



Stanford
MEDICINE

DEPARTMENT OF
ORTHOPAEDIC SURGERY

RESIDENCY PROGRAM MANUAL
2015-16

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RESIDENCY PROGRAM POLICIES AND PROCEDURES

MEDICAL RECORDS

CURRENT MEDICAL RECORDS MUST BE AVAILABLE FOR PATIENT CARE AT ALL TIMES. CLINICAL FINDINGS MUST BE RECORDED IN DETAIL, PROMPTLY AND LEGIBLY. PATIENTS' MEDICAL RECORDS MUST NOT BE REMOVED FROM THE HOSPITAL OR MEDICAL CENTER FOR ANY REASON.

- A. Failure to complete medical records appropriately will result in suspension of hospital privileges and withholding of paychecks, denial of requests to attend professional meetings, and/or denial of certification upon completion of rotation at a given institution.
- B. Dictation and transcription procedures differ with each institution. The administrative staff at each institution will be available to assist you with these procedures.
- C. All telephone calls from patients should be documented and prescriptions should also be noted in the documentation. These should be cc'ed to the attending of record.
- D. Be sure to document all findings and physical exam details electronically in the Epic system, but do not cut and paste all of the previous data into the daily notes. Initial H&P notes must be co-signed by the attending of record.

PATIENT CARE

- A. Residents are responsible for inpatient care for patients on their service. This care includes periodic rounds, pre-operative examination for surgical cases, and surgery in conjunction with attending faculty and clinical faculty physicians. No patient is to be taken to the operating room without consultation of an attending physician. Chief residents perform orthopaedic consultations within the hospital.
- B. Documented sign-out to the on-call junior resident is mandatory every weekday evening at 6pm or later for the Arthritis, Foot & Ankle, Trauma, and Tumor services.
- C. On weekends, the residents on the Arthritis, Foot & Ankle, Trauma, and Tumor services should prepare their patients for discharge with appropriate documentation and orders. Reliance on the on-call resident unfamiliar with the patients to perform the entire discharge is inappropriate.
- D. Outpatient care responsibilities include clinic with attending faculty, and work-up of assigned topics with chart review for patient care review meetings. When surgery and hospital admission are needed, the residents will consult with the chief resident for guidance and confirmation of treatment plan for patients seen while on call.
- E. Residents must maintain a presentable appearance for patient care. This includes clean clothes, proper grooming, clean lab coats, clean shoes, etc.
- F. Residents should know their patients' history, past medical history and medications thoroughly.

- G. Residents should document all complications and present them at the monthly Morbidity and Mortality conferences. See the attached sheet for the standard format.
- H. Residents should be aware of the current paging system at Stanford. The operators may not know the appropriate resident/fellow to contact. If inappropriately paged, try to direct the call and be familiar with the call coverage for each service, which is established well in advance.
- I. Residents are expected to make rounds twice per day and at least once with a senior resident, fellow or attending.
- J. During the first 3 months of the academic year, the senior/chief resident on call must see all patients and films prior to admission. All splinting and reductions must also be supervised by the senior/chief resident during the first 3 months of the year, and post-splinting/reduction x-rays must be obtained prior to discharge or transfer to the floor.
- K. In the Emergency Room, all open injuries should receive proper acute care, i.e. reduction of gross deformities, wound irrigation, coverage with sterile dressings, and immobilization with a splint.

STANFORD MONDAY MORNING CONFERENCE

- A. Presentations start promptly at 7:15am in the Radiology Musculoskeletal Reading Room.
- B. The presentations are to be limited to 10 minutes in length. This will allow for 5 minutes of discussion for each talk.
- C. The Chief Resident on Trauma is in charge of determining the three services presenting each Monday. The schedule should be evenly distributed between Trauma, Tumor, Foot and Ankle, Arthritis and Spine. The Trauma Chief is also responsible for each conference running on time. This includes ending presentations which extend beyond 10 minutes.
- D. If a medical student is presenting, the Chief/Senior of their respective service is responsible for reviewing the student presentation ahead of time and ensuring compliance with the above rules.

GRAND ROUNDS

Wednesday morning Educational Conference will consist of the following:

Each Wednesday, Clinical Core Lectures begin at 6:30am and run from 6:30-7:55am. The first 90 minutes of each conference consists of two lectures encompassing all aspects of general and subspecialty orthopaedics, rheumatology, rehabilitation medicine, etc., based on a two year revolving core curriculum. Dr. Raffi Avedian coordinates our clinic lecture series. The third hour from 8:00-9:00am is our Grand Rounds lecture given by faculty members and guest lecturers. Each Chief and Senior Resident (PGY-4 and PGY-5) gives one Grand Rounds lecture during the year.

Once per month we have a Morbidity and Mortality Conference in which all affiliated institutions have their complications presented and discussed in detail by the residents and attending staff. This session

will run from 6:30-7:55am. This takes the place of the clinical lecture and case presentations on that particular Wednesday.

During the summer quarter each year, we have anatomy lectures and dissection for three hours per week on Wednesday mornings. This didactic and practical conference is supervised by the attending staff that have a particular interest in that anatomical location. All residents attend.

We have a Pathology course on the third Wednesday of the month in place of the clinical lecture. This Pathology course is given by Stanford full-time pathologists, radiologists, and orthopaedic staff.

ATTENDANCE AT ALL WEDNESDAY MORNING CONFERENCES IS MANDATORY. NO EXCEPTIONS!

MORBIDITY AND MORTALITY CONFERENCE

1. Residents reporting at M&M for Stanford services must complete QA forms to be returned to the QA Chairman, Dr. Michael Bellino, by the 5th of each month. Forms will be put into your mailbox; if you need additional forms or have not received any, please contact the QA administrative assistant.
2. All services must report regardless of whether or not there are complications to report.
3. If no complications are to be reported, be prepared to submit an interesting case.
4. M&M Reporting Responsibility:

Stanford Services:

Arthritis	PGY-4
Spine	PGY-4
Sports	PGY-5
Hand/Shoulder & Elbow	PGY-4
Trauma	PGY-5
Peds	PGY-4
Tumor	PGY-4
Foot & Ankle	PGY-3

SCVMC:

Blue	PGY-5
Red	PGY-5

TRAVEL

The department provides the following:

1. Travel and expenses for the Chief Residents to attend the American Academy of Orthopaedic Surgeons (AAOS) Annual Meeting. The purpose of this is to introduce the Chief Residents to a larger field of orthopaedics and to give them the opportunity to see the latest in equipment and scientific endeavors of the orthopaedic community.
2. Travel and expenses up to \$1200, assuming the availability of funds, for any resident who, with faculty sponsorship, reads a paper at a national, international, or major regional meeting. Leave will be granted for residents who are presenting at a meeting (this does not include poster

presentations). Leave must be requested six (6) weeks prior to the meeting. There is a maximum funding of \$2400 per year, not to exceed \$1200 per meeting. Examples of meetings include AAOS, ORS, and specialty society meetings (example: NASS for Spine). Residents are required to make arrangements for coverage of their service and call while attending the meeting.

3. Travel and expenses for an AO Basic or Advanced Course during the PGY-2 or PGY-4 year.
4. Travel and expenses for one Board Review Course during the PGY-5 year.
5. Travel and expenses up to \$2500 for each Chief Resident to undertake a medical mission to an underserved region of the world.

ON-CALL SCHEDULING

Interns and residents must be available to the patient care units and to the Emergency Department. The first-call resident will be either in the building or within 20 minutes of the facility. It is the responsibility of the resident to be sure that the beeper for taking calls outside of the building is in good working order and that a telephone is immediately available at the outside location. (Please note: Certain buildings made of reinforced concrete may not pass the radio signals necessary to activate the beeper.)

An on-call schedule is prepared monthly by the department office. The Coordinator for Resident Affairs must be notified at least six weeks in advance of any planned absences.

1. The objective of on-call activities is to provide residents with continuity of patient care experiences throughout a 24-hour period. In-house call is defined as those duty hours beyond the normal workday when residents are required to be immediately available in the assigned institution.
2. Maximum Hours of Work Per Week: Duty hours must be limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities and all moonlighting.
3. Moonlighting
Residents are not required to engage in "moonlighting." All residents engaged in moonlighting must be licensed for unsupervised medical practice in the state where the moonlighting occurs. It is the responsibility of the institution hiring the resident to moonlight to determine whether such licensure is in place, adequate liability coverage is provided, and whether the resident has the appropriate training and skills to carry out assigned duties. Stanford does not provide malpractice coverage for moonlighting. The program director must be notified in writing that the resident is moonlighting, and this information is made part of the resident's folder.
 - a. Moonlighting must not interfere with the ability of the resident to achieve the goals and objectives of the educational program.
 - b. Time spent by residents in moonlighting must be counted towards the 80-hour maximum weekly duty hour limit.
 - c. PGY-1 residents are not permitted to moonlight.
 - d. Moonlighting is not permitted while on-call at any Stanford-affiliated institution.
4. Mandatory Time Free of Duty: Residents must be scheduled for a minimum of one day free of duty every week (when averaged over four weeks). At-home call cannot be assigned on these free days.

5. Maximum Duty Period Length

- a. Duty periods of PGY-1 residents must not exceed 16 hours in duration.
- b. Duty periods of PGY-2 residents and above may be scheduled to a maximum of 24 hours of continuous duty in the hospital.
- c. Residents must not be assigned additional clinical responsibilities after 24 hours of continuous in-house duty.
- d. In unusual circumstances, residents, on their own initiative, may remain beyond their scheduled period of duty to continue to provide care to a single patient. Justifications for such extensions of duty are limited to reasons of required continuity for a severely ill or unstable patient, academic importance of the events transpiring, or humanistic attention to the needs of a patient or family. Under those circumstances, the resident must: (i) appropriately hand over the care of all other patients to the team responsible for their continuing care; and, (ii) document the reasons for remaining to care for the patient in question and submit that documentation in every circumstance to the program director.

6. Minimum Time Off between Scheduled Duty Periods

- a. PGY-1 residents should have 10 hours, and must have eight hours, free of duty between scheduled duty periods.
- b. PGY 2-4 residents should have 10 hours free of duty, and must have eight hours between scheduled duty periods. They must have at least 14 hours free of duty after 24 hours of in-house duty.
- c. PGY-5 residents must be prepared to enter the unsupervised practice of medicine and care for patients over irregular or extended periods. There may be circumstances when these residents must stay on duty to care for their patients or return to the hospital with fewer than eight hours free of duty.

7. At-Home Call

- a. Time spent in the hospital by residents on at-home call must count towards the 80-hour maximum weekly hour limit. The frequency of at-home call is not subject to the every-third-night limitation, but must satisfy the requirement for one-day-in-seven free of duty, when averaged over four weeks.
- b. At-home call must not be so frequent or taxing as to preclude rest or reasonable personal time for each resident.

VACATIONS

Each resident is allocated 15 working days of vacation per year, in increments of five consecutive working days during any rotation period (weekends before or after, to make a theoretical total of nine days of vacation, may be arranged by prior agreement with the Residency Program Director and the Chief of their respective service). VACATION TIME MAY NOT BE TAKEN DURING THE LAST WEEK OF JUNE, THE FIRST WEEK OF JULY, DURING THE ORTHOPAEDIC IN-TRAINING EXAM IN NOVEMBER, DURING DISPUTATION WEEK, OR DURING THE AAOS. In addition, six weeks of advance notice is required for any meeting, courses, etc. that the resident expects to attend outside of vacation time. This is necessary so

that appropriate adjustments to clinic scheduling and other responsibilities can be made. The Chief Attending of the Service, Chief Resident of the Service, and Residency Director must all be notified of proposed vacation time in writing and must be approved by all three.

One week per year is also allowed for academic time such as educational conferences or meetings, etc. Academic time off must be approved at least 6 weeks in advance. A written plan for the use of this time must be approved by the Service Chief and Dr. Avedian.

Sick Leave and Family/Medical Leave policy: Residents are to follow the current House Staff Policies and Procedures as specified by the GME Office.

Fellowship Interviews: Residents are allowed five working days off during the PGY-4 year to interview for fellowships. Any additional days will count towards educational leave.

AAOS ORTHOPAEDIC IN-TRAINING EXAM (OITE)

The 2015 OITE is scheduled for Saturday, November 14, and is mandatory for all residents.

ADVANCED CARDIAC LIFE SUPPORT (ACLS) CERTIFICATION

The Faculty of the Department of Orthopaedic Surgery recommends that all residents take the ACLS Course.

RESIDENT DISPUTATIONS

Each resident is required to complete a study that culminates in a Disputation presentation in the spring of the PGY-5 year. The Disputation is an integral part of the residency in orthopaedics, and the project may be in the area of clinical science or basic science.

