

SUNY UPSTATE MEDICAL UNIVERSITY

**DEPARTMENT OF ORTHOPEDIC
SURGERY**

**HAND SURGERY FELLOWSHIP
TRAINING PROGRAM MANUAL**

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March 2018

TABLE OF CONTENTS:

Introduction _____	2
Program Organization and Structure _____	3
Summary of Core Competencies _____	8
Policy Statement of Supervision _____	12
Rotation Objectives and Expectations _____	13
Research Project Requirements _____	29
Fellow Appointment and Evaluation _____	30

Introduction

I would like to welcome you to Syracuse and the SUNY Upstate Medical University Department of Orthopedic Surgery Fellowship in Hand Surgery. Whether you are an orthopedic or plastic surgeon, you have chosen a great field of study in a program that offers you tremendous opportunity to expand your knowledge of hand surgery in many different dimensions. From carpal tunnel releases to wrist arthroscopy, from groin flaps to pollicizations, from distal radius fractures to free flaps; we think you'll be continually stimulated during your year of training. As evidenced by the demographics of our graduated fellows, you'll be qualified at the completion of your training to enter either academic or private practice.

This manual provides the philosophy and guiding principles of the fellowship as outlined in the summary of core competencies and our policy statement of supervision. It also specifies the objectives and expectations of the various rotations of the fellowship and provides guidelines for your research requirements. It also has basic facts of interest such as vacation and call policies. Please read this manual carefully; also feel free to visit the Department of Orthopedic Surgery website at <http://www.upstate.edu/ortho>, as even more information can be gathered concerning the Orthopedic Department in general including a calendar of events and conference schedules.

Welcome to Syracuse.

Program Director

Brian J. Harley, MD, FRCSC

Program Organization

Program Director

The Director of the Hand Fellowship is appointed by the Chairman of the Department of Orthopedic Surgery. The director, having received board certification in his base specialty, must also be a member of the American Society for Surgery of the Hand.

Director's Responsibility

The Program Director will organize and administrate the program. The Director will be assisted by an executive secretary. Other members of the fellowship include all members of the Hand Section of the Department of Orthopedic Surgery as well as four clinical faculty in the Syracuse community whose practices consist entirely of surgery of the hand. In organization and administration, the Director will be guided by the requirements for post-residency educational programs in surgery of the hand outlined by the Accreditation Council of Graduate Medical Education (ACGME), as well as guidelines of the American Society for Surgery of the Hand.

Hand Division Director:	Jon B. Loftus, M.D.
Program Director:	Brian J. Harley, M.D, FRCSC.
Academic Faculty:	Michael P. Schreck, M.D. Kevin J. Setter, MD
Clinical Faculty:	Nathan C. Everding, M.D. Michael C. Fitzgerald, M.D. J. Alan Lemley, MD

Full-time Faculty Profile

Jon B. Loftus, M.D.

Residency Training: McGill University, Montreal – Plastic Surgery.

Fellowship: SUNY Upstate Medical University, Syracuse, NY

Interests: Hand surgery with special interests in microsurgery, nerve problems and the wrist.

Michael P. Schreck, M.D.

Residency Training: University of Rochester, NY – Orthopedic Surgery

Fellowship: Wake Forest University, Winston-Salem, NC

Interests: Upper extremity surgery with special interest in wrist and hand.

Brian J. Harley, M.D., FRCSC

Residency Training: University of Alberta, Edmonton – Orthopedic Surg.

Fellowship: SUNY Upstate Medical University, Syracuse, NY

Texas Scottish Rite Children’s Hospital, Dallas, TX

Interests: Upper extremity trauma, bone and soft tissue reconstruction, congenital and pediatric hand deformities/injury

Kevin Setter, M.D.

Residency Training: Upstate Medical University, NY – Orthopedic Surg.

Fellowships: SUNY Upstate Medical University, Syracuse, NY

Columbia University in New York City, NY

Interests: Treatment of disorders of the hand with special interest in disorders of the shoulder and elbow.

Clinical Faculty Profile

Nathan G. Everding, MD.

Training: Boston University – Orthopedic Surgery

Fellowship: Cleveland Clinic – Hand/ Ft Lauderdale – Shoulder/Elbow

Interests: Treatment of disorders of the hand with special interest in disorders of the shoulder and elbow.

Michael C. Fitzgerald, M.D.

Training: University of Vermont – Orthopedic Surgery.

Hand Fellowship: Indiana Hand Center, Indianapolis, IN

Interests: Upper extremity surgery.

J. Alan Lemley, M.D.

Training: University of West Virginia – Orthopedic Surgery

Fellowship: University of Pittsburgh, PA

Interests: Hand surgery

Fellowship Structure

General

The fellowship will be comprised of four different rotations. The Fellow will rotate on these rotations monthly. Three of the rotations are within the academic environment and each Fellow will rotate on each rotation three times. The fourth rotation is a private hand surgery rotation and the Fellows will rotate on that service three times. During each academic rotation the hand fellow will have primary responsibility to 1 or 2 hand surgeons. When the fellows are on the private hand surgery rotation they will work with all three hand surgeons. There will also be 2 orthopedic residents rotating through the four hand services in Syracuse at all times. The hand fellows are expected to divide their time so they have plenty of experience in the office environment seeing new patients as well as pre and post-operative patients.

Office Experience

Experience in the evaluation and treatment of new patients, and the evaluation and treatment of post-operative patients, will be gained by regularly attending office hours with the hand faculty members to whom the fellow is assigned. The only exception is if they are on call and they have to go to the emergency or operating room emergently to care for a patient. The operative cases booked through the office are scheduled and performed under the supervision of the attending surgeon. Attending surgeons will supervise the fellows in the clinic at all times.

