

RESIDENT MANUAL



“The residents of the University of Maryland Department of Orthopaedics are committed to continuing the highest standards of patient care, obligation to community and lifelong education, as established by past and present leaders of our profession. In an ever-changing medical environment, our fundamental principles as Orthopaedists must endure and our duty to those in our care must extend beyond the working day. With continued devotion to our patients, cooperation with our colleagues and dedication to our studies we pledge to foster these core values throughout our training and careers”

DEPARTMENT OF ORTHOPAEDICS
UNIVERSITY OF MARYLAND MEDICAL SYSTEM
UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE
2011/2012



WELCOME TO MARYLAND ORTHOPAEDICS

This manual is provided to you as a guide to your residency. The manual provides information about resident responsibilities, conference schedules, meetings, privileges, and other benefits as they pertain to you as an orthopaedic resident.

The faculty and staff are committed to directing an educational experience that will provide you with the knowledge and skill to deliver quality, humanistic orthopaedic care upon graduation. We are dedicated to your personal and professional growth throughout your residency.

The Orthopaedic Faculty and Staff wish you the best of luck in the upcoming years and are available to assist you in making your learning experience as productive as possible.

"In the fields of observation chance favors only the prepared mind."
- Louis Pasteur, 1854

MISSION

Our mission is to provide the highest quality patient care in a diverse academic community that fosters an effective educational experience and supports the pursuit of new scientific knowledge that improves the clinical outcome of our treatment of musculoskeletal disease.

Excellence in patient care is of the utmost importance and is inseparable from the resident educational experience. **At all times**, orthopaedic residents are expected to project professionalism in both appearance and demeanor. A congenial and courteous working relationship must be maintained with all clinical and academic staff. The actions of every member of the Department reflect upon the entire Department, rather than solely on any one individual.

Educational Philosophy and Residency Training Goals

The years spent in an Orthopaedic residency program should prepare one to fulfill both personal and professional goals as an orthopaedic physician. The University of Maryland Orthopaedic residency program is administered by the University of Maryland Medical System.

Our program emphasizes early active (operative) participation by our residents, with gradually increasing levels of surgical and patient care responsibilities. All of our subspecialty service rotations have fellowship trained faculty. Our strong didactic program consists of a dedicated and protected resident educational curriculum on Thursday morning, a Department-wide conference every Thursday morning (Grand Rounds, Morbidity and Mortality, Journal Club, and Chair's conference for resident case presentations), and weekly preoperative service-specific conferences on each team in accordance with the schedule on the respective service. On alternate Fridays, residents run our University clinic, with assigned faculty supervision, which cares for the indigent. Surgical cases are covered Monday through Friday by residents who are assigned to specific subspecialty service rotations. Resident rotations are a combination of an "apprenticeship model" one-on-one with individual faculty members and a "team" model with two residents covering a service of two or more faculty members. A junior (PGY 2,3) and senior (PGY 4,5) resident are paired on each two person service, and some senior rotations have a single assigned resident.

Our Departmental educational philosophy emphasizes a collegial, non-threatening atmosphere where residents are provided graduated responsibility and given all the tools to become superior orthopaedic physicians and surgeons in an academic environment that fosters a spirit of inquiry. We seek responsible, ethical residents with a superior work ethic, an inherent inquisitiveness, and a desire to excel. Teaching responsibilities increase during residency in proportion to seniority, knowledge base, and interest in the educational process. Performance evaluations from faculty are provided after every rotation. Formal review occurs twice each year with the Program Director. Monthly resident roundtable discussions are held with the Department Chair and Program Director.

By the time of completion of the PGY-5 year you will:

1. be able to operate independently with minimal attending guidance.
2. lecture to junior residents and medical students on a wide variety of orthopaedic topics
3. run University Clinic, as a "chief" resident
4. critically evaluate the orthopedic literature and effectively exchange information with patients, families and colleagues
5. design and carry out clinical research projects
6. provide excellent patient care that is compassionate, appropriate and effective.
7. demonstrate a superior level of medical knowledge, which is the foundation of excellence in medical care
8. adhere to ethical principles and be sensitive to diverse patient populations and cultures
9. appraise and assimilate scientific evidence to improve your patient care Practices

Your orthopaedic education will be a lifelong journey replete with both professional and personal growth. We look forward to our time together during your residency.

CLINICAL SERVICE RESPONSIBILITY

The Department of Orthopaedics at the University of Maryland is organized into several clinical services at five institutions: University Hospital (UH), R. Adams Cowley Shock Trauma Center (STC), Baltimore Veterans Administration Hospital (BVAMC), and the James L. Kernan Orthopaedic Specialty Hospital. Visiting rotations are provided at the Baltimore Washington Medical Center (BWMC) in general community orthopaedics, the Johns Hopkins University Hospital (JHU) in pediatric orthopaedics and at Sinai Hospital in pediatric orthopaedics and orthopaedic oncology. Each rotation provides the resident with an intensive focused educational experience; collectively, they provide a broad introduction to the field of musculoskeletal disease. These services and their respective home institutions include Adult Reconstruction (UM), Spine (UM), Sports Medicine (Kernan), Upper Extremity (Kernan), Trauma (STC), Foot and Ankle (Kernan), Pediatric Orthopaedics (UM, JHU and Sinai), General Orthopaedics (VA), Community Orthopaedics (BWMC), and Oncology (UM and Sinai).

