

Patient Care

Goals

The senior spine resident will experience inpatient, outpatient, and surgical care of spine patients under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Make patient treatment decisions and possess a basic understanding of indications for surgical procedures with various elective pathologies as well as non-elective pathologies;
- Possess an understanding of indications for surgical treatment of idiopathic scoliosis, congenital scoliosis, congenital kyphosis, various types of spondylolisthesis, various types of fractures, various types of tumors, and infections of the spine;
- Perform a complete musculoskeletal and neurologic 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 positive Hoffmann or positive Babinski and/or clonus;
- Effectively participates in the decision-making process of issues on in-hospital patients;
- Display competency in performing a full office patient examination, providing a differential diagnosis and treatment plan;
- Exhibit competency in exposing the spine posteriorly, performing straightforward decompressions with Kerrison posteriorly. Display basic familiarity with placing hooks, wires and pedicle screws in the spine. Achieve proficiency with first assisting on operative procedures;
- Effectively communicate and demonstrates care and respectful behavior when interacting with patients and families;
- Demonstrate the ability to practice culturally competent medicine;
- 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 other health care professionals from various disciplines to provide excellent patient-focused care.

Medical Knowledge

Goals

The senior spine resident will obtain specific knowledge in problems related to spinal injuries. This is through the use of clinical materials, biomedical research data, and didactic learning. The senior spine resident will apply this knowledge to patient care.

Objectives

- Present a reasonable classification system for all spinal pathologies including cervical disc herniation, lumbar disc herniation, thoracic disc herniation, spinal fractures, spinal tumors, idiopathic scoliosis, idiopathic kyphosis, congenital scoliosis, congenital kyphosis, spondylolisthesis, flaccid paralytic deformities, and spastic paralytic deformities;
- Successfully accomplish basic radiographic measurements such as coronal Cobb measurements and sagittal Cobb angles;
- Accurately define the difference between the anterior, posterior and middle columns;
- Accurately read a basic radiographic, MRI, and CT-myelogram study of the cervical, thoracic and lumbar spine.

Practice-based Learning and Improvement

Goals

The senior spine resident will appraise and assimilate scientific evidence for the care of patients with spine injuries. This involves investigation and evaluation of patient care.

Objectives

- Attends Indication Conferences and demonstrates understanding of the surgical treatment and indications for anterior surgery versus posterior surgery versus combined surgery;
- Teach and mentor the PGY-2 residents on the service;
- Locate, appraise and assimilate evidence from past and on-going scientific studies related to patient health issues;
- Obtain and use information about his/her patient population and the larger population from which patients are drawn;
- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies;
- Use information technology such as OVID or MEDLINE to manage information, access on-line medical information and support his/her own education.

Interpersonal and Communication Skills

Goals

The senior spine resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

- Create and sustain a therapeutic and ethically sound relationship with patients and their families;
- Effectively use listening skills;
- Effectively provide information via various methods;
- Work effectively with others as a member or leader of a health care team.

Professionalism

Goals

The senior spine resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Interact in a professional manner with inpatients, outpatients, referring physicians, orthopedic residents, attendings and all patients in the practice;
- Interact effectively with both hospital patients and outpatients;
- Possess some competency in effectively managing hospital patients;
- Demonstrate respect, compassion and integrity in response to the needs of patients and their families;
- Demonstrate ethical principles pertaining to patient confidentiality issues;
- Demonstrate sensitivity to the culture, age, gender and disabilities of patients and fellow health care professionals.

Systems-based Practice

Goals

The senior spine resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the spine resident will effectively call on other resources in the system to provide optimal health care.

Objectives

- Demonstrate competency in coordinating all aspects of perioperative and postoperative rehabilitation and physical therapy;

- Demonstrate an understanding of how his/her 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 his/her own practice;
- Demonstrate knowledge of how the different 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;
- Demonstrate an understanding the impact of correct coding during patient office visits;
- Acts as an advocate for quality patient care and assists patients in dealing with system complexities;
- Effectively partners with health care managers and health care providers to assess, coordinate and improve health care, and know how these activities can affect system performance.

SENIOR HAND ROTATION

Overall Goal

To provide a hand service program dedicated to the superior care of the upper extremity patient, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of patients with upper extremity injuries and total commitment to returning people to useful life.

