

The University of Virginia

Department of Orthopaedic Surgery

Orthopaedic Hand and Upper Extremity Fellowship Handbook

2017-2018

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Introduction and Welcome

Message from the Chair



You have chosen the University of Virginia for your Orthopaedic Surgery Fellowship and we are delighted to have you. Our faculty is committed to ensuring that your training will be challenging yet rewarding, and that you will have the experiences needed to be an outstanding orthopaedic surgeon. Furthermore, the opportunities which will be available to you should prepare you well for any setting, private or academic, and any specialty. My expectation is that all interactions, whether between resident colleagues, faculty, or patients, be based on mutual respect and cooperation. Ideally, your education will be an active and interactive process of professional exchanges including information gathering and implementation of care pathways with increasing levels of responsibility. With that in mind, please recognize that we will be working together to achieve excellence in patient care, orthopaedic education and research.

Our Mission

Our mission is to attain a national and international reputation as a leader in academic orthopaedics in the areas of patient care, orthopaedic education, and musculoskeletal research.

In the area of patient care, we strive to provide state-of-the-art, comprehensive but cost-effective care for all musculoskeletal disorders; Provide prompt treatment by responsive and compassionate physicians in quality facilities; Achieve the best outcome for every patient and treat patients while being sensitive to their ability to pay for their services.

Our education goals include providing quality graduate orthopaedic education through a structured innovative teaching and evaluation process. Our program strives to train and nurture the next generation of orthopaedic physicians, who will utilize medical care decision making techniques based on outcomes-based evidence, when considering diagnostic and therapeutic options of care.

Our research endeavor will continue to make significant advances in musculoskeletal scientific knowledge and clinical practice through collaborative basic science, translational, and clinical research.

Our Vision

Our vision is to be an academic leader in orthopaedic clinical care and innovative resident education. In addition, we aspire to be a national leader in musculoskeletal research. To achieve our vision, we will adhere to the following values to promote ethical, respectful and collaborative relationships:

- We will be sensitive to our patients' social, cultural and financial challenges
- We will endeavor to provide our patients with practical and ethical solutions that lead to their receiving quality care and superior outcomes, yet in a cost-effective manner
- We will be honest in our opinions and advice which will be based on rigorous scientifically sound outcomes-based research

- We will support a greater diversity of ideas and communities and promote mutual respect
- We will respect and promote teamwork and collaboration as the best model for success
- We will recruit, nurture, reward and retain quality faculty and staff while being fiscally responsible
- We will embrace creativity, seek new knowledge, and foster high achievement and excellence in all aspects of our mission.

Message from the Fellowship Director



With great pleasure I welcome you to the University of Virginia,
Department of Orthopaedic Surgery Hand and Upper Extremity
Fellowship Training Program. Our mission is to be a national and
international leader in patient care, medical student, resident and fellow
education, and musculoskeletal regenerative research. The strength of
our program includes our dedicated faculty and our outstanding trainees.

Our mission requires commitment to teamwork. This is essential for optimizing patient care and your education. I look forward to getting to know you and working closely with you to help you achieve your personal and academic goals.



Our Division and Program



University of Virginia - Orthopaedic Surgery
HAND AND UPPER EXTREMITY

The University of Virginia Hand Division is a comprehensive multifaceted medical facility dedicated to the care of the hand and upper extremity. Located in Charlottesville, Virginia, the UVA Hand Center is a unique collaboration between the Departments of Orthopaedic and Plastic Surgery. We specialize in all disorders of the hand, wrist, and elbow and treat a wide spectrum of disorders from carpal tunnel syndrome and arthritis to complex fractures, sports injuries, neurovascular injuries, and congenital hand differences. We have a skilled team of clinical assistants, nurses, physician assistants, and surgeons who are specialized in caring for disorders of the hand and upper extremity and who will provide a team approach to your care.

Our center is equipped with an onsite radiology suite which is staffed with radiologists who specialize in musculoskeletal imaging, diagnostic studies, and interventional procedures. Our center also works in collaboration with HealthSouth Therapy Services who provide a certified hand and upper extremity therapist in every clinic to customize your rehabilitation. Our team approach is unique and provides you with access to professionally trained specialists in multiple areas of healthcare all at one location.

Meet Our Faculty



Dr. A. Bobby Chhabra graduated from the Johns Hopkins University with an undergraduate degree in Biology before completing his medical education at the University of Virginia School of Medicine. He completed an Orthopaedic Surgery residency at the University of Virginia Health System. Dr. Chhabra received fellowship training in hand and upper extremity, microvascular and congenital hand surgery at the Hand Center of San Antonio and Texas Scottish Rite Hospital. He returned to the University of Virginia in 2002 during which time he helped create the University of Virginia Hand Center. Dr. Chhabra is currently the Lillian T. Pratt Distinguished Professor and Chair of Orthopaedic Surgery and Professor of Plastic Surgery at the University of Virginia. He is the Division

Head of Hand and Upper Extremity Surgery. He is also the hand and upper extremity consultant for the University of Virginia Department of Athletics. His areas of expertise include hand, wrist, and elbow trauma and arthritis with a particular interest in athletic injuries and congenital hand surgery. He has a basic science laboratory that is investigating flexor tendon healing using growth factor and stem cell technology and tissue engineering principles.

Dr. Chhabra is a nationally recognized Orthopaedic educator and has been a course director for several Orthopaedic board review courses. He has received the University of Virginia Master Educator Award and the University of Virginia School of Medicine Award for Excellence in Teaching. Dr. Chhabra is a fellow of the American Academy of Orthopaedic Surgeons, a member of the American Society for Surgery of the Hand and a fellow of the American Orthopaedic Association. He is past-President of the Virginia Orthopaedic Society.



Dr. D. Nicole Deal graduated from the University of Virginia and attended the Medical University of South Carolina where she completed her medical education. She then completed an NIH physician scientist post doctoral fellowship before completing her orthopaedic surgery residency training in the Department of Orthopaedic Surgery at Wake Forest University. Dr. Deal went on to complete fellowship training in hand and upper extremity surgery and microsurgery in the Department of Orthopaedic Surgery at Wake Forest University. She returned to the University of Virginia to join the faculty of the hand center. She was named Co-Director of the UVa Hand Center in June of 2014. She is the Hand and Upper Extremity Fellowship Director. Dr. Deal's areas of expertise include hand, wrist and elbow trauma and reconstruction. She

also specializes in microsurgery and arthroscopy of the upper extremity. Her research interests include nerve healing, regeneration, and repair techniques. Dr. Deal has received numerous awards for her research and academic excellence.



Dr. Dacus joined the department in August of 2007 after completing a fellowship in hand and upper extremity at the University of California, San Diego. His practice has grown rapidly in his time here and his practice continues to encompass joint replacement in the hand and elbow and reverse total shoulder arthroplasty as well as micro vascular surgery of the hand and upper extremity. He is currently working on a research project to study the effect of EMG results on treatment plans/outcomes in patients with carpal and cubital tunnel syndrome. In 2011, Dr. Dacus was appointed the Residency Program Director after serving as the Assistant Residency Director from 2009 to 2011. He is also the cofellowship director for the Hand and Upper Extremity Division. Dr. Dacus has also enjoyed being an Assistant Team Physician for James Madison

University Athletics since 2008 and continues in this capacity.



Dr. Freilich finished his Orthopaedic residency training at the University of Virginia before completing a hand and upper extremity fellowship at Wake Forest Baptist Hospital in North Carolina. He returns to Charlottesville to join the Department of Orthopaedic Surgery as Assistant Professor. Dr. Freilich specializes in upper extremity arthroscopy, brachial plexus reconstruction, and hand microvascular reconstruction.



Dr. Raymond Morgan ...



Dr. David Drake ...

Other Members of Our Team



Kelsey Parente, MPAS, Med, PA-C, ATC

Monday: Clinic PM Tuesday: Clinic PM Wednesday: Clinic AM

Thursday:

Friday: Clinic AM/PM



Amy E Radigan, MPAS, PA-C

Monday: Clinic AM

Tuesday:

Wednesday: Clinic PM Thursday: Clinic AM/PM Friday: Clinic AM/PM

Your Schedule, Responsibilities and Curriculum

Schedule

Orange Fellow[†]

	Monday	Tuesday	Wednesday	Thursday	Friday
Chhabra	Athletic Clinic	Clinic (am)	Clinic (am) ^{2,4}	OR (am)	OPSC
Morgan	OPSC	Clinic	OR ^{1,3,5}	OPSC/Clinic	Admin
Deal	OR	Clinic (pm)	Admin	OR (am)	Clinic
Research			PM		

[†] Orange Fellow is first call for Orthopaedic Hand Consults every other week Yellow indicates the primary assignment

Blue Fellow[†]

	Monday	Tuesday	Wednesday	Thursday	Friday
Drake	OPSC/Clinic	OR	OPSC ^{2,4}	Clinic (am)	Admin
Dacus	Clinic	Admin/ <mark>OR</mark>	OPSC Deal ¹ Dacus (am) ^{2,4,5} Dacus ³	OR	OR
Freilich	Clinic (am)	OR	Trauma Rm	Clinic ^{1,3,5} OPSC ^{2,4}	OR
Research			PM ^{2,4,5}		

[†] Blue Fellow is first call for Plastics Hand Consults every other week

Yellow indicates the primary assignment

We realize that the clinical experience will vary with the fellows' backgrounds and may be tailored to the individual's needs. For example, first call responsibilities to the ER may be arranged if the fellow has not had this experience. We will also arrange protected time for research once the fellow has an approved project.