DRESS CODE

Resident attire must project professionalism and **at all times** be appropriate for the clinical setting. In the elective outpatient practice site a shirt and tie for men, and dress, skirt, or dress slacks for women, are expected. In the trauma follow-up practice site where wound care needs are frequent, surgical scrubs may be appropriate with the approval of the respective faculty members. When outside of the operating room, a white coat is to be worn over surgical scrubs at all times. Soiled scrubs are to be changed immediately after exiting the operating room. **At no time are surgical scrubs to be worn outside of the hospital. Jeans are not appropriate attire for any clinical setting in the hospital or practice site.** All are expected to adhere to the University Professional Dress policy.

DUTY HOUR MONITORING

In accordance with the duty hour guidelines of the Accreditation Council for Graduate Medical Education (ACGME), the Department of Orthopaedics at the University of Maryland is committed to the provision of an optimal learning environment for residents that concurrently support the provision of safe patient care. Each resident must review the ACGME Duty Hours Standards. During any rotation, if you are being instructed to violate the duty hours, you must contact the Orthopaedic Surgery Program Director immediately (even if you are off service).

In practice, no resident will work more than 80 hours per week averaged over a four-week period. In house on-call assignments will be no more frequent than every third night with one day in seven free of patient care, educational responsibilities, and administrative responsibilities, averaged over four weeks. The in-house call schedule at UM includes the Spine and VA service PGY-2 residents, the Adult Reconstruction and Spine service PG-3 residents and the research resident. The research resident will take one weeknight call each week. A senior resident from the Adult Reconstruction, VA, or Spine service will take home call each night. Time spent in the hospital by the home call resident will count towards the 80-hour limit.

PGY-1 residents may not work more than 16 continuous hours. PGY-2 residents and above may work no more than 24 continuous hours. No new clinical assignments may be made after 24 hours of continuous duty. Post-call residents may remain in the hospital for an additional 4 hours for transition of care.

Residents are expected complete their clinical duties each day and should have a minimum of 10 hours of time outside of the hospital before returning for work the next day. Residents must have at least 8 hours of time outside of the hospital between workdays.

A record of duty hours is to be maintained in E-Value on a daily basis. You are required to complete your duty hours to reflect accurately the actual time that you worked. Duty hour logs should be updated daily and must be up to date at the end of each workweek. The UM on-call resident must sign-out and physically leave the hospital on the day following an in-house night call in order to ensure compliance with the 24 plus 4 hours work requirement.

Order of Responsibility

The following is intended to clearly and concisely delineate the order of responsibility for all medical students and resident physicians in the Department of Orthopaedic Surgery at University of Maryland Medical Center and its affiliated institutions participating in the educational program.

The guidelines have been constructed to ensure proper clinical and academic supervision is provided to each resident, appropriate for his or her level of training. The policy seeks to reinforce the Department policy of providing increasing levels of independence and responsibility as merited by the training and performance of each resident. The guidelines also clearly indicate where a resident may seek assistance to resolve academic and clinical questions.

Guidelines:

All medical students, residents, and fellows will be supervised in all clinical activities until he or she is able to perform that activity independently as determined by the Department of Orthopaedic Surgery and institutional guidelines. It is the responsibility of the program director to ensure that the physicians in training maintain the highest level of competency.

1. Supervision in the operating room and outpatient clinic consists of the physical presence of the supervising physician. Supervision of inpatient care and consults consists of resident direct contact with the attending physician of record or on call physician.
2. The supervising individual must be credentialed to perform the activity that he or she is supervising.
3. Residents are responsible to notify the program director or department chairman immediately if asked to act unsupervised. A senior resident may not request a more junior level resident to cover his/her clinical or academic responsibilities.
4. An attending may not request a resident to cover his/her clinical or academic responsibilities.
5. Fellows, residents, and students may not perform procedures, render diagnoses, or discharge patients without supervision, the only exception being an emergency with clear danger to life or limb.
6. The program director is ultimately responsible for all resident activities.
7. The order of responsibility follows the order of the year in training (YIT) not the postgraduate year level, ie: a resident 10 years out of medical school, but in his/her first year of orthopaedic residency remains subordinate to a resident in his/her second year of orthopaedic training.
8. The chief residents (YIT-5) are directly responsible to the program director for all administrative issues. In the operating room and outpatient clinics, the designating attending physician will supervise the resident. Attending physicians are encouraged to interact directly with the residents of all levels for the purpose of improved education and quality of patient care. Chief residents and senior residents may supervise the activities of the junior residents on the service with faculty oversight.
9. In the event of a problem, it is the responsibility of the resident that identifies the problem to notify the senior resident on call, if the problem is noted in the evening, or the senior resident on service if the problem is noted during the day, as well as the attending physician. If the patient is in the emergency department then the appropriate attending assigned to cover the ED should be notified.
In the event that the problem cannot be satisfactorily resolved, a resident (at any level) may notify either the chief resident or the other YIT-5 resident. The senior resident is to discuss the matter with the designated attending physician to resolve the matter. In the unlikely event that there is a significant difference in opinion between senior resident, or the belief that improper treatment was requested, the senior resident is required to contact the attending physician chief of the service. If there is a conflict of interest, the program director should be contacted at the earliest possible time. All documentation pertaining to the case will be requested.
10. Any resident with a problem may, at their discretion, directly contact the Program Director. However, it is recommended that the problem first be discussed with the senior resident on service.
11. In the absence of the Program Director, the Chairman or Vice Chairman may be contacted.