Patient Care

Goals

The senior hand resident will experience inpatient, outpatient, and surgical care of upper extremity patients under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Demonstrate mastery of all elements in the realm of patient care as described for the junior level resident;
- Demonstrate the ability and maturity to directly supervise the junior level resident;
- Effectively follows all inpatients and any patients seen in the emergency room including ensuring appropriate follow up after discharge;
- Demonstrate expertise in obtaining a history and physical examination in patients with hand and upper extremity conditions and disorders;
- Utilize information gathered in the history and exam to effectively generate a pertinent differential diagnosis, order necessary radiographic evaluations most appropriate to the differential diagnosis, and be able to formulate an appropriate treatment plan based on the information gathered.
- Evaluate, diagnose, and treat the following conditions: all condition ascribed to the junior level trainee, arthritis of the hand, boutonniere deformity, Dupuytren's disease, flexor tendon injuries (describe suture techniques and their rationale, and perform a flexor tendon repair, and describe postoperative regimens for flexor tendon rehabilitation and their rationale), intraarticular fractures of the distal radius and ulna, malunions of the distal radius (technique and planning of a corrective osteotomy for malunions including plating and grafting options), fractures of the scaphoid, osteonecrosis of the carpus, including Kienböck's and Preiser's disease, complex, intraarticular fractures of the phalanges and metacarpals, fractures of the base of the thumb metacarpal (Rolando, Bennett), tumors of the hand and wrist, static carpal instability (management of scapholunate dissociation and traumatic ligamentous injuries of the wrist, perilunate dislocations); dynamic carpal instability (treatment options for SL instability, midcarpal instability), upper extremity conditions related to cerebral palsy, the "stroke hand", treatment of radial, ulnar and combined medial-ulnar nerve paralyses including tendon transfers and indication for arthrodesis (tendon transfers for major peripheral nerve dysfunction including indications, techniques, complications, and risks), treatment of the rheumatoid hand, including thumb MP arthrodesis, MCP interposition, wrist arthrodesis (complete and partial),

basic wrist arthroscopy (portal placement and familiarity with structures at risk), DRUJ instability, TFCC injury, radial tunnel syndrome, AIN palsy, PIN palsy, proximal median nerve entrapment, small joint arthroplasty (discuss the reconstructive ladder for soft tissue deficiency of the upper and lower extremities);
- Be familiar with hand surgery operating room protocols as related to patient preparation and be able to direct the appropriate room setup, including the physical placement of the lights, surgical assistants, scrub personnel and radiology technician;
- Be able to effectively participate as an assistant surgeon and perform certain aspects of the corrective surgical procedure for all conditions ascribed to the junior level trainee: arthritis of the hand, boutonniere deformity, Dupuytren's disease, flexor tendon injuries, complex fractures of the distal radius, malunions of the distal radius, fractures of the scaphoid, osteonecrosis of the carpus, including Kienböck's and Preiser's disease, complex, intraarticular fractures of the phalanges and metacarpals, fractures of the base of the thumb metacarpal (Rolando, Bennett), tumors of the hand and wrist, dynamic carpal instability, upper extremity conditions related to cerebral palsy, the "stroke hand", treatment of radial, ulnar and combined median-ulnar nerve paralysis including tendon transfers and indication for arthrodesis, treatment of the rheumatoid hand, including thumb MP arthrodesis and MCP interposition arthroplasty, basic wrist arthroscopy, ulnar sided wrist pain and instability, radial tunnel syndrome, small joint arthroplasty, soft tissue coverage using a groin flap, reverse radial forearm flap, cross finger flap and random advancement flaps;
- Be prepared to be the primary surgeon on designated cases as technical skills permit.

Medical Knowledge

Goals

The senior hand resident will obtain specific knowledge in problems related to upper extremity injuries. This is through the use of clinical materials, biomedical research data, and didactic learning. The senior hand resident will apply this knowledge to patient care and will actively teach junior residents and students.

Objectives

- Demonstrate mastery of all elements in the realm of medical knowledge as described for the junior level resident;
- Demonstrate a firm understanding of the fundamentals of hand and wrist anatomy including common anatomic variations and be able to instruct the junior resident in this realm;
- Demonstrate knowledge and expertise in the discussion of the natural history of hand injuries/conditions including fractures, dislocations, tendon injuries, instability patterns, osteonecrosis, non-unions, and malunions;
- Interpret and have an understanding of the significance of electrodiagnostic studies, vascular studies, autonomic function studies, and advanced radiographic study techniques;
- Possess a basic understanding of the priorities of treatment of hand conditions, including the revascularization of devitalized parts, skeletal stabilization, tendon fixation, nerve reconstruction, and soft tissue coverage for complex injuries of the hand and wrist (possesses a basic understanding of the goals of treatment and the techniques used to achieve these goals in

the treatment of combined injuries of the hand and wrist, including skeletal fixation, tendon/nerve/vessel repair, and soft tissue coverage);
- Demonstrate advanced knowledge and familiarity with rehabilitation methods for non-operative and postoperative treatment of hand conditions as listed above;
- Develop an understanding of potential perioperative complications for both elective and emergent surgical hand and wrist conditions and the appropriate available treatment algorithms;
- Support clinical and surgical treatment plans using data from pertinent current literature and clinical studies;
- Demonstrate knowledge of the use of instrument sets (mini-fragment, modular handsets, external fixation, Herbert and Acutrak screws, etc.) specific to the care of injuries of the hand and wrist and the appropriate use of intraoperative imaging.