In general, it is expected that each Ortho or plastics case will have a resident or fellow (or both) covering the case. Be prepared for schedule changes if necessary for case coverage. The PAs can assist with covering clinic, but generally do not cover OR cases.

- OR schedule for Ortho cases sent out once weekly with case assignments. Usually determined by Dr.
 Chhabra if he is in town and one of the residents will email out case assignments on Tuesday or
 Wednesday each week for the upcoming week.
- Main and OPSC OR schedules: available on EPIC under the snapboard tab.

Daily Ortho Consult Updates:

Talk to the Ortho resident admin chief about being added to the "Board" email list: each morning about 4am the on-call junior sends out a list of all Ortho consults for the past 24 hours and how they were managed/plan/etc. this way you can be aware of add-on cases and call cases that come in.

Monthly Schedule:

Prepared by Amy Radigan (Hand Center PA) about 1 week before the start of the month, Email her with "out" days or conflicts ahead of time.

Hand Fellow Call and Coverage

Hand Fellows alternate weeks on call with either the Plastic Surgery or Orthopaedic Surgery Departments. They take only home call and are only required to come in for surgical cases or care of patients in the emergency room. All patient encounters in the Emergency Department must be discussed with the attending on call as well as any cases requiring surgical intervention and/or escalation of care. Documentation of Emergency Room encounters must reflect that the case was discussed with the Attending on call. In addition, if follow-up care is to be provided by another attending based on subspecialty, this must be so noted in the dictation, with the name of the particular attending with whom the patient will follow-up.

Call

Plastics call: tend to do less operating but will need to assist in ER if the resident on call is uncomfortable with explorations, fracture reductions, etc.

Ortho call: residents very sufficient in the ER but you will be called in more frequently for cases in the main OR generally about 1 day per week and 1 weekend day or 2 weekend days for cases, depending on attending and what comes in overnight.

Clinical Responsibilities

The fellow will participate in the pre- and post-operative care of patients in both inpatient and outpatient settings. The fellow will be expected to develop a detailed understanding of the diagnostic work-up of common and complex hand problems, including the use and interpretation of appropriate musculoskeletal imaging studies, electrodiagnostic studies, vascular studies, and selective injections. The fellow will become comfortable with the application of hand therapy in both non-operative and post-operative management of common hand problems, and will have the opportunity to work directly with the therapist to ensure in-depth understanding of the techniques of splinting and the use of various modalities. The fellow will also participate in the daily rounds on inpatients on service.

Ortho clinic: scribes will generally start a note and depending on their skill, will do all of it and you just have to attend your signature, or you may have to fill in most of history and physical exam, plan, etc.

Plastics clinic: you need to do notes on your own as well as billing and coding for each patient seen at clinic.

Operative Responsibilities

In addition to outpatient and inpatient clinical responsibilities, the fellow will spend a minimum of two full days each week in the operating room developing surgical skills. Over the course of the year, the fellow should become comfortable with the technical aspects of all areas of hand surgery, including adult and pediatric reconstruction, adult and pediatric trauma, peripheral nerve surgery, hand burns, and wrist arthroscopy. The fellow will be expected to become facile in the performance of these procedures and will also be involved in overseeing both Plastic Surgery and Orthopaedic Surgery residents in the operating room.



Operative Requirements

- Each patient needs an updated H&P if they were last seen at clinic within 30 days or a new H&P if seen greater than 30 days ago
- Each patient needs a discharge med reconciliation
- Each patient needs Rx for pain medications on day of surgery
- Consents generally done in clinic but always check because sometimes they are missing (e-consent at OPSC, paper consent in main OR)
- Discharge instructions
- Sign in and mark each patient (some attendings will do this but most do not so you need to see and mark each patient prior to them being pulled back to OR). On Thursday AM, some attendings prefer that their patients be seen and signed in prior to 6:30am conference start, if they are there
- Each patient needs an operative report. This can be dictated or typed into EPIC. If you search the smartphrases of prior fellows you will find lots of pre-templated operative notes for common procedures for each attending

Dictation instructions (Appendix F). If you choose to dictate, you should also type a brief op note because the dictations can take a long time to come through (especially on evenings and weekends).
 You can dictate everything 'stat' to avoid the delay by pressing *5 at the end of dictation.

Responsibilities

Hand Fellow Expectations

The fellow should:

- 1. Make every attempt to see as many initial visits in clinic as possible
- 2. See as many patients they have operated on post-operatively for follow-up care as possible
- 3. Be responsible for the coordination of all Wednesday (1st pm) conferences and Journal Clubs (4th am) which means coordinating and attending lectures
- 4. Be familiar with all patients on the Orthopaedics Hand Service, rounding on patients operated on and coordinate with the residents on service (See Appendix A), during the months they are on Ortho. Do the same for Plastic Surgery Hand Service during their Plastics months
- 5. Be available for all evening cases during the week Complete the microsurgery course within the first three months of arrival [Basic Microsurgery Certificate from Angela Pineros-Fernandez (ACP3K)]
- 6. Complete the Stern's Bibliography, reading all articles by the end of the year. This is a self-study and should be done on their own. Dr. Deal has a recent version of this resource.
- 7. Read JHS every month from cover to cover
- 8. Become immersed in Hand Surgery during the course of the year including ER involvement, aggressive clinic involvement, and being available for OR cases
- 9. When the assigned attending is out of town, the fellow is required to notify the other attending to make sure they are kept busy working with the other attending
- 10. Complete at least one manuscript by the end of the year that should be submitted for publication
- 11. Complete one quality improvement projection during the fellowship year
- 12. Become comfortable with the use of hand therapy in both non-operative and post-operative management of common hand problems and should spend one-half day per quarter with the hand therapy clinic
- 13. Photo document interesting cases, and should prepare pre-, intra- and post-operative pictures of the event
- 14. Prepare a portfolio for submission on completion of the fellowship
 - Fellowship Lecture Schedule
 - Case Logs
 - o Grand Rounds Lecture
 - Hand Conference Lectures

- Interesting Cases
- Quality Improvement Project
- Radiology Conference Slides
- Research Publications
- Book Chapters
- Visiting Professor Presentations
- Microsurgery Certificate, Course Attendance Certificates (from ASSH)
- 15. Sit for the Certificate of Added Qualifications in Hand Surgery upon completion of the fellowship

Attending Educational Responsibilities

While all six Hand faculty are involved with educating the Hand fellow on a daily basis, participate in all conferences, actively participate in emergency Hand and Upper Extremity call, and jointly are involved in the education of all Hand Fellows, Plastics, and Orthopaedic Surgery residents on the Hand service, each faculty member has an area of expertise for which they are responsible in educating the fellows.

- 1. **Dr. Bobby Chhabra**, Chair of Orthopaedic Surgery, has a diverse practice but his special areas of interest are athletic injuries of the upper extremity, arthroscopy, elbow trauma, and reconstruction, congenital hand surgery, and brachial plexus injuries. He also has vast experience in wrist reconstruction and microvascular free fibular transfer for large segmental bony defects. His basic science area of research is zone II flexor tendon repairs. His experience and knowledge in this area gives him the responsibility of being the primary educator for the fellows in these areas.
- 2. **Dr. Rashard Dacus** has a diverse hand practice but his main areas of interest are upper extremity sports injuries as well as shoulder fractures and arthritis reconstruction. He also has experience in upper extremity trauma including the hand and wrist. He is the primary educator for shoulder pathology in the fellowship.
- 3. **Dr. Nicole Deal**, Fellowship Program Director, has a diverse practice that includes upper extremity trauma. She has extensive experience with microvascular reconstruction including nerve injury and repair. Her basic science area of interest is tissue engineering techniques for nerve repair. She is the primary educator for nerve injury and repair for our fellows.
- 4. **Dr. Aaron Freilich** has experience in upper extremity trauma and reconstruction. His main area of focus is in microvascular reconstruction and this is his primary area of education for our fellows.
- 5. **Dr. Raymond Morgan**, Plastic Surgery, has a very diverse practice in Plastics Hand Surgery. He has extensive experience in congenital hand surgery as well as soft tissue reconstruction and rheumatoid arthritis. These are his main areas of focus for fellow education.
- 6. **Dr. David Drake**, the Plastics Hand Fellowship Director, has vast experience in free tissue transfer for limb reconstruction. This is his area of expertise and focus for fellow education.

The six faculty members above provide an extremely comprehensive scope of hand and upper extremity surgery for all ages. The combination of their unique interests and skills allow for a comprehensive fellow education program.



