## UPPER EXTREMITY

## ROTATION SPECIFIC GUIDELINES

In keeping with the specific standards of accreditation (2009) this rotation assumes administrative support and university affiliation.

Specific to the site we offer these areas of focus for the resident;

1. Obtain appropriate history and perform physical examination relating to the upper extremity.
2. Describe the presentation, radiologic characteristics, classification and natural history of the most common upper extremity conditions including:
   a) Subacromial Impingement, Rotator cuff pathology, Glenohumeral OA, ACJ OA, Anterior and Posterior shoulder instability, Adhesive Capsulitis
   b) Tennis Elbow, Elbow arthritis, Ulnar neuropathies, PLRI, PMRI
   c) DRUJ OA, Radiocarpal OA including SNAC and SLAC, Ulnar abutment syndrome, CMC OA, TFCC pathology, Carpal tunnel syndrome
   d) Upper extremity trauma – Clavicle #, ACJ dislocation, proximal humerus #, distal humerus #, simple and complex elbow #-dislocation, radial head fractures, distal radius #, scaphoid #, peri lunate injuries
3. Formulate non- operative and operative treatment plans for the most common upper extremity conditions listed above.
4. Formulate postoperative treatment for in-hospital care and long-term rehabilitation
5. Formulate treatment plans for complications in upper extremity surgery

Following the Goals and Objective is an outline of teaching available/ caseload in those areas for the junior and senior resident.

The resident, upon orientation will review the Resident specific and College specific goals with his/ her preceptor to ensure adequate focus throughout the rotation.

## I. MEDICAL EXPERT

### Junior/Senior

Upon completion of the upper extremity rotation the resident will be able to;

- Demonstrate appropriate core knowledge based on their level of training
- Understand the spectrum of the upper extremity orthopedic practice
- Appreciate the structure of health care in the setting including
    - Access to tertiary care, stabilization and investigation of patients for transfer
    - Resource allocation and health care infrastructure
    - Practice Management – Group and Solo
    - Life Balance
    - Perform an adequate consultation (history, physical examination, investigation ordering & interpretation, differential diagnosis and formulate a treatment plan)

TECHNICAL KNOWLEDGE

**Junior**

The junior resident will be expected to;

- Diagnostic and therapeutic injections to the upper limb including subacrominal, glenohumeral, ulnohumeral and radiocarpal.
- Closed reductions of shoulder dislocations, elbow dislocations, distal radius fractures and perilunate injuries
- Common upper extremity approaches including:
    - Deltopectoral approach
    - Posterior elbow exposure Including exposure of ulnar nerve
    - Volar Henry / FCR approach to wrist
    - Russe approach to scaphoid
    - Dorsal approach to wrist
- Diagnostic shoulder arthroscopy
  Including bursectomy, acromioplasty
- Open / Mini-open rotator cuff repair
- Tennis elbow release / resection & repair of tissue
- Ulnar shortening osteotomy
- Distal biceps repairs
- Radial head arthroplasty
- OR IF of fractures: distal radius, both bone forearm, olecranon, AC dislocation and clavicle
- Carpal tunnel release
- Dupuytren's palmar fasciectomy
- Trigger finger release

**Senior**

The medical expert role will be based on the volumes of clinical cases. There is always a concern amongst residents that they will be unable to get the expert knowledge which they require through an upper extremity rotation. This could perhaps be addressed with a pre-rotation discussion of the individual residents learning objectives and to guide him/her in how this expert knowledge is attained whilst in an upper extremity rotation, e.g. personal learning projects, online assessment tools/ Examinations.