Practice-based Learning and Improvement

Goals

The senior hand resident will appraise and assimilate scientific evidence for the care of the hand and upper extremity patient. This involves investigation and evaluation of patient care.

Objectives

- Demonstrate competence in the application of critical thinking and in the appraisal of clinical studies read in peer reviewed literature as well as in the treatment of patients;
- Responsibly perform preoperative examination in the holding area of patients on whom hand surgery is being performed;
- Responsibly confirms the surgical site with the junior level resident;
- Responsibly directs education of the junior resident and medical students on the team;
- Successfully maintains a record of all operative cases via the ACGME web site;
- Self-evaluation of performance should include search, retrieve, and interpret peer reviewed medical literature relevant to hand diseases and disorders, apply study and case report conclusions to the care of individual patients;
- Reflective learning should include: communicate learned concepts to peers, incorporation of feedback into improvement of clinical activity, utilize patient information systems to assess measurable clinical practices and outcomes.

Interpersonal and Communication Skills

Goals

The senior hand resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

- Demonstrate communication skills that result in an effective information exchange with patients, their families and caregivers, and other physicians and members of the health care team;
- Create and sustains a therapeutic and ethically sound relationship with patients and their families;
- Effectively use listening skills in communication with all parties involved in patient care;
- Effectively provide information via various methods – Confidence and effectiveness in transmitting information verbally and written;
- Effectively work with other members of the team, specifically medical assistants, chief residents, hand fellows and hand therapists;
- Present at conferences, to other physicians, and mentors both formally and informally effectively and succinctly;
- Seek necessary help from hand fellows and therapists for the provision of appropriate care to the patient when necessary.

Professionalism

Goals

The senior hand resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Patient primacy: trainees are expected to demonstrate an understanding of the importance of patient primacy by placing the interest of the patient above their own interest, providing autonomy to their patients to decide upon treatment once all treatment options and risks have been outlines for them. Understand and demonstrate the ability to obtain an informed consent from a patient, which includes the presentation of the natural history of both surgical and non-surgical care of the patient's condition, giving equitable care to all patients, treating all patients with respect regardless of race, gender and socioeconomic background;
- Physician accountability and responsibility: follow through on duties and clinical tasks. Demonstrate timeliness in required activities, in completing medical records and in responding to patient and colleague calls. Exhibit regular attendance and active participation in hand surgery service and orthopedic departmental training activities and scholarly endeavors. Strive for excellence in care and or scholarly activities as an orthopedic surgeon and hand surgeon. Work to maintain personal physical and emotional health and demonstrate an understanding of and ability to recognize physician impairment in self and colleagues. Demonstrate sensitivity to the culture, age, gender and disabilities of fellow health care professionals and be respectful of the opinions of other healthcare professionals. Demonstrate appropriate conduct in the timely completion of the dictated operative notes, chart operative summaries and discharge summaries as well as clinic notes;
- Humanistic qualities and altruism: exhibit empathy and compassion in patient/physician interactions, sensitive to patient needs for comfort and encouragement, courteous and respectful in interactions with patients, staff and colleagues, maintains the welfare of their patients as their primary professional concern;

- Ethical behavior including being trustworthy and cognizant of conflicts of interest. Maintaining integrity as a physician orthopedic surgeon and hand surgeon pervades all of the components of professionalism. Demonstrate integrity when reporting back key clinical findings to supervising physicians. Be trustworthy in following through on clinical questions, laboratory results and other patient care responsibilities. Recognize and address actual and potential conflicts of interest including orthopedic device industry and pharmaceutical industry involvement in their medical education and program funding and guard against this influencing their current and future treatment recommendation habits

Systems-based Practice

Goals

The senior hand resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the senior hand resident will effectively call on other resources in the system to provide optimal health care.

Objectives

- In addition to the competencies listed for the PGY-3 trainee, the senior resident is responsible for the following:
- Demonstrate appropriate conduct in the timely completion of the dictated operative notes, chart operative summaries and discharge summaries as well as clinic notes. Understand how the delay of these activities affects patient care throughout the system overall;
- Effectively partners with other members of the health care team;
- Serve as an example for the remaining members of the team, especially 2nd and 3nd year residents and 3rd and 4th year medical students.

SENIOR FOOT & ANKLE ROTATION

Overall Goal

To provide a foot and ankle program dedicated to the superior care of the patient with foot and ankle pathologies, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of patients with foot and ankle pathologies and total commitment to returning people to useful life. In general, a senior resident is expected to achieve the learning objectives of the junior resident in addition to the following goals and objectives.