Surgical Experience

The fellows will participate in the cases of the attending surgeons with whom they are assigned. These cases can take place in a variety of outpatient and inpatient facilities within the city of Syracuse. All fellows will be required to have an annual health assessment performed at SUNY employee health which will allow them to participate in surgery at the various locations. The fellows will also participate in the evaluation and treatment of traumatic hand problems at both University and Crouse hospitals when on they are on call. The fellows will be expected to participate in all replantation cases.

Pediatric Experience

All fellows, during their year rotation on the hand service, will rotate for 3 months with Dr. Harley who performs the majority of the pediatric/congenital hand surgery in the referral area of Central New York. There is also some pediatric experience on Dr' Loftus's service. This service provides consultation to pediatric patients at the Golisano Children's Hospital at SUNY Upstate Medical University and the Neonatal ICU at Crouse Hospital.

Shoulder and Elbow Experience

Dr. Setter and Dr. Everding have completed a shoulder and elbow fellowship in addition to their hand fellowship. The fellows will rotate on Dr. Setter's rotation 2 times, and with the clinical faculty twice, so they will get about three months worth of experience, not only in hand surgery but also in shoulder and elbow surgery. So the fellows gain significant exposure to shoulder and elbow during their year. This experience is not meant to take away from the hand surgery experience but it is offered so that the fellows can gain a better understanding of the pathologies affecting the entire upper extremity.

Night Call

Orthopedic Hand Call

All traumatic hand injuries will be evaluated in the Emergency Room by the Orthopedic junior resident on call. Following the initial evaluation of a traumatic hand problem, the hand resident or fellow on call will be called. All cases will then be discussed with the hand surgery attending on call to determine an appropriate course of action. All patients seen in the emergency room are under the supervision of the attending hand surgeon on call.

Replantation Call

All replantation/revascularization cases seen in the Emergency Rooms will be seen initially by the orthopedic junior resident on call. The Emergency Room resident should immediately alert the hand fellow that a potential replantation case is either "in-house" or "coming in". There is no formal replantation call schedule, but an attempt will be made to contact the hand fellow for all of these cases. If the fellows are unavailable, they will not have a direct responsibility to participate - but they are expected to participate in these cases whenever feasible for the experience.

Conference Attendance

Fellows Conference

Every second Thursday morning from 6:45 to 7:45 a.m., there is a hand surgery conference, which is attended by the fellows and attendings. The conference is to be organized and directed by the fellows and the format is a case based review of a chosen topic each week. Guidance will be offered by the program director and other surgeons in attendance. This is meant to be a high level interactive conference centered around interesting case related topics and experiential learning.

Hand Surgery Lecture Series – Resident Morning Conference

There is a hand lecture from 7:00 to 8:00 a.m. on alternate Thursday mornings from September 1st through mid-June. These are more didactic lectures directed towards both residents and fellows. Conferences are primarily presented by faculty, although the fellows are assigned to present two conferences a year.

Orthopedic Grand Rounds

The fellows are expected to attend orthopedic grand rounds on Wednesdays from 8:00 to 9:00 a.m. August 1st through June 30th and each fellow will be scheduled to give a maximum of two grand rounds per year.

Research Responsibilities and Annual Alumni Day

Each fellow is expected to complete at least one research project of publishable quality during their fellowship year at SUNY Upstate Medical University. Multiple projects are available in both clinical and basic science areas. The orthopedic laboratories at the Institute for Human Performance (IHP) on the SUNY campus are available for both biomechanical and physiologic projects.

An annual Alumni Day for presentation of the research within the department of Orthopedic surgery is held at the beginning June of each year. The hand fellows are required to present results of their clinical or basic science research projects at Alumni Day. Fellows are encouraged to write up the results of their research for submission for publication.

Microsurgical Training

The hand fellows will receive microsurgical training on Thursday afternoons under the direction of Dr. Harley and/or Loftus in the outpatient ambulatory surgery center at the Upstate Bone and Joint Center.

Core Competencies:

In 1999, the ACGME endorsed the concept that fellowship training programs should provide competencies for fellows in six areas: patient care; medical knowledge; practice based learning and improvement; interpersonal and communication skills; professionalism; and system based practice. This was done by the ACGME in an effort to stress educational outcome assessment in training programs. The general competencies have become an intricate part in the accreditation process. It is the training program's responsibility to oversee their fellow's successful development in the six competencies to be level to the standard to which a practitioner would be held accountable. It is in this light that the fellowship in hand surgery in Syracuse has identified educational experiences needed for the fellows to fill the development of these competencies. These educational experiences are organized and presented here.

Patient Care:

On a daily basis, fellows are provided with clear examples of the provision of patient care that is compassionate and effective for the treatment of hand surgical conditions. Through daily communication with faculty on issues of patient care as well as ample office experience, fellows obtain instruction in the development and installment of patient management plans and gain the necessary education in the provision of sound medical care. The daily routine stresses cooperation amongst health care professionals, maintenance and prevention of health, competent patient examination skills and effective use of information technology. These experiences are gained on every rotation the fellow is on during their training in the hand surgery fellowship in Syracuse. This is because on each rotation the fellow works closely with one attending where they are supervised in the daily care of patients. This includes both seeing patients in the office setting under the supervision of faculty, where the fellow is encouraged to see patients and develop the plan of management as well as in the operating room, where they are supervised in the various techniques in hand surgery.

Medical Knowledge:

Fellows obtain a comprehensive education in all of the six core competencies, but medical knowledge is certainly one of the prime goals of the hand surgery fellowship program. By virtue of interaction with attending surgeons on a daily basis in the office and operating room as well as through clinical conferences, didactic lectures, and grand rounds, fellows develop knowledge about established and evolving biomedical and clinical conditions and learn their application of this knowledge to patient care. Again, medical knowledge is stressed on each of the four

rotations experienced by the fellow during their year long fellowship in Syracuse. While on the rotations, the fellows are assessed as to their ability to assimilate the medical knowledge gained in their training into the care of patients. This is done by the faculty. They supervise the fellows in their care of patients, both in outpatient and inpatient settings as well as in the operating room.

