

ORTHO TRAUMA

CanMEDS roles and responsibilities

General Objectives

Upon completion of a rotation on Trauma, the learner must demonstrate knowledge of the pathophysiology of the injury to the musculoskeletal system. A knowledge base must exist to formulate a plan to effectively and efficiently order to arrive at a diagnosis and formulate a treatment plan in a multi traumatized patient (ATLS protocol). The learner should be able to communicate the diagnosis/treatment and long term expectations to patient/family, especially as it relates to establishing a sympathetic and effective professional relationship.

Specific Objectives

At the completion of the rotation, the learner will have acquired the following competencies and will function effectively as:

1. MEDICAL EXPERT/CLINICAL DECISION MAKER

While working on the Trauma service, the learner must become proficient in the following areas:

1. Obtain appropriate history and perform physical examination on the injury patient
2. Pre-operative management of the injury patient
 - a. Splinting techniques
 - b. Managing premorbid medical conditions
 - c. Prioritizing treatment of MSK injuries with treatment for other injury organ systems
3. Describe a diagnosis and management plan (investigations, non-operative and operative) for the following fractures:
 - a. Fractures of the upper extremity:
 - i. Distal radius
 - ii. Radius and ulnar shaft
 - iii. Monteggia and Galeazzi
 - iv. Olecranon and radial head
 - v. Trochlea and capitellum
 - vi. Distal humerus (supracondylar)
 - vii. Humeral shaft
 - viii. Proximal humeral
 - ix. Scapula
 - x. Clavicle
 - b. Fracture of the lower extremity:
 - i. hip
 - ii. femur
 - iii. Supracondylar femur
 - iv. Patella
 - v. Tibial plateau
 - vi. Tibial shaft
 - vii. Tibial plafond

- c. Fractures of the pelvic ring
 - i. Pelvic
 - ii. Sacrum
 - iii. Acetabulum
- 4. Describe the surgical approaches and relevant anatomy to treat fractures in Section 3.
- 5. Identify and manage intra and early post-operative complications of the injured patient
 - a. Nerve or large vessel injury
 - b. Compartment syndrome
 - c. Fat embolism syndrome
 - d. Thromboembolic disease (prophylaxis and treatment)
 - e. Infection
 - f. Wound necrosis
- 6. Identify and manage open fractures
- 7. Understand the indications, contraindications and biomechanical properties of the device available for fracture fixation
 - a. Plates and screws
 - b. Intramedullary
 - c. External fixators
- 8. Understand initial management of associated soft tissue injuries
- 9. Describe both closed and open treatment of large joint dislocations
- 10. Diagnosis, investigate, and treat the following late postoperative complications:
 - a. Wound necrosis
 - b. Wound and deep infection
 - c. Nonunion of a fracture
 - d. Malunion of a fracture
 - e. Reflex sympathetic dystrophy
- 11. Patient rehabilitation and disability assessment

II. COMMUNICATOR

General Requirements

- 1. Establish therapeutic relationships with patients/families
- 2. Obtain and synthesize relevant history from patients/families/communities
- 3. Listen effectively
- 4. Discuss appropriate information with patients/families and the health care team

Specific Requirements

- 1. Effectively communicate with patients/families and members of the team
- 2. Effectively communicate important aspects of patient care to the multidisciplinary team and clearly/concisely summarize the patient care plan.
- 3. Understand and empathize with the emotion surrounding orthopedic disease and injury
- 4. Appreciate the dynamics of a traumatized family
- 5. Address patients' concerns with empathy
- 6. Understand the concerns that patients have with loss of control, self-worth and personal dignity
- 7. Explain details of medical conditions and therapy in understandable terms
- 8. Appreciate the fact that interpreters may be required for ethnic groups

III. COLLABORATOR

1. Consult effectively with other physicians and health care professionals
2. Contribute effectively to other interdisciplinary team activities

Specific requirements

1. Understand the roles of other health care professionals
2. Seek the advice of other members of the health care team
3. Organize/lead team meetings to discuss problems in investigation/therapy (multidisciplinary conference)
4. Consult regularly and reasonably with other physicians and members of the health care team
5. Share knowledge effectively to formulate a health care plan

IV. LEADER

General Requirements

1. Utilize resources effectively to balance patient care, learning needs and outside activities
2. Allocate finite health care resources wisely
3. Work effectively and efficiently in a health care organization
4. Utilize information technology to optimize patient care, life-long learning and other activities

Specific Requirements

1. Participate effectively in resource planning for the orthopedic patient
2. Participate in discharge planning

V. HEALTH ADVOCATE

General Requirements

1. Identify the importance determinants of health affecting patients
2. Contribute effectively to improve the health of patients, their families and communities
3. Recognize and respond to those issues where advocacy is appropriate

Specific Requirement

1. Demonstrate knowledge of the epidemiology of orthopedic disease and injury
2. Advise patients/families of the role of environmental factors in orthopedic disease and injury
3. Promote prevention of orthopedic disease and injury
4. Outline community resources available to patients/families dealing with orthopedic disease and injury:
 - a. Social work
 - b. Physiotherapy
 - c. Occupational therapy
 - d. Dietary/nutritional services
 - e. Prosthetic support services
 - f. Pain and symptom management
 - g. Palliative care

5. Identify the possibility of non-accidental injury (physical abuse) and make the appropriate referrals to prevent further harm.

VI. SCHOLAR

General Requirements

1. Develop, implement and monitor a personal continuing education strategy
2. Critically appraise sources of medical information
3. Facilitate learning of patients, housestaff and other health professionals
4. Contribute to development of new knowledge
- 5.

Specific Requirements

1. Question current practice
2. Develop a teaching contact that reflects the multidisciplinary approach to orthopedic surgery
3. Critically assess the orthopedic literature as it pertains to diagnosis, investigation, treatment and follow-up:
 - a. Outline types of trial design
 - b. Define the relevance of statistical significance and how it is determined
 - c. Define Type 1 and Type II errors and their relevance
4. Disseminate relevant knowledge to other health care providers

VII. PROFESSIONAL

General Requirements

1. Deliver the highest quality care with integrity, honesty and compassion
2. Exhibit appropriate personal and interpersonal professional behavior
3. Practice medicine ethically consistent with the obligations of a physician

Specific Requirements

1. Understand that professionalism requires ongoing CME
2. Maintain a professional attitude consistent with a practicing orthopedic surgeon
3. Sympathize with the needs of the patient even when they conflict with medical advice
4. Recognize the requirements of patient confidentiality
5. Understand the ethical responsibilities as they relate to the orthopedic patient
6. Practice in an ethical, honest and forthright manner
7. Respond to conflict constructively and with compassion