RESIDENT DUTIES

Morning patient care "work" rounds are to be made jointly by the senior and junior resident on each service. A senior resident must see every patient every day. Afternoon rounds should be conducted each day before leaving the hospital for the evening. **All service sign-outs must be made in person to the in-house resident on call** with special note of post-operative patients and those with active treatment issues. The resident(s) should round daily with the respective attending physicians on service. The residents are directly accountable to the respective attending orthopaedist for care of patients on each service; the attending orthopaedist is medico-legally responsible for all patients.

Morning weekend rounds must occur early enough in the day to address unexpected patient care needs/emergencies. At least one resident from each clinical service is expected to round on inpatients every day of the week to ensure continuity of care. A senior resident must see every inpatient during morning rounds. The on-call senior/chief resident should receive sign-out from any senior/chief residents who are not on call, but elect to make rounds on their patients.

ACADEMIC CHIEF RESIDENT:

The Academic Chief Resident will serve as the liaison between the Faculty and Residents for all Academic matters. This position will be a merit appointment made by the Program Director and Chairman. Specific duties include:

1. Creation of a list of suggested Grand Rounds speakers for the Academic Year (September thru July)
2. Invite Grand Rounds Speakers and forward confirmation to the Residency Coordinator who will make all necessary travel and accommodation arrangements
3. Organize set-up of case presentations with the Grand Rounds Speaker after the formal lecture
4. Propose and invite speakers for the annual Kaplan and Abram's Lectures
5. Propose and invite the speaker for the Annual Andrew R. Burgess Lectureship and resident disputations day
6. Organize and oversee the Friday morning resident teaching conference
7. Coordinate schedule changes in the academic schedule with the Program Coordinator

ADMINISTRATIVE CHIEF RESIDENT

Each PGY-5 resident will serve as the Administrative Chief Resident while assigned to the Adult Reconstruction service. The Administrative Chief is directly responsible to the Program Director for the day-to-day operations of the resident staff. The Administrative Chief Resident supervises the activities of **ALL** of the orthopaedic residents at all sites. Specific duties include:

1. Assignment of daily resident coverage, in conjunction with the respective service chief residents, to all operating room and clinic activities as necessitated for coordination and coverage of all of the clinical services including assignment of who holds the consult pager when the Consult service resident is on vacation.
2. Supervision and assistance in staffing in all outpatient clinics.
3. Arranging and coordinating for vacation coverage, with the final approval of the Program Director
4. Organize the medical students who will be rotating on the service
5. Supervise and direct the junior residents.

"Seek not to know all the answers, but to understand the questions."

- Old Italian proverb

CHIEF RESIDENT

The Chief Residents are directly responsible to the attending physicians on their respective services. The Chief Residents rotate on the Adult Reconstruction, Orthopaedic Trauma, Upper Extremity/Sports, Sports, and VA services. Their duties, in part, are:

1. To supervise resident participation in patient care and operating room procedures.
2. To round with junior residents and attending physicians.
3. To take night call in rotation with other chief residents and/or fellows.
4. To admit and supervise care for "staff" patients from the Emergency Room, the Orthopaedic Clinic, or in-patient consultations.
5. To supervise Emergency Room care when on call, including review of records and x-rays of patients treated by the junior resident for that particular on-call period.
6. To coordinate, direct, and assist the junior residents in providing service with minimal delay to E.D. patients and to oversee assignment of appropriate follow-up care after discharge with the on-call attending.
7. To examine all patients who are expected to require admission from the Emergency department.
8. To be in attendance at all emergent or semi-emergent operative procedures when on call.
9. The chief resident on call is responsible for rounding on post-operative patients from the call night until they are picked up the following day by the patient's primary team of residents. This includes examining all patients operated on that day or receiving casts or other procedures and making appropriate entries into the charts, indicating and ensuring the well being of the patients.
10. To participate in the outpatient clinic with the attending orthopaedic surgeons, especially in assessment of preoperative patients and new patient evaluations. (With increasing prevalence of ambulatory surgery and day of surgery admissions, this is an **essential** part of **every** resident's educational experience.)
11. To participate in the clinical education of the orthopaedic junior residents, house staff and medical students.
12. To record and present data for monthly Morbidity and Mortality Conferences throughout the year.
13. To be responsible for ensuring that x-rays are always available in the O.R.
14. **Wound care and dressing changes should be performed prior to surgery only when critical to operative decision-making for that day. When such wound care is necessary, a complete change into clean scrubs is required before entering the operating room.**

“Do not stifle the spirit... Test everything; Retain what is good. Avoid any semblance of evil.

- Thessalonians

SENIOR RESIDENTS

The PGY-4 year of the orthopaedic residency program represents a significant transition in the program to upper level resident status with the attendant increase in responsibility that accompanies the experience level. Each resident rotates on UH Spine, Oncology/Pediatrics at UM and Sinai Hospital, BWMC, Trauma, and Research. At the affiliated hospitals and on each of the UM services, the senior-most resident functions as the Chief Orthopaedic Resident and has the same expectations and responsibilities as the Chief Residents. Night call will be covered alone or in rotation with the physician's assistants at the affiliated hospitals.