Program Overview and Common Goals & Objectives

Description of Educational Experience

The Hand Fellow has rotating schedules each three months of the year. The educational experience is consistent, and the fellow will work with both Orthopaedic Surgery and Plastic Surgery faculty physicians each week. Time in each department is shared with surgery days and clinics divided evenly and research time respected. Individual and shared group learning experiences are available on a daily basis. Education in surgery is designed to simultaneously develop cognitive knowledge, judgment, technical ability, and teaching skills. The practice of surgery requires the application of clinical data and technical skills to sure disease. Surgical judgment is that combination of knowledge, confidence, ability, and compassion that leads to the successful practice of our specialty. It is attained through consistent mentoring and professional development. It is essential to participate in the entire patient interaction from initial evaluation through the surgical process to final discharge. Our program is designed to facilitate that experience for the entire fellowship program, with intense one-one interaction on a daily basis between the attending and the fellow.

Skills and competencies the fellow will be able to demonstrate at the conclusion of the program. The program must distribute these skills and competencies to fellows and faculty at least annually, in either written or electronic form. Delineation of fellow responsibilities for patient care, progressive responsibility for patient management, and supervision of fellows over the continuum of the program.

Curriculum

Overview

The University of Virginia Orthopaedic Hand Fellowship is designed to provide comprehensive training in all aspects of surgery of the hand. The Department of Orthopaedic Surgery and the Department of Plastic Surgery jointly provide clinical and didactic training, as well as exposure to the opportunities for research. The fellowship year is divided between six full-time faculty physicians. Dr. Deal is the Director and Drs. Drake, Morgan, Dacus, Deal and Freilich are the Hand Faculty. Please

contact Dr. Deal if there are any issues that we can address to make this fellowship a truly exceptional experience for you.

The Fellowship Program at the University of Virginia requires that all trainees obtain competence in the six areas listed below. The six competencies will be taught and evaluated through a variety of techniques: didactic presentations, clinical experience, teaching rounds, attending observation, Journal Club discussion, individual study and review, In-Training examinations, and successful completion of web-based training modules (NetLearning modules as required by the GME office).

- 1. **Patient Care**: Effective, appropriate and compassionate evaluation and treatment of patients. This includes information gathering, decision-making, safe and effective performance of procedures, and communication with other members of the health care team.
- 2. **Medical Knowledge**: The acquisition and integration of medical knowledge pertinent to Orthopaedic Surgery. The ability to utilize and analyze basic and clinical scientific literature in support of appropriate treatment decisions.
- 3. **Practice-Based Learning and Improvement**: The ability to objectively appraise one's own ability (as well as the specialty's) to evaluate patient care with regards to scientific literature and information technology as well as the teaching of other health care professionals and trainees.
- 4. **Interpersonal and Communication Skills**: The ability to effectively listen and communicate with patients, families and health care professionals via written communication, verbal and non-verbal methods.
- 5. **Professionalism**: Develop respect, compassion and integrity for gender, age, and cultural differences in the patient population as well as in the health care workforce. A commitment to ethical principles and practice, continued professional education and development of selflessness in the providing of medical care.
- 6. **Systems-Based Practice**: Develop an awareness and understanding of health care delivery systems and the interaction of health care with society with respect to health care cost, access to care, and optimal patient care.

Patient Care

Goals

The Hand Fellow must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Fellows must be able to competently perform all medical, diagnostic, and surgical procedures considered essential for the area of practice.

Competencies

- Management of fractures and dislocations, including phalangeal or metacarpal with and without internal fixation; carpus, radius, and ulna with and without internal fixation; and injuries to joints and ligaments
- 2. Management of upper extremity vascular disorders and insufficiencies
- 3. Upper extremity pain management

Objectives

Fellows must be able to competently perform all medical, diagnostic, and surgical procedures considered essential for the area of practice. Fellows must demonstrate competence in the following:

- 1. Wound closure, including skin grafts, tissue flaps (local, regional and distant) and free microvascular tissue transfer
- 2. Fingertip injuries
- 3. Tenorrhaphy, including flexor tendon repair and graft, implantation of tendon spacer, extensor tendon repair, and tenolysis/tenodesis
- 4. Tendon transfer and tendon balancing
- 5. Nerve repair and reconstruction, including upper extremity peripheral nerves, nerve graft, neurolysis, neuroma management, nerve decompression and transposition
- 6. Bone grafts and corrective osteotomies
- 7. Joint and tendon sheath repairs, including release of contracture, synovectomy, arthroplasty with and without implant, arthrodesis, trigger finger release, and stiff joints that result from rheumatoid or other injury management of arthritis, including synovectomy, arthroplasty (with and without implant) arthrodesis; Joint repair and reconstruction, including contracture release and management of stiff joints; Tendon sheath release
- 8. Thumb reconstruction, including pollicization, toe-hand transfer, and thumb metacarpal lengthening
- 9. Fasciotomy, deep incision and drainage for infection, and wound debridement
- 10. Foreign body and implant removal
- 11. Replantation and revascularization
- 12. Amputations
- 13. Arthroscopy

Medical Knowledge

Goals

Fellows must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care. Fellows must demonstrate competence in their knowledge of:

Competencies

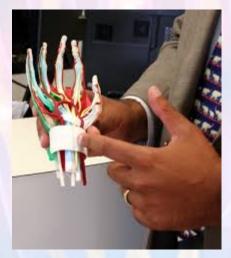
- 1. Osteonecrosis, including Kienböck's disease
- 2. Tumors (benign and malignant)
- 3. Dupuytren's disease
- 4. Congenital deformities, including syndactyly, polydactyly, radial aplasia, and others
- 5. Thermal injuries

6. Rehabilitation and therapy

Objectives

Fellows are expected to develop skills and habits to be able t meet the following goals:

- 1. Identify strengths, deficiencies, and limits in one's knowledge and expertise
- 2. Set learning and improvement goals
- 3. Identify and perform appropriate learning activities
- 4. Incorporate formative evaluation feedback into daily practice
- 5. Use information technology to optimize learning
- 6. Participate in the education of patients, families, students, residents and other health professionals



Practice-Based Learning and Improvement

Goals

Fellows are expected to develop skills and habits to be able to meet the following goals:

- 1. Systematically analyze practice using quality improvement methods, and implement change with the goal of practice improvement
- 2. Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems

Competencies

- 1. Identify strengths, deficiencies and limits in one's knowledge and expertise
- 2. Set learning and improvement goals
- 3. Identify and perform appropriate learning activities
- 4. Systematically analyze practice, using quality improvement methods, and implement changes with the goal of practice improvement
- 5. Incorporate formative evaluation feedback into daily practice

- 6. Locate, appraise and assimilate evidence from scientific studies related to the patients' health problems
- 7. Use information technology to optimize learning
- 8. Participate in the education of patients, families, students, residents, and other health professionals as documented by evaluations of the Hand Fellow's teaching abilities by faculty and/or other learners
- 9. Analyze practice experience and perform practice-based improvement activities using a systematic methodology
- 10. Obtain and use information about their own population of patients and the larger population from which their patients are drawn
- 11. Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness

Interpersonal and Communication Skills

Goals

Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals

All fellows must receive training in how to disclose adverse events to patients and families

Fellows should have the opportunity to participate in the disclosure of patient safety events, real or simulated

Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds

Communicate effectively with physicians, other health professionals, and health related agencies

Work effectively as a member or leader of a health care team or other professional group

Act in a consultative role to other physicians and health professionals

Maintain comprehensive, timely, and legible medical records

Objectives

- Discuss the patient/s medical condition, progress and outcome with the patient and patient's family (if requested) to assure complete understanding
- 2. Team with the patient, their family, and other health care providers to optimize the patient's recovery
- 3. Demonstrate effective communication with other health care professionals
- 4. Demonstrate education of the patient's family
- 5. Demonstrate counsel of the patient's family
- 6. Document patient education and counseling
- 7. Document development of patient care plan

- 8. Demonstrate ability to obtain informed consent, including the components of condition, proposed treatment, alternative treatment, complications, risk, benefits, outcomes of treatment and alternatives
- 9. Demonstrate maintenance of patient confidentiality in communication with family, friends, and other health care workers
- 10. Demonstrate integration and understanding in how professionalism and communication are critical and essential in overall optimal patient care and equally crucial in risk management and therefore effective Systems-Based Practice

Professionalism

Goals

Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles

Fellows must demonstrate an understanding of their personal role in the:

Competencies

- 1. Provision of patient- and family-centered care
- 2. Safety and welfare of patients entrusted to their care, including the ability to report unsafe conditions and adverse events
- 3. Assurance of their fitness for work, including
 - a. Management of their time before, during, and after clinical assignments
 - b. Recognition of impairment, including from illness, fatigue, and substance use, in themselves, their peers, and other members of the health care team.
- 4. Commitment to lifelong learning
- 5. Monitoring of their patient care performance improvement indicators
- 6. Accurate reporting of clinical and educational work house, patient outcomes, and clinical experience data

Frequent feedback of professionalism will be given through the clinical evaluation.