Patient Care

Goals

The Senior Foot & Ankle resident will perform inpatient, outpatient, and surgical care of foot and ankle patients under staff supervision. The senior resident will effectively develop the clinical skills to facilitate adequate evaluation of complex Foot and Ankle conditions seen in adolescent and adult patients. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- In general, a senior resident is expected to achieve the learning objectives of the junior resident in addition to demonstrating a refined set of clinical skills that include:
- Expertly develop a detail-specific patient history and examination.
- Demonstrates clinical skills that include:
    - Evaluation of foot and ankle malalignment
    - Identify joint contractures or laxity
    - Identify tendon imbalances
    - Demonstrates the ability to order the appropriate xrays (if indicated)
        - know special xray views
        - know when advanced imaging of the foot/ankle is indicated
    - Demonstrates the ability to provide a complete interpretation of the images
    - Demonstrates the ability to analyze the findings to form a differential diagnosis and a presumptive working diagnosis
    - Demonstrates the ability to formulate a detailed plan of care
        - medications, physical therapy, orthotics, braces, casts, splints
        - able to discuss reasoning for and against operative options
- Demonstrate procedural and surgical skills with supervision appropriate to the level of training that include:
    - Demonstrates the ability to perform the common procedures for outpatients and in-house consult, such as joint aspiration/injection, casting, and splinting, and supervises junior residents in these activities
    - Demonstrates the ability to perform basic surgical skills and guide junior residents with attending supervision

        - positioning, draping, basic exposure
        - know the steps of the procedure
        - proper postoperative dressing/splinting
- Demonstrates the ability to manage inpatients:
    - Demonstrates the ability to provide postoperative inpatient care for foot and ankle patients after surgery including pain management, management of medical comorbidities and complications, and supervision of junior residents
    - Develops and implements management plans and initiates strategies including appropriate consultation with the supervising physician

Medical Knowledge

Goals

The senior Foot and Ankle resident will obtain specific knowledge in complex problems related to foot and ankle pathology. This is through the use of clinical materials, biomedical research data, and didactic learning. The resident will apply this knowledge to patient care.

Objectives

- will be able to answer questions appropriate to their level of training in anatomy, physiology, biomechanics, and disease-specific facts through ongoing reading
- will be able to discuss current literature regarding controversies and gaps in clinical issues
- will demonstrate a willingness and ability to acquire new information
- attends and participates in the weekly Indications Conference
- models and mentors the ideal to the junior residents

Practice-based Learning and Improvement

Goals

The senior Foot and Ankle resident will recognize gaps in knowledge and experience, use constructive criticism to improve, and apply scientific knowledge in daily duties.

Objectives

- Easily and expertly locate, appraise and assimilate evidence from scientific studies related to patients' health issues.
- Expertly obtain and use information about his/her patient population and the larger population from which patients are drawn.
- Expertly apply knowledge of study designs and statistical methods to the appraisal of clinical studies.
- Expertly use information technology to manage information, access on-line medical information and support his/her own education.

- Expertly facilitate the learning of medical students and junior residents on the Foot and Ankle service and other health care professionals on an informal basis in clinics, operating rooms and conferences.
- Expertly critically evaluate literature regarding Foot and Ankle conditions
- Expertly analyze the circumstances surrounding a complication and to formulate an improvement plan to improve future care.

Interpersonal and Communication Skills

Goals

The senior resident communicates effectively with patients, their families, professional colleagues and the allied health staff to work effectively as a leader of a treatment team. They actively demonstrate exemplary interpersonal interactions and are a role model and mentor to the junior residents.

Objectives

- Creates and sustains a therapeutic and ethically sound relationship with patients and their families, and provides education regarding the patient's condition and the treatment plan
- Easily and expertly communicate information via various methods
- Work effectively with other members of the health care team
- Easily and expertly reporting to attending staff to ensure good patient care
- Demonstrates good listening skills and presents information in a clear and concise manner highlighting salient features
- Respond to patient phone calls and communication from allied health professionals and effectively emphasize the importance of this skill to all members of the care team

Professionalism

Goals

The senior resident will demonstrate high standards of ethical and moral behavior, honesty and integrity, compassion and empathy, reliability and responsibility in his/her daily activities as a member of the Orthopedic Surgery Residency Program, and also demonstrate sensitivity to patients of diverse backgrounds. The senior resident will be a role model and peer-to-peer mentor to the junior residents regarding professionalism, and teaches these skills to all members of the care team.

Objectives

- Maintains the strictest confidence in any and all interactions dealing with all patients
- Demonstrates respect, compassion and integrity in response to the needs of patients and their families
- Demonstrates ethical principles pertaining to patient confidentiality issues.
- Demonstrates sensitivity to the culture, age, gender and disabilities of patients and fellow health care professionals.