"You can observe a lot by just watching"

- Yogi Berra

JUNIOR RESIDENTS

The PGY-2 and PGY-3 resident are responsible to the chief or senior resident and attending surgeons on their respective services. Duties include, in part:

1. The junior resident is expected to develop an understanding of orthopaedic principles and techniques through thoughtful questioning and work in both the clinical arena and the library. Thorough study, familiarity with each patient, and preparation prior to each operation is mandatory by each and every junior resident.
2. The primary care of patients on the service.
3. Daily work-rounds on the patients and accompanying the attending and chief resident on rounds. Work rounds are to be completed prior to surgery, but no routine or dirty dressing changes are to be done before going to the operating room. Appropriate entries in the patients' charts are to be made at least each morning and after any procedures.
4. Work-ups and interviews on elective and emergency admissions on each individual service, to be completed in conjunction with the senior resident and clinical nurse specialists on the respective service.
5. To see all orthopaedic consultations in the E.D. and emergency consultations in-house with the attending or the appropriate chief resident on call for private and staff cases, respectively. This includes provision of complete documentation for follow-up care with the on-call attending or other most appropriate faculty member.
6. To participate actively in the Emergency Department (see section on E.D.). One PGY-2 resident is assigned each day to primary daytime coverage of the University Hospital E.D. from 6 a.m to 6 pm. The primary duty of this junior resident is to the Emergency Department and in-hospital consultations. The E.D. resident is not expected to participate in the operating room day unless special arrangements have been made.
7. The post-call resident and E.D. resident will present **every** patient seen in consultation on the previous day at the combined morning intake conference at 7:00 AM each day.
8. University E.D. in-house resident coverage at night will be primarily provided by the PGY-2 or -3 on first call. An overnight “in-house” presence at Kernan Hospital will be required of residents of any PGY year on first call Monday through Thursday whenever “high risk” patients remain in the hospital after having had operative procedures that day; the need for an overnight "in-house" presence

at Kernan on other nights will remain at the discretion of the on-call residents. The resident directly responsible for night-time on-call coverage will be listed on the monthly call schedule and will take call from 6:00 p.m. until 6:00 a.m. the next day. Any change in the on-call schedule is to be recorded in all patient areas of the E.D., with the page operator, and the department office. Before calling the attending, the junior resident is to consult the chief resident on call regarding any patient in the E.D. The chief resident is to call the attending after the patient has been seen and evaluated.

9. **To inform the chief resident on call, and ultimately the attending faculty, of any emergency admission to the individual service before admission is arranged.** All emergency surgery on staff patients should first be cleared with the chief resident on call, who will be present at surgery. It is the chief resident's responsibility that the attending orthopaedic surgeon has seen the staff patient preoperatively and is present to assist during the operative procedure. **NO patient is to admitted to the Orthopaedic service without the knowledge of the attending surgeon.**
10. Before leaving each day, each resident must should sign out to the resident on night-call and provide complete information about all postoperative patients as well as existing or anticipated problems on the service. **Sign-out must be performed by direct communication** (either face to face or by telephone, no email, text or paper message sign outs).
11. To help supervise the training of interns and medical students by providing training in ward procedures and fracture treatment.
12. To attend all service clinics unless otherwise assigned by the Administrative Chief Resident.
13. To be present to assist with all cases in the O.R. The assigned junior resident should be in the O.R. in time to insure adequate preparation. The junior resident will assist and supervise changeover between cases in order to expedite the day's schedule.
14. **Wound care and dressing changes should be performed prior to surgery only when critical to operative decision-making for that day. When such wound care is necessary, a complete change into clean scrubs is required before entering the operating room.**
15. To review at least weekly with the multidisciplinary health care team on each floor the medications, treatments, and planned disposition for the patients.
16. To meet with the social services team and nursing staff weekly for disposition rounds to organize discharge planning and placement for orthopaedic patients.
17. To contact the appropriate social worker each morning to alert him/her about any admissions the previous day so the disposition may be formulated. Discharge summaries for all patients and transfer summaries are to be dictated promptly. Disposition of patients is to be aggressively pursued. Notifications about work statements and incomplete charts from the Record Room should be promptly pursued and charts completed.
18. Be responsible for service in the absence of the chief resident.

A diverse twelve-month experience has been developed, in accordance with regulations of the American Board of Orthopaedic Surgery, to provide a balanced preliminary year for the orthopaedic residency. The internship includes 2 months on general surgery, and one-month rotations on pediatric surgery, plastic surgery, vascular surgery, and trauma surgery as well as the surgical ICU, anesthesia, and rheumatology/musculoskeletal radiology. There will be a three-month exposure to the orthopaedic service during which the intern will function as the first contact for all clinical questions concerning orthopaedic service inpatients. Patient management in response to these questions will be directed by the service Senior/Chief Resident. Morning work rounds participation will be directed by the Administrative Chief Resident and a face-to-face sign-out of all patients to the intern will be completed before any of the service residents proceed to the operating room or clinic. The intern will not participate in the Orthopaedic on-call schedule. During the day, the intern will assist in the operating room on the Adult Reconstructive service as needed based on the operative procedure and availability of residents on the service.