- Describing arthroscopy portals and their use in diagnostic elbow & wrist arthroscopy
- Shouder replacement including preparation and placement of humeral component *(*+/- glenoid component*)* for hemiarthroplasty, TSA and rTSA
- Open and arthroscopic Bankart repair
- Arthroscopic rotator cuff repair
- Latarjet procedure
- Total elbow arthroplasty
- Darrach procedure and distal ulnar interposition arthroplasty
- Outerbridge-Kawasagi Procedure / Column procedure for elbow stiffness
- Total and partial (4-corner, Scaphocapitate) wrist fusions
- Proximal Row Carpectomy
- Scapholunate ligament repairs / reconstruction options
- ORIF scaphoid fracture / nonunion
- LRTI procedure
- DRUJ stabilization procedures (i.e. Adams procedure)

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- TFCC repairs
- OR IF of particular complex fracture of the wrist, elbow and shoulder including proximal humerus fractures, distal humerus fractures and complex elbow #-dislocations (including ability to understand indications and perform olecranon osteotomies), Lateral (LUCL ligament repairs)
- Corrective osteotomy of the distal radius
- Understanding of brachial plexus anatomy and tendon transfer principles and options
- Management of the skeletal metastases to the upper limb

## II COMMUNICATOR

- The resident will be expected to ESTABLISH and maintain therapeutic relationships with both patients and their families. Communication will be assessed in both written and verbal areas.

Areas of evaluation include;

1. The ability to take a focused history (observed H&P)
2. listening skills
3. information delivery to patients/family, e.g. informed consents
4. Information delivery to colleagues, progress notes, orders etc.
   (random assessment of documentation)

The upper extremity rotation will emphasize a patient centered approach in which the resident will be allowed to develop competency in learning to modify and explain information in a way that meets the needs of the individual patient. For assessment purposes the preceptor may require an arena of predetermined specific learning cases e.g. end of life discussion in hip fracture, changing level of care in the ICU patient, or dealing with a physician as patient for example.

Junior

- effective listening to patients and families
- appropriate respect for patient confidentiality and privacy
- accurate documentation of patient encounters

Senior

- effective delivery of information to patients to allow / encourage discussion and informed decision making.
- Deal with challenging communication issues/ e.g. angry family, miscommunication, poor prognosis etc.

## III COLLABORATOR

The resident will be required to demonstrate an ability to interact with all other health care professionals including family, nursing and other physicians. Respect for the roles of other professionals will be an important component of this area.
This area will be assessed through;

1. feedback from nursing staff
2. information from other multidisciplinary team members
3. other physician input.

Assessment of the resident in this area may be best objectified through specific minor projects. e.g.

1. collaborate with physio to design a post op protocol

2. collaborate with nursing regarding a patient safety issue
   e.g. design a common wait list strategy for partners in a community setting

## IV LEADER

The expectation of the resident is to utilize resources to balance patient care and to allocate finite resources wisely. The resident will also be assessed in the ability to balance personal and professional activities and use their time to optimize patient care and CME.

Office administration, practice management and billing will be reviewed

Assessment
1. Ability to utilize resources wisely
2. Ability to time manage time correctly; promptness, prioritizing etc.
3. Administrative ability;

The upper extremity rotation provides an excellent arena to teach and discuss practice management along with other managerial skills. Topics for review in this arena include;
1. Negotiation skills
2. Committee responsibilities e.g. role of the chair, Roberts rules, perhaps have the resident attend a meeting and discuss the interactions
3. How to get and give references
4. Practice efficiency; Hospital, house and office
5. Managing length of stay and waitlist.

## V SCHOLAR

The resident will demonstrate the abilities to ASSESS, APPRAISE, ACQUIRE and CONTRIBUTE to lifelong learning. Scholarship relates to the self-discipline of evaluating, reporting and incorporating new evidence into practice.

This will be assessed through.
1. The ability of the resident to incorporate self-directed as well as preceptor directed specific learning goals throughout the rotation.
2. The ability of the resident to teach other health professionals in order to enhance patient care.
3. The resident's ability to integrate new research into practices.
4. The resident's ability to critically appraise their knowledge base, and procedural techniques.

Evaluating of this area is once again difficult. The resident perhaps could be required to search out an evidence based change which could be incorporated into the practice where he/ she is located.

## VI HEALTH ADVOCATE

The resident is expected to consistently advocate for the health and care of the patient. This includes an ability to identify the important determinants of health care for the patient, both orthopedic and non-orthopedic. The resident should develop an understanding for the role of the surgeon in the health care system. This includes the role of the physician in recognizing and describing the health needs of the population.