Systems-Based Practice

Goals

Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care

Fellows must demonstrate the ability to analyze the care they provide, understand their roles within health care teams, and play an active role in system improvement processes

Patient safety events

1. Fellows must know their responsibilities in reporting patient safety events at the clinical site

- 2. Fellows must know how to report patient safety events, including near misses, at the clinical site
- 3. Fellows must be provided with summary information of their institution's patient safety reports

Fellows must participate as team members in real and/or simulated interprofessional clinical patient safety activities, such as root cause analyses or other activities that include analysis, as well as formulation and implementation of actions

Fellows and faculty members must receive data on quality metrics and benchmarks related to their patient populations

Fellows must have the opportunity to participate in interprofessional quality improvement activities, including activities aimed at reducing health care disparities

Didactic Components

A comprehensive, organized course of study must be offered, to include educational conferences that are well defined, documented, and regularly held.

The written course of study should reflect careful planning, with evidence of a cyclical presentation of core specialty knowledge supplemented by the addition of current information, including practice management, ethics, and medicolegal topics as they relate to hand surgery

Conference must include basic science subjects related to clinical surgery of the hand, such as anatomy, biomechanics, biomaterials, physiology, pathology, genetics, microbiology, and pharmacology. A periodic M&M conference and journal club must be included

A list of the conferences should be maintained and available for review at the time of the site visit

Conferences should be attended by both the fellows and faculty members, and such attendance should be documented

Conferences should be organized and led by faculty members to ensure that sufficient educational experience is provided

Fellows should make presentations at conferences and actively participate in conference discussions. Adequate time for fellow preparation should be permitted to maximize the educational experience

Didactic activity should include the evaluation of practices that ensure and improve patient safety as well as instruction in established patient safety measures

Clinical Components

Fellows must be provided with education in surgical design, surgical diagnosis, embryology, surgical anatomy, surgical physiology and pathology, pharmacology, wound healing, microbiology, adjunctive oncological therapy, biomechanics, exposure and instruction in hand therapy and rehabilitation, and surgical instrumentation

A sufficient number and variety of adult and pediatric hand surgery patients must be available for fellow education

Generally equivalent and sufficient distribution of operative procedures among the patients must be available for fellow education

Fellows should be provided with graduated and progressive patient management responsibility



Core Curriculum Topics

The following topics should be covered in conferences over the course of the fellow's year:

- 1. Skin Repair/Flaps/Grafts
- 2. Fingertip/Nailbed Injuries/Amputations
- 3. Tendon Repair
- 4. Nerve Repair/Compression neuropathy
- 5. Fractures/Bone Grafts/Wrist Arthroscopy
- 6. Inflammatory Joint Disease/Rheumatoid Arthritis
- 7. Hand Tumors/Dupuytren's
- 8. Replantation/Microsurgery/Toe-Hand Transfers
- 9. Congenital Disorders
- 10. Vascular Disorders
- 11. Thermal Injuries
- 12. Upper Extremity Pain Management
- 13. Hand Therapy/Rehabilitation/Prosthetics

Curriculum Goals

Basic Sciences

- 1. Appreciation for basic and advanced surgical anatomy of the bones, soft tissues, nerves and vessels associated with the hand, wrist, forearm, elbow and shoulder. Additionally, facility with the anatomy of other selected regions of the body utilized in microsurgical reconstruction is required.
- 2. Familiarity with the science of healing tissue, including bone, nerve, tendon, ligament and vessel.

- 3. Understanding of the pertinent biomechanics of normal and pathologic bone, and the relationship of force transmission to creation of osseous injury.
- 4. Knowledge of the length-tension relationships of musculotendinous units and their expression in normal and pathologic states.
- 5. Awareness of metabolic and autoimmune balance that affects the tissues of the upper extremity.
- 6. Knowledge of macroscopic and microscopic anatomy and physiology of nerves and vessels as they relate to the normal and pathologic status of the hand and upper extremity.
- 7. Appreciation of hydraulics and fluid flow sciences as they relate to the vascular system and its disturbances or pressure-related pathologies.
- 8. Familiarity with basic pharmacology as it relates to the drugs and agents utilized in the practice of Hand Surgery.
- 9. Knowledge of the embryology, especially as it relates to upper extremity development, teratogenesis and basic genetics.

Traumatic Conditions

- 1. Fractures and/or dislocations of the bones and joints of the hand and upper extremity, including open and closed injuries of the tubular bones and dislocations of all elements of the osteoarticular column (simple and complex).
- 2. Specific fractures and nonunions of the carpus, in addition to treatment of acute and chronic wrist instability patterns.
- 3. Role of arthroplasty and/or arthrodesis in management of acute trauma to the bones and joints of the hand and upper extremity.
- 4. Eponymous fractures and dislocations of the forearm axis (Galeazzi, Monteggia, Essex-LoPresti).
- 5. Lacerations or injuries associated with tissue loss, including those requiring advanced coverage options.
- 6. Logical and systematic treatment of "combined" injuries that present with soft tissue, bony and neurovascular involvement.
- 7. Knowledge of ballistic injury and other foreign body management of the hand and upper extremity.
- 8. Management of tendon laceration of the hand and upper extremity (flexor and extensor tendons of the hand and wrist, biceps and triceps tendons).

Degenerative and Inflammatory Arthropathies, Osteonecroses

- 1. Degenerative or inflammatory arthritis of the small joints treated with debridement (mucous cyst), arthrodesis or arthroplasty.
- 2. Degenerative or inflammatory arthritis of the wrist treated by proximal row carpectomy, partial fusion, denervation, total wrist fusion or wrist arthroplasty.

- 3. Degenerative or inflammatory conditions of the elbow treated by arthroscopic debridement, interposition biologic arthroplasty or total elbow replacement arthroplasty.
- 4. Degenerative arthritis of the shoulder treated with shoulder arthroplasty.
- 5. Recognition and treatment of Kienböck's and Pressier's disease.
- 6. Post-traumatic or developmental pathologies that may accelerate the development of degenerative arthrosis (ex., Radius malunion, Madelung's).

Tendinitis and Other Soft Tissue Inflammatory Conditions

- 1. Trigger finger and trigger thumb
- 2. DeQuervain's stenosing tenosynovitis
- 3. Intersection syndrome
- 4. Synovitis and tenosynovitis associated with inflammatory arthritis
- 5. Medial and lateral epicondylitis
- 6. Rotator cuff tendinitis
- 7. Cumulative trauma disorders

Congenital Differences

- 1. Hypoplastic or absent thumb and radial club hand (pollicization, augmentation, microsurgical reconstruction, non-microsurgical reconstruction including metacarpal lengthening).
- 2. Central and ulnar deficiency.
- 3. Syndactyly and polydactyly.
- 4. Duplicate thumb.
- 5. Role of extraperiosteal toe phalanx transfers for terminal deficiency.
- 6. Madelung's Deformity.
- 7. Poland's Syndrome.
- 8. Other syndromes with manual manifestations (Cornelia DeLange, Nail-Patella, etc.).
- 9. Understanding of basic genetics, embryology and collaborative approaches with other professionals dealing with pediatric patients (Pediatrician, Therapists, Geneticists, Social Workers, Parental Support Groups, etc.).

Arthroscopy and Endoscopy

- 1. Understanding of the indications for and performance of upper extremity arthroscopy for diagnosis and treatment (elbow, wrist, selected small joints of the hand).
- 2. Use of endoscopic visualization for upper extremity nerve decompression (ex., Carpal tunnel release).

Metabolic and Infectious Processes

- 1. Diagnosis and management of crystalline arthropathy (gout, pseudogout) specifically as it is in contradistinction to suppurative processes.
- 2. Decompression of suppurative tenosynovitis, hand space abscesses or suppurative arthritis of the hand, wrist, elbow and shoulder, paronychia and felons.
- 3. Management of postoperative infectious complications of the hand and upper extremity, including those with in-dwelling hardware or joint implants.
- 4. Basic knowledge of microbiology, including common pathogens. Additional knowledge of atypical infections seen and treated by hand surgeons (HIV, TB, mycobacterial infections, etc.).
- 5. Appreciation for the management of metabolic bone disease and osteoporosis as it relates to the practice of hand surgery.

Neurovascular Pathologies and Microsurgical Applications

- 1. Management of compressive or polyneuropathy (carpal tunnel, cubital tunnel, radial tunnel, sensory nerve disturbances).
- 2. Treatment of brachial plexus lesions, including direct repair, necrotization and transfers to restore function after brachial plexus injury.
- 3. Management of neuromata and adhesive neuritis.
- 4. Management of acute nerve and vessel lacerations (isolated or combined).
- 5. Non-microsurgical tissue coverage options, including skin grafting, complex flap closures and pedicled transfers.
- 6. Microsurgical capabilities for employment in acute and elective circumstances for wound coverage (free tissue transfer).
- 7. Revascularization or replantation of upper (and selected lower) extremity amputations.
- 8. Tendon transfers for isolated or combined nerve palsies (radial, median, ulnar) or brachial plexus palsy.
- 9. Vasospastic, embolic and vascular insufficiency disorders (Raynaud's, hypothenar hammer syndrome, etc.).

