

UWO DIVISION OF ORTHOPAEDIC SURGERY
ROTATION SPECIFIC OBJECTIVES
Orthopaedic Surgery for Off-Service Residents

SITES:

University Hospital, St Joseph's Hospital, Victoria Hospital, Children's Hospital

1. Introduction

The resident physicians are often initial providers of management to the patients with orthopaedic injuries. Initial providers must be aware of orthopaedic trauma principles to ensure quality care and outcome. This person is required by the Royal College of Physicians and Surgeons of Canada to be competent in trauma management. This rotation has been developed to ensure that a surgical resident is equipped with education and technical skills as the initial provider of orthopaedic trauma.

2. Rotation Specific Objectives

2.1 Medical Expert

Cognitive Domain: Residents should have a clear understanding of the following cognitive areas, including current literature:

- i) The inflammatory process
- ii) Fracture healing
- iii) Anatomy (clinical, surface, and surgical)
- iv) Basic science as it relates to:
 - Ligaments
 - Cartilage
 - Bone
 - Muscle tendon
 - Synovium
 - Biomechanical principles of the musculoskeletal system

Psychomotor Technical Domain

- i) Be able to perform a standard musculoskeletal history
- ii) Be able to do a general musculoskeletal physical examination
- iii) Be able to perform standard Draping techniques
- iv) Be able to splint wounds, apply casting material and manage traumatic limb injuries

Cognitive Domain: the resident shall demonstrate knowledge an organized problem solving approach to the following:

- i) Principles of management of open fractures
- ii) Principles of management for prevention of tetanus
- iii) Principles of management of compartment syndrome
- iv) Principles of splinting for fracture care
- v) Principles of treatment of MSK wound infections

- vi) Principles of management of the polytrauma patient in respect to orthopaedic injuries of a severe nature, e.g. pelvic fractures, multiple fractures, and spinal fractures
- vii) Knowledge of implications regarding implant usage for fracture care and principles of immobilization of the orthopaedically traumatized patient
- viii) The resident should also have experience through this rotation with the treatment of multiple simple fractures, having a good knowledge of operative fractures and nonoperative fractures and principles of the follow-up in regard to these fractures, e.g. clavicle fracture or distal radius fracture

Psychomotor Technical Domain

i) History

- Elicit accurate history of traumatic event
- Obtain prior level of physical ability, health problems and work-related factors
- Obtain history relating to home situation for rehabilitation and mobilizing

ii) Physical Examination: The resident/learner should be able to elicit all aspects of the musculoskeletal examination with the following emphasis:

- Obtain accurate distal pertinent circulation, sensation and motor assessment identifying level of injury
- Accurate use of the ABC's or physical exam following ATLS protocol
- Obtain accurate pertinent evaluation regarding complications of fractures
 - o compartment syndrome
 - o deep venous thrombosis
 - o infection
 - o fracture blisters
 - o neurovascular injury

iii) Therapeutic Skills Junior Level

- Closed reduction of dislocations
- Closed reduction of common fractures
- Application of splints and casts for fracture immobilization

2.2 Communicator:

- establish therapeutic relationships with patients and families
- obtain and synthesize a relevant history from patient, families and communities
- listen effectively
- discuss appropriate information with patients and families and the health care team

2.3 Collaborator:

- consult effectively with other physicians and health care professionals.
- participate effectively in interdisciplinary team activities.

2.4 Manager:

- utilize resources effectively to balance patient care, learning needs, and outside activities.
- Work effectively and efficiently in the healthcare organization
- allocate finite health-care resources wisely

2.5 Health Advocate:

- identify the important determinants of health affecting patients particularly those with spinal cord injuries, amputations, chronic debilitating diseases.
- Have knowledge of community services available for these patients.

2.6 Scholar:

- critically appraise sources of medical information
- contribute to the development of new knowledge

2.7 Professional:

- deliver highest-quality care with integrity, honesty and compassion.
- Exhibit appropriate personal and interpersonal professional behaviors.
- Practice medicine ethically consistent with obligations of the physician.

3. Conditions of Learning

Junior level - one or two-block rotations

4. Methods of Instruction/Learning

i) Setting

- trauma call
- orthopaedic trauma rounds during rotation
- fracture clinic
- operating room

ii) Technique of learning

- self-directed reading
- receptive learning - ATLS/ ACLS principles
- cognitive apprenticeship
- guided inquiry

5. Evaluation

Preceptor ITER