

**Dalhousie University Family Medicine Enhanced Skills
in Emergency Medicine (Dal ESEM)**



**Clinical Learning Experience (CLE) IN ORTHOPEDIC
AND PLASTIC SURGERY**

GENERAL

During the combined Orthopedic & Plastic Surgery CLEs, the resident will be assigned to the Adult Orthopedic service morning clinic and the Adult Plastic Surgery service afternoon clinic throughout the week, as well as being available to answer floor call throughout the day and assist in the OR, if necessary, and other duties as required.

Residents will be available to take one in four on-call carrying the pager for both services while on-call. Ideally, residents would also cover daytime calls from the Emergency Department for both services throughout the month as well.

The combined Orthopedic & Plastic Surgery CLEs primary goal is for the residents to be included in the assessment, ED management and follow-up of minor and major orthopedic trauma, hand/facial trauma, soft-tissue infections and burns. ED and OPD experience are considered a priority over the operating room.

The resident is assigned to the Adult Orthopedic service and will participate in all aspects of this service with specific emphasis on ED call and selected OPD clinics (i.e. fracture clinic). The primary CLE for the EM resident is in the assessment, ED management and follow-up of minor and major orthopedic trauma. ED and OPD experience are considered a priority over the operating room.

The resident is assigned to the Plastic Surgery service and will participate in all aspects of this service with specific emphasis on ED call and selected OPD clinics. The primary goal for the EM resident includes the assessment, ED management and follow-up of hand/facial trauma, soft-tissue infections and burns. ED and OPD experience are considered a priority over the operating room.

MEDICAL EXPERT

Orthopedic Surgery:

1. To develop skills with clinical assessments.
2. To demonstrate a skilled physical exam.
3. To exhibit appropriate knowledge of acute orthopedic conditions.
4. To exhibit appropriate knowledge of fracture/dislocation management.
5. To exhibit appropriate knowledge of early and late complications of orthopedic injuries.
6. To understand principles of spinal injury.
7. To develop an approach to open orthopedic injuries.
8. To develop an approach to orthopedic injuries with neurovascular compromise.
9. To understand principles of soft tissue (muscles, ligaments, tendons) injuries.
10. To develop an ability to diagnose and manage compartment syndrome.
11. To develop an ability to diagnose and manage septic arthritis.
12. To understand the principles of pelvic fractures.

13. To understand indications for urgent and elective orthopedic referral.
14. To understand the principles of diagnostic imaging for orthopedics.
15. To select and perform orthopedic procedures in an appropriate, safe and skillful manner with due attention to minimizing patient risk and discomfort.
16. Technical Skills – To develop technical skills in the following areas:
 - 16.1 Reduction of fractures and dislocations
 - 16.2 Arthrocentesis
 - 16.3 Casting and splinting

Plastic Surgery:

1. To develop the skill of clinical assessments for plastic surgery.
2. To demonstrate a skilled physical exam.
3. To exhibit appropriate knowledge of acute soft tissue injuries.
4. To exhibit appropriate knowledge of wound and bite management.
5. To exhibit appropriate knowledge of soft tissue infections.
6. To understand principles of burns (thermal, electrical, chemical).
7. To develop an approach to wrist and hand injuries.
8. To develop an approach to facial injuries.
9. To understand indications for urgent and elective plastic surgery referral.
10. To understand the principles of diagnostic imaging for plastic surgery.
11. Technical Skills – To develop technical skills in the following areas:
 - 11.1 Reduction of hand fractures and dislocations
 - 11.2 Wound closure
 - 11.3 Casting and splinting
 - 11.4 Revision amputation
 - 11.5 Extensor tendon repair

COMMUNICATOR AND COLLABORATOR

1. To understand how to communicate effectively with patients & family.
2. To understand and demonstrate patient-centered orientation.
3. To involve patient & family in management plan.
4. To understand and demonstrate integrity, honesty, and compassion.
5. To understand and demonstrate appropriate patient/family-physician boundaries.
6. To apply legal and ethical principles appropriately.