A performance consistent with the high standards of the Department of Orthopaedics is expected of every orthopaedic PGY-1 resident during the internship year. PGY-1 residents must satisfactorily complete the requirements of the internship year as a pre-requisite to advancement as a PGY-2 in the orthopaedic residency program. This includes **passing the USMLE Step III examination** as well as taking the written in-training examination in surgery and orthopaedics.

MEDICAL STUDENTS

The orthopaedic staff is involved in medical student training from the first year onward. The faculty of the University of Maryland Department of Orthopaedics contributes to the anatomy course in the first year and the physical diagnosis curriculum in the second year. In the third year of medical school students rotate for a twelve-week period through general surgery, during which a one-week period is spent in orthopaedics. This time may be spent at University Hospital or in one of the affiliated hospitals where there are residents. In the fourth year a student can rotate through orthopaedics as an elective or as a Sub-Intern. These options are offered for students who are interested in a longer and more intensive exposure to orthopaedics. Full participation in the orthopaedic conference schedule is expected. The residents and attending faculty are responsible for teaching and instructing medical students. Our goal is to provide an enjoyable and educational experience for the students and encourage their interest in the study of musculoskeletal disease.

EMERGENCY DEPARTMENT

The PGY-2 orthopaedic consult resident provides coverage of the E.D. and inpatient consultations between 6 a.m. and 6 p.m. Resident coverage from 6:00 p.m. to 6 a.m. the following day will be according to the on-call schedule. The duties of the junior orthopaedic resident in the E.D. are to function in a consultative capacity and to direct the care of all patients with injuries or abnormalities associated with the musculoskeletal system. The assignment in E.D. is both service and educationally related. Every effort should be made to expedite the care of patients so that long waiting periods are avoided. **All patients who are referred to an attending orthopaedic surgeon for follow-up care must be seen by the orthopaedic resident prior to discharge from E.D. and the referral made by the orthopaedic resident, who will subsequently notify the appropriate attending.** A note by the orthopaedic resident must be in the E.D. chart and the orthopaedic resident must sign the front sheet. Minor injuries not requiring the attention of an orthopaedic surgeon should be reviewed on request and referred back to the patient's primary care physician. Patients with minor injuries and no family doctor should be given the name of a family physician in the area that can provide follow-up.

Patients without insurance, unless they already have a private physician, shall be primarily cared for by the chief resident and supervised by the attending orthopaedist on call for the day. **No patient is to be admitted to the Orthopaedic Service without contacting an attending Orthopaedic Surgeon.**

Every patient with a fracture, dislocation, possible major ligamentous injury, or other major injuries of an orthopaedic nature will be seen by the junior orthopaedic resident, who will, in turn, contact the chief resident and then the attending on call. A conference call with the junior resident, chief resident, and attending should be attempted in order to maximize resident education. Individual direct contact with the attending is permissible when conference calling is not possible. The patient will be given the choice of physician in all instances; the request of a specific attending physician by either patient or referring physician will be honored if at all possible. All patients should be discussed with the chief resident on call. All x-rays should be reviewed by the chief resident on call at the end of the on-call period and are to be gathered for presentation in fracture conference on the following morning. **All patients who require admission or surgery must be seen and examined by the senior resident on call.**

All complex pediatric, hand, spine, and spinal cord injury problems seen in the Emergency Department will be supervised by the respective sub-specialist on call, who should be notified of the patient's injuries by the chief resident after he/she has reviewed the case with the resident in the E.D.

Patients requiring urgent operative care must be discussed with the chief resident and the attending. Arrangements should be made expeditiously with the OR explaining the degree of urgency. Emergency patients should be booked with the OR staff and the Anesthesia Department only after the patient workup has been completed. The information provided should be detailed and complete. At night, the on-call resident and the chief resident will assist in the OR. If the E.D. load is such that patients cannot be cared for within thirty minutes from the time of E.D. consultation, i.e. to have been seen and care initiated, the junior resident should obtain immediate help from the chief resident. At all times, the chief resident on call shall be available to assist and direct the care of patients in the E.D. **The chief resident or senior resident on call is expected to see every patient that requires hospital admission or surgery.**

CONSULTATIONS

All requests for orthopaedic consultation shall be telephoned to the on-call pager (410-251-8244). The consult resident will see and evaluate the patient and, in turn, refer the consultation and continued evaluation to the appropriate team for ongoing care. A member of the full-time faculty will be contacted for each patient according to the schedule or specific sub-specialty. Specific attending requests for consultation will be honored whenever possible, irrespective of the faculty on-call schedule. All consultations should be seen, and a note placed in the hospital chart, on the day the consultation request is received.

Consultations at Kernan will be telephoned to the on-call resident at Kernan based on the monthly on-call schedule. All emergent/urgent consultations will be seen immediately and the on-call attending will be contacted in reference to the patient. Non-urgent consultations will be seen within 24 hours and reviewed with the on-call attending.

STAFF / UNINSURED PATIENTS

Clinical care of staff/uninsured patients has been previously outlined. All patients have an attending faculty physician irrespective of insurance status. Care will be orchestrated and administered by the respective admitting chief resident under the supervision of a member of the full time faculty.