Practice Based Learning:

Fellows are continually being educated in methods to obtain and appraise scientific evidence and then incorporate this into patient care practices. Daily interaction with faculty practicing up to date medicine in clinical settings allow fellows to gain an appreciation of current medical practice and develop systematic methodologies to learn new techniques and constantly improving upon one's abilities. Furthermore, by requiring fellows to organize educational conferences and grand rounds, skills in practical assimilation of scientific studies is provided. Critical analyses of the fellows' skills and appropriate feedback during journal clubs and grand rounds further stimulate the fellows' application of knowledge of study designs, statistical methods and therapeutic effectiveness. Once again, the fellows are exposed to practice based learning on a daily basis on every rotation they experience in Syracuse. A prime location for practice based learning in the fellowship is in the Thursday morning fellows' conference. The fellows organize this educational conference under the supervision of the program director. There is a heavy emphasis on case presentations, complex hand surgery topics and the review of articles associated with these focus and topics. The fellows are educated in how to assess the quality of articles and how to take the knowledge gained from scientific review and apply it in the practice of hand surgery.

Interpersonal and Communication Skills:

Fellows are expected to develop solid interpersonal and communication skills over the course of their training. Fellows gain exposure in accepted practice by virtue of interaction with faculty and patients on a daily basis on every rotation that they experience here in Syracuse. Observation in the office provides effective models of listening skills, as well as efficient use of open and closed ended questioning. Furthermore, the importance of explanation of diagnoses and treatment plans, as well as clear written communication for the purposes of medical legal documentation is stressed. Fellows also observe effective collaboration amongst the healthcare team members, which is of particular importance given the high volume of patients in the hand surgery practices of all faculty. On each rotation, the fellows are given the opportunity to apply all of these skills during patient encounters in the office and the inpatient settings. Lastly, guest speakers are invited to the Orthopedic Grand Rounds on a regular basis to specifically focus on issues of communication skills,

interaction with patients and patient's families, and professionalism and ethics issues. Ethics in hand surgery is frequently discussed at Thursday morning fellows' conference as well. The interpersonal and communication skills of the fellows are assessed via the direct observation of the attending surgeons working with the fellows and this is documented in their evaluations, which are discussed with the fellows in their bi-annual evaluation with the program director

Professionalism:

Education in professionalism occurs in many settings. Principally, the fellows gain their education in professionalism via observing faculty on each rotation as they demonstrate respect, compassion and integrity for patients and other healthcare team members. Sensitivity and responsiveness to patient care issues as well as a firm commitment to ethical principles provide a solid model for fellows to emulate. Fellows experience a number of clinical ethical issues first hand during the course of clinical practice. Feedback and discussion with the attending surgeon responsible for these patients provide a practical based education on a variety of issues as they occur. Issues can include surgical care decisions in aged individuals, which are principally seen in the patient population in Syracuse but also can be seen in pediatric population with chronic or life threatening illnesses. The fellows also work in the tertiary referral center in Syracuse so they also gain experience in ethical issues such as drug seeking behavior in patients, provision of care to non-insured and poorly insured patients, COBRA violations, as well as medical malpractice and patients dissatisfied with other physicians because of presumed poor initial care.

System-Based Practice:

Fellow education in system-based practice is provided in many different settings in the hand fellowship in Syracuse. By the nature of the differing rotations in the Syracuse program, fellows gain experience in dealing with other healthcare professionals, the varieties in healthcare organization and the effects on the larger society in different settings. On these multiple rotations, they get a complete exposure in the variety of medical practice and delivery systems even though all rotations focus on the practice of hand and upper extremity surgery. They also learn to practice cost effective healthcare and resource allocation, while maximizing quality patient care. Principally, on the rotations at University Hospital, they learn to partner with social workers and nurse case managers to provide various healthcare options for patients and learn how these activities affect overall system performance. Finally, the fellows are formally educated in the evaluation and management system of patient billing. This program is provided by the institutional compliance officer for the faculty practice plan. The objective of the

program is to learn the basics of assigning E&M levels based on documentation, to learn strategies for documenting appropriately, and to understand the relationship between the diagnosis and E&M level billed.

Policy Statement for the Supervision of Fellows and Transfer of Care

The goal of the hand surgery fellowship provided by the Division of Hand Surgery at the Department of Orthopedic Surgery at Syracuse is to train and educate the fellows in the six core competencies of patient care, medical knowledge, practice based learning and improvement, Interpersonal and communication skills, professionalism and systems-based Practice. As stated by the ACGME, the fellow is expected to have competencies in these areas at the level of a practitioner at the end of the training. Towards that end, the fellow can expect to be supervised in all areas of their training by the faculty they are working with from the beginning of the fellowship to the end of the fellowship. Yet, the supervision will not be the same in the first month of the fellowship as it is in the last month of the fellowship. As the fellow increases their patient care abilities and their hand surgery knowledge increases, and as their interpersonal skills and professionalism dictates, they will be given increasing levels of responsibility and independence as the year progresses. Supervision of this progression in autonomy will be provided for by the faculty that the fellows are working with. At no time will the fellow be working independently without supervision, but the goal of the training program is such that when the fellow finishes the program, they are ready to take care of their own patients. The transition from the last day of fellowship to the first day of practice should be a smooth transition. Obviously, the fellow's progression is based on their individual abilities; therefore each fellow will have different experiences in this process. This policy pertains to the fellows' care of patients in the outpatient setting, the inpatient setting and the surgical suite. It is stressed that this progression will proceed in an orderly fashion and is always under the supervision of the faculty and/or program director.

As there are a minimum of 2 residents and one fellow on the Hand surgery service at any one time, clear communication between trainees about division of patient care responsibilities must be observed at all times. There is a computer based patient care list for all inpatient admissions and consults that must be maintained by all personnel. The fellow and residents must hold a clear transfer meeting every Friday (and before any absence/vacation of a team member) to ensure that a formal plan for the care of these patients over the weekend is provided. The supervising faculty will always maintain ultimate responsibility for care of their respective patients, and so communication with faculty for daily care review, questions and/or concerns as well as unusual circumstances such as ICU transfer or determination of DNR status is expected.