MANAGER

1. To recognize the role of, and interact effectively with other specialty consultants.
2. To demonstrate the ability to effectively work within a multi-disciplinary team.
3. To demonstrate the ability to effectively approach uncertainty and ambiguity.
4. To demonstrate team-based leadership skills.
5. To be aware of personal limitations and appropriately seeks assistance.
6. To follow through on commitments.

HEALTH ADVOCATE

1. To demonstrate patient advocacy and respect for personal directives.
2. To understand and apply patient-centered care in the injured patient.
3. To understand the role of ethics in treatment decisions in the injured patient.
4. To understand the importance and role of support services in the patient including social work, clergy, physiotherapy, occupational therapy.
5. To understand the importance of cultural awareness and sensitivity in care of the patient.

SCHOLAR

1. To provide accurate and organized documentation of patient care.
2. To demonstrate skill in using and critically appraising evidence.
3. To demonstrate initiative and self-directed learning.
4. To effectively manage time for learning and patient care.
5. To teach junior learners effectively.
6. To demonstrate the effective and ethical use of health care resources.
7. To demonstrate understanding of the principles of triage and appropriate resource allocation.
8. To appropriately use relevant community and hospital resources for discharged patients.
9. To recognize suspected cases of abuse/assault and invokes appropriate crisis intervention.

Professional

1. To be punctual, reliable, and consistent in the management of patients.
2. To be empathetic and patient-centered in the care of the patient.
3. To be respectful and professional in all interactions with the patient, family, trauma team, consultants and support staff within the hospital.
4. To recognize the importance of behaving in an ethical and professional manner at all times.

APPENDIX I

Orthopedic Surgery:

i) Scientific and Clinical CLE's Approach to Musculoskeletal Trauma

1. To describe anatomy (bone, soft tissue and neurovascular) relevant to the conduct/interpretation of complete clinical MSK injury assessment.
2. To demonstrate an integrated/prioritized approach to MSK injury in the evaluation/management of the multiple trauma patient.
3. To describe and classify the radiographic features of fractures and dislocations for the purpose of communication, documentation and emergency management.
4. To describe the precipitants, pathophysiology, clinical manifestations and emergency management of compartment syndrome.
5. To identify, classify and provide emergency management for compound fractures/dislocations.

Plastic Surgery:

i) Scientific and Clinical CLE's Facial Trauma

1. To describe anatomy as relevant to mechanisms, patterns and complications of facial injury (including neurovascular and specific structures/organs of the face). To correlate with clinical findings and plain/CT images of the face.
2. To describe the management of facial/mandibular fractures (including mandibular dislocation) with specific reference to immediate care and the appropriate timing/nature of referral.
3. To identify and characterize (clinically and radiographically) fractures/dislocations/subluxations of the wrist and hand, including the use of clinically relevant classification systems.
4. To describe the emergency assessment and management of specific injury patterns to the hand including foreign body, crush, avulsion, burn and injection injuries.
5. To identify and classify tendon injuries of the hand and wrist. To demonstrate selective emergency repair and referral.

Burns

1. To describe the epidemiology and disease burden of thermal burns in North America. To explain the role of the burn center in managing complicated cases and list common indications for transfer.
2. To demonstrate a sophisticated approach to the assessment, resuscitation and management of major burns including related emergency procedures.
3. To describe the relevance of the body surface area assessment to burn care and fluid management.

Skin and Soft Tissue Injury

1. To describe anatomy, physiology/biology relevant to the assessment and management of simple or complicated skin wounds.
2. To demonstrate a comprehensive approach to the assessment, preparation, repair and follow-up of simple or complicated skin wounds. Demonstrate a detailed knowledge of materials and techniques.
3. To describe the bite characteristics of humans and common domestic/wild animals in terms of their typical location, mechanisms and biology. To demonstrate a comprehensive approach to the assessment, emergency management and follow-up of these injuries.

4. To predict, prevent and manage local or systemic infectious complications of mammalian bites (see also infectious disease Rabies and Tetanus) based on knowledge of relevant bacteriology, host factors and available evidence.