EDUCATIONAL EXPERIENCE AND CONFERENCES

Department-wide conference will occur weekly, every Thursday morning at University Hospital in the Gillespie Conference Center, with a rotation of Journal Club, Morbidity & Mortality Conference, Grand Rounds, and Chairman's Case Presentation conference respectively the first through fourth weeks of the month. In months with five Thursdays, the fifth week will be dedicated to review of resident research projects unless otherwise specified. Faculty and resident attendance at Thursday morning conference is mandatory. Conference starts promptly at 6:30AM except for Grand Rounds which starts at 7:00AM.

- **Journal Club** will occur on the first Thursday of each month. It will cover readings from the Journal of Bone and Joint Surgery (~10 articles) and readings chosen from the various subspecialty journals by the faculty (~5 articles). Each article will be assigned to a specific junior resident for a brief (2-3 minute) summary of the article (study design, methods, results) and a senior resident for a critique of the scientific method and significance of the findings. A faculty member is assigned to each article as a mentor and to direct the discussion of the article. All residents are expected to be fully knowledgeable about their assigned articles and have read at minimum the abstract and discussion section for all of the covered articles. **Residents are expected to bring their copy of JBJS to the Journal club to enable participation in the discussion.**
- **Morbidity and mortality conference** will occur on the second Thursday of each month. All of the complications from all of the clinical services of the faculty will be reviewed. Cases from each service will be presented by the respective senior/chief resident on that service along with a pertinent analysis of the complication and recommendations for improvement in care. The total number of admissions, elective and emergent, as well as total number of ambulatory and inpatient operations will be presented as a framework for discussion.
- **Grand Rounds** will be held on the third Thursday of each month at 7:00 AM. Attendance is mandatory. Organization of these sessions and invitation of visiting speakers will be the direct responsibility of the Academic Chief Resident. After each Grand Rounds lecture, the residents will present cases to the visiting speaker for 1 hour. Each case should be reviewed with an appropriate faculty member before presentation to the grand rounds speaker.
- **Chairman's Case presentation Conference** will be held the first Thursday of the month. For each conference, there will be 3 cases prepared for presentation. Each service will be responsible for case presentations on a rotating basis and assigned by the Academic Chief Resident. Cases are to be presented by the junior resident in formal presentation format without the use of visual aids other than appropriate radiographic studies. Computer slides are only to be used for digitized images. The senior service resident will present discussion of the formulation of the treatment plan. The Chairman and Faculty will then direct discussion of the case in attendance. One journal article (non-review) must be provided to the Program Coordinator for each case for distribution to the residents and faculty. This should ideally be submitted no less than 1 week prior to the conference.
- **Service-specific preoperative case conference** will occur weekly at a time and day specific to each clinical service and will be attended only by residents assigned to each specific service. The purpose is for presentation of all operative cases posted for the upcoming week, along with a brief review of indications for operation and a detailed discussion of the operative plan including templating, surgical approach, and equipment needs, among others.

Core Curriculum – The core curriculum will be covered each week on Thursday mornings from 8:00 am through 10:15 am at University Hospital as an integrated presentation of anatomy, topical subspecialty lectures, basic science, ethics, and resident roundtable with the chair and program director. **All residents will be excused from all non-emergent clinical responsibilities for the core curriculum each week; attendance is mandatory.** Residents will be accountable to the Program Director for absence from conference and should expect to be contacted in reference to absence from conference. Within each Thursday morning session there will be three 45 minute

presentations according to a two-year calendar, which will be distributed annually along with assigned faculty, references, and a reading list for each lecture. Provision of the core curriculum lecture schedule and reading list in advance affords the resident the opportunity to prepare for each presentation with suggested readings to maximize the learning experience; it is expected that each resident will come prepared to participate in the discussion of the topic at hand.

Anatomy will occur on the each month on a one-year rotation and will fill the entire morning lecture session; each session will be organized into physical examination, textbook anatomy and dissection, and surgical approaches of a predefined region. Subspecialty conferences will follow a two-year cycle of twenty lectures for each service discipline, including adult reconstruction, hand and upper extremity, sports medicine, spine, trauma, foot / ankle, pediatric orthopaedics, and tumor. Basic science will follow a one-year cycle based upon the AAOS orthopaedic basic science textbook, which will be provided to each resident upon entering the residency program.

Resident roundtable will occur once monthly; it is an opportunity for the residents to have a closed candid and constructive discussion with the Chair and Program Director concerning the day to day workings of the program as well its overall organization and effectiveness.

11TH FLOOR ORTHOPAEDIC LEARNING CENTER & RESIDENT OFFICE

It is the collective responsibility of all users to maintain the general order and cleanliness of the OLC and resident office, housed in the academic office space in South 11B. Suggestions for the purchase of new books and journals are welcome and should be directed to the residency program coordinator. All residents will have ID card access to the faculty office suite that houses the library on a 24 X 7 basis; access cards are not to be shared with other individuals. **The office suite and library are to be kept locked when not in use.** The resident office is not to be used as a changing room. The office has saw bones, implants, and an arthroscopy station for resident skills practice.