Rotation Objectives and Expectations:

While developing competence in all six competency areas fellows also need clear descriptions of goals and objectives for each of the major rotations that they complete during their year of training. The structure of these objectives should allow fellows to develop short-term goals with specific focus on their daily and weekly education. The listings that follow on the next pages of this manual therefore serve as this guide for fellows.

Also included for each rotation is a list of rotation-specific expectations that clearly outline the structure, daily routine and expected fellow behaviors for each major rotation. Once again, these pages provide useful tools for each fellow to clarify responsibilities and avoid misunderstandings.

Please review this information at the beginning of the fellowship, and also the relevant rotation objectives and expectations at the beginning of each rotation. You should personally review this information with the attending on a particular rotation at the start and completion of the rotation, so that both of you can agree on attainment of rotation objectives.

Which competencies are addressed by each goal is noted using the following abbreviations:

PC - patient care

MK - medical knowledge

ICS - interpersonal and communication and skills

PBL - practice based learning and improvement

P - professionalism

SBP - systems based practice.

Hand Surgery Fellowship Goals and Educational Objectives Rotation #1:

Attendings: Jon Loftus, MD and Michael Schreck, MD

GOALS

Goal #1: To develop the fellow's knowledge and skill in the diagnosis and treatment of diseases of the hand and wrist. (PC, MK, PBL, SBP)

Goal #2: To develop the fellow's knowledge and skill in the treatment of soft tissue wounds of the upper and lower extremity. (PC, MK)

Goal #3: To develop the fellow's surgical skills in the treatment of diseases of the hand and wrist. (PC)

Goal #4: To develop the fellow's skills in the surgical management of soft tissue wounds of the extremities. (PC)

Goal #5: To enhance skills in communication with patients and staff. (ICS, P)

Goal #6: To enhance skills as an educator. (MK, PBL)

Educational Objectives

Goal #1: *To develop the fellow's knowledge and skill in the diagnosis and treatment of diseases of the hand and wrist.*

Objective #1: To appropriately evaluate patients presenting in an office setting with symptoms secondary to disorders of the hand and wrist; including differentiation from referred symptoms.

Objective #2: To appropriately order and evaluate diagnostic tests for patients presenting with symptoms secondary to disorders of the hand and the wrist.

Objective #3: To recommend appropriate non-surgical and surgical treatment for patients presenting with symptoms secondary to disorders of the hand and wrist.

Goal #2: *To develop the fellow's knowledge and skill in the treatment of soft tissue wounds of the upper and lower extremity.*

Objective #4: To appropriately evaluate patients presenting in the office with symptoms secondary to soft tissue wounds of the extremities.

Objective #5: To appropriately evaluate patients in an inpatient setting with complex wounds involving the extremities.

Objective #6: To appropriately order and evaluate diagnostic tests in the management of complex soft tissue defects of the extremities.

Objective #7: To recommend appropriate non-surgical or surgical treatment for patients with soft tissue defects involving the extremities.

Goal #3: *To develop the fellow's surgical skills in the treatment of diseases of the hand and wrist.*

Objective #8: To become proficient in surgical procedures appropriate to the treatment of patients presenting with a variety of symptoms secondary to the disorders of the hand and wrist.

Goal #4: *To develop the fellow's skills in the surgical management of soft tissue wounds of the extremities.*

Objective #9: To become proficient in surgical procedures appropriate to the treatment of patients with soft tissue defects involving the extremities.

Goal #5: *To enhance skills in communication with patients*

Objective #10: To appropriately interact with patients and staff, particularly in stressful and difficult patient care situations.

Goal #6: *To enhance skills as an educator*

Objective #11: To be capable of effectively educating other health care professionals, both in a structured (didactic) and non-structured (clinic, OR) setting.

Goal 1:

Objective 1, 2 and 3:

Disorders of the distal radius: acute fractures, malunion, arthritis

Disorders of the DRUJ: fractures, instability, ulnar impaction, arthritis

Disorders of the carpal bones: carpal fractures, dislocations, instability, arthritis, stiffness

Disorders of the bones of the hands: fractures, dislocations, arthritis, stiffness, amputations

Disorders of the nails and nailbed: crush injury, tumors, infections

Disorders of the flexor tendons: lacerations, tenovaginitis, tenosynovitis, adhesions, chronic deficiency

Disorders of the extensor tendons: lacerations, ruptures, tenosynovitis, adhesions, dislocations, chronic deficiency

Disorders of the neurovascular structures of the hand: lacerations, neuromas, vasospastic disorders
Rheumatologic disorders of the hand and wrist
Peripheral nerve compression in the upper extremity
Paralytic conditions of the hand, with and without tendon transfers
Reflex sympathetic dystrophy
Masses and tumorous conditions of the hand and wrist
Cost effectiveness of tests/procedures

Goal 2:

Objective 4, 5, 6 & 7:

Traumatic wounds of the upper extremity: with & without underlying bony trauma

Wounds of the extremities secondary to tumor excision and burns

Goal 3:

Objective 8:

Open reduction and internal fixation, as well as percutaneous reduction techniques, for distal radius fractures

ORIF and percutaneous techniques for carpal and hand fractures

Extensor and flexor tendon repair

Peripheral nerve decompression

Peripheral nerve and vessel repair

Wrist arthroscopy: diagnostic and therapeutic, including synovectomy and debridement

Excision of masses and tumors

Goal 4:

Objective 9:

Debridement of wounds

Primary closure; skin grafting; local flap closure; distant flap closure; free flap closure; tissue expansion

Goal 5:

Objective 10:

Consultations

Surgical consents

Post-operative care

Leader of a team in the office and operating room

Goal 6:

