Nova Scotia Health Authority Central Zone
Orthopedic Surgery of the Upper Limb Fellowship Program
(Last Updated May 2015)

Introduction

The Nova Scotia Health Authority Orthopedic Surgery of the Upper Limb Fellowship Program Is based Queen Elizabeth II Health Science Centre (QEIIHSC) New Halifax Infirmary Site in Halifax, Nova Scotia. This is a tertiary care hospital and level 1 trauma center that provides care for primary musculoskeletal conditions in the City of Halifax and surrounding areas and advanced subspecialty Upper Limb care to the Atlantic Provinces that include: Nova Scotia, Prince Edward Island, New Brunswick, Nefoundland and Labrador.

1. Application Process

Applicants interested in applying to the Orthopaedic Upper Limb Fellowship at Dalhousie University should contact one of the two-subspecialty fellowship consultant directors directly and satisfy the following criteria:

1) They have completed their residency in orthopedic surgery and graduated from one of the recognized program in their respective countries.
2) They have to be in good standing with the licensing agencies for medical and surgical practice in their respective countries.
3) They must meet all criteria necessary to achieve a temporary appointment at the Dept surgery Dalhousie University and license for The college of Physicians and Surgeons of Nova Scotia.
4) Must be eligible for malpractice insurance (CMPA or equivalent).
5) They supply a current CV, a letter of intent and 2 letters of reference .

Potential candidates are selected and interviewed by the subspecialty fellowship consultant directors once per year.

2. Goals and Objectives of the fellowship program

At the conclusion of the fellowship at Dalhousie University, the fellow will be able to provide comprehensive, advanced orthopedic sub specialty medical and surgical care to patients with Upper Limb musculoskeletal pathologies. They will be able to investigate, diagnose and recommend appropriate treatment options, perform operative procedures, provide comprehensive perioperative care, direct rehabilitation and manage complications arising during clinical care.

To achieve this goal, the individual orthopedic subspecialty fellowship has implemented a curriculum (See Appendix) that includes topics for the study and clinical and surgical skills to become an Orthopedic Upper Limb subspecialty trained surgeon.

Clinical Responsibilities

All sub specialty orthopedic fellowships clinical care training will be based in three areas of Practice:

1) Operative care:
   a) Primary surgeon will be shared between fellowship consultant director, fellow and resident on service according to case complexity. Residents should be allowed to do routine cases and fellows more advanced cases. Fellow should always guide resident through routine cases intervening and teaching where appropriate when consultant is absent.
   b) OR's start at 7:30 (or 8:30 on some occasions) and the fellow is expected to meet and examine all patients for operations and assure history, physical and consent is complete 15 min prior to OR start time. Usually the resident will have this done but the fellow should verify this.
   c) Fellow is expected to remain scrubbed in OR until the wounds are closed and cast applied (if **necessary**).
   d) Fellow is expected to check on patients in the PACU as deemed necessary in more advanced cases.
   e) Fellow will be expected to dictate operative reports for cases where he is primary surgeon.

1) Outpatient Clinical care:
   a) Fellow will be expected to participate in all private offices by seeing patients and reviewing them with the consultant to devise a clinical care plan. Fellows should arrive 5 min prior to scheduled start of office.

Fracture and Post Op Clinics:

Fellow will be expected to participate in fracture/post op clinics by seeing patients and reviewing them with consultant to devise a clinical care plan.

On occasion, the experienced and responsible fellow may be expected to conduct a fracture/post op clinic independent of the Consultant (eg. consultant away times or possible rare concurrent OR's etc.)

Rounds

The clinical care of patients and daily routine orders (Meds, x-rays, Discharge etc.) is the primary responsibility of the resident on rotation but the fellow should verify that clinical care of complex and acutely injured patients is appropriate. Any areas of concern should be reported to the consultant in a timely manner.

Call Duty:

Fellow is expected to carry a pager/cell phone on call for days that the consultant is on call (approximately 1 in 15). This includes ~ 4 weekends per year where the fellow will be operating with the consultant and a resident Sat & Sun.

Attire

Business to Business Casual

Research:

The fellow is expected to complete a research project during the time of the fellowship. This should be of sufficient caliber to be published in a reputable Orthopaedic journal or to be presented at a national or international meeting.

Vacation

Four weeks of vacation time is permitted per year. Ideally, should be coordinated with the vacation schedule of the primary supervising preceptor to minimize impact on educational opportunities. Vacation time must be approved in advance by the supervising preceptor.