Neoplastic Processes

- 1. Ganglion cysts, and other benign tumors including inclusion cyst, giant cell tumor, nerve-associated tumors, vessel-associated tumors.
- 2. Malignant melanoma, including integrated approaches in collaboration with Oncologists.
- 3. Squamous cell carcinoma.
- 4. Metastatic Cancer with manual/upper extremity manifestation.
- 5. Dupuytren's Contracture diagnosis and treatment.
- 6. Enchondroma, osteoid osteoma and other bone-associated tumors.

Pressure-related Phenomena and Thermal Injury

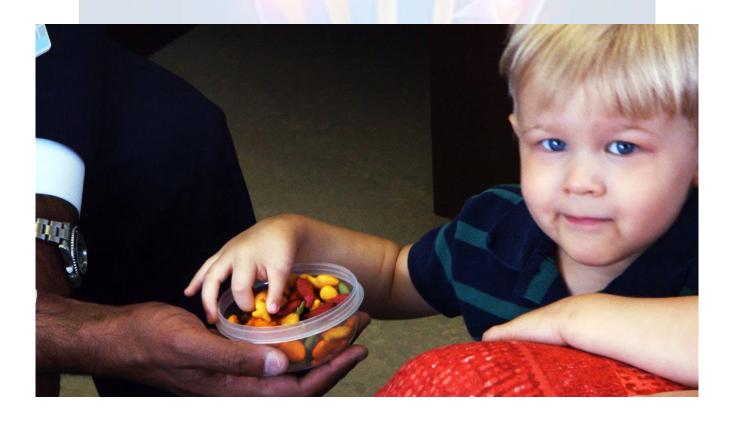
- 1. Diagnosis and treatment of evolving compartment syndrome.
- 2. Management of first, second, and third-degree burns.
- 3. Indications for and performance of hand and forearm fasciotomies and digital escharatomies.
- 4. Management of frostbite.
- 5. High-pressure injection injuries.

Miscellaneous Disorders

- 1. Sympathetically-mediated pain-dysfunction syndromes.
- 2. Conversion reaction and Munchausen's Syndrome.
- 3. Child Abuse.

Hand and Upper Extremity Rehabilitation

- 1. Knowledge of the indications for and collaborative employment of contemporary protocols for upper extremity rehabilitation in nonsurgically-managed and postoperative patients.
- 2. Appreciation for advanced concepts of hand rehabilitation, including work hardening, vocational evaluation and workplace ergonomics.
- 3. Appropriate consultation with additional professionals (Social Work, Psychology, etc.) in the treatment of patients for hand and upper extremity pathologies.



Evaluations

At the end of each quarter, standardized evaluations including milestones as defined by the ACGME are completed by the supervising faculty members of the fellow, and evaluations of the faculty by the fellow are completed; a 360° evaluation by PAs, nurses, staff, and self are performed twice annually. Additionally, the fellow and faculty are asked to evaluate the program semi-annually. These evaluations reflect the six core competencies identified by the ACGME and are completed within the New innovations Software. The faculty evaluation of the fellow is discussed directly with the fellow prior to submission to the Coordinator for filing in the trainee's records. Fellow evaluations of the faculty are kept confidential and are blinded and randomized along with resident evaluat9ions before comments are shared with the faculty during their annual reviews. Program evaluations are blinded and reviewed annually by the Program Effectiveness Committee (PEC) as part of the annual program review process.

The program uses multiple evaluators (faculty, peers, patients, self, and other professional staff). The fellow's summary evaluation becomes part of the fellow's permanent record maintained by the institution and is accessible for review by the fellow in accordance with university policy. This evaluation documents the fellow's performance during their education and verifies that the fellow has demonstrated sufficient competence to enter practice without direct supervision.

Assessment of Training Program

Program effectiveness is critically evaluated once annually at the Program Effectiveness Committee Meeting, of which the fellow is a member. Improvements identified are incorporated into the Annual Program Evaluation, a self-assessment done by the program for the GME Committee. Action plans are submitted to the GMEC for review and follow-up during their Annual Program Review (APR) process. Outcomes will be tracked by the Program Director and revisited by the PEC annually.

Early Warnings

Initial intervention for trainee deficiencies with respect to performance, behavior and conduct are handled with face-to-face conference with the Program Director. If the initial meeting does not resolve the problem, the Clinical Competence Committee is convened to discuss the issue and to formulate an action plan. If remediation is recommended, the trainee is notified in writing. Remediation is continued for a specified period (generally 3 months) until the identified outcome measures have been collected and reviewed by the CCC. Upon receipt of satisfactory information the CCC may recommend removal of remediation status. If the required improvements have not been achieved, the CCC will determine the next course of action, (per GMEC Policy 05 Assessment of Performance) which may include additional remediation, suspension or dismissal from the program.

This policy can be found at https://med.virginia.edu/gme/

Conference Requirements

Continuing Medical Education / Lecture Series

A minimum of one hour each week is devoted to Orthopaedic didactic presentations in the basic sciences. A formal lecture is presented weekly, either by a resident, basic science faculty member, staff orthopedist, or visiting consultant. All resident lectures are supervised and backed-up by one or more designated attending physicians. Additional Orthopaedic Pathology lectures are given one to two times per month by our orthopaedic oncologist. While these lectures are often clinical topics, the basic science issues relevant to these topics are incorporated into each didactic lecture. Additional basic science presentations are integrated into the Grand Rounds and Chairman's conference schedules. Hand Fellows should plan to attend those conferences in Orthopaedics that are pertinent to their education.

Each month there are six required upper-extremity conferences for the Hand Fellow.

A combined-service Hand Journal Club is held every two months to review the latest issue of the Journal of the American Society for Surgery of the Hand as well as classic hand surgery articles.

Every Thursday at 6:30 am, an Upper-Extremity Conference is held in the Conference Room at the outpatient surgery center. One Tuesday per month at 6:30am, Orthopaedic Surgery Competency Lectures is devoted to Hand and Upper Extremity Surgery. Every 4th Wednesday am the fellows will attend/present a lecture topics which are chosen by the fellows, program director and faculty.

The Morgan-McCue Lectureship in Hand Surgery is presented in the spring of each year. A noteworthy Hand Surgeon is invited to visit in honor of the founders of the fellowship program at the University of Virginia. In addition, two or three visiting professor lectures will be arranged, and the fellow will help the fellowship program directors for Plastics (Drs. Drake and Dacus) to organize topics and case presentations.



Conference Schedule

Skeleton weekly conference schedule for Orthopaedics (varies weekly, fellows given master schedule on matriculation):

Monday 06:15-06:30 Fracture conference – didactic session

06:30-07:15 Fracture conference – cases

Tuesday 06:15-07:15 Core Curriculum conference

Wednesday 07:00-09:00 Grand Rounds

OITE Review (Pathology Conference)

Quality Assurance 1x/month

Thursday 06:30-07:30 Indications conference

Friday 06:30-07:30 Basic Science/Anatomy (didactic/dissection) Lecture

Visiting Professor Held at the end of year in conjunction with resident graduation

Multi-disciplinary Core Competency Lecture Series: Held once a month on the second Wednesday from 7-8am

Fracture Conference

Monday mornings, 06:15-07:15, Moss Amphitheater (1st floor main hospital)

Resident prepares 15 minute powerpoint talk on a topic. You go on days when there is a hand topic. Topic scheduled on UVA Ortho website. Followed by fracture conference. Starts at 6:15 in Moss Auditorium which is near the west elevators on the first floor opposite the cafeteria hallway.

Core Curriculum Conference

Tuesday mornings, 06:15-07:15, Operating Room Classroom (2nd floor main hospital)

Lectures start at 6:15 in classroom adjacent to main OR. You go when hand topics are scheduled. These are presented by attendings.

Grand Rounds

Wednesday mornings, 07:00-09:00, Fontaine Conference Room, 3rd Floor

You need a badge access card from Mindy to enter prior to 8am. There is a late start for all main OR and OPSC cases on Wednesdays to accommodate morning conferences 7-9am.

- First Wednesday of the month: Quality Assurance. Residents present most of the cases for each service, but you should present cases that you are involved with.
- Other Wednesday conferences that you should attend include orthopaedic visiting professors. Dr. Chhabra wants you to go to all of these, not just the hand and upper extremity related ones. These often occur on the 2nd, 3rd, or 4th Wednesday of the month. Get the visiting professor conference schedule from Mindy before you make your fellowship lecture schedule and try to avoid conflicts with those dates
- Fourth Wednesday of the month: Hand Fellow Conference & Journal Club. Held at the Hand Center break room. Fellows alternate giving the lecture (about 45 minutes) and picking journal club articles (4-5 articles). Articles can be assigned to both fellows and both residents on service so that everyone presents one and then there is a brief discussion. Articles are generally chosen from the current issue of JHS and/or Hand. Could also choose historic articles from Stern's collection, etc. Hand fellows, hand

attendings, and plastics residents always present. Occasionally Ortho residents on service will come if they don't have other conferences going on that morning

Indications Conference

OPSC Conference room on the 2nd floor near the locker room and staff break room just past the elevator down to the OPSC ORs. The junior resident on hand service will prepare slides reviewing cases from the previous week with x-rays as well as upcoming cases for the next week. Attendings, fellows, and hand service residents attend this. If you are leaving after conference to go to clinic, park on the road outside the Battle Building because they don't check meters until 8am, that way you don't have to walk all the way back to drive to clinic. There are 4-5 Radiology/Hand combined conferences throughout the year that are at another location on Thursday mornings instead of indications conference.