The following timetable is recommended in the preparation of the Disputation Paper:

1. **PGY-2** – The PGY-2 resident will fill out a formal Resident Research Proposal Form no later than **March 1** of their PGY-2 year and meet with the Research Committee consisting of Drs. Goodman, Smith, and Giori. The form would list the following:
 - name of resident
 - project title
 - name of faculty mentor
 - abstract of what is to be done including brief review of pertinent literature, hypothesis, experimental design (materials and methods), proposed statistical analysis and anticipated results
 - resources needed
 - signatures of the resident and faculty mentor

The proposal would constitute a maximum of three pages, including a maximum of 10 references. A more detailed literature review would be carried out by the resident when the proposal has been reviewed and approved by the research committee.

A decision (yes/modify and resubmit/no) would be communicated by the Research Committee to the PGY-2 and mentor by May 1 of the PGY-2 year. This affords sufficient time for the resident to incorporate comments, revise, revamp or select a new topic. If the latter decision is made, the research committee will meet with the resident directly and try to help him/her select a related or new topic and write a new proposal within two months.

During the PGY-2 year, the research may begin once approval is obtained. The resident should complete a comprehensive literature search on the subject and begin writing the Introduction and Materials and Methods sections. These must be submitted to the research committee by December of the PGY-3 year.

The PGY-2 resident and research mentor should meet at least every 3-6 months.

2. **PGY-3** - The PGY-3 resident should have his/her project in progress. The PGY-3 resident and research mentor should meet **at least** every 3-6 months.

The PGY-3 resident will provide the Research Committee with the Introduction and Materials and Methods sections by December of the PGY III year. The resident will present the Introduction and Materials and Methods Preliminary Results sections in oral format on Research Day.

3. **PGY-4** - The research project is probably still in progress. The PGY-4 resident and research mentor should continue to meet at least every 3-6 months. At the middle-end of the year, the project should be nearing completion. The Results and Discussion sections should be written and a manuscript produced in the style of the Journal of Bone and Joint Surgery or other targeted subspecialty journal.
4. **PGY-5** - The research project should be complete. The manuscript may have to be revised during the PGY-5 year. The aim is to get final acceptance of the manuscript for publication.

Residents often perform more than one research project during the course of their training. The Chief Residents will present their research project at Disputations. Successful completion of the project and presentation, as well as defense of the project, are required for graduation.

ORTHOPAEDIC SUBSPECIALTY FELLOWS

Post-residency fellows may be present on some services. These individuals are enrolled in an advanced, concentrated, post residency learning experience with one or more experts in an orthopaedic subspecialty area. The fellowship usually lasts 12 months. The roles of the fellow will be to:

- 1) Actively assist the surgeon and/or resident in operative cases
- 2) Participate in orthopaedic clinics and on the ward in the care of patients
- 3) Engage in the teaching of residents, medical students, nurses and other medical personnel
- 4) Perform collaborative research studies

The fellow and resident on the orthopaedic service have distinct roles. Whereas the resident usually has the day to day ward responsibilities and performs or assists in many surgical cases, the fellow participates in the more challenging, advanced cases that require specialized post residency training.

The fellow's education should not interfere with that of the resident, especially in the operating room. On the contrary, the fellow should be an educational resource for the resident and the orthopaedic subspecialty service.

ROTATIONS AT A GLANCE

ARTHRITIS: OVERVIEW

The arthritis surgery rotation includes the pre-operative, operative, and post-operative management of patients with joint problems ordinarily of a severe nature. The residents assigned to this service can expect to operate three days or more a week and at least one full day of clinic.

The organization of the rotation is rather strict in its observance of a variety of protocols, most of which are part of ongoing studies. All patients of the arthritis surgery clinic are on pre-printed patient information collection forms administered to the patient by the clinic with your help. Physical examinations are often performed by the physical therapist who fills forms out. The patient fills out the patient self-administered forms. ALL PHYSICIANS ASSIGNED TO THE ARTHRITIS SURGERY SERVICE ARE RESPONSIBLE FOR REVIEWING THE ARTHRITIS SURGERY RECORD OF EACH PATIENT. THEY SHOULD BE FAMILIAR WITH THE CONTENTS OF THIS RECORD IN MANAGEMENT AND TREATMENT FOR EACH PATIENT THEY EXAMINE. In addition to reading the record, they are responsible for improving its contents where the patient has failed to fill out the answer to something or where the physical therapist has incorrectly measured something about the patient and refer to these arthritis records.

All of the total knee and hip operations in the history of the Stanford University Orthopaedic Service are available on a computerized record. Indeed, any interested resident can use this record for either educational or research purposes.

The rotation on the arthritis service requires potential availability every day of the week for emergencies, pre-operative, and post-operative care of a patient.

During periods where there is no clinic and no operation, the residents are encouraged to spend their time doing research. While it is hoped that the resident will be using the time to do research relative to arthritis, it is satisfactory if they are working on any research program. This research should be supervised by one of the faculty members of the department.

Residents who are interested in either clinical or basic science programs and research are encouraged to contact a faculty member at any time during their residency as well as during the time they are on the service.

Vacation and absences from responsibilities fall under the guidelines of those for the residency in general. Because of the patient load and the responsibilities of this service, it is imperative that all vacations or absences from the Arthritis Surgery service be confirmed by the faculty at least six weeks in advance. Vacations will always be approved if they meet the departmental criteria. The faculty, however, must be re-notified of any vacation at the time a resident comes on service whether or not previous notification has been given.

The following are requirements or guidelines for residents on the Arthritis Service:

A. A daily progress note must be written by a resident or fellow.

B. The resident must write a preoperative note that includes a summary of the most salient problem at hand, including diagnosis, the procedure to be performed, and a statement of alternative procedures, and potential risks and complications. You are expected to know and follow the progress of the patient on a daily basis, seven days a week. Each case will be reviewed in pre-op conference on Thursdays.

C. There should be a discharge note on the day of discharge. This note must mention the diagnosis, procedure, and the provisions for follow-up, with the follow-up appointment.

D. Please be dressed and in the appropriate operating room 15 minutes prior to the first case of the morning. Recurrent tardiness may result in lost surgical privileges.

ARTHRITIS: RESIDENT GOALS & OBJECTIVES

DESCRIPTION

The teaching aim of the service as it pertains to the resident is to educate him/her in the diagnosis, surgical and non-surgical treatment and outcome of arthritis and adult reconstructive cases. This will include resident participation in the orthopaedic clinic, in the operating room, and in the emergency room as well as in numerous teaching conferences and rounds. The service is also active in basic and clinical research projects in which the resident can participate.

RESIDENT ROLE AND EXPECTATIONS

The PGY-2 resident will be involved with the assistance of operative procedures and the workup of arthroplasty patients. The PGY-4 resident will take a more lead role in the operative procedures and clinical decision-making, all under the guidance of the attending staff.

READINGS

Recommended reading includes the OKU, the OKU Hip and Knee Reconstruction Book, the Adult Hip and Adult Knee textbooks, relevant parts of Campbell's Orthopaedics, and numerous journal articles and portions of texts suggested by the faculty.

CONTACT

James Huddleston, MD – jhuddleston@stanford.edu

William Maloney, MD – wmaloney@stanford.edu

Stuart Goodman, MD – goodbone@stanford.edu

GOALS AND OBJECTIVES

By the end of the rotation, the resident will:

Patient Care: Obtain acumen in diagnosing and proposing treatment in the clinical setting, and analyze available information to make diagnostic and therapeutic decisions based upon sound clinical judgment, best available evidence, and patient preferences.

Medical Knowledge: Know the basic and clinical science on which adult reconstructive surgery is grounded. Obtain knowledge for the work-up, classification, and treatment options for reconstruction/total joint surgery. Obtain knowledge and comprehension of surgical approaches for reconstructive surgery.

The resident should be proficient in basic surgical skills including primary total knee and hip placement, and should have exposure to revision hip and knee procedures. The fellow may also be exposed to synovectomy and osteotomy of various joints and specific arthroscopic procedures as they relate to arthritis surgery.

Practice-Based Learning and Improvement: Demonstrate self-improvement through a critique of their performance during presentation of M&M cases.

Interpersonal and Communication Skills: Demonstrate interpersonal skills and professionalism necessary to adequately educate a patient on their diagnosis and convey the risks, benefits, and complications of available treatment options. Demonstrate courtesy and timeliness with colleagues, patients, and ancillary staff.

Professionalism: Demonstrate initiative in the needs of patients and professional staff, showing honesty, compassion, and respect for the patient issues both in terms of the medical diagnosis and the psychosocial ramifications. Demonstrate professionalism and communication skills to counsel patients regarding arthroplasty and the risks and benefits.

Systems-Based Practice: Ability to independently access and utilize outside resources such as home health care and anti-coagulation services in the care and management of this patient population.

COGNITIVE KNOWLEDGE

The resident will be able to perform the clinical skills listed above and be able to demonstrate to the satisfaction of his/her supervisor(s) a fundamental knowledge and understanding of the general areas and provide a detailed knowledge of the incidence, etiology, pathophysiology, natural history, clinical diagnosis, investigations, management, prognosis and complications of each of the specific disease processes listed below:

General Area of Knowledge:

1. Adult osteoarthritis – Young/elderly patients
2. Adult and juvenile inflammatory arthritis
3. Intra/extra-articular soft-tissue problems
4. Musculoskeletal Pathology
5. Orthopaedic Trauma (Periprosthetic fractures) & complications

Specific Disease:

1. Hip/knee/shoulder/elbow osteoarthritis/rheumatoid arthritis/neuropathic joint/septic joint
2. Soft-tissue injuries/conditions pertaining to the upper and lower extremities
3. Limb ischemia, infection & vascular injury related to trauma
4. Diseases specific to pathological fractures and their management i.e.) tumors, OI

FOOT AND ANKLE: OVERVIEW

Welcome to the Orthopaedic Foot and Ankle Surgery Service. You will spend 10 weeks on the service and this will be your most concentrated exposure to foot and ankle disorders during your residency. There is a large amount of information to learn and skills to acquire in this rotation.

The attending physicians conduct a comprehensive education program in which conferences are held Monday mornings following the Stanford Orthopaedic Surgery 7:00 am conference. There will be a pre-op conference that reviews cases and assignments for the week. We will have presentations on various subjects pertinent to foot and ankle surgery. Each resident will be expected to give at least one presentation during the rotation, covering a topic of the resident's choice (a list of topics will be provided).

The resident will participate in the care of fractures, sprains, tendon disorders, arthritis, congenital deformities, sports injuries, complex reconstructions, and total ankle arthroplasty.

Please follow the guidelines to learn the most from this rotation. The primary skills acquired during this rotation are:

- Diagnosis of common foot and ankle disorders
- Outpatient management of common foot and ankle disorders
- Inpatient management of pre and post-operative foot and ankle surgery patients

Residents must learn the basic surgical anatomy, primary exposures, and wound closures.

Your duties are specified below:

- 1) AM Rounds must be performed and notes written in full before the first scheduled daily duty of clinic, x-rays/grand rounds and/or OR.
- 2) All patients returning from the PACU should be seen post-operatively when back on the ward. A clear note with time seen must be in chart documenting examination when the patient leaves the PACU. Note pain status, orientation, neurologic status description (i.e. NVI is inadequate), dressing, drainage and mobilization plan.
- 3) Weekend duties are covered by the resident or rounding resident. The rounding resident must communicate with the attending on each inpatient. If the resident is not rounding on a particular weekend, it is his/her responsibility to identify the rounding resident and communicate with that person regarding patient summary, issues, and disposition.
- 4) Timeliness: Report times, in scrubs and in appropriate OR for surgery days, are 0700 if cases are scheduled. Report time for clinic is 5 minutes before first scheduled patient. Once again that means at Redwood City or ASC and ready to see patients.
- 5) Holiday: Vacation week will be picked by the 1st Friday on the rotation and cleared with Dr. Chou (or designate) or two months before vacation starts, whichever is earlier. The resident may not take off the first or last week of the service, or a week when either the fellow or PA will be gone, or when the Stanford service will not have adequate coverage per Dr. Maloney's directions.
- 6) Clinic Notes: On clinic days, the resident will see patients in clinic. For the new patients the resident must do a comprehensive history and physical examination. Hand notes should be taken.
- 7) Hospital Dictations: OR and Discharge Summaries must be done on the date of service. Keep the log numbers to verify completion. The attending will determine who should dictate the surgical report. The attending may elect to do the dictation. If there is any question, confirm with the

attending that the dictation has been done. The dictation date is annotated on all transcriptions and will be checked. Same day dictations are the minimum acceptable standard.

- 8) Narcotics: Telephone renewals should be done during the day. If there is a question, call the attending. If still unresolved, tell the patient you need to check with the attending in the AM. If the pain is so bad it cannot be tolerated, see the patient in the ER at night or in the clinic during business hours.