- Promptly recognizes and acknowledges complications
- Maintains adequate timely documentation
- Completes teaching and rotation evaluations
- Demonstrates excellent clinical judgment and is able to direct all members of the care team
- Demonstrates awareness of limitations (seeks advice/assistance when appropriate)

Systems-based Practice

Goals

The senior resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the senior resident will effectively call on other resources in the system to provide optimal health care.

Objectives

- Demonstrates knowledge of treatment plans and their impact on cost-effectiveness and efficiency of patient care.
- Expertly acts as an advocate for quality of patient care.
- Expertly assess, coordinate and improve the care of patients within the current health care model(s) or systems in the program [OT, PT and Rehab].
- Expertly work with other health care professionals from various disciplines to provide excellent patient-focused care
- Completes all requirements for compliance, risk management, and safety education

SENIOR SPORTS ROTATION

Overall Goal

To provide a sports service program dedicated to the superior care of the sports injury patient, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of patients with sports injuries and total commitment to returning people to useful life.

Patient Care

Goals

The senior sports resident will experience inpatient, outpatient, and surgical care of sports injury patients under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Demonstrates more refined and advanced patient care and clinical skills in the evaluation of sports-related injuries, such as:
- Able to take a detailed history, complete an appropriate and accurate physical exam, and review appropriate imaging studies to allow integration of information to formulate an appropriate diagnosis and treatment plan;
- Possesses refined physical exam skills including examination of the unstable knee and shoulder. Demonstrates development of refined and focused physical exam skills that help to identify more subtle sports medicine problems of these joints. These include:
    - Knee: conditions of subtle instability patterns such as posterolateral rotatory and patellar instability;
    - Shoulder: conditions of internal impingement, labral lesions, SLAP tears, biceps tendon disorders, and posterior glenohumeral instability;
    - Elbow: conditions of ulnar collateral ligament injury, valgus-extension overload, posteromedical olecranon impingement, ulnar nerve instability/subluxation, and posterolateral rotatory instability;
    - Ankle: symptomatic os trigonum, peroneal tendon disorders, anterior tibio-talar impingement, chronic instability, and chondral lesions of the talar dome.
- Demonstrates basic understanding of the appropriate indications for nonsurgical versus surgical treatment and the appropriate rehab protocols for various injuries and conditions;
- Possesses and is able to apply an appropriate understanding of the expected postoperative progression and rehabilitation of patients following common sports medicine surgical procedures including partial meniscectomy, meniscal repair, ACL reconstruction, ankle arthroscopy, shoulder stabilization, rotator cuff repair, and acromioplasty;
- Effectively and responsibly evaluates patients at varying postoperative intervals and modifies rehabilitation protocols as necessary;
- Possesses and demonstrates more advanced and refined surgical skills including advanced arthroscopic skills including, but not limited to:

    - Knee: meniscal repair techniques and ACL reconstruction including tunnel placement and graft fixation techniques;
    - Shoulder: arthroscopic and open stabilization techniques, SLAP/labral repair techniques, arthroscopic rotator cuff repair techniques, and biceps tenodesis;
    - Elbow: diagnostic arthroscopy including portal placement, ulnar nerve transposition techniques and ulnar collateral ligament reconstruction
- Attends the weekly Sports Medicine Conference;
- Effectively communicates and demonstrates care and respectful behaviors when interacting with patients and families;
- Able to counsel and educate patients and their families;
- Demonstrates the ability to practice culturally competent medicine
- Able to use information technology to support patient care decisions and patient education;
- Able to provide health care services aimed at preventing health problems or maintaining health (Rehab, OT, PT);
- Able to work with other health care professionals from various disciplines to provide excellent patient-focused care (Rehab, OT, PT, Human Performance, etc).
- Facility with the diagnostic scope of the knee and shoulder; knot tying. Intermediate level with the ablative procedures: meniscectomy and SAD. Beginning level with reconstructive procedures: ACL and cuff.
    - Ultrasound: This is a new skill for Orthopedic Surgeons and not fully developed in medical school education. There are two types: diagnostic and procedure.
    - Diagnostic: It has been found that it takes about 100 US exams to reach proficiency. This level will not be reached until the later years of residency, but one can achieve some beginning proficiency which will be helpful in treating patients. This level includes:
    - Tissues identification: skin, fat, bone tendon, muscle, nerve and vessel.
    - Material identification: wood, plastic, metal glass and PMMA
    - Structure identification:
    - Muscles: Deltoid, Spinati, Subscap, LHB and Teres

Medical Knowledge

Goals

The senior sports resident will obtain specific knowledge in problems related to sports injuries. This is through the use of clinical materials, biomedical research data, and didactic learning. The senior sports resident will apply this knowledge to patient care and will actively teach junior residents and students.