This will be assesses though.
1. the resident interaction with the patient requiring concurrent care issues
2. The residents ability to negotiate for limited resources in patient prioritizing

It is imperative that the resident understands the need for advocacy of the patient as a group as well as an individual. Individual advocacy is usually well established in the early medical career but group advocacy integrates much later in practice.

In this arena evaluation is difficult; perhaps exposure to such areas as, speaking to the hospital foundation, administration, or the media could be covered.

## VII PROFESSIONAL

The resident will be expected in this rotation to adhere to a high standard of honesty, integrity, commitment, compassion, effectiveness, competence and altruism.
Other areas of professional behavior to be assessed are manners, presentation skills, personal appearance, utilization of feedback and other evaluation tools.

Self-regulation in these areas is imperative. The resident will be expected to be accountable for all behaviors and recognize the boundaries between professional and personal realms.

Professionalism also includes self- directed learning and evaluation.
This may be assessed through;

1. personal learning projects
2. creation of learning objective for the rotation
3. self-assessment skills and simulation.

Reviewed and approved by RPC
on March 29, 2022

**RESIDENT UPPER EXTREMITY ROTATION**

NAME____________________________
PGY LEVEL_______________
SUPERVISOR________________

Rotation Goals and Objectives

- See attached

__ Reviewed by resident

SPECIFIC GOALS / Resident discussion

_ Reviewed by resident

Expected responsibilities

- Call
- OR Coverage
- Clinic Coverage

Mid Rotation Evaluation;

Final Evaluation

| BEGINNING OF ROTATION | END OF ROTATION |
|---|---|
| ___________________________ Signature (Resident) | ___________________________ Signature (Resident) |
| ___________________________ Signature (Attending) | ___________________________ Signature (Attending) |
| | ___________________________ Signature (CTU) |

**Upper Extremity Rotation**

Cases and knowledge which the resident would be expected to master during the rotation

***Junior Resident***

- Diagnostic and therapeutic injections to the upper limb including subacrominal, glenohumeral, ulnohumeral and radiocarpal.
- Closed reductions of shoulder dislocations, elbow dislocations, distal radius fractures and perilunate injuries
- Common upper extremity approaches including:
  - Deltopectoral approach
  - Deltoid split
  - Posterior elbow exposure Including exposure of ulnar nerve
  - Volar Henry approach to wrist
  - Russe approach to scaphoid
  - Dorsal approach to wrist
- Diagnostic shoulder arthroscopy

  Including bursectomy, acromioplasty
- Open / Mini-open rotator cuff repair
- Tennis elbow release / resection & repair of tissue
- Ulnar shortening osteotomy
- Distal biceps repairs
- Radial head replacement
- OR IF of fractures: distal radius, both bone forearm, olecranon, AC dislocation and clavicle
- Carpal tunnel release
- Dupuytren's contracture release

***Senior Resident***

- Describing arthroscopy portals and their use in diagnostic elbow & wrist arthroscopy
- Shoulder replacement including preparation and placement of humeral component *(*+/- glenoid component*)* for hemiarthroplasty, TSA and rTSA
- Open and arthroscopic Bankart repair
- Arthroscopic rotator cuff repair
- Laterjet procedure
- Elbow replacement
- Darrach procedure
- Outerbridge-Kawasagi Procedure
- Total and partial (4-corner, Scaphocapitate) wrist fusions
- Proximal Row Carpectomy
- Scapholunate ligament repairs / Blatt procedure
- ORIF scaphoid fracture / nonunion
- LRTI procedure
- DRUJ stabilization procedures (i.e. Adams procedure)
- ORIF of particular complex fracture of the wrist, elbow and shoulder including proximal humerus fractures, distal humerus fractures and complex elbow #-dislocations (including ability to understand indications and perform olecranon osteotomies)
- Corrective osteotomy of the distal radius
- Understanding of brachial plexus anatomy and tendon transfer principles and options
- Management of the skeletal metastases to the upper limb