Objective 11:

Grand rounds

Didactic lectures

Hand clinic with residents/students

Hand Surgery Fellowship Rotation #1- Rotation Expectations

- It is the fellows' responsibility to obtain Dr. Loftus' and Schreck's schedules for the upcoming week and to prepare accordingly.
- Attendance at scheduled conferences is a priority. Surgical cases that begin during the conference time will be started by Dr. Loftus or Schreck.
- Office hours are considered an integral part of fellowship training and may be more important than surgical skills at the fellowship level of training. As such, the office hours should be regularly attended.
- The fellows will be responsible for the hand fellow conference, which is Thursday morning at 6:45am. The conference is an informal conference in that there will not be formal presentations; rather the topic revolves around interesting cases and/or deeper investigation of specific hand surgery topics.
- Fellows are encouraged to arrange time to meet with Dr. Loftus or Harley to practice microsurgical skills at the beginning of the fellowship. Some fellows may require little to no training, while others may require a substantial amount of training. The fellowship will accommodate each fellow's personal need in this regard.
- There are up to two hand fellows and two residents on the hand surgery service and there is no "cherry picking" allowed by the fellows among the rotations. The residents have first priority with regard to surgical cases of their assigned attending. The only exception is replantations or microsurgical free flaps, which fellows may become primarily involved over a resident.
- The fellows will be in compliance with New York State Health Department Code 405 Regulations regarding mandatory resident work hours. The Department and University maintain computer based work hours monitoring logs and surveys, and the fellows are expected to comply with these processes.
- Case logs on the ACGME log system must be maintained on this, and every other rotation.

Hand Surgery Fellowship Goals and Educational Objectives Rotation #2:

Attending: Brian Harley, MD, FRCSC

GOALS

Goal #1: To develop the fellow's knowledge and skill in the diagnosis and treatment of diseases within the scope of hand surgery with a focus on traumatic conditions, microsurgical/post traumatic reconstruction and congenital anomalies. (PC, MK, PBLI)

Goal #2: To develop the fellow's surgical skills in the treatment of diseases of the hand, wrist and upper extremity as well as lower extremity reconstruction, at a level appropriate for a general hand surgeon. (PC, MK)

Goal #3: To develop the fellow's knowledge of the practice of hand surgery (SBP)

EDUCATIONAL OBJECTIVES

Goal #1: *To develop the fellow's knowledge and skill in the diagnosis and treatment of diseases within the scope of hand surgery with a focus on traumatic conditions, microsurgical/post traumatic reconstruction and congenital anomalies.*

Objective 1. To appropriately evaluate patients presenting in an office setting including differentiation from referred symptoms

Objective 2. To appropriately order and evaluate diagnostic tests for patients presenting with symptoms secondary to disorders of the hand and wrist and lower extremity reconstruction.

Objective 3. To recommend appropriate conservative or surgical treatment for patients presenting with symptoms secondary to disorders of the hand and wrist and lower extremity reconstruction.

Goal #2: *To develop the fellow's surgical skills in the treatment of diseases of the hand, wrist and upper extremity as well as lower extremity reconstruction, at a level appropriate for a general hand surgeon.*

Objective 4. To become proficient in surgical procedures appropriate to the treatment of patients presenting with a variety of symptoms secondary to disorders of the hand and wrist, congenital anomalies as well as lower extremity reconstruction.

Goal #3: *To develop the fellow's knowledge of the practice of hand surgery*

Objective 5. To understand the billing principles required during the provision of hand surgical care

Objective 6. To clearly understand the cost effectiveness of tests and procedures typically performed by a hand surgeon

Goal #1:

Objective 1, 2 and 3:

Disorders of the distal radius: acute fractures, malunion, arthritis

Disorders of the DRUJ: fractures, instability, ulnar impaction, arthritis

Disorders of the carpal bones: carpal fractures, dislocations, instability, arthritis, stiffness

Disorders of the bones of the hands: fractures, dislocations, arthritis, stiffness, amputations

Disorders of the nails and nailbed: crush injury, tumors, infections

Disorders of the flexor tendons: lacerations, tenovaginitis, tenosynovitis, adhesions, chronic deficiency

Disorders of the extensor tendons: lacerations, ruptures, tenosynovitis, adhesions, dislocations, chronic deficiency

Disorders of the neurovascular structures of the hand: lacerations, neuromas, vasospastic disorders

Paralytic conditions of the hand and upper extremity, with and without tendon transfers

Congenital disorders of the upper and lower extremity anomalies: polydactyly, syndactyly, symbrachydactyly, trigger thumb, radial and ulnar dysplasia, cerebral palsy, arthrogryposis

Acquired conditions like Madelung's disease, brachial plexus birth palsy, burns and soft tissue contractures, growth arrest and physal disturbances

Disorders/deficiencies of soft tissues and bone in the setting of post-traumatic limb salvage

Goal #2:

Objective 4:

Surgical reduction and fixation techniques for distal radius fractures, carpal fractures and dislocations, as well as hand fractures.

Extensor and flexor tendon repair and reconstruction and transfers.

Peripheral nerve and vessel repair.

Wrist arthroscopy: diagnostic and therapeutic, including synovectomy and debridement.

Nail repair and soft tissue repair/reconstruction of the fingers, hand and upper extremity.

Microsurgical techniques of nerve exploration, repair and grafting,
peripheral blood vessel exploration, repair and grafting.

Rotational and free flap reconstruction of soft tissue deficiencies.

Full thickness and partial thickness skin grafting.

Gain familiarity with techniques for reconstruction of congenital anomalies.

Gain familiarity with techniques for reconstruction of bone reconstruction and distraction osteogenesis.