Objectives

- Possesses a more advanced knowledge of the typical mechanisms of injury for common sports medicine problems;
- Possesses a strong working knowledge of arthroscopic and open surgical approaches including those for the shoulder, elbow, knee, and ankle;
- Demonstrates an understanding of the various surgical options to treat common sports medicine conditions including arthroscopic versus open approaches. The R4 senior resident is expected to begin to develop advanced arthroscopic skills including knowledge of the appropriate use of

accessory portals, advanced arthroscopic techniques such as arthroscopic shoulder stabilization, superior labral repair, and osteochondral reconstruction;
- Possesses the arthroscopic skills needed to successfully perform basic arthroscopic procedures such as diagnostic arthroscopy, arthroscopic meniscectomy, arthroscopic subacromial decompression, and arthroscopic ACL reconstruction. The R4 senior resident is also expected to have a basic working knowledge of and the skills to implement more advanced arthroscopic techniques such as arthroscopic PCL reconstruction and arthroscopic shoulder stabilizations.

Practice-based Learning and Improvement

Goals

The senior sports resident will appraise and assimilate scientific evidence for the care of the sports injury patient. This involves investigation and evaluation of patient care.

Objectives

- Able to locate, appraise and assimilate evidence from scientific studies related to patients' health issues;
- Able to obtain and use information about his/her patient population and the larger population from which patients are drawn;
- Able to apply knowledge of study designs and statistical methods to the appraisal of clinical studies;
- Able to use information technology to manage information, access on-line medical information and support his/her own education;
- Able to facilitate the learning of Junior Residents as well as medical students on the Sports Medicine service and other health care professionals on an informal basis in clinics, operating rooms and conferences;
- Demonstrates leadership and responsibility for overseeing the appropriate care of inpatients under the supervision of the junior resident;
- Efficiently and effectively interprets advanced imaging studies commonly used to evaluate sports-related injuries.

Interpersonal and Communication Skills

Goals

The senior sports resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

- Communicates with radiology consultants and sports physical therapy personnel for rehab purposes to coordinate patient care effectively;
- Specifically:

    - Effectively communicates to radiology consultants greater details of the required imaging study including the need for arthrogram techniques and specific positioning requirements for certain entities such as the need of ABER views for evaluation of a SLAP lesion of the shoulder;
    - Effectively communicates details of rehab protocols for common procedures such as ACL reconstruction, partial meniscectomy, acromioplasty, and anterior stabilization, as well for more advanced procedures such as rotator cuff repair, SLAP repair, elbow UCL reconstruction and PCL reconstruction;
- Able to create and sustain a therapeutic and ethically sound relationship with patients and their families;
- Able to effectively use listening skills;
- Able to effectively provide information via various methods;
- Able to work effectively with others as a member or leader of a health care team.

Professionalism

Goals

The senior sports resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Maintains the strictest confidence in any and all interactions dealing with all patients, especially professional athletes with some measure of local, regional or national celebrity. Refrains from the discussion of the athlete with family, friends or colleagues;
- Demonstrates respect, compassion and integrity in response to the needs of patients and their families;
- Demonstrates ethical principles pertaining to patient confidentiality issues;
- Demonstrates sensitivity to the culture, age, gender and disabilties of patients and fellow health care professionals.

Systems-based Practice

Goals

The senior sports resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the senior sports resident will effectively call on other resources in the system to provide optimal health care.

Objectives

- Maintains the strictest confidence in any and all interactions dealing with all patients, especially professional athletes with some measure of local, regional or national celebrity. Refrains from the discussion of the athlete with family, friends or colleagues;

- Demonstrates knowledge of indications and their impact on cost-effectiveness and efficiency of patient care;
- Acts as an advocate for quality of patient care;
- Able to assess, coordinate and improve the care of patients within the current health care model(s) or systems in the program [OT, PT and Rehab].

SENIOR ADULT RECONSTRUCTION ROTATION

Overall Goal

To provide a joints service program dedicated to the superior care of patients with degenerative joint disease of the lower extremities, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of patients with arthritis and total commitment to returning people to useful life.

Patient Care

Goals

The senior joints resident will experience inpatient, outpatient, and surgical care of patients with degenerative joint disease under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Possesses patient care competencies associated with H/P, physical exams, diagnosis, treatment plan and post-operative management plans above and beyond the PGY-5 level
- Communicates effectively with patient/families
- Coordinates health care team patient care
- Effectively supervises postoperative patient care and manages postoperative complications of revision THA
- Able to evaluate/treat painful total joint replacements
- Demonstrates primary and understanding of revision total joint arthroplasty techniques

Medical Knowledge

Goals

The senior joints resident will obtain specific knowledge in problems related to degenerative joint disease. This is through the use of clinical materials, biomedical research data, and didactic learning. The senior joints resident will apply this knowledge to patient care and will actively teach junior residents and students.