The Foot and Ankle Surgery rotation reading list is in MedHub.

FOOT AND ANKLE: RESIDENT GOALS AND OBJECTIVES

DESCRIPTION

Residents will observe and participate in the diagnosis and management of foot and ankle disorders during an 8-week rotation in their PGY-3 year. Clinic patients are evaluated at the Stanford Medicine Outpatient Center office in Redwood City. This program stresses the physical examination of the foot and ankle, the work-up and treatment of orthopaedic tumors, and operative approaches to foot and ankle surgery in both the elective and trauma setting.

RESIDENT ROLE AND EXPECTATIONS

Residents on the foot & ankle/tumor service will function as an important member of the care team, assisting in clinical patient evaluation and surgical management under the direct supervision and guidance of the attending staff.

The foot & ankle service is composed of one PGY-3 resident.

READINGS (available in the resident library)

- Coughlin MJ, Mann RA, Saltzman CL. (2007). *Surgery of the Foot and Ankle, 8th Edition*. Mosby.
- Kelikian AS, Sarrafian SK. (2011). *Sarrafian's Anatomy of the Foot and Ankle*. Lippincott Williams & Wilkins.
- Pinzur MS. (2008). *Orthopaedic Knowledge Update: Foot and Ankle 4*. AAOS.
- Bullough PG. (2009). *Orthopaedic Pathology*. Mosby.

CONTACT

Loretta Chou, MD – lchou@stanford.edu

GOALS AND OBJECTIVES

By the end of this rotation, the resident will:

Patient Care: Obtain acumen in diagnosing and proposing treatment in the clinical setting, and the surgical treatment of fractures of the ankle, pilon, talus, calcaneus and Lisfranc joint and reconstructive foot and ankle procedures as well as reconstructive foot and ankle procedures.

Medical Knowledge: Obtain knowledge and comprehension of common surgical approaches, nonoperative and operative treatment options for common foot problems such as bunions, neuromas, hammertoes, heel pain syndrome, tarsal tunnel syndrome, ankle instability, arthritis, and pes planus. Obtain knowledge for the work-up, classification, and treatment options for a variety of bone and soft tissue tumors of the spine, pelvis, and extremities.

Practice-Based Learning and Improvement: Demonstrate self-improvement through a critique of their performance during presentation of M&M cases.

Interpersonal and Communication Skills: Demonstrate the interpersonal skills and professionalism necessary to adequately diagnose and treat a variety of traumatic and elective foot and ankle surgeries. Demonstrate courtesy and timeliness with colleagues, patients, and ancillary staff.

Professionalism: Demonstrate initiative in the needs of patients and professional staff, showing honesty, compassion, and respect for the patient issues both in terms of the medical diagnosis and the psychosocial ramifications.

Systems-Based Practice: Demonstrate understanding of how to work effectively in various health care delivery settings and systems for patients with foot and ankle disorders, including the Transfer Center at Stanford for lower limb traumatic injuries. Demonstrate collaboration with the prosthetist in the planning and fitting of various orthoses and prosthetic devices for the lower limb.

HAND: OVERVIEW

Residents in the PGY-3 year spend a total of four months on the hand service, which is an interdisciplinary team collectively known as the Chase Hand and Upper Limb Center. There are two residents on the service: PGY-3 in orthopaedics, and PGY-4 in plastic surgery. Dr. Hentz, Dr. Ladd, Dr. Chang, Dr. Yao, and Dr. Curtin represent the full-time academic faculty. The resident's experience has a balance of operative and clinic experience of the upper limb, including brachial plexus disorders. The two Stanford hand fellows, board-eligible surgeons (PGY-6) trained either in orthopaedic or plastic surgery, serve as liaisons between the attending and residents. The resident experience is central to the hand rotation.

The attending physicians conduct a comprehensive education program in which conferences are held twice weekly, covering various subjects pertinent to hand and upper extremity surgery. These include Monday morning chalk talks with the fellow at 7:00 am and preop conference at 7:30 am, and Wednesday 4:30 pm didactic conference. Each resident will be expected to give a presentation during the rotation, covering a subject of the resident's choice.

Injuries and conditions affecting the newborn to the elderly represent the breadth of the patient population seen on this service. The resident will participate in the care of congenital hand anomalies, obstetrical palsies, sports injuries, complex reconstructions, and joint replacements for arthritic conditions.

The two residents, along with the PGY-4 on Shoulder and Elbow, divide the emergency room call into a schedule of every 1/3 night, with backup either with the hand fellow or the microsurgery fellow, in conjunction with the hand attending. Infections and injuries involving the hand and carpus are within the exclusive realm of the hand surgery service, as well as complex injuries involving the upper extremity, such as vascular and complex nervous injuries. Treatment of hand and distal radius fractures, and soft tissue injuries of the entire upper extremity, complement your general orthopaedic experience.

The Monday morning session is held at SMOC at 450 Broadway St in Redwood City, and begins with a 7:00 am informal chalk talk with the fellows and a preop conference that reviews cases and assignments for the week. The residents rotate weekly to present preop cases. Didactic conferences are held Wednesday afternoon at 4:30 pm, usually in our conference room at 770 Welch Road. Lectures, introduction to hand and upper extremity therapy, Journal Club, Anatomy dissection, and microvascular training represent the scope of formal didactic sessions. In addition, a thematic review or presentation of research in progress is required, on a topic of your choice.

HAND: RESIDENT GOALS AND OBJECTIVES

DESCRIPTION

The goal of the hand rotation is to provide a breadth of experience and exposure to disorders affecting the hand. The Stanford Hand and Upper Limb Center represent the most comprehensive interdisciplinary program in the country of its kind. Clinic patients will be seen at 450 Broadway Street, Redwood City and LPCH congenital hand clinic. Operative procedures will be done at Stanford Medicine Outpatient Center, 450 Broadway Street, Redwood City.

RESIDENT ROLE AND EXPECTATIONS

Residents on the hand and upper limb service (PGY-3) will be a primary member of the care team under the supervision of attending staff. The resident will work closely with the PGY-4 Plastic Surgery resident who will also be on service, as well as the fellow. The resident will gain proficiency in soft-tissue handling and microsurgery as well as the treatment of a broad variety of hand and upper limb disorders.

READINGS

A core curriculum is used based on the hand textbook provided to you from the Edward Kim Memorial Book Fund, Trumble's Principles of Hand Surgery and Therapy. This is augmented by selected readings and conference topics as chosen by the faculty and fellow.

GOALS AND OBJECTIVES

By the end of the rotation, the resident will:

Patient Care: Obtain acumen in diagnosing and proposing treatment in the clinical setting, and analyze available information to make diagnostic and therapeutic decisions based upon sound clinical judgment, best available evidence, and patient preferences. Perform at an upper resident level in surgical techniques pertaining to soft tissue, nerve, skeletal structures, and microsurgical procedures. The resident will participate in self-evaluation and improvement in the microsurgery lab for surgical skills.

Medical Knowledge: Obtain knowledge and comprehension of the basic disorders that afflict the upper limb, and gain insight into the methodology and procedures incorporating its treatment. Particular emphasis is placed on the importance of interdisciplinary approach. Interpreting information obtained from a history and physical examination, incorporating data from radiology and laboratory studies, understanding anatomy, and incorporating this knowledge into surgical skills for hand and microsurgery is fundamental to the required knowledge. Soft tissue handling, microvascular environment of the limb, and pathology of systemic disease processes are as essential as learning the indications for surgery and the type of fixation chosen.

Practice-Based Learning and Improvement: Demonstrate self-improvement through a critique of their performance during presentation of M&M cases.

Interpersonal and Communication Skills: Demonstrate the interpersonal skills and professionalism necessary to adequately diagnose and treat a variety of traumatic and elective hand injuries and disorders. This reflects the behavior of a role model to peers, junior residents, and medical students. Demonstrate courtesy and timeliness with patient, family, and professional interactions.

Professionalism: Demonstrates respect, compassion, integrity, and honesty as it relates to patient interaction. Takes initiative in addressing the needs of patients and peers; acknowledges and addresses errors, and pursues self-improvement.

Systems-Based Practice: Demonstrate competence and ability to interact with outside institutions in the timely transfer and decision making process for traumatic hand injuries, and utilizes resources such as the Transfer Center in the emergent care of amputated digits at outside hospitals. Interpret and apply techniques and protocols in conjunction with hand, physical, and occupational therapy as it relates to patient care and management. Utilize and synthesize outside resources ranging from Lane Library and its wealth of older primary sources, Lane's online resources, professional online resources (American

Academy of Orthopaedic Surgeons, American Society of Surgery of the Hand, American Association of Hand Surgeons), PubMed, and other educational opportunities which enrich the clinical and academic education of the resident.

PEDIATRICS: OVERVIEW

STANFORD CHILDREN'S HEALTH SERVICES PACKARD CHILDREN'S HOSPITAL ORTHOPAEDIC SERVICE

Faculty:

Lawrence Rinsky, M.D.
James Gamble, M.D., Ph.D.
Scott Hoffinger, M.D.
Meghan Imrie, M.D.
Jeff Young, M.D.
James Policy, M.D.
Charles Chan, M.D.
Stephanie Pun, M.D.
Kali Tileston, M.D (Fellow July 2014- Aug 2015)

Secretary:

Patty Siordia 723-5243

Clinic Nurse:

Terri Pena, R.N. 497-8263

Surgery Scheduler:

Juan Rodriguez 721-6831

Clinic work room:

497-8891

RESIDENT ON CALL SCHEDULE

Residents will be on-call for our patients at Packard Hospital and any older patients admitted to Stanford University Hospital. The on-call schedule will be worked out by the residents in a monthly basis with the assistance of the Fellow beginning July 2014. If a resident is going to be absent because of vacations, courses, etc., he/she should notify Patty Siordia, Administrative Assistant, in advance, Terri Pena, R.N., and the other residents on the Children's Service. A copy of the resident's call schedule should be given to Mrs. Siordia, who will distribute to the switchboard, nursing units, etc. When no outpatient clinic is scheduled, the resident on call must be available to the clinic staff. The Pediatric Orthopaedic resident will also be the triage for any Pediatric Orthopaedic operative (emergency) cases.

WORK ROUNDS

Residents are expected to make rounds on their patients twice daily. All patients are to be seen on the ward the same day after their surgery as a post op check, and a note should be written in the Epic.

SURGICAL SCHEDULING

Elective surgical scheduling is usually done through the surgery scheduler, Juan Rodriguez. **DO NOT SCHEDULE ELECTIVE SURGERY YOURSELF UNLESS ASKED TO DO SO.** You will be expected to schedule emergency cases and some add-on cases.

ADMISSIONS

Children admitted as trauma patients by the SUMC attendings will be transferred to the Packard Children's service on the next regular working day.

As a courtesy, residents may be asked to follow an occasional patient admitted by one of the courtesy faculty. This is a rare event. Patient care must always take priority.

RECORDKEEPING

A. For pre-op cases: dictate on LSPCH line for children, SUH line for adults who will be admitted to SUH.

B. For any patient admitted, even if not going to surgery, dictate the H&P.

C. Discharge summaries: dictate on LSPCH dictation system for children and SUMC for adults. Discharge summaries are due on every patient admitted and discharged from LSPCH. KEEP UP TO DATE. Deficiency notices are sent weekly from Medical Records.

D. Operative Notes: dictate findings separately before you go into the operative technique.

	OUTPATIENT CLINIC	SURGERY
MONDAY	Dr. Gamble - AM Dr. Young - PM Dr. Hoffinger - AM-CPMC/PM-LPCH Dr. Chan - AM-Emeryville/PM- Walnut Creek Dr. Pun - AM/PM CPMC	Dr. Rinsky Dr. Imrie
TUESDAY	Dr. Rinsky - AM & PM Dr. Imrie - PM Dr. Young - AM & PM Dr. Hoffinger - AM-Emeryville Dr. Chan - AM/PM- Emeryville	Dr. Gamble Dr. Pun
WEDNESDAY	Dr. Rinsky - PM only Dr. Gamble - PM only Dr. Imrie - PM-CPMC Dr. Young - PM-Menlo Clinic Dr. Hoffinger - PM- Emeryville Dr. Chan - PM- LPCH	---
THURSDAY	Dr. Gamble - AM & PM Dr. Imrie - AM & PM Dr. Young - AM Dr. Chan - PM-Walnut Creek Dr. Pun - AM- CPMC/PM LPCH	Dr. Rinsky Dr. Hoffinger – John Muir, CHO.LPCH (4th)
FRIDAY	Dr. Rinsky - AM Dr. Gamble - AM Dr. Imrie - AM Dr. Hoffinger - AM/PM Walnut Creek Dr. Pun – AM-Redwood City/PM-CPMC	Dr. Young Dr. Chan

All patients must be presented to the attending physician. PLEASE BE IN THE CLINIC ON TIME.