Hand Surgery Fellow Rotation #2 – Rotation Expectations

- The fellow is expected to check Dr. Harley's schedule for the upcoming week. It changes frequently – check every evening for updates.
- The fellow is expected to round on all inpatients in the morning, and selected patients in the afternoon (flaps, replants, fresh trauma).
- Attendance at Thursday Hand Conferences is mandatory – surgical
- Office hours should be attended with Dr. Harley. Typically this is Mondays and Fridays. Refinement of diagnostic skills and non-operative treatment of hand problems is an integral part of this rotation. Time in the office/clinic should represent 30-50% of patient care on this rotation.
- Fellows will be responsible for presentation of interesting cases and weekly topics, as well as leading the discussion about articles for Journal club, at the Thursday morning hand fellows conference (6:45am).
- There is an M&M conference for the Department of Orthopedic Surgery and the fellow is expected to poll attendings for complications and M&M cases for presentation with the senior resident on the hand surgery service at this M&M conference every third month.
- Fellows need to read and prepare for cases – no exceptions.
- Plastics trained fellows are generally not expected to assist on ortho trauma cases, but they should help to ensure adequate coverage is obtained. Switching with an ortho resident may be the best option. A fellow is encouraged to be present during all microsurgery or free flaps.
- When Dr. Harley is staffing the trauma room or on vacation – the fellow can use this time for research and/or can work with other faculty. There is a lot to know and limited time, so make the most of it.
 - Fellows cannot expect to learn basic microsurgery on patients – you must be proficient with the skills if you expect to operate on Dr. Harley's patients! Some fellows are trained in microsurgery when they finish their residency; therefore, each fellow will require different amounts of supervised training. Work with Dr. Harley to obtain proficiency!
- Compliance with Code 405 is mandatory. Please maintain the inpatient hand patient computer list and arrange proper transfer of inpatient care in instances when you must leave the hospital.
- The fellows will be in compliance with New York State Health Department Code 405 Regulations regarding mandatory resident work hours. The Department and University maintain computer based work hours monitoring logs and surveys, and the fellows are expected to comply with these processes.
- Case logs on the ACGME log system must be maintained on this, and every other rotation.

Hand Surgery Fellowship Goals and Educational Objectives Rotation #3:

Attending: Kevin Setter, MD

This rotation is in effect a rotation on two services: hand surgery and shoulder/elbow surgery. Since both orthopedic surgery residents and hand surgery fellows participate in this rotation, the focus of goals and objectives for each is somewhat different. The residents' focus on this rotation is regarding all upper extremity disorders, with an increased focus on shoulder and elbow disorders whereas the hand fellows should focus their efforts on those conditions from the elbow distal to the fingertip.

GOALS

Goal #1: To develop the fundamental knowledge base of basic science and pathophysiology of disease processes about the upper extremity. (PC, MK, PBL)

Goal #2: To develop the fellow's knowledge and skill in diagnosis and treatment of diseases of the upper extremity. (PC, MK, ICS, SBP)

Goal #3: Develop basic surgical skills in treatment of disorders of the upper extremity. (PC, MK)

EDUCATIONAL OBJECTIVES:

Goal #1: *To develop the fundamental knowledge base of basic science and pathophysiology of disease processes about the upper extremity.* (PC, MK, PBL)

Objective #1: Participate in bi-monthly Shoulder, Elbow and Hand conference for the residents and fellows.

Objective #2: Participate in weekly Thursday conference. The fellow will participate in surgical planning, discussion of surgical options, review of current and historical journal articles pertaining to upcoming cases.

Objective #3: Participate in one-on-one didactic sessions during office hours and surgical cases with the supervising attending physician.

Goal #2: *To develop the fellow's knowledge and skill in diagnosis and treatment of diseases of the upper extremity.* (PC, MK, ICS, SBP)

Objective #4: Learn history taking skills and physical examination skills regarding shoulder, elbow, and hand disorders in a clinic and office setting. The fellow will participate in office hours with the supervising attending physician and see patients who present with complaints about the upper extremity.

Objective #5: Formulate working differential diagnosis for disorders about the upper extremity, including differentiating processes that produce referred symptoms to the upper extremity.

Objective #6: Learn to order and interpret appropriate diagnostic tests for the evaluation of patients presenting with symptoms secondary to disorders of the upper extremity.

Goal #3: *Develop basic surgical skills in treatment of disorders of the upper extremity.* (PC, MK)

Objective #7: Become familiar and comfortable with surgical anatomy and surgical approaches to the upper extremity. The fellow will participate in frequent anatomy dissection sessions with the supervising attending and participate in surgical cases with the supervising attending physician.

Objective #8: Become proficient in basic open surgical exposures and procedures appropriate in the treatment of patients presenting with a variety of surgical disorders about the shoulder, elbow, wrist, and hand.

Objective #9: Become proficient at diagnostic shoulder and wrist arthroscopy. Become familiar with elbow arthroscopy.

Goal #1 and Goal #2:

Objective 1, 2, 3, 4, 5, and 6:

Rotator cuff disease: impingement, tears, tendonitis, calcific tendonitis

Sports injuries about the shoulder and elbow: acute and chronic

Instability about the shoulder girdle, shoulder, and elbow: acute and chronic

Arthritis about the upper extremity

Stiffness about the upper extremity

Tendon disease about the elbow: tendonitis, acute and chronic tendon ruptures, biceps tendon ruptures

Neuro-vascular injuries about the shoulder and elbow: acute and chronic neuropathies, neuro-vascular lacerations

Rheumatologic diseases about the upper extremity

Disorders of the bones of the upper extremity: scapula, clavicle, humerus, shoulder, elbow, forearm, wrist, hand, and fingers

Goal #3:

Objective 7, 8, and 9:

Open reduction and internal fixation as well as percutaneous techniques, for fractures about the scapula, clavicle, shoulder, humerus, elbow, forearm, wrist, hand, and fingers