After hours academic and Social Commitments

It is expected that the fellow make every attempt to attend regular Academic events such as :

Grand Rounds
Journal Club

Fellow is encouraged to participate in social /special events such as:

Yabsley day, Research day, resident BBQ, etc.

Salary

An annual salary of $60,000 will be paid in bi-weekly instalments by direct deposit. Required banking information will need to be provided prior to commencement of the fellowship. These funds are paid from MSI billings generated as a surgical assistant. Accurate and timely submission of OR billings is essential. No additional benefits are included.

Conferences

Funding is available for the fellow to attend one conference of their choosing that is focused on Upper Limb pathology. Typically, the San Diego Shoulder Course or the ASSH meetings are chosen. This includes registration fees, accommodation, and economy class airfare. Additional funding may be available from Industry partners to attend other meetings.

Appendix:
Nova Scotia Health Authority Orthopedic Upper Limb Surgery Fellowship
OBJECTIVES :

Medical Expert

1. The Fellow **will function effectively as a consultant** for all musculoskeletal clinical care issues. This includes the workup and evaluation of patients undergoing surgery; the management of complications post operatively. On going care post operatively.

2. The Fellow will be able to perform a **complete and appropriately focused assessment** of the musculoskeletal patient (history and physical examination).

3. The Fellow will demonstrate **proficiency in diagnostic skills** including the ordering and interpretation of diagnostic imaging and other related tests to musculoskeletal conditions.

4. The Fellow will demonstrate **proficiency in therapeutic skills** including
    a. Cast application.
    b. Compartment syndrome diagnosis and treatment.
    c. Septic arthritis diagnosis and treatment.
    d. Necrotizing fasciitis diagnosis and treatment.

5. The Fellow will demonstrate **judicious use of other consultants** to optimize patient care.

6. The Fellow will **recognize his or her limitations** and know when to seek assistance.

Communicator

1. The Fellow shall demonstrate an ability to **develop rapport, trust, and ethical therapeutic relationships** with patients and families.

2. The Fellow will be able to **elicit and synthesize relevant information** and perspectives of patients and families, colleagues, and other professionals.

3. The Fellow will be able to **convey relevant information** and explanations to a patient, family, colleague, etc. in a humane and understanding manner.

4. The Fellow will **convey effective oral and written information** about a medical encounter through clear, accurate, and appropriate records.

Collaborator

1. The Fellow will be able to **participate effectively in an inter-professional healthcare team** by working with others to assess, plan, provide, and integrate care for patients (delegate and accept responsibility).

2. The Fellow will **effectively work with other health care professionals** on ward rounds and in post-operative clinic, will respect the diverse roles, responsibilities and competencies of other members of the health care team, and work effectively to prevent/resolve inter-professional conflict.

Manager

1. The Fellow will **participate in Quality Review assessments** as required.

2. The Fellow will be encouraged to **complete their Surgical Log** in a timely manner.

Health Advocate

1. The Fellow will **respond to individual health needs** of the patient by identifying opportunities for advocacy and health promotion (eg. Weight reduction, smoking cessation)

2. The Fellow will **promote the health** of musculoskeletal patients, and the community at large, by describing how public health policy impacts the health of the population served.

Scholar

1. The Fellow will **critically evaluate medical information** and its sources, and apply this to practice decisions.

2. A monthly journal club is scheduled. The Fellow will present an article pertinent his/her subspecialty.

3. The Fellow will **facilitate the learning** of patients, families, students, and others by selecting effective teaching strategies and content to facilitate others' learning.

Professional

1. The Fellow will **exhibit appropriate professional behaviors** (punctuality, honesty, integrity, commitment, compassion, respect, altruism).

2. The Fellow will **demonstrate a commitment to physician health** and sustainable practice.

Clinical Data Gathering

Trainees will be expected to demonstrate competence in gathering accurate, complete and reliable clinical data from:

- History
- Physical examination
- Laboratory and imaging tests

Communication Skills

Trainees will be expected to demonstrate effective written and oral communications, including:

- Communicating appropriately with children, family members, other physicians (including the primary care provider), nursing staff and other personnel.
- Writing appropriate consultations and follow-up chart notes.
- Reliably following up on diagnostic tests, imaging studies and treatment issues related to patients.