TEACHING

A. Medical students, pediatric residents, and Physical Medicine & Rehabilitation residents may be assigned to the outpatient clinics and will share in patient care.

1. In general, casts may be applied by the orthopaedic resident, but not students or PM&R residents.
2. Medical students on clerkships make rounds with the residents, see patients in OPC and participate in surgery. The orthopaedic residents, in addition to attending staff, should welcome the opportunity to teach medical students.

B. Resident Teaching Conference

General Pediatric Preoperative rounds are every Wednesday AM beginning at 10am.

Every other Wednesday: 10:45am-Motion Analysis conference follows Resident Teaching conference.

All Teaching rounds are in the Parker Conference room at Packard.

RESEARCH

Residents are encouraged to work with the attendings on research projects.

MORTALITY AND MORBIDITY CONFERENCE

Obtain number of operations and admissions from Patty Siordia. Dictate a short note on the complications of deaths and give to Toni Wroten in the Department Office.

INPATIENT CONSULTATIONS

Residents will promptly see all inpatient consultations. Always present the consultation to an attending physician. Write a note in the Epic and dictate a note to go into Epic record.

LEAVING THE HOSPITAL

If you leave the hospital during the week, let the orthopaedic nurse know where you will be and how you can be reached. After hours, always let the telephone operator at the LSPCH switchboard know where you will be and your beeper number. It is important to make contacts so all residents are accounted for, and may be contacted, from 8:30 – 6:30 during the working day. At night and on weekends, the on-call resident must be available at all times.

PEDIATRICS: RESIDENT GOALS AND OBJECTIVES

DESCRIPTION

Residents will observe and participate in evaluation and treatment planning for all outpatients under the direct supervision of the attending staff at Lucile Packard Children's Hospital. The residents will assist in the surgical treatment of all children undergoing operative procedures at Packard Children's and Stanford Hospitals.

Residents will participate in the post-operative management of all patients under the direction of the attending staff, and evaluate inpatient consults with attending oversight. There will be one PGY-3 and one PGY-4 resident, and occasionally a PGY-1, on the service.

RESIDENT ROLE AND EXPECTATIONS

Understand the etiology, pathogenesis, treatment options, and outcomes in the care of pediatric patients with orthopaedic problems. Understand the inherent differences in the care of the pediatric population as compared to adult orthopaedics. Become fluent in current areas of pediatric orthopaedic research. The PGY-4 resident will be given more responsibilities in the clinic and operating room after completion of their PGY-3 rotation.

READINGS

Orthopaedic Knowledge Update: Pediatrics

CONTACT

Larry Rinsky, MD (lrinsky@stanford.edu)
Professor and Chief, Pediatric Orthopaedics

GOALS AND OBJECTIVES

By the end of the rotation, the resident will participate in and/or achieve:

Patient Care and Systems-Based Practice: Competence in clinical skills necessary for the pediatric patient as well as their families in the history and physical examination. Work effectively in the pediatric health care delivery setting and systems specific to the care of the pediatric patient. Advocate for quality patient care and optimal patient care systems and working with different organizations such as Child Protective Services.

Medical Knowledge: Informal clinical teaching during outpatient clinics and in the operating suite and participation in the Pre-operative Planning Conference each Wednesday at Packard Children's Hospital, including a pediatric Teaching Conference every other Wednesday will form a basis for an understanding of pediatric Orthopaedics. Residents will also review one or two sections from POSNA website Core Curriculum. A monthly journal club reviewing current issue of the Journal of Pediatric Orthopaedics will be done.

Practice-based Learning and Improvement: Demonstration of self-improvement through a critique of their performance during presentation of M&M cases.

Interpersonal and Communication Skills: Competence in the communication with pediatric patients and their families in professionalism through a demonstration of respect and compassion for the various pediatric patients.

Professionalism: Demonstration of initiative in the needs of patients and professional staff, showing honesty, compassion, and respect for the patient issues both in terms of the medical diagnosis and the psychosocial ramifications.

Systems-Based Practice: Ability to independently access and utilize outside resources such as home health care and anti-coagulation services in the care and management of this patient population.

SCVMC: OVERVIEW

SANTA CLARA VALLEY MEDICAL CENTER DEPARTMENT OF ORTHOPAEDIC SURGERY MONTHLY CALENDAR OF TEACHING EVENTS

A. DAILY - Attending Ward Rounds and:

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Ortho Conference	Blue Clinic	Stanford Grand Rounds	Blue Surgery	Blue Clinic
		Pediatric Lecture		
Blue Surgery	Red Surgery	X-Ray Conference	Red Clinic	Red Surgery
Red Clinic				

B. WEEKLY

Grand Rounds: Monday morning 7:30-9:00 AM. First Monday of the month is Pedi-Ortho cases.

X-Ray Conference: Wednesday morning (following Grand Rounds at Stanford) at 11:30 AM.

C. SPECIALTY CLINICS

Thursday: Sports Medicine

Friday: Pediatric Orthopaedics

SCVMC ORTHOPAEDIC RESIDENCY TRAINING PROGRAM

1. The Orthopaedic Surgery at SCVMC is a two-service system with a PGY-3, or senior resident, responsible for each team. With the two team concept, alternate days on call and alternate weekends on call, beginning Saturday and Sunday, will be followed. The Chief Resident's duties are to the OR unless a resident is on vacation.
2. Except for emergency absences, residents are expected to advise the Outpatient Orthopaedic Clinic personnel, his/her team attending, and the Chair of the Department of his/her planned absence 1.5 months prior to the departure so that the load of patients assigned can be deleted. Failure to do so can result in cancellation of that absence.
3. The primary function of the orthopaedic resident on call is to be available for emergency consultation for that 24-hour period of time. If the Orthopaedic Clinic personnel and the attending are notified enough in advance, clinical and operating room responsibilities will be reduced. The emergency room, the page operator, and the Department Office are notified of his/her whereabouts for immediate response. Please see regulations regarding use of on-call beepers.
4. The on-call schedule will be made out in advance at the onset of the three month rotation.
5. The chief residents are on a four month rotation basis and the junior residents are on a three- or 2.5-month rotation.

6. Urgent patients referred from outside physicians will be seen in the Emergency Room after clearance from bed control or may be admitted directly or walk in clinic.

7. A pre-operative note should be made by the chief residents on each patient on his service and under his/her care. A history and physical note shall be done on every patient admitted to the hospital by the resident responsible for the admission. A discharge summary shall be dictated at the time of discharge on each patient by the resident responsible for the patient. An operative note will be dictated on every patient, at the end of the surgery, by the resident responsible for that patient.

8. No patient will be taken to the operating room at any time without consultation from the attending staff.

9. The junior resident on-call should review with his/her chief resident or attending both pre and post-treatment x-rays on all patients treated during his on-call period. This should be done at the conclusion of his on-call period. This permits a feedback teaching mechanism for treatment rendered to the patient and also permits an alteration of treatment plan, if necessary.

10. An Orthopaedic Cast Technician will be available from 3:00 PM until 9:00 PM each day to aid in the cast and traction techniques. An attempt will be made to provide, prior to the 9:00 PM departure of the cast technician, an orthopaedic bed with skeletal apparatus to be used from 9:00 PM until 8:00 AM the following morning. This trauma bed is located by sterile processing.

11. In-patient cast work will not be done during the Orthopaedic Clinic hours in the Outpatient Cast Room. This ties up the Orthopaedic Clinic personnel, the clinic physicians and may cause very lengthy waits for patients.

12. A faculty member will be available in the Clinic for junior residents, students and chief resident consultation.

13. The Monday morning Grand Rounds Conference is one of the interesting case presentations to community orthopedists. The most effective format is case presentation prior to treatment without revealing treatment. The conference will start promptly at 7:30 AM. Each Resident is responsible for presentation by his/her team of at least two cases. The presenting resident will prepare a five-minute review of current literature regarding the case.

14. All elective surgeries are to be scheduled by the Chief Resident through the department secretary. All cases must be presented to the attending prior to scheduling (the responsible attending's name will be noted on the surgery board). Elective surgeries must be scheduled prior to 10:00 AM the day before surgery.

Each Orthopaedic resident should check with the secretary at least once per day for messages as the operators have been instructed to transfer as many calls as possible to the Orthopaedic office for messages. This is done in an effort to relieve the resident from answering trivial calls that could be handled elsewhere.

Resident vacations are assigned within a six week window. All Red team residents will take vacation in the first six weeks. All Blue team residents will take vacation in the second six weeks. This is for each three-month rotation.

SCVMC: RESIDENT GOALS AND OBJECTIVES

DESCRIPTION

Resident rotation at Santa Clara Valley Medical Center includes two rotations per year in the PGY-2, PGY-3, and PGY-5 years. Rotations are divided between the Red team and the Blue team with 2-3 months in each year respectively spent on each team.

RESIDENT ROLE AND EXPECTATIONS

This varies greatly depending the resident year:

PGY-2

Rotations are essentially the same only with a different set of faculty members. The rotation for the PGY-2 year is a general rotation with primary orientation to trauma and its ramifications. The PGY-2 resident is responsible for the history and physical, operative and discharge summary reports, as well as day to day rounds on patients assigned to him/her. In addition, there are two clinics per week and the resident is expected to present his/her cases at the Wednesday inpatient conference. The PGY-2 resident may also be required to present cases at the Monday morning Grand Rounds on assignment from either the Chief Resident or attending on that service.

PGY-3

The PGY-3 resident is also involved with trauma, but gains exposure to sports medicine and pediatric orthopaedics as well.

PGY-5

The Chief Resident is responsible for the day to day running of his/her team. S/he is responsible for the assignment of cases in the operating room to the appropriate junior resident. S/he is expected to function as a junior faculty member with regards to instruction in the art of orthopaedic surgery to the junior resident. The Chief Resident is responsible for all inpatient consultations on his/her day of call. Inpatient consultations will remain with the Chief Resident. The Chief Resident is responsible for the operating room scheduling.

READINGS

Orthopaedic Knowledge Update: Trauma
Rockwood and Green: Fractures in Adults and Children

GOALS AND OBJECTIVES

By the end of this rotation, the resident will:

Patient Care: Obtain acumen in diagnosing and proposing treatment in the clinical setting, and analyze available information to make diagnostic and therapeutic decisions based upon sound clinical judgment, best available evidence, and patient preferences.

Medical Knowledge: Obtain knowledge of trauma, sports medicine, and pediatric orthopaedic injuries and disorders including patient management skills to diagnose and treat these disorders.

Practice-Based Learning and Improvement: Demonstrate self-improvement through a critique of their performance during presentation of M&M cases.

Interpersonal and Communication Skills: Competence in the interpersonal skills and professionalism necessary to treat patients at the Santa Clara Valley Medical Center, with special focus on care of the indigent patient and ability to access outside resources for assistance to these patients once discharged from the hospital or clinic.

Professionalism: Demonstrate initiative in the needs of patients and professional staff, showing honesty, compassion, and respect for the patient issues both in terms of the medical diagnosis and the psychosocial ramifications.

Systems-Based Practice: The ability to utilize and access the technology available at the Santa Clara Valley Medical Center to evaluate imaging studies and access additional information to assist in the care of their patients.

SPINE: OVERVIEW

Welcome to the Orthopaedic Spine Service. You will spend several months on the service and this will be your most concentrated and specific exposure to spinal disorders during your residency. You must be motivated and dedicated to making the most of this time and experience. There is a tremendous amount to learn and a relatively short period of time to do so. By closely following the guidelines below you will get the most out of the rotation and best contribute to the service at a level appropriate to your training.

The primary skills acquired during this rotation are: 1) diagnosis of common spinal disorders; 2) outpatient management of common spinal disorders; 3) inpatient management of pre- and post-operative spinal surgery patients; 4) patient care coordination with associate practitioners (Fellow, PA and RN's) also caring for patients on the service; 5) fundamentals of worker's compensation and civil litigation documentation and strategies in patient care.

Each of you will be assigned to one of the attendings to be the primary housestaff for that period (going to that faculty's clinic and surgery). The three attending services are: 1) Hu, 2) Alamin, 3) Cheng. We have three PA's for the service, two of whom will be relatively new; they will have rotations also and cover as needed. It is the responsibility of both residents to know the entire ward service for all the attendings and communicate among the team.

Of equal importance is the acquisition of surgical skills to perform spinal surgery. Residents must learn the basic surgical anatomy, safe and expeditious positioning of surgical patients and primary exposures, bone graft harvesting and preparation, and wound closures. Residents mastering these skills in the first half of the rotation will be advanced to simple decompression and instrumentation techniques.