Rotator cuff tendon repair

Biceps tendon repair

Lateral epicondylitis, medial epicondylitis debridement and repair

Labral, SLAP, ligamentous repairs about the shoulder

Shoulder, elbow, wrist arthroscopy and arthroscopic procedures in these joints

Excision of masses and tumors about upper extremity

Peripheral nerve decompression and repair

Elbow instability surgery

Arthroscopy about the shoulder, elbow, and wrist

Arthroplasty about the shoulder, elbow, wrist, and hand

Hand Surgery Fellow Rotation #3 – Rotation Expectations

- Each fellow is expected to obtain a copy of Dr. Setter's schedule for the upcoming week. The fellow is expected to dialogue with the doctor so that it is clear which activities for the upcoming week absolutely require their attendance. Absences from these activities should be communicated to the attending and alternate coverage arranged.
- Attendance at scheduled conferences should be top priority. Surgical cases that begin during the conference time will be started by the attending physician.
- Attendance at weekly Thursday conferences is mandatory
- Fellows are responsible for the discharge summary on patients they discharge from the hospital. They are also responsible for the operative note on any surgical cases they perform on clinic patients. **REMEMBER** that you must dictate that the attending of record was present for the entirety of the case.
- Office hours should be attended on a regular basis. Refinement of diagnostic skills and non-operative treatment of upper extremity problems is an integral part of this rotation. Time in the office/clinic should represent approximately 50% of patient care on this rotation.
- Fellows will be responsible for presentation of interesting cases (and reading journal articles for journal club) at the weekly hand conference.
- Fellows must read and prepare for cases – **no exceptions**. Articles and textbooks regarding the surgeries can be found in the attendings' offices. Feel free to make copies but they **do not** leave the offices.

- Fellows are welcome to observe any case. If one of the attending physician's is on vacation, it is your responsibility to cover the remaining attending physicians. Your time is limited on the rotation. Make the most of it.
- The shoulder arthroscopic knot tying simulators are in Dr. Setter's offices. Feel free to use them. They **do not** leave the offices.
- It is the resident/fellow's responsibility to notify the weekend hand coverage resident/fellow of remaining patients that need to be seen during the weekend. The inpatient computerized patient list must be properly updated while on the service. Please arrange proper transfer of inpatient care to the other hand team members during any planned absence or time off.
- The fellows will be in compliance with New York State Health Department Code 405 Regulations regarding mandatory resident work hours. The Department and University maintain computer based work hours monitoring logs and surveys, and the fellows are expected to comply with these processes.
- Case logs on the ACGME log system must be maintained on this, and every other rotation.

Hand Surgery Fellowship Goals and Educational Objectives Rotation #4:

Attendings: Nathan G. Everding, MD
Michael C. Fitzgerald, MD
J. Alan Lemley, MD

GOALS

Goal #1: To develop the fellow's knowledge and skill in the diagnosis and treatment of diseases of the hand and wrist. (PC, K)

Goal #2: To develop the fellow's surgical skills in the treatment of diseases of the hand and wrist. (PC, K)

Goal #3: To gain experience in the practice of hand surgery in a private practice setting: role of consultant and health care delivery in a community based setting. (SBP, P, PBLI)

EDUCATIONAL OBJECTIVES

Goal #1: *To develop the fellow's knowledge and skill in the diagnosis and treatment of diseases of the hand and wrist.*

Objective #1: To appropriately evaluate patients presenting in an office setting with symptoms secondary to disorders of the hand and wrist; including differentiation from referred symptoms.

Objective #2: To appropriately order and evaluate diagnostic tests for patients presenting with symptoms secondary to disorders of the hand and the wrist.

Objective #3: To recommend appropriate non-surgical and surgical treatment for patients presenting with symptoms secondary to disorders of the hand and wrist.

Goal #2: *To develop the fellow's surgical skills in the treatment of diseases of the hand and wrist.*

Objective #4: To become proficient in surgical procedures appropriate to the treatment of patients presenting with a variety of symptoms secondary to disorders of the hand and wrist.

Goal #3: *To gain experience in the practice of hand surgery in a private practice setting: role of consultant and health care deliver in a community based setting.*

Objective #5: To be able to differentiate and appreciate the differences between academic hand surgery and private practice hand surgery.

Goal #1:

Objective 1, 2, and 3:

Disorders of the distal radius: acute fractures, malunion, arthritis

Disorders of the DRUJ: fractures, instability, ulnar impaction, arthritis

Disorders of the carpal bones: carpal fractures, dislocations, instability, arthritis, stiffness

Disorders of the bones of the hands: fractures, dislocations, arthritis, stiffness, amputations

Disorders of the nails and nailbed: crush injury, tumors, infections

Disorders of the flexor tendons: lacerations, tenovaginitis, tenosynovitis, adhesions, chronic deficiency

Disorders of the extensor tendons: lacerations, ruptures, tenosynovitis, adhesions, dislocations, chronic deficiency

Disorders of the neurovascular structures of the hand: lacerations, neuromas, vasospastic disorders

Rheumatologic disorders of the hand and wrist

Peripheral nerve compression in the upper extremity

Paralytic conditions of the hand, with and without tendon transfers

Reflex sympathetic dystrophy

Masses and tumorous conditions of the hand and wrist

Goal #2

Objective 4:

Traumatic wounds of the upper extremity: with & without underlying bony trauma

Wounds of the extremities secondary to tumor excision
burns

Goal #3

Objective 5:

Learn how to be a lifelong learner in medicine out of the academic center; use of medical literature to guide learning

Understand the workings and management of a private hand surgery practice

Hand Surgery Fellowship Rotation #4 - Rotation Expectations

- There are three attendings on this rotation. The fellow should obtain the schedules of the assigned attendings for the upcoming week and prepare accordingly. All three attendings understand that you will be covering three schedules and working with them at different times. The fellow should attempt to strike a balance with all three.
- The fellows will understand and maintain a balance between the office experience and the surgical experience. This also will be under the supervision of the Program Director.
- Attendance at scheduled conferences is a priority. Surgical cases that begin during the conference time or office hours that begin during conference time will be initiated by the attending.
- The fellows will be responsible for the hand fellow conference, which is Thursday mornings at 6:45 a.m.
- It is the resident/fellow's responsibility to notify the weekend hand coverage resident/fellow of remaining patients that need to be seen during the weekend. The inpatient computerized patient list must be properly updated while on the service. Please arrange proper transfer of inpatient care to the other hand team members during any planned absence or time off.
- The fellows will be in compliance with New York State Health Department Code 405 Regulations regarding mandatory resident work hours. The Department and University maintain computer based work hours monitoring logs and surveys, and the fellows are expected to comply with these processes.
- Case logs on the ACGME log system must be maintained on this, and every other rotation.