Bioethical Awareness

The trainee should demonstrate awareness of the social, ethical and economic issues involved in patient care and clinical research, and which may relate to their clinical decisions. The trainee should demonstrate awareness of the social, ethical and economic issues involved in patient care and clinical research, and which may relate to their clinical decisions.

Required Reading

Trainees will be able to critically evaluate clinical literature during the monthly mandatory journal club, to avidly read the pertinent textbooks and journals and be capable of performing computerized literature searches.

Presentations

Fellows will present at grand rounds once per year and at academic and fracture rounds 1-2 times per year. Research Conference will be encouraged each year.

Self Reported Exposure/Competencies by our Previous fellows at the completion of Fellowship:

Upon completion of fellowship you are competent to identify and manage both non-operatively and operatively a spectrum of conditions presenting in the upper extremity. Though not all possible surgical procedures will be done, the fellow will be prepared to take on these cases with further training (saw bone) or none at all.

Conditions of the AC Joint: Separation (Hook Plate, Weaver Dunn), Arthritis/Osteolysis (Resection)

Conditions of SC Joint: Acute/chronic dislocation, Arthritis (Resection)

Subcoricoid and subacromial impingement

Spectrum of rotator cuff pathology: Arthroscopic/open/mini-open repairs, massive cuff tears and cuff tear arthropathy

Biceps pathology: tendonitis, subluxation (tenolysis/tenodesis)

Instability: arthroscopic/open Bankart repair, glenoid bone loss (Laterjet), Hills Sac's Lesion

Throwing Athlete: SLAP, internal impingement, Glenohumeral internal rotation deficit.

Degenerative/Inflammatory conditions of Glenohumeral Joint: Frozen Shoulder, OA, AVN (resurfacing, hemiarthoplasty, TSA, Reverse Shoulder arthroplasty, Fusion)

Tendon Ruptures (proximal /distal biceps, Pectoralis Major)

Variety neurovascular conditions.

Thoracic outlet syndrome, ulnar nerve (cubital tunnel, Guyon's canal), radial nerve (radial tunnel /posterior interosseous syndrome, median nerve (carpal tunnel, pronator and anterior interosseous syndromes)

Principles and surgical technique of tendon transfers (EIP rupture, Radial nerve palsy, rheumatoid hand)

Degenerative Conditions of the Elbow: OA (Arthroscopic, Open, Outerbridge)

Inflammatory Arthritis of the Elbow: synovectomy and radial head resection, TEA

Lateral/medial epicondylitis

Elbow Instability (acute and chronic) Primary tendon repair, Allograft Reconstruction

Hinged frame application

Indications and technique of elbow arthrodesis

Wrist Conditions: SNAC, SLAC, STT, Ulnar Variance, TFCC, Kienbock's, Preiser's, Arthritis, DRUJ (Partial/Total Arthrodesis, Arthroscopy, Allan's)

Instability/Arthritis of the DRUJ: Darrach, Bowers hemiresection, Sauve Kapandji

Degenerative conditions of the Hand: OA (Basilar joint of thumb, MP, PIP, DIP) (LRTI, Fusion, Arthroplasty)

Congenital conditions Arm and Hand

eg. radial club hand , radioulnar synostosis, madelung's

Flexor/Extensor Tendon Pathologies: Rupture, Trigger, Snapping ECU, Dupuytren's

Rhuematoid Hand: Arthroplasties, Tendinopathies

Trauma: Acute injury and chronic sequelae

SC, Clavicle, AC, Glenoid, Proximal Humerus (ORIF, Hemiarthroplasty,Reverse shouder arthroplasty), Humeral diaphysis, Distal Humerus, Radial Head Replacement, Terrible Triad, forearm axis, Distal Radius, Carpal bones , MP/PIP/DIP joints

Evaluations and Promotion

Every 3 months the fellow will be formally evaluated by the teaching staff. The evaluation will be based on the following criteria:

1) operative skills
2) perioperative care
3) basic science and clinical knowledge
4) interpersonal skills
5) communication skills

Promotion and continuation of the trainees will depend on the ability to satisfy the criteria listed above. If the trainee demonstrates insufficient progress in any of the above points, a period of 3 months remediation will be provided followed by reassessment of the candidate. If satisfactory level is not obtained, the fellow will be terminated.

Completion of training

At completion of training, the fellow will receive a certificate from the Subspecialty Consultant with signatures from the Dalhousie Department of Surgery and Division of Orthopedic surgery chairmen.

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