Your duties are specified below. Failure to perform to minimum standard will result in an unsatisfactory performance rating for the rotation. A satisfactory rating is required for Board Certification.

SPECIFIC RESPONSIBILITIES

AM Rounds must be performed and notes written in full *before* the first scheduled daily duty of clinic, x-rays/grand rounds and/or OR. This is performed as a team together with the fellows in order to be familiar with all of the spine patients in-house. Adequate time must be given to accomplish this. To that end rounds should begin NLT 0600-0615 in order to be in the OR and mark the patients by 0710. This may need to be earlier if the service has many patients or several very sick patients. Time management is a clinical skill and failing to complete rounds on time reflects poor clinical judgment. You must expect that everything will not be fine on rounds and give time to troubleshoot before your next obligation arrives.

Rounds: All patients must be seen each day every weekday by the resident. It is not acceptable for patients to be seen except on weekends. When possible, you should communicate any changes in status noted on rounds to the relevant attending early in the morning before s/he makes rounds, and significant changes communicated as needed. ICU patients and others those who need follow-up evaluation should be seen in the early evening as well.

All patients returning from the PAR should be seen when back on the ward. A clear note with time seen must be in chart documenting examination when the patient leaves the PAR. Note pain status, radicular

pain, orientation, neurologic status description (i.e. NVI is inadequate), dressing, drainage and mobilization plan.

Weekend duties are divided between the service residents and on call residents. One or the other must round if there are inpatients or consults in house. You will be expected to update the attendings as requested.

Timeliness: Report times, in scrubs and in appropriate OR for surgery days are 0710 if cases are scheduled. On WED report time is 1000 after Grand Rounds for pre-op case conference in Redwood City. Residents must know the case status and check each evening if unsure. Report time for clinic is 5 minutes before first scheduled patient. Once again that means at Redwood City and ready to see patients. If the resident is late for duty twice during the rotation, they will be warned and thereafter recommendation made they be placed on probation. Repeated tardy performance will be considered to constitute unsatisfactory performance for the rotation. Clean and professional appearance is expected in clinic; scrubs are not permitted except under unusual circumstances.

At least one afternoon per week (the day depends in the faculty member's clinic/OR schedule) PM is research time designated for resident projects.

Holiday: Vacation week will be picked by the 1st Friday on the rotation and cleared regarding conflicts with Sue Gokey-Gonzalez, the spine service administrative assistant, and then approved by Dr. Hu or designate or two months before vacation starts, whichever is earlier. If a week has not been picked one will be assigned. The resident may not take off the first or last week of the service, or when a PA will be gone, or when the Stanford service will not have adequate coverage per Dr. Maloney's directions.

Clinic Notes: On clinic days, the resident will see patients in clinic. At a minimum, the resident will see most of the new patients and follow-ups as able and present these to the attending in a clear, focused and relevant fashion. For the new patients, the resident must do a comprehensive history and physical examination and dictate these for transcription. Written notes should be taken and dictations completed after the clinic to optimize patient flow. The resident will proofread these notes and make necessary corrections. The resident's evaluation will be strongly determined by the depth of clinical understanding demonstrated in these reports.

Hospital Dictations: OR and Discharge Summaries must be done on the date of service. Keep the log numbers to verify completion. The attending will determine who should dictate the surgical report. The attending may elect to do the dictation but the resident must be absolutely clear this has been done since it is his or her responsibility. If there is any question, confirm with the fellow or attending that the dictation has been done. The dictation date is annotated on all transcriptions and will be checked. Same day dictations are the minimum acceptable standard.

Night call: see separate policy sheet.

Neurosurgery and Orthopaedic Surgery alternate call each week for inpatient spine consults, ED spine consults, transfer of spine patients and coded-trauma spine patient consults. For national holidays on Mondays, the previous week of call extends through that Monday and ends on Tuesday morning.

Coverage for ED and consult spine patients is taken on a rotating weekly basis unless the referring doctor (or patient) specifically requests a specific attending; in that case the consult/referral goes to the specific attending.

All consult, admission notes need to be designated as requiring an attending cosign.

The attending on call should be informed of all new consults with unstable thoracolumbar fractures, cervical fractures, tumors, infections or neurologic deficits as soon as called for the consult.

During the day from 7am to 6pm, the spine junior resident will take all calls for spine consults. The backup for the spine junior is the spine senior resident or general ortho senior resident on call.

The Spine attending on call is to be present for any spine fracture reductions and for any operative cases.

For patients with poly-trauma, the most severe injury dictates the service to which the patient goes and should be determined at the attending level on a case-by-case basis. For example, a patient with a distal radius fracture and a thoracolumbar burst fracture should be managed by the Spine team. On the other hand, a patient with an open-book pelvic injury and lumbar spinous process fractures should be managed by the Trauma team.

Any requests to clear the cervical spine are to be obliged by the Orthopaedic department.

Be sure to evaluate entire spine from C1 to sacrum.

After evaluating the patient, write an initial short note in chart with date and time. Note should contain consulting team/physician, initial diagnosis, spine attending, plan and note to follow. For example, "Called by Dr. X in General Surgery to see patient. Diagnosis: bilateral C5-6 jumped facets in a neurologically intact patient. Discussed with Dr. Spine. Plan: MRI C-spine, closed versus open reduction in OR. Full note to follow." Remember:

- a. to mark the EPIC note as a "Consultation";
- b. associate the note with the ORDER for CONSULTATION (if done);
- c. mark for COSIGN by attending.

If the spine attending on call does not return a page/text/call within 10 minutes, first call Sue in the spine office to locate the attending. If that attending is unavailable, call any of the three other attendings for assistance. The Spine Service coverage schedule sent each month by Sue delineates 1st and 2nd calls as well as back-up calls for attendings.

Calls for hospital transfers should be triaged directly to the attending on call.

Narcotics: Spine patients often have trouble with narcotic dependency, addiction and abuse. Patients can be expected to take narcotics for several weeks after decompressive surgery and perhaps several months after fusion surgery. At discharge be absolutely clear with the patient how much they should take. Give at least two weeks' worth of medication unless patient defers. Telephone renewals should be done during the day. If there is a question, call the PA or attending. If the pain is so bad it cannot be tolerated, see the patient in the ER at night or in the clinic during business hours. The general guideline is that no prescriptions should be given after office hours.

Each resident will receive an informal evaluation by an attending at the mid-point of their rotation and a formal evaluation at the end. The resident should schedule their mid-rotation evaluation with the attending with whom they have worked most.

IF ANYTHING IS NOT CLEAR TO YOU ABOUT THESE DIRECTIONS FOR APPROPRIATE SERVICE DUTY, YOU MUST SPEAK WITH DR. HU AND HAVE THIS CLARIFIED BEFORE THE START OF THE SERVICE – CALL DR. HU, OFFICE AT 721-7616, OR ON CELLPHONE AT 415-350-7209.

SPINE READING LIST (Articles in bold are marked for the PGY-2 level)

Adolescent Idiopathic Scoliosis

Bernhardt M, Bridwell KH. Segmental analysis of the sagittal plane alignment of the normal thoracic and lumbar spines and thoracolumbar junction. Spine 14(7):717-21.

Betz RR et al. Anterior versus posterior instrumentation for the correction of thoracic idiopathic scoliosis. Spine 26(9):1095-1100, 2001.

Dauids JR, Chamberlin E, Blackhurst DW. Indications for magnetic resonance imaging in presumed adolescent idiopathic scoliosis. J Bone Joint Surg Am. 86:2187-2195, 2004.

King HA et al. The selection of fusion levels in thoracic idiopathic scoliosis. J Bone Joint Surg 65(9):1302-13, 1983.

Lenke LG, Betz RR, Harms J, Bridwell KH, Clements DH, Lowe TG, Blanke K. Adolescent idiopathic scoliosis: A new classification to determine extent of spinal arthrodesis. J Bone Joint Surg. Am. 83:1166-1181, 2001.

Weinstein SL. Natural history. Spine 1999, 24(24):2592-2600.

Adult Deformity

Baron EM, Albert TJ: Medical complications of surgical treatment of adult spinal deformity and how to avoid them. Spine, 31(19 Suppl): S106-18, 2006.

Bridwell KH. Decision making regarding Smith-Petersen vs. pedicle subtraction osteotomy vs. vertebral column resection for spinal deformity. Spine 31(19S) Suppl:S171-78,2006.

Bridwell KH et al. The pros and cons to saving the L5-S1 motion segment in a long scoliosis fusion construct. Spine 28(20S) Suppl. S234-42, 2003.

Eck KR, Bridwell KH, Ungacta FF, Riew KD, Lapp MA, Lenke LG, Baldus C and Blanke K.: Complications and results of long adult deformity fusions down to L4, L5, and the sacrum. Spine, 26(9): E182-92, 2001.

Edwards CC, Bridwell KH, Patel A, Rinella AS, Berra A, and Lenke LG: Long adult deformity fusions to L5 and the sacrum. A matched cohort analysis. Spine, 29(18): 1996-2005, 2004.

Glassman SD, Bridwell K, Dimar JR, Horton W, Berven S, and Schwab F: The impact of positive sagittal balance in adult spinal deformity. Spine, 30(18): 2024-9, 2005.

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SPINE: RESIDENT GOALS & OBJECTIVES

DESCRIPTION

Residents will observe and participate in the diagnosis and management of spine injuries and disorders during an 8-10 week rotation.

RESIDENT ROLE AND EXPECTATIONS

The resident will take responsibility in the diagnosis and management of spine injuries and disorders under the direct supervision of the attending staff.

READINGS

Orthopaedic Knowledge Update: Spine

CONTACT

Serena S. Hu, MD

GOALS AND OBJECTIVES

By the end of this rotation, the resident will:

Patient care: Attain primary skills in:

- a. diagnosis of common spinal disorders
- b. competency in spinal and neurological examination
- c. basic reading of spinal imaging studies
- d. interpretation of special tests: discography, diagnostic blocks, EMG
- e. herniated cervical and lumbar discs
- f. spinal stenosis
- g. common backache
- h. spondylolisthesis
- i. spinal deformity
- j. metastatic disease

Medical Knowledge: Obtain knowledge and comprehension of common surgical approaches, nonoperative and operative treatment options for spinal disorders/conditions. Obtain knowledge for the work-up, classification, and treatment options for these problems.

Practice-Based Learning and Improvement: Demonstrate self-improvement through a critique of their performance during presentation of M&M cases.

Interpersonal and Communication Skills: Demonstrate interpersonal skills and professionalism necessary to adequately educate a patient on their diagnosis and convey the risks, benefits, and complications of available treatment options. Demonstrate courtesy and timeliness with colleagues, patients, and ancillary staff.

Professionalism: Demonstrate professionalism and interpersonal skills necessary for inpatient management of pre and post-operative spinal surgery patients.

Systems-Based Practice: Achieve competence in patient care coordination with associate practitioners (Fellow, PA and RN's) also caring for patients on the service. Ability to work with outside services including worker's compensation and civil litigation documentation and strategies in patient care.

SPORTS MEDICINE: OVERVIEW

The curriculum of the sports medicine rotation will consist of evaluating patients in a clinic setting, assisting in surgery, participating in didactic sports medicine conferences (every Tuesday including giving 1 presentation), participating in a Socratic multidisciplinary sports medicine conference (three Mondays a month), participating in bimonthly journal club, practicing in a quarterly cadaveric arthroscopic lab, working with a physical therapist, and in some situations, participating in a research project.

OUTPATIENT CLINIC

The resident will be taught physical exam techniques related to sports medicine disorders, particularly of the shoulder, elbow, knee hip and wrist and hand.

The resident will be educated about both non-operative and operative treatment methods.

SURGERY ASSISTANCE

The resident will be taught the basics of knee and shoulder arthroscopy.

The resident should at the end of the rotation be able to demonstrate proficiency in these two procedures.

The resident may also be exposed to the basics of arthroscopy of the hip, elbow, wrist and ankle.

The resident will be taught how to assist in more complicated procedures such as ACL reconstruction and arthroscopic rotator cuff repair.

The content of the sports medicine rotation will include but not be limited to the following topics:

Overuse Syndromes

Stress Fractures, Tendonitis, Exertional Compartment Syndrome

Injuries in the Immature Athlete

Tibial Spine Avulsion injuries, Osteochondritis Dissecans, Discoid Meniscus, Apophysitis, etc.