Fellow Research Project Requirements (PBL,MK)

Over the course of the academic year, each fellow is expected to complete at least one research project of a quality suitable for submission to a major medical journal. Each project will be completed under the direction of one or more of the clinical or research faculty. The coordinator for compliance with this project is Dr. Harley. The timeline of this process is as follows.

The hand surgery fellowship begins on August 1st.

By October 1st, the fellows will submit to the Program Director the title of their research topic. At this time they will have chosen a clinical mentor to work with, or will have chosen a project to be performed in the Institute for Human Performance laboratory, under the direction of Frederick Werner, MME.

On December 1st, an abstract outlining the research methodology will be submitted to the Program Director.

In January or February, at the six-month evaluation of the fellow with the Program Director, a component of that meeting will discuss the status of the research project.

The fellow's research project will be presented at the annual Orthopaedic Surgery Alumni Day, which is the orthopedic alumni research day at the beginning of June.

Finally, the fellow's project will be written up in a form suitable for submission to a major journal with references in place and presented to the Program Director prior to July 31st.

The purpose of this component of the fellow's training is to help the fellow appreciate the research process, and gain a healthy understanding of what constitutes quality (and not so quality) results. While it is likely that only the minority of graduating fellows will ever again undertake a major research project, the skills acquired during the completion of this project will provide the fellow with significant respect for the whole process. This will allow them to become more critical of the vast majority of published research, with the result being the cautious but effective incorporation of new ideas and new techniques into a lifelong practice of hand surgery.

Discipline and Grievances

In the unfortunate situation where a fellow is not maintaining the standards required by the Department (academic deficiency), the fellow will be asked to meet with the Program Director and Hand Division Chief. Strategies for remediation will be provided, and all fellows will be given extensive opportunities to meet departmental requirements. Repeated failure to meet minimum standards despite remediation would result in the fellow being placed on academic probation. Any such action is performed in consultation with the Office of Graduate Medical Education, according to University policy, so that the fellow is fully informed of the process, and an appeal can be entered. The policy Academic Deficiency and Academic Probation of Residents can be found in the Graduate Medical Education office/website.

At the end of each rotation, the fellow is given the opportunity to provide constructive feedback of the rotation and preceptors, and this information is reviewed on a regular basis by the Program Director. An anonymous annual review of all faculty by the fellows is also collected to allow for adequate critique of faculty. Finally, the Office of Graduate Medical Education also provides a mechanism for registration of resident grievances at http://www.upstate.edu/gme/medical_res.shtml.

Call Schedules

Fellow call responsibility is 1 in 3 and there is no in-house call for this fellowship. Each fellow will share call with the other fellow if present as well as the senior residents taking general orthopedic call. At all times, compliance with New York State Health Department Code 405 Regulations regarding resident work hours is mandatory. Please review the exact details of this policy online on the GME office website. There is weekly work hours monitoring audited by the institutional GME office. Fellows are expected to comply with these monitoring procedures. As per GME office policy, if at any time a fellow feels that he/she is fatigued and unable to continue working, they should report this to their supervising faculty and they will be released from further clinical duties until adequately rested.

Please arrange proper transfer of inpatient care in instances when you must leave the hospital.

Pagers are provided by the department – cell phones are the responsibility of each resident.

Moonlighting by hand surgery fellows is not allowed.

Benefits

Vacation

The fellows are allotted one-week vacation for every three months. The fellows are expected to clear their vacation request in advance with the Program Director.

Salary

Salary will be commensurate with each fellow's level of training and the compensation of the State University system. This is non-negotiable.

Travel

An attempt will be made to fund the travel to one major meeting yearly for fellows in good standing. Typically this is to the ASSH meeting, but if the fellow wishes to consider another meeting then please confirm it with the program director.

Evaluations

Of the Fellow:

Each fellow will be evaluated by the attending(s) at the end of each month long rotation. Each fellow is also evaluated for their two grand rounds presentations. The fellows' progress with the research project is monitored by the program director. Satisfactory completion of the fellowship requires the submission of a publishable manuscript.

The web-based surgical case-log system is a mandatory requirement of the ACGME; complete and accurate records are essential. There is also a mandatory hospital credentialing process for multiple basic procedures that is administered through the Medical Staff Office. Completion of these requirements is documented and all fellows must obtain certification in the procedures required. In most cases, the fellows have already been certified under their primary orthopedic or plastic surgery residency programs and a letter certifying the fellows' competency in those procedures from their previous Program Director will suffice for this requirement.

Lastly, the fellows are responsible for a varying amount of hospital chart documentation, employee health documentation and educational administration. Completion of all records, notices and evaluations is expected. Repeat violations will result in assessment of penalties and in extreme cases, even termination.

The Program Director will meet with each fellow bi-annually at a minimum. This will be a formal evaluation with each fellow reviewing the attending evaluations of their performance on each rotation, checking the status of their research project and sharing their grand rounds evaluations. A written summary of this evaluation will be placed in the fellow's records.

Of the Faculty:

Fellows will provide feedback on the faculty. The confidentiality of this feedback will be protected as much as feasible given the confines of this being a small program. Fellow's feedback will be sought after each rotation and also at the end of the year. Fellows will also participate in the annual evaluation of program effectiveness meeting.