Anatomy or Radiology Conference

Friday mornings, 06:30-07:30, 6E classroom

Radiology Conference

Radiology MSK fellows and Ortho hand team in attendance. Coordinate dates with Dr. Mark Anderson (MSK radiology) and send him cases ahead of time after emailing ortho attendings about the week or two before the conference to see if they have any interesting cases. Be sure to include clinical/operative photos and pathology findings in your slides if you have them. Aim to present about 4-5 cases. Presentations can be brief. Dr. Anderson will review the images so you don't need to include those in your slides. Conference goes until 7 or 7:15 so have the junior residents leave early to go sign in patients at OPSC so that your cases can still start on time.

Anatomy Lab

Only attending hand/upper extremity related lectures. There were two anatomy labs on Friday (one volar hand/forearm, one dorsal hand/forearm). The residents prepare the dissection/prosections. Attendings come and ask questions of the residents. Fellows participate in question and answer session. The Anatomy lab is no the 1st floor of Jordan Hall through the locker rooms. Find a resident to follow in there if you've never been before because it can be tough to find.

Research Conference

Quarterly (about) meeting on Wednesday mornings from 7-9am. Often in Dr. Chhabra's office. Here you will meet with Ortho attendings and the residents that are working on hand projects. You can hear about ongoing projects that need someone to work on them and pick up something that sounds interesting or you can present your own idea.

Morgan-McCue Lecture and Dinner

In the spring, usually April, a visiting Hand Professor will speak on a Wednesday morning 7-9 in Ortho conference room. Preceded by a dinner the Tuesday evening before the lecture. Lecture is followed by case presentations at the Hand Center break room. Interesting cases put together by the fellows,

chief resident on Ortho, plastics hand current residents and presented to the visiting professor for discussion.

Tasks to Complete

Self-assessment exam: Take the prior year's exam unofficially and record the score sometime in the fall. The official test comes out early spring from ASSH. You pay for it and get reimbursed and take the 200 question exam before graduation. Need to score 50%.

Research Project: can be basic science, clinical, review article, etc. One project required

Quality Improvement Project: One project required

Microsurgery Certification: Work with Angela Pineros-Fernandez (ACP3K@hscmail.mcc.virginia.edu) in the micro lab. Approximately 10-16 hours to complete the training. The Micro lab is hidden in the plastics department on the 4th floor in the west hospital. Email Angela to get started when you start. Use Wednesday afternoons or free afternoons when cases get done early to get into the lab. It is encouraged that you finish the training during the first half of the year. Angela generally does not have morning availability before 10am. You will get an official Micro training certificate upon completion of the course that you will include in your Portfolio. Ask for the syllabus up front from her so that you have an idea of what you are trying to accomplish.

Grand Rounds Lecture: About 30-45 minutes long. Hand service gives 2 Grand Rounds per year on Wednesday mornings from 7-9 in Fontaine Ortho conference room. One fellow and one attending will each give a lecture during the 7-9am time window. You can choose any topic. Talk to attendings to get ideas of what has been discussed in the recent past.

Portfolio: Submit to program director and coordinator via dropbox in July before you finish. Your portfolio should include

- Fellowship lecture schedule
- Case logs (full detail)
- Grand Rounds Lecture
- Hand Conference Lectures
- Interesting cases (pollicization, syndactyly, thumb reconstruction, etc) with pictures and films
- Quality Improvement Project
- Radiology Conference slides
- Research Publications or Research Project writeup
- Book Chapters
- Visiting Professor Case Presentations
- Microsurgery Certificate, Course Attendance Certificates (from ASSH)



Inpatient and Surgical Facilities

The UVA Medical Center, opened in 1990, remains a state-of-the-art facility, providing the residents with the latest in technology and resources. There is a dedicated Orthopaedic inpatient unit, with a full-time nursing staff, Physical & Occupational Therapy staff, and a social worker. This was the first hospital in the country with the capability to perform 3-D computer-guided and Virtual Fluoroscopic pelvic and extremity surgery. The adjacent Outpatient

Surgery Center (OPSC) located at the Battle Building provides 12 operating rooms for outpatient surgery. A fresh tissue cadaver bioskills lab with state-of-the-art endoscopic and internal fixation practical stations is located in the medical school. The University Hospital has 27 state-of-the-art operating rooms.

The Clinic



The UVA Hand Center and The UVA Spine Center are located on the 3rd floor of the 415 Building at Fontaine Research Park. These state-of-the-art clinics provide convenient specialty specific care with all ancillary services located in clinic.

Parking

At the hospital: You can take a payroll deduction for a permit to park in the South Garage (see the GME Office) on the main hospital campus.

At Fontaine: Be sure NOT to park in spaces designated for patients. You may park in the U-9 lot in front of the 485 building (next door), or in front of the administrative office building (400 building). This lot fills so know where the other lot is.

The Office



The Orthopaedic offices are located on the third floor of the 400 Building. You will be coming here quite often for conferences and meetings. All of the attendings' offices are here, along with their administrative assistants.

Dr. Deal's and Dr. Freilich's Administrative Assistant is Vickie Blackwell 243-0067

Dr. Chhabra's Administrative Assistant is Marla Langdon 243-0218

Dr. Dacus' Administrative Assistant is Diane Sullivan 243-0281

Mindy Franke is your fellowship coordinator

434-924-8711 (o); 540-246-5773 (c)

Fax 434-243-0242

Mindy@virginia.edu

Orthopaedics Business Office

Michael Boblitz, MBA, CMPE, Chief Operating Officer 434-243-0225

Mary-Leigh Thacker, MBA, Director of Finance 434-243-0226

Laura Simmons, Grants Administrator 434-243-5647

Claude Moore Health Sciences Library

The main medical library is staffed with experienced people and is well stocked with current orthopaedic textbooks and journals. A vast array of journals, textbooks, computers, and databases are available from 7:00am to 12:00am in the library. Additional computers are available to the fellows in the resident call room, ER, inpatient floor, and departmental offices. Additionally, the faculty members have personal textbooks in their offices that are available to "check out" upon discussion with the particular faculty member. These textbooks are available to the fellow 24 hours a day including weekends and holidays.

Housekeeping

Moonlighting

No moonlighting is allowed in the Department of Orthopaedic Surgery. Educational and service activity that UVA Orthopaedic Surgery Trainees provide for local varsity sports activity (physical exams, presence at games, etc) are considered formal program education and time spent thereon will count toward duty hours and any stipends will be placed in the Resident & Fellow Education fund within the UVA Alumni Association account. All money received will be shared by trainees in the form of books, subscriptions, or the year-end visiting professor activity.

Alertness Management / Fatigue Mitigation

Fellows and faculty must be educated annually in the recognition of fatigue and sleep deprivation. To this end, a CBL module has been developed in the NetLearning system titled "Recognizing and Managing Fatigue and Stress (Residents and Attendings)" that is self-assigned.

Supervision

The Orthopaedic Hand and Upper Extremity Fellowship Program recognizes and supports the importance of graded and progressive responsibility in graduate medical education. The goal is to promote assurance of safe patient care, and the fellow's maximum development of the skills, knowledge, and attitudes needed to enter the unsupervised practice of medicine.

The supervising physician is defined as a faculty physician, or a licensed independent practitioner, including non-physician faculty working in conjunction with the Orthopaedic Surgery department.

In all cases, fellows and faculty members must inform each patient of their respective roles in that patient's care when providing direct patient care. Fellows are expected to know the limits of their scope of authority, and the circumstances under which the fellow is permitted to act with conditional independence.

Four levels of supervision are recognized. They are:

- 1. Direct: The supervising physician is physically present with the fellow and the patient and prepared to take over the provision of patient care if/as needed.
- 2. Indirect: There are two types of indirect supervision:
 - a. Indirect supervision with direct supervision immediately available. The supervising physician is present in the hospital (or other site of patient care) and is immediately available to provide Direct supervision. The supervising physician may not be engaged in any activities (such as a patient care procedure) which would delay his/her response to a fellow requiring direct supervision.
 - b. Indirect supervision with direct supervision available: the supervising physician is not required to be present in the hospital or site of patient care, or may be in-house but engaged in other patient care activities, but is immediately available through telephone or other electronic modalities, and can be summoned to provide Direct supervision.
- 3. Oversight: The supervising physician is available to provide review of procedures/encounters with feedback provided after care is delivered

The Orthopaedic Hand and Upper Extremity Fellowship program establishes schedules which assign qualified faculty physicians, or appropriate other licensed independent practitioners, to supervise at all times and in all settings in which fellows of the Orthopaedic Hand and Upper Extremity Fellowship program provide any type of patient care.

The minimum amount/type of supervision required in each situation is determined by the definition of the type of supervision specified, but is tailored specifically to the demonstrated skills, knowledge, and ability of the individual fellow. In all cases, the faculty member functioning as a supervising physician should delegate portions of the patient's care to the fellow, based on the needs of the patient and the skills of the fellow as determined by the CCC evaluation of the trainee's progression in the demonstrated competence of skills.