Cervical and Lumbar Spine Injuries

Incidence, treatment and prevention techniques

Shoulder Disorders and Injuries

Rotator Cuff Tears, Shoulder Instability, SLAP Lesions, AC Joint Dysfunction

Elbow Disorders and Injuries

Tendonitis, Ligament Injuries, OCD, Biceps Tendon Injuries

Hand and Wrist Disorders and Injuries

Unique aspects of these disorders as they related to sports medicine

Knee Disorders and Injuries

Ligament injuries, Meniscal injuries, Chondral Injuries, Arthritis in a young athlete, Knee Bracing

Hip Disorders and Injuries

Labral Injuries, Femoroacetabular Impingement, Chondral Injuries, Sports Hernia, Osteitis Pubis, etc

Foot and Ankle Disorders
Ankle Instability, Achilles Tendonitis/Tears, Ankle Arthroscopy

Rehabilitation, Exercise Physiology and Strength Training

“Sports Related Tumors”

Introduction to benign and malignant tumors that mimic sports injuries

Other Content

Concussions, Sports Related Medical Problems (dermatology, nutrition, cardiology, pulmonary)

Nutritional Supplements, Steroid Use and Abuse

WEEKLY SCHEDULE

	Safran	Fanton	McAdams	Dragoo
Mon - am	Clinic		49ers (occ clinic)	OR
Mon - pm	Arrillaga		Clinic	OR
Tues am	OR	Clinic - 7:30 - 2	OR - 2 Rooms	Clinic
Tues pm	OR	Clinic - 7:30 - 2	OR - 2 Rooms	Clinic
Wed am	Academic	OR - 2 Rooms	Clinic (after GR)	Arrillaga (after GR)
Wed pm	Academic	OR - 2 Rooms	Academic	Clinic
Thurs am	Clinic	Clinic	Clinic	OR - 2 Rooms
Thurs pm	Clinic		Clinic	OR - 2 Rooms
Fri am	OR	OR every other week	OR	PT Clinic until 9:30am
Fri pm	OR		OR	Academic

SPORTS MEDICINE: RESIDENT GOALS AND OBJECTIVES

DESCRIPTION

Residents will observe and participate in the care of the sports medicine patient.

RESIDENT ROLE AND EXPECTATIONS

As a primary function, the role of the resident will be to perform major and minor operations in the capacity of primary or assistant surgeon. The resident and fellow will also participate in initial evaluation, peri-operative care, and non-operative treatment of orthopaedic injuries and diseases, including those of the knee, shoulder, elbow and hip, in addition to general orthopaedics and sports medicine. There will be increased clinical and operative responsibilities of the PGY-3 rotation as follows:

PGY-3

By the end of the sports rotation, the junior resident should be competent in performing a complete and thorough examination of the shoulder, elbow, hip and knee. The resident should learn the skills to examine an athlete both on and off the field. Skills need to be developed to obtain history and physical examination with the injured athlete. The resident should also be competent in identifying various sports pathology and initiating the appropriate work-up. The resident should be aware of the natural history and recommend treatment for common overuse syndrome, ligament deficiencies and fractures. They should be comfortable in diagnosing common sports injuries such as ACL ruptures, meniscal tear, rotator cuff rupture, impingement syndrome and elbow ligament injuries. They should be familiar with various workup for such pathology, such as injections, provocative tests, classic symptoms and magnetic resonance imaging. With this rotation, the resident should be competent in interpreting various specific radiographic views for specific pathology, e.g. Rosenberg View for mild knee DJD and Axillary view to look for Os Acromiale, etc. Since a lot of diagnoses are also made with the assistance of MRI, residents should be comfortable in interpreting MRI of the shoulder and knee.

The resident should concentrate on the development of surgical skills in the various exposures for the shoulder, elbow, hip and knee. During this rotation, they should develop competency in arthroscopy. This rotation should provide ample opportunity to improve their arthroscopy technique. Junior residents should be able to perform simple diagnostic arthroscopy of the knee and shoulder before the end of the rotation. If working with Dr. Safran, they should also be able to perform simple diagnostic hip arthroscopy. Besides mastering simple surgical procedures, the resident should understand the possible complications of these operations and be able to identify signs and symptoms of patients with complications following these operations.

READINGS

1. Manual of Sports Medicine – Safran, McKeag, Van Camp
2. Orthopaedic Knowledge Update – Sports Medicine 2
3. Orthopaedic Knowledge Update – Shoulder and Elbow
4. Orthopaedic Knowledge Update 6
5. Knee Surgery – Fu, Harner
6. Review of Sports Medicine and Arthroscopy – Miller
7. The Hughston Clinic – Sports Medicine Book – Baker
8. Surgical Exposures in Orthopaedics – Hoppenfeld

CONTACT

Marc Safran, MD – msafran@stanford.edu

GOALS AND OBJECTIVES

By the end of the rotation, the resident will:

Patient Care: Attain the surgical skills necessary for triangulation in shoulder and knee arthroscopy. The resident should be competent in basic shoulder and knee arthroscopic procedures by the end of the rotation. The resident will also be exposed to wrist, elbow, and hip arthroscopy during the rotation.

Medical Knowledge: Gain knowledge of the following topics:

1. Biomechanics of ligaments
2. Shoulder, elbow and knee biomechanics

3. Common elbow pathology, including ligament insufficiency, overuse syndrome
4. Knee ligament reconstruction, ACL MCL, PCL, PLC and multi-ligament injured knees
5. Meniscal pathology
6. Osteochondral defect
7. Patellofemoral disorders and treatment
8. Stress fractures
9. Overuse syndrome and various tendonitis
10. Rotator cuff pathology
11. Acromioclavicular joint pathology
12. Impingement syndrome
13. Shoulder stiffness
14. Shoulder instability and treatment
15. Management of athletes both on and off the field
16. Sports injuries in the pediatric population
17. Femoroacetabular impingement
18. Hip labral tears
19. Hip biomechanics
20. Elbow injuries
21. Epicondylitis
22. Ligament injuries of the elbow – ulnar collateral and lateral ulnar collateral ligaments

Practice-Based Learning and Improvement: Demonstrate competence in the ability to evaluate their own performance and utilize attending feed-back to improve their performance, both in clinic/OR and the surgical skills lab.

Interpersonal and Communication Skills: Demonstrate interpersonal skills and professionalism necessary to adequately educate a patient on their diagnosis and convey the risks, benefits, and complications of available treatment options. Demonstrate courtesy and timeliness with colleagues, patients, and ancillary staff.

Professionalism: Demonstrate initiative in the needs of patients and professional staff, showing honesty, compassion, and respect for the patient issues both in terms of the medical diagnosis and the psychosocial ramifications.

Systems-Based Practice: Learn to appropriately delegate resource management and use of outside services such as physical therapy, MRI and interventional radiology, and team trainers. The resident will also become familiar with return to play guidelines and on-field treatment considerations for the athlete.

TRAUMA: OVERVIEW

David W. Lowenberg, M.D., Rotation Director

Welcome to the Orthopaedic Trauma Service. Your time on this service will be spent in learning the surgical and nonsurgical management of the skeletally injured patient. This will include the poly-traumatized patient, and the multi-disciplinary coordination of care with other surgical sub-specialties. You must be motivated and dedicated to making the most of this time and experience. There is a large volume of material to absorb, and this will serve as a basis for much of your future knowledge in the care of the injured patient, which is one of the primary pillars in the field of orthopaedic surgery. The service is run in a top-down fashion, with the Chief Resident coordinating care. Beginning on August 1 a Trauma Fellow shall also be on the service, and will assist the Chief Resident in coordinating the service and patient care.

ROTATION GUIDELINES

Morning report sign out rounds will occur every day of the week. It is held in the radiology reading room at 6:45 AM on Monday, 7:00 AM on Tuesday, Thursday and Friday, and 6:00 AM on Wednesday.

Fracture case conference occurs every Friday morning at the radiology reading room beginning at 7:15 AM right after morning report.

Vacation and absences from responsibilities fall under the guidelines of those for the residency in general. Because of the patient load and the responsibilities of this service, it is imperative that all vacations or absences from the orthopaedic trauma service be approved by the service chief at least six weeks in advance. Vacations will be approved if they meet the departmental criteria. The faculty, however, must be re-notified of any vacation at the time a resident comes on service whether or not previous notification has been given.

OTHER REQUIREMENTS

- A. A daily progress note must be written by an intern, resident or fellow on every patient on the service, as well as consult patients that have undergone surgical intervention by our service. These can be assigned to the P.A. or Nurse Practitioner on the service, but it is the responsibility of the residents and interns to make sure that this is done on a daily basis.
- B. The resident team is expected to know and follow the progress of each patient on a daily basis, seven days a week. Any issues regarding a patient are to be brought up the "chain of command" to the Chief Resident and to the Attending Surgeon of record. This should occur regardless of the day of the week. Any non-urgent issues should be brought up at morning report sign-out rounds.
- C. There should be a discharge note on the day of discharge. This note must mention the diagnosis, procedure, and the provisions for follow-up with the follow-up appointment documented in the discharge plan. Care should be taken that the follow-up appointment is with the surgeon of record. It is also imperative that all discharged patients be given enough of the required medications, including pain medications, to make it to their follow up appointment.
- D. Please try and be punctual to the operating room so as to keep the flow of cases moving.

CONSULTS

- A. All consult and admission notes must be designated for attending co-signature.
- B. During daytime hours, the Chief Resident then the attending staffing the Trauma Room should be informed of all new consults as soon as the consult is complete. After 6:00 PM the Senior Resident followed by the attending on call should be notified.
- C. During the day from 7am to 6pm, the trauma junior resident will take all calls for inpatient and ER consults. The backup for the junior resident is the Chief Resident. The Chief Resident may designate the interns to perform a preliminary evaluation and start the consult when necessary.
- D. Attempts should be made to see all inpatient consults as rapidly as possible, and see all ER consults on a very rapid basis, with no delay over 30 minutes.
- E. Upon completion of the inpatient or ER consult, a full note in EPIC is required. Mention should be made if the case was reviewed with an attending or the Chief Resident. If the case was not reviewed with the attending, then mention should be made that the case *will be reviewed* with the attending, and then this action is to be carried out.

During the 2013-14 Academic year, the primary responsibilities of the Chief Resident are to serve as manager of the Trauma Service and staff the operating rooms for cases. The role of the R2 is to handle all inpatient and ER consults from 7:00 AM to 6:00PM **Monday** through **Friday** as well as cover cases as per the direction of the Chief Resident in the OR. The interns, service NP (Miki), and PA (Meena) will cover floor duties and inpatient management duties.

If any issues of urgency develop during the course of your duties, please contact an available attending or call Service Chief David Lowenberg, M.D. directly on his cell at **(415) 531-5537**.

For any questions regarding the Stanford University Resident Rotations, contact the chief resident.

RESIDENT COVERAGE OF THE EMERGENCY DEPARTMENT

The chief resident is responsible for providing resident coverage to the Stanford University Emergency Room. At Stanford University Hospital on weekdays, all emergency room calls should be directed to the junior resident on trauma call. The junior will answer the call and take care of any orthopaedic emergency in the emergency room. If a patient is to be admitted for any reason from the emergency room, the chief resident who is admitting the patient will discuss the case with the Trauma attending who is covering emergencies on weekdays from 8:00 AM to 6:00 PM. After 6:00 PM all the emergency cases will be addressed to the Orthopaedic Attending covering emergencies according to the day's call schedule. Only then will the patient be admitted under that particular attending, unless other arrangements are made. The junior resident should discuss all cases with his senior or chief resident.

After 6:00 PM, the emergency room call will be covered by the chief resident and the appropriate junior residents. The chief resident may delegate the authority for the on-call schedule to the emergency room to another resident. The tour of duty will be from 6:00 PM to 6:00 AM on weekdays and from 8:00 AM to 8:00 AM on weekends. Appropriate adjustments to the on-call schedule should be made if conflicts occur. The residents on call are expected to abide by the time/distance rules mentioned in the General Outline.

It should be stressed that the junior residents should discuss all but the most routine emergency room cases with the chief resident, if there is any question about diagnosis or treatment. Any patient who is admitted to the hospital must have an orthopaedic attending. This includes patients admitted to the orthopaedic service, as well as any consultations performed on emergency or trauma patients who are subsequently admitted to another service.

NON-UNIVERSITY EMERGENCY ADMISSIONS

The resident on the first call to the emergency room may, but is not expected to, assist in surgery on any non-university patient going to surgery during the night time or weekend hours. The attending physician is expected to place a brief history and physical in the chart. We provide coverage for trauma consults for Palo Alto Medical Foundation patients but do not cover PAMF patients with post-operative complications.

UNIVERSITY EMERGENCY ADMISSIONS

The resident on first call to the emergency room is expected to work up and assist on any University admission during the night time or weekend days. All consults performed by a PGY-2 from June-December must be discussed with the chief resident on-call. All other consults may be discussed depending on the experience of the junior resident and the judgment of the chief resident on-call. All admissions must be discussed with the chief resident on-call, and it is the responsibility of the Chief to communicate with the attending of record.