Objectives

- Demonstrates knowledge of revision surgical approaches
- Demonstrates knowledge of diagnosis and treatment of hip pain in symptomatic total joint patients

Practice-based Learning and Improvement

Goals

The senior joints resident will appraise and assimilate scientific evidence for the care of patients with degenerative joint disease. This involves investigation and evaluation of patient care.

Objectives

- Able to effectively teach general concepts/core curriculum to lower level residents
- Able to identify, locate and utilize case-specific articles to enhance learning
- Possesses ability to effectively teach preoperative templating and surgical approaches
- Use information technology such as PubMed and Medline to enhance learning & teaching skills

Interpersonal and Communication Skills

Goals

The senior joints resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

- Demonstrates leadership and communication skills for coordinating overall patient care
- Demonstrates effective teaching and communication skills
- Works effectively as leader of resident team

Professionalism

Goals

The senior joints resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Maintains sound, ethical patient care
- Interacts with patients and families in a respectful, ethical and compassionate manner
- Develops and exhibits sensitivity to diverse patient and workforce population – with respect to age, culture, gender, etc.

Systems-based Practice

Goals

The senior joints resident will demonstrate an awareness of and responsiveness to the larger context and system of health care. Furthermore, the senior joints resident will effectively call on other resources in the system to provide optimal health care.

Objectives

- Demonstrates understanding of economic issues in total joint arthroplasty (reimbursement, implant cost, postoperative care)
- Effectively coordinates patient care with other members of health care team
- Demonstrates awareness of health care workers' involvement in integrated care of total joint arthroplasty patient
- Practices cost-effective medical care within the system or practice model without compromising quality of care
- Acted as an advocate for quality of patient care
- Able to assess, coordinate and improve the care of patients within the current health care

CHIEF ARMC ROTATION

Overall Goal

To provide a county service program dedicated to the superior care of the orthopedic patient, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of patients with orthopedic injuries and total commitment to returning people to useful life.

Patient Care

Goals

The chief ARMC resident will experience inpatient, outpatient, and surgical care of orthopedic patients under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families regarding general orthopedic, trauma, and medical issues.
- 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 orthopedic scientific evidence, and clinical judgment.
- Develop, supervise, and carry out patient management plans.
- Counsel and educate patients and their families regarding orthopedic problems.
- Demonstrate the ability to practice culturally competent medicine.
- Use information technology as provided by the county system, such as electronic radiographic archiving, to support patient care decisions and patient education.
- Perform competently all medical and invasive procedures considered essential to orthopedic surgery.
- Learn to coordinate an orthopedic service in the setting of a county medical system.
- Supervise junior residents, under the direction of faculty, in the administration of patient care in the county setting.
- Work with health care professionals, including those from other disciplines, to provide patient-focused care.

Medical Knowledge

Goals

The chief ARMC resident will obtain specific knowledge in problems related to orthopedic patients. This is through the use of clinical materials, biomedical research data, and didactic

learning. The chief ARMC resident will apply this knowledge to patient care and will actively teach junior residents and students.

Objectives

- Demonstrate an investigatory and analytic thinking approach to clinical situations, as measured through assessments made by faculty and on in-training examination performance.
- Know and apply the basic and clinically supportive sciences which are appropriate to orthopedic surgery in the county medical delivery setting.
    - Simple and complex fractures
    - Open fractures
    - Musculoskeletal infections
    - Lacerations
    - Neurologic disorders
    - Circulatory disorders
    - Fingertip injuries
    - Pain, inflammation, and overuse
    - Rotator cuff and impingement
    - Lateral epicondylitis
    - DeQuervain's tenosynovitis
    - Trigger finger
    - Spine injuries
    - Pelvis and acetabulum fractures
    - Degenerative joint disease and joint replacement
    - Tendon transfers
    - Soft tissue coverage
    - Local rotational flaps
    - Pedicle flaps
    - Free tissue transfer
    - Pediatric orthopedics
    - Developmental dysplasia of the hip
    - Legg-Calvé-Perthes disease
    - Slipped capital femoral epiphysis
    - Clubfeet
    - Spinal deformities
- Teach junior residents and students regarding the care of orthopedic patients, including methods of patient assessment and the use of medical knowledge in clinical decision making.

Practice-based Learning and Improvement

Goals

The chief ARMC resident will appraise and assimilate scientific evidence for the care of the orthopedic patient. This involves investigation and evaluation of patient care.

Objectives

- 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, as well as assist in the education of others.
- Facilitate the learning of students, junior residents, and other health care professionals.

Interpersonal and Communication Skills

Goals

The chief ARMC resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

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

Professionalism

Goals

The chief ARMC resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Demonstrate respect, compassion, and integrity; a responsiveness to the general medical and orthopedic needs of patients and society that supersedes self-interest, regardless of patients' socioeconomic status; 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, disabilities that may have resulted from musculoskeletal injury, and socioeconomic status.
- Demonstrate sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.