OUTPATIENT CLINICS

Attendance for outpatient clinics is mandatory for all residents who are not in the operating room. In general, resident participation in outpatient practice site activities will be **service-specific**; that is to say, the resident will follow the attending faculty members on the service to which the resident is assigned rather than be assigned to clinic coverage strictly by hospital site or geographic location. The obvious exceptions to this guideline, where geographic location coincides with faculty service assignment, are the VA Hospital and Baltimore Washington Medical Center. By definition, service-specific clinic assignment enhances continuity of the resident's educational experience but will necessitate some travel on the part of the resident, as it also demands of the faculty members. For example, residents on the adult reconstruction service based at Kernan will also see patients in the practice site at University Hospital when their faculty members have office hours there, and will scrub on cases at University of those same faculty members.

In the event of vacations or other extenuating circumstances that result in a compromise of the usual coverage of clinical activities, the administrative chief resident has the authority to assign residents to either the operating room or the clinic based upon the priority of maximum educational benefit to the resident.

OPERATING ROOM

The orthopaedic residents will be in the OR and changed into scrub attire 15 minutes before the posted start time for the first case. It is expected that every resident will have read and be prepared to participate in the operative case at a level consistent with their year in training; no unprepared resident will be afforded the privilege of participating in the operative procedure when he/she has not read and is not conversant with the pertinent anatomy and surgical approaches.

Every resident is required by the Board to maintain an operative case log using the Resident Case Log System found on the ACGME website. Your case logs are expected to be kept up to date on a daily basis. They will be checked every other week by the Program Coordinator and anyone not in compliance will lose all clinical privileges until the log is updated. All operative procedures and fracture reductions are to be included in the case log.

PROJECT/RESEARCH

Each resident is expected to complete an original project by the last year of residency. Each resident has \$10,000 set aside from the department for internal funding of their project. Extramural funding should be sought for all projects in addition to the funding from the department. The research will be presented at the annual Orthopaedic Disputations in June of their chief year. **All projects are to be submitted for presentation at the Annual MOA Meeting.** In addition, the manuscript must be submitted for peer review publication before completion of the residency program in order to sit for Part I of the Orthopaedic Board Certifying Exam. The respective milestones to ensure timely progress on the research project are as follows:

PGY 1:

- August 1: complete CITI training at <http://www.citiprogram.org/>. The modules on biomedical research must be completed and the certificates submitted to the Program Coordinator.
- August 1: complete HIPAA training. The training link is: https://medschool.umaryland.edu/ORAGS/hrpo/education_hipaa.asp. Please print the completion report and submit to the Program Coordinator.
- August 1: create an account in CICERO (electronic IRB submission program) so that you can be added to research protocols. The link for this is: <https://cicero.umaryland.edu/CICERO/Rooms/DisplayPages/LayoutInitial?Container=com.webridge.entity.Entity%5BOID%5B875E0245CF1AE3438767F9707A13BE7F%5D%5D>

PGY 2:

- Begin to consider research interests.
- Begin to consider a faculty research advisor

PGY 3:

- Jan 1: Identify a faculty advisor and project
- March 31: Project proposal is due

PGY 4

- June 1: Submission of project for the AAOS annual meeting
- June 30: Completed manuscript is to be submitted to the Chairman and faculty adviser for critical review and returned to the resident for revision as appropriate. **Failure to submit a manuscript will result in the resident not being advanced to the PGY 5 year.**

PGY 5

- Dec 31: A final manuscript will be returned to the Program Director and Chairman.
- May 1: A copy of the manuscript will be mailed to the Disputation Visiting Professor.
- June: Presentation of the final project at Disputation Day.

In the event that compliance with the above requirements regarding research milestones is not met in a timely and satisfactory manner, the privilege of resident travel to attend or present at meetings or conferences will be suspended. **Permission to sit for the Part I certification examination of the American Board of Orthopaedic Surgery may be withheld pending satisfactory completion of the research requirement.**

Travel for presentation of original research is encouraged. The Department will cover expenses for resident presentation of each paper, on which he or she is the primary author, **at one meeting, up to \$1500. Funding requests should be submitted prior to the submission of the abstract to ensure that your expenses will be covered if the presentation is at a meeting other than the AAOS or the specialty society meeting.** Expenses for

poster presentation can be requested and will be granted at the discretion of the Program Director and Chair. Approval for funding at a meeting is contingent upon submitting the paper for presentation at the Annual MOA meeting. Days away for paper presentations need not count toward the fifteen (15) day allotted leave time per year available to each resident. Presentation of any paper at an additional meeting will not be at department expense except under special circumstances and by prior approval. Individual residents should make arrangements for travel and accommodations through the residency program coordinator. Abstracts submitted with an attending orthopaedist as co-author must be reviewed prior to submission by the respective attending involved in the research effort.

Interdepartmental funding can be applied for using the Intramural Orthopaedic and Musculoskeletal Research Grant Application form. A copy of the form and the procedure can be found at the back of this hand book.