In every level of supervision, the supervising faculty member must review progress notes, sign procedural and operative notes, and discharge summaries. Faculty members must be continuously present to provide supervision in ambulatory settings, and be actively involved in the provision of care, as assigned.

Please see Appendix C for Graduate Medical Education Committee Policy No. 12, "Graduate Medical Trainee Supervision Policy."

Escalation of Care

All fellows must communicate with the appropriate supervising faculty member, according to these guidelines: the fellow shall notify the responsible Attending Physician within 90 minutes of any of the following events:

- 1. Patient admission to hospital
- 2. Transfer of patient to or from the intensive care unit or to a higher level of care
- 3. Need for intubation or ventilator support
- 4. Cardiac arrest or significant changes in hemodynamic status (i.e., Code 12 or MET team activation)
- 5. Development of significant neurological changes
- 6. Development of major wound complications
- 7. Medical errors requiring clinical intervention
- 8. Any significant clinical problem that will require an invasive procedure or operation
- 9. Patient death
- 10. Notification of patient representative that family wishes to lodge a formal complaint
- 11. Activation of In-house Rescue Physician (Adult) for anything other than routine procedures
- 12. Patient and/or family request to speak to the attending
- 13. Whenever the Trainee believes that his/her ability to provide care to the patient is impeded

Operating Room Schedules

Surgery is to be scheduled through each service's surgery schedulers. The Chief Resident on each service is responsible for the sequence of cases, for any additions or subtractions, and for the appropriate equipment and positioning. The information required includes a realistic appraisal of the amount of time necessary to complete the procedure, use of the intensive care unit postoperatively, and estimated blood loss. The 'physician section' of the Surgical Safety Admission Ticket should be filled out completely and checked with the attending.

The Orthopaedic residents responsible for first cases at OPSC or the main OR will be in the operating room and changed into OR attire by 7:10am (9:10am on Wednesdays).

Emergent cases should be booked with the OR Staff and the Anesthesia Department only after all pertinent workups have been completed. The information provided should be detailed.

Posting Cases

All trainees should be familiar with the logistics of posting cases for the main OR for both elective and emergent cases. It is the Chief Resident's responsibility to notify the Attending on call when a patient is "sent for" as well as when the patient enters the operating room.

Duty Hour Requirements

UVA Policy

The Office of Graduate Medical Education requires all ACGME and non-ACGME residency and fellowship programs to participate in the documentation of duty hours in New Innovations, to ensure graduate medical trainees are not being placed at risk for fatigue, and to document compliance with

each program's individual Residency Review Committee (RRC) and the Accreditation Council for Graduate Medical Education (ACGME) regulations.

Duty hours are defined as all clinical and academic activities required for the educational program; i.e., patient care (direct patient care: both inpatient and outpatient), administrative duties <u>relative</u> to patient care, the provision for transfer of patient care; time spent in-house during call activities, and scheduled activities such as required conferences. Duty hours do *not* include reading and preparation time spent away from the duty site. Duty hours restrictions are based upon the ACGME Duty Hour rules as found in the Common Program Requirements on the ACGME website: http://www.acgme.org/acWebsite/home/home.asp.

- 1. Faculty and fellows must be educated to recognize the signs of fatigue and sleep deprivation and must adopt and apply policies to prevent and counteract its potential negative effects on patient care and learning.
- 2. The Institution mandates that all graduate medical programs comply with their individual RRC regulations regarding duty hours restrictions.
- 3. The Institution mandates that all non-ACGME accredited programs comply with the ACGME Duty Hour rules as found in the Common Program Requirements on the ACGME website: http://www.acgme.org/acWebsite/home/home.asp and the Specialty-specific Duty Hours Definitions (4/29/2011) located at: http://www.acgme.org/acWebsite/dutyHours/DH Definitions.pdf.
- 4. The Institution does not allow exceptions to the 80 hour weekly limit on duty hours.

Duty Hour Logging and Monitoring

Program Directors will complete and submit a duty hours tracking report to the GMEC Subcommittee on Duty Hours Compliance on the following schedule:

Programs at low risk for violations will complete one survey for the one month period this
year November 2016 and will submit to the GMEO the second Friday after the end of that
rotation. Low risk is having no risk of true duty hour violations and absence of any of the
additional measures noted to designate it high risk.

All fellows are responsible for recording their own hours in New Innovations. Any trainee wishing to discuss a duty hour concern may do so confidentially with their program director, GMEO staff, or the DIO. Trainees are encouraged to utilize the anonymous incident reporting line at 434-806-9521.

Orthopaedics Policy

The Orthopaedic Hand & Upper Extremity Fellowship program schedules fellow assignments to be in compliance with all applicable ACGME requirements. Faculty members know, honor, and assist in implementing the applicable duty hour limitations. Fellows comply with those limitations, accurately report duty hours, and cooperate with duty hour monitoring procedures. All involved identify and report sources of potential duty hour violations, and collaborate to devise appropriate corrective action.

Duty hours are defined as all clinical and academic activities related to the program. This includes patient care, administrative duties relative to patient care (including those, if any, conducted from home), provision of transfer of patient care, on-call time spent in-house, and scheduled activities such as conferences. Duty hours do not include reading and preparation time spent away from the duty site.

Scheduled duty periods are defined as assigned duty at this hospital or other training site encompassing hours which may be within the normal work day, beyond the normal work day, or a combination of both. Fellow Duty Hours are to be recorded during the November Rotation each year, in the New Innovations Software system. See Appendix B for directions on how to log Duty Hours. The following delineates our policies on duty hours for Orthopaedic Surgery Trainees.

- 1. Weekly limit: Duty hours are limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities.
- 2. Days off: Fellows have one day (24 hour period) every week free of all duty (including at-home call), when averaged over a four-week period.
- 3. Maximum duty period length
 - a. Duty periods are limited to 24 hours of continuous duty in the hospital. The fellow may remain on-site for transition of care and/or to attend an educational conference when that transition is completed, but may not perform additional clinical duties (including continuity clinic) during those additional 4 hours.
 - b. After 16 hours of continuous duty, fellows are encouraged to engage in strategic napping, especially when the 16 hour mark occurs between 10pm and 8am.
- 4. Individual exceptions to maximum duty hour period: In unusual circumstances, a fellow may remain beyond their scheduled period of duty to continue to provide care to a single patient. These policies apply:
 - a. The extension of the duty hour period must be initiated voluntarily by the fellow never assigned, or suggested, by a faculty member.
 - b. Possible justifications for this extension of the duty hour period include: required continuity of care for a severely ill or unstable patient, or a complex patient with whom the fellow has been involved; events of exceptional educational value; or humanistic attention to the needs of a patient or family.
 - c. The fellow must transfer the care of all other patients to the resident team responsible for their continuing care.
 - d. The fellow will text or page the Program Director within 12 hours to notify him that continuous care over 24 hours was provided, including the name of the patient, the date, and the specific reason for remaining on duty.
 - e. The Program Director will review each submission of additional service.
- 5. Time off between scheduled duty periods: Fellows are in their final year of education and therefore have flexibility in their duty hour assignments, which might be irregular or extended. It is desirable that these fellows have eight hours free of duty between scheduled duty hour periods, but there will be circumstances when they must stay on duty to care for

their patients or return to the hospital with fewer than eight hours free of duty. Those circumstances may include required continuity of care for a severely ill or unstable patient, or a complex patient with whom the fellow has been involved; events of exceptional educational value; or, humanistic attention to the needs of a patient or family. Such instances of fewer than eight hours away from the hospital must be reported to, and will be monitored by, the Program Director.

6. At-Home call: At-home call must satisfy the requirement for one-day-in-seven free of duty. Time spent in the hospital by a fellow on at-home call must be reported in, and count toward, the 80-hour maximum weekly hour limit. Return to the hospital for episodic care whole on at-home call does not initiate a new "off-duty period."

Saturday Elective Time

Saturday elective cases will be preferentially covered by the on-call team. For complex cases to be done on the weekend the staffing attending will determine if fellow coverage will be needed. The fellows must remain compliant with all duty hour regulations.

Recording Case Logs

Case Logs must be entered into the ACGME's Case Log System each week. Failure to comply with this requirement may result in a professionalism deficiency which may become a permanent part of the trainee's file. Random checks of compliance will be performed by the coordinator and director.

Lab Support

Microvascular Laboratory

The department will pay the expenses for the trainee's time spent in the Microvascular Laboratory. Angela Pineros-Fernandez is the Plastics Microsurgery technician and runs the microsurgery lab (4-2016) in the Department of Plastic Surgery. Angela is accessible at all times to assist with developing the fellow's microsurgical skills. We strongly urge fellows to complete the microsurgical training experience early in the year, then practice frequently; this will enhance overall microsurgery experience. A certificate of completion will be given at the completion of the course and should be included in the fellow's Portfolio.