Systems-based Practice

Goals

The chief ARMC resident will demonstrate an awareness of and responsiveness to the larger context and system of governmental health care. Furthermore, the chief ARMC resident will effectively call on other resources in the system to provide optimal health care. The commitment at ARMC is to practice the same philosophy as LLUMC, which is "To Make Man Whole."

Objectives

- Understand how their patient care and other professional practices affect other healthcare professionals, the healthcare organization, and the larger society and how these elements of the system affect their own practice.
- Know how the county healthcare system differs from university, private practice, and VA systems, including methods of controlling healthcare costs and allocating resources.
- Advocate for quality patient care and assist patients in dealing with the county healthcare system, which includes obtaining appropriate diagnostic studies, assuring adequate follow-up care, and arranging ancillary services, such as therapy and prosthetics.
- Understand the opportunities and constraints offered and posed by the county healthcare system.
- Practice cost-effective health care and resources 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 to assess, coordinate, and improve health care and know how these activities can affect system performance.

CHIEF VAH ROTATION

Overall Goal

To provide a V.A. service program dedicated to the superior care of the veteran, combining patient care and an appropriate associated teaching program. Our primary goal is superior care of the veteran and total commitment to returning people to useful life.

Patient Care

Goals

The chief VA resident will experience inpatient, outpatient, and surgical care of veterans under staff supervision. The level of care will be compassionate, appropriate, and effective, with a concern for whole patient care.

Objectives

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families regarding general orthopedic, trauma, and medical issues.
- 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 orthopedic scientific evidence, and clinical judgment.
- Develop, supervise, and carry out patient management plans.
- Counsel and educate patients and their families regarding orthopedic problems.
- Demonstrate the ability to practice culturally competent medicine.
- Use information technology, such as electronic medical records and electronic radiographic retrieval systems, as provided by the veterans administration system to support patient care decisions and patient education.
- Perform competently all medical and invasive procedures considered essential to orthopedic surgery.
- Supervise junior residents, under the direction of faculty, in the administration of patient care in the VA setting.
- Work with health care professionals, including those from other disciplines, to provide patient-focused care.

Medical Knowledge

Goals

The chief VA resident will obtain specific knowledge in problems related to veterans. This is through the use of clinical materials, biomedical research data, and didactic learning. The chief VA resident will apply this knowledge to patient care and will actively teach junior residents and students.

Objectives

- Demonstrate an investigatory and analytic thinking approach to clinical situations, as measured through assessments made by faculty and on in-training examination performance.
- Know and apply the basic and clinically supportive sciences which are appropriate to orthopedic surgery in the veterans administration setting.
- Teach junior residents and students regarding the care of veterans, including methods of patient assessment and the use of medical knowledge in clinical decision making.

Practice-based Learning and Improvement

Goals

The chief VA resident will appraise and assimilate scientific evidence for the care of the veteran. This involves investigation and evaluation of patient care.

Objectives

- 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, as well as assist in the education of others.
- Facilitate the learning of students, junior residents, and other health care professionals.

Interpersonal and Communication Skills

Goals

The chief VA resident will develop an effective exchange of information and collaboration with patients, their families, and other health professionals. Excellent interpersonal and communication skills will be modeled by the faculty.

Objectives

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

Professionalism

Goals

The chief VA resident will carry out professional responsibilities, adhere to ethical principles, and demonstrate sensitivity to patients of diverse backgrounds. Professionalism will be modeled by the faculty.

Objectives

- Demonstrate respect, compassion, and integrity; a responsiveness to the general medical and orthopedic 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, disabilities that may have resulted from musculoskeletal injury, and combat background.
- Demonstrate sensitivity and responsiveness to fellow health care professionals' culture, age, gender, and disabilities.

Systems-based Practice

Goals

The chief VA resident will demonstrate an awareness of and responsiveness to the larger context and system of governmental health care. Furthermore, the chief VA resident will effectively call on other resources in the system to provide optimal health care.

Objectives

- Understand how their patient care and other professional practices affect other healthcare professionals, the healthcare organization, and the larger society and how these elements of the system affect their own practice.
- Know how the VA system differs from other healthcare systems, including methods of controlling healthcare costs and allocating resources.
- Advocate for quality patient care and assist patients in dealing with the veterans administration system, which includes obtaining appropriate diagnostic studies, assuring adequate follow-up care, and arranging ancillary services, such as therapy and prosthetics.
- Understand the opportunities and constraints offered and posed by the veterans administration system.
- Practice cost-effective health care and resources allocation that does not compromise quality of care.
- Advocate for quality patient care and assist patients in dealing with the veterans administration system.

- Know how to partner with health care managers and other healthcare providers to assess, coordinate, and improve health care and know how these activities can affect system performance.
- Show leadership in organizing the orthopedic service team members in clinic, wards, and surgery while demonstrating effective patient management.

APPENDICES