TRAUMA: RESIDENT GOALS AND OBJECTIVES

DESCRIPTION

The goal of this rotation is to give the R2 a thorough overview in the management of traumatic ailments that afflict the musculoskeletal system. The R2 should also gain experience in properly performing a musculoskeletal consult and communicating effectively with other services. The R2 will be required to make decisions requiring musculoskeletal care while having the support and resource of the Chief Resident and attending surgeons. The R2 should gain experience in the closed reduction of common fractures as well as proper splinting and casting techniques. The goal for the R-4 is to learn to take a leadership role in running a busy service by serving in a support role to the Chief Resident. At the same time he/she should work on perfecting surgical skills so that they become proficient at going through the surgical repair of most common fractures with confidence.

The goal for the Chief Resident is to further develop his/her surgical skills in advanced intramedullary rodding and plating techniques. The Chief Resident will also learn new techniques in external fixation including circular fixation, as well as the treatment of nonunions and malunions. At the end of the rotation the Chief Resident should be comfortable with the management of all long bone fractures, their management, and evaluation. He/she should also have a basic understanding of the treatment of pelvic and acetabular fractures, and understand the basic steps in initial management. The Chief Resident should understand the principles of "Damage Control Orthopaedics" and the care of the poly-traumatized patient. He/she should also be comfortable in the management and initial stabilization of open fractures.

READINGS

OKU- Trauma

CONTACT

David Lowenberg, MD – david_lowenberg@stanford.edu

The Trauma Surgery rotation reading list is in MedHub.

GOALS AND OBJECTIVES

By the end of the rotation, the resident will:

Patient Care: Obtain acumen in diagnosing and proposing treatment in the clinical setting and analyze available information to make diagnostic and therapeutic decisions based upon sound clinical judgment, best available evidence, and patient preferences.

Medical Knowledge: demonstrate proficiency in the decision making and planning of traumatic orthopaedic injury, the biomechanical and biological basis of fracture healing and surgical knowledge of reduction and fixation techniques. In addition, the resident should understand the principle of post-traumatic reconstruction and the management of complications associated with musculoskeletal injuries.

Practice-Based Learning and Improvement: The resident will demonstrate competence in the ability to evaluate their own performance and utilize attending feedback to improve their performance, both in clinic/OR and the surgical skills lab.

Interpersonal and Communication Skills: Demonstrate interpersonal skills and professionalism necessary to adequately educate a patient on their diagnosis and convey the risks, benefits, and complications of available treatment options. Demonstrate courtesy and timeliness with colleagues, patients, and ancillary staff.

Professionalism: The resident will demonstrate the interpersonal skills and professionalism necessary to treat the trauma patient which includes interactions with patient family members in often stressful situations.

Systems-based practice: The resident will develop an understanding and ability to utilize outside resources such as the transfer center, in order to assist outside hospitals for trauma referrals. The resident will also be competent in working with the emergency room and trauma teams in the care of the multiple injured patient and the utilization of additional resources to optimize care in the trauma setting.

TUMOR: OVERVIEW

MUSCULOSKELETAL TUMOR SERVICE RESIDENT

David G. Mohler, M.D., Rotation Director

Raffi S. Avedian, M.D. Assistant Professor of Orthopaedic Surgery

The curriculum of the Tumor rotation will consist of evaluating patients in a clinic setting, assisting in surgery, inpatient management of patients, participating in sarcoma tumor board, and weekly interactive educational sessions with the Ortho Tumor faculty.

All residents must adhere to duty hour rules and restrictions and should notify the attendings on the service if they are at risk of being in violation these rules. Also, residents should notify attendings if they are experiencing fatigue or sleep deprivation or any other type of discomfort associated with their responsibilities on the tumor service, so that accommodations can be made.

Schedule generally is clinic Monday 0900-1700, Wednesday 1030-1700, OR is 0730 on Tuesday and Thursday in the Main and starts at 0800 Friday in the Main or ASC. Tumor board in the Cancer Center is 0730-0830 on Friday.

Monday morning conference and M&M: Monday 0730 case conference at Stanford.

Spine will alternate every other Monday morning 0730 conference with Foot & Ankle and Tumor service for *case presentations*. The resident on the Tumor service will present an interesting case and discuss relevant literature.

Also, M&M Tumor service presentations and statistical submission of complications are to be done by the Tumor Chief Resident. Post-op wound infections/breakdowns can be batched, as they are very common on our service and offer little or nothing in the way of learning opportunities.

WEEKLY SCHEDULE

	Mohler	Avedian
Mon	Clinic	VA
Tues	OR	OR, Peds Clinic in PM
Wed	Clinic	Academic
Thurs	OR	Clinic
Fri	OR	OR

The following are day to day requirements or guidelines for residents on the Tumor service:

- A daily progress note must be written by a resident or PA
- The residents are expected to know and follow the progress of the inpatients on a daily basis, and give and receive appropriate sign out
- The resident must review each patient and discuss the treatment plan with the attending physician

- The resident must sign out the inpatient service to the on call resident between 6:00 PM to 7:00 PM. The sign out must include the following:
 - Identification and location of the patients
 - Allergies of each patient
 - Diagnosis and surgical procedure either planned or performed for each patient
 - Review of medications
 - Review of pain management plan
 - Review of DVT prophylaxis plan
 - Identification of any active and acute problems that need to be monitored
 - Identification of any items that need follow-up such as labs, x-rays and the action items that must be done after results of said tests are available
 - Identification of persons to call and contact information if there any questions or problems, e.g. Chief Resident on call, attendings, consult services, etc
- There should be a discharge note on the day of discharge. This note must mention the diagnosis, procedure, and the provisions for follow-up, with the follow-up appointment
- The resident on the Tumor service should forward the Ortho Oncology ghost pager (27145) to the on call Junior each night (along with sign out) and assign it back to themselves in the morning
- Please be dressed and in the appropriate operating room 15 minutes prior to the first case of the morning. Recurrent tardiness may result in lost surgical privileges
- When admitting patients to the hospital, make sure to assign Ortho Oncology as the primary team (if appropriate) so the nurses know who to contact for questions

EDUCATIONAL OPPORTUNITIES

- There is a microscope in the Resident Lounge and in Dr. Avedian's office in Redwood City. The resident is welcome to use the microscopes anytime along with the teaching slides to review cases.
- Wednesdays after Grand Rounds and CORE lectures we will do team rounds and see all the inpatients. Then there will be an educational session in Redwood City where the resident will go over articles and weekly cases with the attending staff.
- There are ortho tumor lectures, OITE questions, and review materials posted on the resident intranet.

OUTPATIENT CLINIC

- The resident will be taught how to obtain a patient history that focuses on oncology but is in the context of a general medical history and physical. Also, the resident will get ample exposure to physical exam techniques related to musculoskeletal tumor disorders.
- The resident will be educated about both non-operative and operative treatment methods to care for patients with bone and soft tissue tumors of the extremities, pelvis, and trunk.
- The resident also will learn how to perform “Tru-Cut” core biopsies.
- The resident will learn the indications for operative and non-operative management of bone and soft tissue tumors.
- The resident will be exposed to surgical complications and will learn how to manage them.

SURGERY ASSISTANCE

- The resident will be taught basic and advanced techniques of tumor surgery. We will teach all the elements of surgery that are necessary to being a proficient tumor surgeon, including surgical planning and accurate review of diagnostic imaging and pathology, identifying relevant surface anatomy to ensure proper localization of incision, dissection techniques to maintain healthy tissues,

how to develop appropriate margins around a tumor, curettage techniques and adjuvants for bone tumors, and bone and soft tissue reconstruction techniques after tumor removal.

- Although we do not expect a resident to leave the service being able to perform all aspects of tumor surgery, we do expect that the resident will be able to do the following independently:
 - Review bone radiographs and recognize the difference between latent benign tumors, aggressive tumors, and frankly malignant tumors
 - Be able to order appropriate tests to workup bone and soft tissue tumors and to perform staging of suspected malignant tumors
 - Recognize the importance of biopsy techniques and to be able to properly perform a biopsy after discussing a case with a tumor specialist. Specifically, we expect that a resident will know to minimize contamination when doing a biopsy, be able to perform a Tru-Cut biopsy, and place a biopsy incision in a location that will not be detrimental to the future definitive surgical plan

TUMOR BOARD

Tumor board takes place on Fridays at 7:30AM in the Cancer Center.

SIGN-OUT AND AFTER HOURS

Monday-Friday After-Hours:

Inpatients from the Trauma, Tumor and Foot and Ankle service will be covered by the junior resident on general call. Make sure to forward the Ortho Oncology ghost pager (27145) to the on-call junior (with sign-out) every night and then pick it back up in the morning. Sign must be thorough and detailed to avoid medical errors due to miscommunications; see guidelines above.

Saturday/Sunday/Holiday:

Inpatients from the Trauma, Tumor and Foot and Ankle service will be covered by the junior resident on general call. Make sure to sign out prior to forwarding the ghost pager. This has typically been done with a detailed HIPAA compliant secure email (sent Friday PM) to the junior(s) on call for the Fri-Sunday time period (if the Tumor resident is not rounding). Please cc Drs. Avedian and Mohler and Linda Jordan (ljordan@stanfordmed.org) on the email. If the tumor resident is rounding, sign out typically is done over the phone as soon as the Tumor resident is done rounding.

The key to coverage regardless of who is covering is meticulous sign-out. From Mon-Fri, meticulous sign-out from the Tumor services should occur as close to 6pm as possible and forwarding of the service pager should be done by the resident signing out.

As for the weekend, the junior resident/intern covering trauma should see the on-call junior resident at 7am sign-out both Saturday and Sunday and appropriate sign-out should occur at this time. As for the Tumor and Foot and Ankle services, a comprehensive sign-out with the covering resident should occur after am rounds.

TUMOR SERVICE CONSULTS AND ADMISSIONS

The tumor service receives consult requests from a variety of sources. We get consults from oncologists, radiation oncologists, pediatricians, or other staff who call the tumor attending directly, from outpatient clinics, from the ED, from the Transfer Center, etc. Ultimately, all consults must be performed in a timely manner to ensure patients receive proper and timely care. The chief resident and attending tumor surgeon must communicate about the consult as soon as possible. The chief resident is expected to see the patient as soon as possible and obtain a thorough history and review all diagnostic information. The

chief resident may order additional tests such as x-rays or other scans at their discretion and/or after discussion with the attending physician.

After evaluating the patient, write an initial short note in chart with date and time. Note should contain consulting team/physician, initial diagnosis, attending, plan and note to follow. Please also do the following:

- Mark the EPIC note as a “Consultation”
- Associate the note with the ORDER for CONSULTATION (if done)
- Mark for COSIGN by attending
-

Calls for hospital transfers should be triaged directly to the attending ortho surgeon or attending on-call.

FREE DAYS / VACATION TIME / RESEARCH

During periods where there is no clinic and no operation, the residents are encouraged to spend their time doing research. While it is hoped that the resident will be using the time to do research relative to tumors, it is satisfactory if they are working on any research program. This research should be supervised by one of the faculty members of the department.

Residents who are interested in either clinical or basic science programs and research are encouraged to contact a faculty member at any time during their residency as well as during the time they are on the service.

Vacation and absences from responsibilities fall under the guidelines of those for the residency in general. Because of the patient load and the responsibilities of this service, it is imperative that all vacations or absences from the Tumor Surgery service be confirmed by the faculty at least six weeks in advance. Vacations will always be approved if they meet the departmental criteria. The faculty, however, must be re-notified of any vacation at the time a resident comes on service whether or not previous notification has been given.

CONTACTS

David G. Mohler, M.D.
Chief, Musculoskeletal Tumor Service
Department of Orthopaedics and Sports Medicine
Stanford University Medical Center
New Patient Appointments: 650-498-7555
docmohler@stanford.edu
www.DocMohler.com

Raffi S. Avedian, M.D.
Assistant Professor of Orthopaedic Surgery
Musculoskeletal Tumor Service
Stanford University Medical Center
ravedian@stanford.edu

If anything is not clear to you about these instructions for appropriate service duty, you must speak with Dr. Mohler and have this clarified before the start of the service – call Dr. Mohler at pager #10001, his office at 721-7656, or on cell phone at 650-862-4580.