Research Expenses

The fellow will have ready access to the research laboratories of both departments, including cellular biology labs, the microvascular lab of the Plastic Surgery department, the biomechanics lab of the Orthopaedics department, and the anatomy lab of the medical school Each of these labs has full-time basic science researchers available to the fellow. Additionally, the trainee will have ample opportunity to do clinical research, including clinical trials, chart reviews, or case studies.

All research projects will have a faculty member as the senior investigator, and presentation of publishable research will be supported by the department of the faculty investigator. The fellow will have up to a full day each week to conduct research activities. The fellow is required to participate in a clinical research project and to complete a paper for a peer-reviewed publication. Faculty members

will present their current research at a conference in August or September, and the fellow should commit to a project at that time. A timeline for completion of the project will be formulated to assure completion.

Documentation Completion Standards

This is a guideline and not a template. You need to ask the specific attending or the Chief Resident on call what the individual attending would like to see included in a consult.

- 1. Getting started: all consults should be typed into EPIC as a Consult Note / H&P with the name of the orthopaedic attending of record and, if known, the name of the faculty orthopaedist who will take care of the patient on a follow-up appointment. Specifically state the attending on call and the follow-up attending in the dictation.
- 2. All consults begin after establishing who the consulting team is and what they wish to know or what need as a procedure for the patient. All dictations should begin with "I was consulted by Dr. {insert name} of the {name of service} to evaluate OR and treat"
- 3. Don't document unnecessary, irrelevant and speculative information, i.e., "The patient was injured in an MVA" not "This drunken, unrestrained driver of a stolen Hummer missed a curve on an unfinished stretch of State Road 39 and crashed into a bridge piling." Unless you were riding in the vehicle and witnessed it, it is just hearsay and best left off the record.
- 4. Pertinent positives and negatives in both history and physical findings. Not a complete head-to-toe review of systems and exam. But focus your questions and exam to the injured or pathologic systems and body parts.
- 5. Before formulating an opinion and plan, discuss with a senior level resident and document that resident's level of participation if they examined the patient with you or helped with a reduction or helped determine if surgery or MSK procedure was indicated.
- 6. If the patient needs surgery or an invasive procedure, be certain to document that the senior level resident and attending orthopaedist were informed and agreed with this plan.
- 7. Formulating a plan: these are suggestions and you are to be as specific as you can about who will be following up on these suggestions. If there is urgency to anything be sure to document that you made that fact clear to a named person on the consulting team. Do not provide treatment suggestions if you were asked to make a diagnosis only.
- 8. For outpatient follow-up for ED and in-patient consults always give a narrow range of possible return dates and communicate this to the receiving service in as many ways as possible, particularly if the problem has urgency (i.e. needs to be seen in 1-2 days). If you've discussed the situation with the ultimate receiving service, it is acceptable to say that the patient may be contacted with a follow-up appointment by the resident or the attending (or someone designated by that attending to make appointments) of that service.
- 9. If you are being asked to accept the patient and have Orthopaedics be the responsible service, be certain to speak with the accepting attending or his resident and document that. Always mention that the attending is aware of what is happening. In the event that the faculty

- orthopaedist does his or her own evaluation, try to make the evaluation and treatment plan you dictate coincide with that of the attending.
- 10. The dictated consultation should include: Why you were consulted, who the patient was, what the problem was you were asked to solve, who helped you solve the problem, what you believed the situation was (diagnosis), what needed to be done, how your suggestions were to be implemented, and when the service was or can be provided.

Dictation Tips

- 1. Push button BEFORE beginning to speak
- 2. Do not speak like an auctioneer; normal speaking tempo
- 3. Enunciate and speak clearly
- 4. Do not put your mouth too close to the recording device
- 5. Please organize your thoughts BEFORE beginning to dictate. Order is the Presentation of the patient, the Medical History, the Physical Exam, and the Assessment & Plan
- 6. Keep notes brief and succinct while conveying all necessary pertinent information
- 7. Remember to dictate an attending of record for each ED encounter at the START of your dictation (NOT the subspecialty attending the patient was referred to for follow-up unless previously arranged with said subspecialty attending)

Medical Documentation

A complete legible medical record is the permanent way to document a patient's condition, plan of care and response to treatment. Patient safety depends on clear communication both verbal and written.

Please remember the following:

- Include time and date on all medical record documentation.
- Sign every note in **legible** format with your **credentials or electronic format** (MD, DO, etc)
- Always include your **PIC number** to further clarify the author of the note
- At each contact point make sure the medications "match up." This is medication reconciliation. Medication list must be complete and do not use the phrase "resume home meds." The complete list of medications should be in the discharge summary with name, dose, route and duration if it is limited. Medication reconciliation is done more efficiently now through the EPIC electronic medical record.

Never use these abbreviations:

- U, write out units
- IU, write out international units
- QD, write out daily
- QOD, write out **every other day**

- MS or MSO4, write out morphine sulphate
- Don't use a trailing zero, 1.0 can be mistaken for 10

Always

- Use a leading zero if the amount is less than one, e.g., 0.25 mg of Digoxin. Even better would be 250 micrograms
- Indicate your plan of care in the admission or clinic note

General Documentation Guidelines

- Include the patient name, medical record #, service, and date of service
- Hand-written documentation, such as consent forms, must be legible
- All medical records are legal documents
- Sign, date, and write PIC # on all documents
- If not documented, it is as though it did not happen

Record Completion

Timely Completion of Medical Records is needed for continuity of patient care; JCAHO, HCFA, and PRO compliance; third party payment; and, legal protection for the patient, physician, and hospital.

Discharge Summary

- Dictation delinquency: 5 days post discharge
- Signature deficiency: 14 days post discharge
- Responsibility: Attending physician

Note: "Transfers" of patients between inpatient units and Psychiatric Medicine, Physical Medicine/Rehabilitation, or KCRC are treated as discharges and re-admissions. A final Discharge Summary must be dictated when a patient is discharged from the current unit. Contact the Admissions Office (4-2264) for assistance with questions.

Operative Reports

- Dictation delinquency: 24 hours after surgery
- A brief operative note is required to be present in the medical records <u>immediately</u> post-op
- Signature deficiency: 14 days post surgery
- Responsibility: Attending physician

History and Physical

• Completion time frame: Performed no more than 7 days prior to admission or within 24 hours of admission.

Verbal Orders

Completion time frame: Within 24 hours of order.

Leaves of Absence / Time Away from the Program

Vacation Policy

Allotted Vacation and Terms

In accordance with the GMEC's Policy on Leave, Fellows will have the following leave allowance during an academic year (August 1 – July 31):

- 1. Two weeks of vacation (14 days including 10 business days and two weekends)
- 2. One week of conference time (5 business days) with conference preapproved by the fellowship director (AAOS, ASSH, AAHS)
- 3. Five days of vacation during the Holiday Season of Christmas-New Year's
- 4. Ten days of sick leave.
- 5. The GMEC's policy has allowances for additional maternity, paternity adoption, military, and Family Medical Leave procedures.

If time off is used inappropriately or without prior approval, this constitutes a professionalism deficiency which may be noted in the trainee's record and subsequent verifications. See the full GMEC Policy 03 for details on procedures in the unlikely event that a trainee's year must be extended to accommodate additional time for completing Board requirements. https://med.virginia.edu/gme/

Travel Policy

Fellows traveling to conference on educational funds should consult with the Program Director and Program Coordinator for pre-approval submission guidelines. A pre-travel authorization workbook will need to be completed as early as possible that includes flight, mileage, hotel, registration fees, parking, and per diem for the destination location. No travel outside of the continental US is supported. Exceptions may be made in the case of research presentations at international conference, where the resident is the primary podium presenter, and should be discussed with the Program Director. Please fill out any associated attachments completely and accurately, using UVA's Travel website for guidance on Per Diem rates and current Travel Workbook forms. http://www.procurement.virginia.edu/main/travel/TravelBasics.html.

Fellows are responsible for keeping all travel receipts and should submit a signed and completed travel workbook within seven (7) days of return. Receipts include credit card statements showing charges for registration, air fare, and hotel. An itemized, zero balance receipt must be obtained from the hotel, and all non-reimbursable items must be deducted. Items not reimbursed include entertainment, some room service, and bar/courtesy charges. Receipts for parking, taxis/shuttles, luggage fees, and boarding passes must be submitted. Failure to keep boarding passes or other required receipts may result in the resident's travel reimbursement being reduced or rejected.

Travel must be submitted, approved by the department, and keyed within 30 days of travel or the traveler risks non-reimbursement of their traveling expenses.

Accurate expense accounts and receipts of activities must be returned by the fellow to the Program Coordinator within 7 days of travel to comply with IRS and University regulations. Please see the web for current directions and forms to complete www.healthsystem.virginia.edu/internet/orthopaedics/travel.cfm

Examples of this type of meeting are:

- AAOS Annual Meeting
- AAHS Annual Meeting
- ASSH Annual Meeting

Reimbursement of Expenses

Please refer to the following websites for information and processes regarding resident travel and reimbursement policy:

Travel Policy and all forms http://www.procurement.virginia.edu/pagetravelbasics

Fellow Funds

Fellows are allotted monies each year for travel to conference as follows:

- Fellows \$2,000
- Book is also allowed to be purchased