MEETINGS AND VACATIONS

1. Orthopaedic residents are entitled to fifteen days of leave time during the year, to include meeting and vacation time. No vacation time is allowed during the months of June or July without special approval from the Program Director. No more than one week of vacation or conference should be scheduled during a single rotation. Vacation weeks will begin Saturday after morning rounds and conclude eight days later on Sunday evening. No fragmented vacation blocks will be permitted; special consideration may be requested of the Program Director for extenuating circumstances.
2. No more than one resident or physician extender (NP or PA) per service or one resident per hospital should be away at any one time for either meetings or vacations. Three possible exceptions to "one-resident-away-at-a-time" are:
 - A. AOA Residents' Conference if presenting a paper
 - B. Annual AAOS Meeting
 - C. Presenting a paper at an approved national meeting.

These planned absences must be approved by the Program Director **at the time of abstract submission** and coverage for the resident and on call schedule must be arranged in advance with fellow residents.

3. The yearly vacation and meeting schedule should be developed in July of each year. Scheduling will be completed during the first three weeks of July for the entire year in accordance with seniority. Election of vacation dates for the entire academic year must be completed and submitted to the Program Director's office by July 31st. All vacations and professional meetings (including those at the affiliated hospitals) must be approved by the faculty on the respective service during the intended absence, as well as the administrative chief and Program Director, and ultimately filed in the department office with the residency program coordinator.
4. Scheduling for meetings must be approved by the Program Director. During the first two years meetings should deal with broad topics such as pathology, basic science, general trauma, etc. Specialized courses should be planned only in the last two years. Recommended courses:
 - PGY-2 and PGY-3 include; AO Basic, Tachjedian's Pediatric Course, Foot and Ankle Review, ASSH Review, and Prosthetics/Orthotics.
 - PGY 4- AAOS or Course of choice subject to approval by the Chair.
 - PGY-5 A board review course should be considered in preparation for part I of the ABOS examinations. The Department will cover the expense for one review course for each Chief Resident.
5. Travel for presentation of original research is encouraged. The Department will cover expenses for resident presentation of each paper, on which he or she is the primary author, **at one meeting, up to \$1500. Funding requests should be submitted prior to the submission of the abstract to ensure that your expenses will be covered if the presentation is at a meeting other than the AAOS or the specialty society meeting.** Expenses for poster presentation can be requested and will be

granted at the discretion of the Program Director and Chair. Days away for paper presentations need not count toward the fifteen (15) day allotted leave time per year available to each resident. Presentation of any paper at an additional meeting will not be at department expense except under special circumstances and by prior approval. Individual residents should make arrangements for travel and accommodations through the residency program coordinator. Abstracts submitted with an attending as co-author must be reviewed prior to submission by the respective attending involved in the research effort.

6. A resident leave request form must be submitted for all vacations, conferences, interviews, and presentations. A copy of that form can be found at the back of this handbook.

PROFESSIONAL ALLOWENCE:

A \$2000 professional development allowance will be provided to each resident for their four-year tenure in the orthopaedic residency program for books or meeting travel unrelated to a paper presentation. This may be expensed at any time throughout the PGY 2 -5 years, but consideration should be given to save for travel to the AAOS Annual Meeting during the PGY 4 or 5 year. In addition to the \$2,000.00 professional allowance the department will fund a Board Review Course during your chief year.

EVALUATIONS

Residents will be asked to anonymously evaluate all full-time and part-time faculty members in the Department at the end of each rotation. These evaluations are an important tool for continuing improvement of our program, as well as being an integral part of the promotion and tenure process for all faculty members. All resident/faculty evaluations are done through the E*Value system at <http://www.e-value.net>. Individual faculty members are not allowed to view their evaluations until the end of the academic year to maintain anonymity.

The faculty will evaluate the performance of each resident at the mid-portion of the rotation as well as at the end of the rotation in order to provide the resident with constructive feedback. Unacceptable performance on a rotation may result in the placement of the resident on a remediation status or may require the resident to repeat part of his/her training. Failure to fully address deficiencies in performance may result in the resident not being advanced to the next year of training or non-renewal of the resident contract.

RESIDENT AGREEMENT

All residents at this Institution are re-appointed on a year-to-year basis (July 1-June 30) contingent upon satisfactory performance of the previous year's assignment. Each resident will receive a Resident Agreement from the Program Director listing Institutional Resident Physician Responsibilities, Compensation and Benefits, and statements referring to Liability Insurance, Professional Activities Outside of the Program, Sexual Harassment, Evaluation of Notice of Re-appointment or Non-Renewal, Suspension, Dismissal, and Certification of Completion. A copy of this agreement is kept on file in the Administrative Office.

GUIDELINES FOR ORTHOPAEDIC RESIDENTS AND EXTRAMURAL EMPLOYMENT (MOONLIGHTING)

No moonlighting is permitted by residents on clinical assignment in the Department of Orthopaedics. With special permission from the Program Director, Chief residents who have scored >70th percentile on their most recent OITE and residents in a full time research year may be permitted to moonlight provided there is no interference with program responsibilities or duty hour requirements. Junior level research residents are expected to attempt to coordinate these activities with a participating Chief resident when possible. Extenuating circumstances and special requests will be individually considered by the Program Director. Violation will result in departmental review and possible dismissal from the residency program.

DUTY HOURS – ATTACHED PLEASE FIND THE COMMON PROGRAM REQUIREMENTS FOR DUTY HOURS SET BY THE ACCREDITATION COUNCIL FOR GRADUATE MEDICAL EDUCATION (ACGME).