TUMOR: RESIDENT GOALS AND OBJECTIVES

DESCRIPTION

The Learning Objectives tumor service rotation will include but not be limited to the following topics:

- How to perform an accurate history and physical examination on a patient with a bone or soft tissue tumor
 - Any symptoms? Duration? Inciting event? Constant or intermittent?
 - Presence of a mass? Getting bigger or small or staying the same? Painful or not painful?
 - Neurologic symptoms? (e.g. schwannoma or extrinsic nerve compression)
 - Put in context of overall medical condition, family history, and patient expectations
- Know what are the important and relevant imaging and laboratory studies to obtain when working up a patient and to avoid unnecessary tests
- Recognize that there are basically three initial surgical treatment options for any given patient and know when to utilize them
 - Observation
 - Biopsy first then observe or definitive surgery depending on result
 - Surgery without biopsy
- Learn the role of adjuvant treatments such as chemotherapy, radiation, cryotherapy, and bisphosphonates and if they can/should be used preoperatively or postoperatively or not at all
- Learn how to perform a biopsy. A proper biopsy will obtain enough tissue for diagnosis, but will not excessively contaminate surrounding healthy tissue. One must realize that an improperly performed biopsy may lead to higher local recurrence, limb amputation, or eliminate the possibility of an otherwise potentially curable disease
- Learn the different types of surgeries that are used in orthopaedic oncology and what their indications are
 - Intralesional surgery
 - Marginal surgery
 - Wide (AKA radical) surgery
- Learn the potential complications of orthopaedic oncology surgery and how to minimize them
 - Soft tissue problems such as infection, wound breakdown, edema, seroma/hematoma, muscle or tendon dysfunction
 - Implant complications: leg length inequality, loosening, dislocation, problems with soft tissue repair to and coverage of endoprosthesis
 - DVT/PE
 - Nerve and vascular injury

READING LIST

- Rougraff, B. T. Limb salvage compared with amputation for osteosarcoma of the distal end of the femur. A long-term oncological, functional, and quality-of-life study. *J Bone Joint Surg Am.* 1994.
- Bielack, S. S. Prognostic factors in high-grade osteosarcoma of the extremities or trunk: an analysis of 1,702 patients treated on neoadjuvant cooperative osteosarcoma study group protocols. *Journal of Clinical Oncology*, 2002.
- Rougraff BT, Skeletal metastases of unknown origin. A prospective study of a diagnostic strategy. *J Bone Joint Surg Am.* 1993 Sep 75(9) 1276.
- Mankin HJ. The Hazards of the Biopsy Revisited. Members of the MSTs. *J Bone Joint Surg Am.* 1996 May;78(5):656-63.

- Eilber FC et al.. High-grade extremity soft tissue sarcomas: factors predictive of local recurrence and its effect on morbidity and mortality. *Ann Surg* 2003 Feb 237(2) :218.
- Mittermayer, F. Long-term followup of uncemented tumor endoprostheses for the lower extremity. *CORR*. 2001 (388) p 167
- Unwin, P. S. Aseptic loosening in cemented custom-made prosthetic replacements for bone tumours of the lower limb. *JBJS Br* 78(1): 5.
- Schwartz AJ. Cemented distal femoral endoprostheses for musculoskeletal tumor: improved survival of modular versus custom implants. *Clin Orthop Relat Res*. 2010 Aug;468(8):2198-210.
- Bernthal NM. How long do endoprosthetic reconstructions for proximal femoral tumors last? *CORR* 2010 Nov;468(11):2867-74.
- Mankin, H. J. Long-term results of allograft replacement in the management of bone tumors. *CORR* 1996. 324 86-97.
- Farfalli GL, Boland PJ, Morris CD, Athanasian EA, Healey JH, Early equivalence of uncemented press-fit and Compress femoral fixation. *Clin Orthop Relat Res*. 2009 Nov;467(11):2792-9. Epub 2009 Jun 10.
- Rosen LS et al.. Zoledronic acid versus placebo in the treatment of skeletal metastases in patients with lung cancer and other solid tumors: a phase III, double-blind, randomized trial--the Zoledronic Acid Lung Cancer and Other Solid Tumors Study Group. *J Clin Oncol*. 2003 Aug 15;21(16):3150-7.
- O'Sullivan B et al.. [Preoperative versus postoperative radiotherapy in soft-tissue sarcoma of the limbs: a randomised trial](#). *Lancet*. 2002 Jun 29;359(9325):2235-41.

GOALS AND OBJECTIVES

Patient Care: Obtain acumen in diagnosing and proposing treatment in the clinical setting, and the surgical treatment of tumor procedures. Demonstrate competence in the evaluation and work-up of orthopaedic bone tumors.

Medical Knowledge: Obtain knowledge and comprehension of common surgical approaches, non-operative and operative treatment options for tumor surgery. Obtain knowledge for the work-up, classification, and treatment options for a variety of bone and soft tissue tumors of the spine, pelvis, and extremities.

Practice-Based Learning: Demonstrate self-improvement through a critique of their performance during presentation of M&M cases.

Interpersonal and Communication Skills: Demonstrate interpersonal skills and professionalism necessary to adequately diagnose and treat a variety of traumatic and elective tumor surgeries. Demonstrate courtesy and timeliness with colleagues, patients, and ancillary staff.

Professionalism: Demonstrate initiative in the needs of patients and professional staff, showing honesty, compassion, and respect for the patient issues both in terms of the medical diagnosis and the psychosocial ramifications.

Systems-Based Practice: Demonstrate understanding of how to work effectively in various health care delivery settings and systems for patients with tumor disorders. Demonstrate an understanding of the role of medical oncology and radiation oncology in the care of orthopaedic tumors.

VAPAHCS: OVERVIEW

INTRODUCTION

The VAPAHCS is located at 3801 Miranda Ave., Palo Alto, CA 94304 (Tel: (650) 493-5000).

We provide medical services to veterans of the armed forces, active duty military, and retired military with some care for dependents through Tri Care. In addition to patients on the surgical ward, we care for patients in the Spinal Cord Injury Unit and the Polytrauma Unit. The orthopedic surgery service is the busiest surgical service in the hospital and among the busiest orthopaedic services in the VA system.

STAFF

Nicholas Giori, M.D., Ph.D.	Adult Reconstruction
Steven Woolson, M.D.	Adult Reconstruction
Constance Chu, M.D.	Sports Medicine
Geoffrey Abrams, M.D.	Sports Medicine and Shoulder Reconstruction
Raffi Avedian, M.D.	Orthopedic Oncology

David Smith, PA-C; David Webb, RNP; Karianne Puetz, PA-C; Lourdes Albano, RN; Maryann Williams; Virginia Tsai

ROUNDS

Formal rounds with surgery staff and house staff begin at the C3 nurse's station

Mondays	7:30 AM
Tuesdays	Between 1st and 2nd cases
Wednesdays	10:00 AM
Thursdays	Between 1st and 2nd cases
Fridays	After the last case of the day

CONFERENCES

Surgical planning conference: Wednesday 10:30 AM-noon in the Surgical Services conference room . The residents presents all surgical cases from the previous week and all of the planned cases for the upcoming week. Conference is attended by all orthopaedic clinical and research staff.

Resident teaching conference: Monday 7:00 AM in the Surgical Services conference room. Various orthopaedic topics are discussed with a primary focus on adult reconstruction and sports medicine.

CLINICS

Monday 8:30 AM to 5:00 PM – Adult Reconstruction focus – Dr. Giori and Dr. Woolson

Wednesday 1:00 PM to 5:00 PM – Sports medicine and Shoulder reconstruction focus – Dr. Chu and Dr. Abrams

All new patients must be seen by an attending physician. Residents and fellows shall see new consults, return patients, preoperative, and postoperative patients. Residents and fellows will receive instruction on proper documentation of attending involvement upon starting the rotation. Patient encounters must be filled out by the residents and fellows on patients they see in clinic as the patients are seen.

SURGERY

Orthopaedic surgery has block time on Mondays (one or two rooms alternating weeks), Tuesdays (two rooms), Thursdays (two rooms), and Fridays.

Urgent and emergent add-on cases must be discussed and arranged with the OR charge nurse and with the Anesthesia chief resident. An add-on sheet (pink sheet) must be fully completed with the information on the case and given to the operating room charge nurse.

If special equipment that is not kept in the hospital is needed for a surgical procedure, the company representative needs to be contacted and a form (orange sheet) needs to be filled out and signed and given to the charge nurse to alert SPD that the equipment will be delivered for a particular patient's surgery. Maximum time must be given to allow SPD to sterilize the equipment per VA guidelines.

Night and weekend emergency cases can be arranged by calling the main hospital operator at (650) 493-5000 and talking to the Nursing Supervisor, and by talking to the anesthesia resident on call.

ADMISSIONS

Patients are admitted from clinic, from the ER, from the OR, and from other facilities through transfers. During the weekday, bed availability can be checked by contacting the Bed Coordinator, Shelly Segal. During nights and weekends, bed availability can be checked by contacting either the nursing supervisor or the AOD. They can be reached through the main hospital operator at (650) 493-5000.

INPATIENT CARE

Inpatient care is coordinated with a medicine hospitalist co-management service. Alert the hospitalist covering orthopaedics when an unscheduled admission occurs (ER admit, transfer from another facility).

DISCHARGES

Discharges are facilitated by our mid-level providers and by our discharge planner and social workers who have offices on the surgical ward (C3). Discharge medications are checked by the hospitalist. Each day, the resident must make contact with the discharge team to make sure that discharge plans for each patient are moving forward and that all needed paperwork and summaries are completed by the time the patient is ready for discharge.

COMPUTER USE

All medical records are electronic. All residents and fellows should arrange to get remote (home) access to the electronic medical record (CPRS) and to the radiology imaging program (Stentor). Residents and fellows are expected to keep up to date with signing their charts.

VACATIONS

These are to be arranged with the Chief of the Orthopaedic Service at the VA and with the Stanford Residency or Fellowship Program Coordinator.

RESEARCH OPPORTUNITIES

There are many opportunities for conducting research at the VAPAHCS. We encourage the residents and fellows to discuss their interests with staff. We will make every effort to facilitate resident research, which may take advantage of the unique resources the VA has to offer, including the biomechanics lab and the extensive medical record. All research must be coordinated with the VA research office and appropriate training must be completed prior to initiating the work.

The Orthopaedic Surgery staff welcomes you to the VAPAHCS and hope that you have an educational and enjoyable rotation. We welcome your feedback related to your experience, as it is through this feedback that we can improve the rotation for future residents and fellows.

VAPAHCS: RESIDENT GOALS AND OBJECTIVES

DESCRIPTION

Residents rotating through the Palo Alto VA hospital will be exposed to a broad range of orthopaedic conditions that affect veterans. Residents will work in the clinic, the operating room, the hospital wards, and the emergency room. Conferences include a weekly teaching conference and a weekly surgical planning conference. There are also ample opportunities for clinical, biomechanics, and basic science research.

RESIDENT ROLE AND EXPECTATIONS

In all settings, residents will be supervised by attending staff.

In the clinic, residents will be expected to learn and practice taking thorough histories and physical exams, develop the judgment needed to recommend operative or non-operative care, and perform injections and other minor clinic-based procedures as indicated.

In the operating room, residents will assist in surgery and assume surgical responsibilities that are consistent with their capacity and level of training.

Residents will round daily on inpatients and consults, and will work with mid-level providers, ancillary staff, hospitalists and consultants, to provide the optimum care of patients. Residents will be included in the on-call rotation to cover after hour emergency room and inpatient consults.

Residents are expected to attend all teaching conferences.

READINGS

Lower extremity reconstruction and trauma:

Recommended reading includes the OKU, the OKU Hip and Knee Reconstruction Book, Rockwell and Green's Fractures in Adults, Hoppenfeld's Surgical Exposures in Orthopaedics. Classic and current journal articles will also be assigned.

Sports medicine and upper extremity reconstruction:

OKU Shoulder and Elbow, Rockwell and Green's Fractures in Adults, Hoppenfeld's Surgical Exposures in Orthopaedics. Classic and current journal articles will also be assigned.

Orthopedic oncology:

OKU Musculoskeletal Tumors 2

OKU Musculoskeletal Infections

GOALS AND OBJECTIVES

Patient Care: Demonstrate competence in the surgical and patient management skills for the adult patient presenting with joint disease, ligament injury, tumors, and trauma.

Medical Knowledge: Knowledge of the principles and techniques of diagnosis, operative and nonoperative management of adult orthopedic problems in lower and upper extremity reconstruction, sports medicine, and trauma.

Practice-Based Learning and Improvement: Demonstrate self-improvement through experience, critique of performance, and during presentation of M&M cases.

Interpersonal and Communication Skills: Demonstrate interpersonal skills and professionalism necessary to manage and treat adult orthopedic patients with often complex medical and social problems. Work closely with consulting services, hospitalists, and ancillary staff to develop and execute optimum treatment plans for the patient.

Professionalism: Demonstrate initiative in the needs of patients and professional staff, showing honesty, compassion, and respect for the patient issues both in terms of the medical diagnosis and the psychosocial ramifications.

Systems-Based Practice: Demonstrate understanding of how to work effectively in the VA health care delivery setting utilizing the electronic medical record, and digital radiography to facilitate patient care. Coordinate with referring institutions to provide seamless transfers of care.