

Kuwait Institute for Medical Specialization



Membership of Specialty in Emergency Medicine

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Emergency Medicine.

1. Emergency Medicine is defined as:

Emergency Medicine is a field of practice based on the knowledge and skills required for the prevention, diagnosis and management of acute and emergent aspects of illness and injury affecting patients of all age groups with a full spectrum of undifferentiated physical and behavioral disorders.

It further encompasses an understanding of the development of pre-hospital and in-hospital emergency medical systems and the skills necessary for this development.

(International Federation for Emergency Medicine 1991)

The hour glass is an appropriate symbol, just because of the time element it represents. The waist of the hour glass can be seen as the Emergency Department itself with patients converging on from myriad origins and thereafter diverging according to functional destinations.

2. Job specification of a Specialist in Emergency Medicine:

The task of the specialist in Emergency Medicine is the following:

- 2.1. Distinguish the seriously ill patients from minor illness or injury.
- 2.2. Competently and efficiently manage conditions.
- 2.3. Support and stabilize the acutely ill and arrange appropriate management and referral.
- 2.4. Recognize, evaluate and initiate management for non-acute illness and injury.
- 2.5. Concurrently manage multiple patients with appropriate priorities.
- 2.6. Understand the natural history of an emergency situation, the social and family concept of continuity of care and community resources available for follow up care.
- 2.7. Develop, implement and support services in the community for pre-hospital ambulance service communication systems, poison control, public education, medical services and disaster planning.
- 2.8. Conduct and promote research.

2.9. Participation in training of under and post graduate students in the field of emergency medicine.

3. Objectives of The Training Program:

During the course of training, the candidate must acquire satisfactory knowledge and skills in the following areas:-

- 3.1. Primary care of the patient, a declared emergency including the recognition, evaluation and initial management of acute illness or injury.
- 3.2. Triage of patients with major illness or injury
- 3.3. The natural history of illness or injury commonly presenting as an emergency and principles of long term care and follow up essential for these conditions.
- 3.4. Supervisory and administrative aspects of emergency conditions, medical services, pre-hospital care of emergency paramedical emergency services, ambulance services communication systems and disaster planning.
- 3.5. Research areas of emergency medicine.
- 3.6. Social and family implications of or a serious illness or injury.

To achieve these goals there are general and terminal educational objectives.

General Objectives:

The resident in emergency medicine is expected to demonstrate consultant level abilities in the recognition, understanding and treatment of illness and injuries presenting to the Emergency Department. During the course of the educational program, the resident must acquire and demonstrate satisfactory competence and knowledge of clinical skills, technical skills, administrative skills and attitudes consistent with the practice of the depth and breadth of Emergency Medicine, as out lined below.

(1) Knowledge:

This encompasses an understanding of the entire body's anatomy, physiology of the major organ systems, thorough understanding of the pathophysiology of the significant illness and injury. Principles of pharmacology and toxicology as well as natural history of illness and injuries as presenting emergencies and the principles of the long term and follow up care for these conditions.

(2) Clinical Skills:

This is demonstrated by the competent, independent and primary care of emergencies; including the recognition, evaluation, understanding and initial management of all acute illness and injury particularly of a life threatening nature. The resident will demonstrate the ability to choose the investigations and management appropriate to the clinical situation as well as the selection and timing of involvement of other members of a health care team in the immediate and continuing care of his/her patient.

(3) Technical Skills:

Competence in all surgical and technical procedures commonly performed in Emergency Medicine is expected.

(4) Administrative and Supervisory Skills:

The ability to concomitantly manage a number of ill and injured patients at any given time with a view to both providing these patients with excellence of care as well as ensuring the continuing smooth flow of patients through an Emergency Department must be demonstrated. Skills necessary for effective triage of patients within the Emergency Department are included. Competence in supervisory and administrative aspects of Emergency Medical Services Systems (i.e. the rationalization of emergency services, communication systems, pre-hospital care programs, ambulance services, paramedical emergency services and Disaster medicine is expected.

(5) Attitudes:

The ability to communicate effectively with the patient, the demonstration of a compassionate interest in understanding the patient as a person, an appreciation of the psychosocial and family implications of serious illness or injury, the ability to function as a member of the health care team, an understanding of the obligation of continuing self education and teaching others. It is expected that the members should have an appreciation of the role of research and critical analysis of current developments related to the specialty.

Terminal Educational Objectives in Emergency Medicine:

Terminal educational objectives are identified and presented for each of the nine categories in the core content of Emergency Medicine. Through each rotation directed reading of recommended bibliographies and formal teaching sessions, the Emergency Medicine resident will be expected to direct his/her learning towards a mastery of the core content material. The Emergency Medicine resident will demonstrate a thorough understanding and application of the necessary knowledge and skills in the following:

I. Principles of Emergency care:

Recognition, intervention, resuscitation and stabilization of the patient's problems presented to the Emergency Department.

II. Acute Disorders by Body Systems:

Relevant anatomy, presentation (symptoms and signs), pathophysiology, natural history, investigation modalities, management and disposition decisions of these acute disorders of body systems encountered in the Emergency Department.

III. Trauma:

Evaluation, resuscitation, investigations and stabilization of patients with multiple and organ specific trauma with respect to mechanisms of injury, pathophysiology, relevant anatomy, presentation, management decisions in the Emergency Department.

IV. Acute Age Related Disorders:

Presentation, normal history of the disease, psychological factors, investigations, management, and disposition decisions of acute disorders in the pediatric and geriatric age groups encountered in the Emergency Department.

V. Toxicology:

General principles of pharmacology with respect to absorption, kinetics and excretion; general approach to the poisoned/overdosed patient, the presentation, pathophysiology, history, investigations and management of patients suffering from toxic overdose and adverse reactions of specific and unknown pharmacological agents and poisons encountered in the Emergency Department.

VI. Environmental Disorders:

The general approach to environmental disorders, recognition of specific presentations, their pathophysiology, natural history, investigations and the initiation of appropriate management in the Emergency Department.

VII. Investigation Modalities in Emergency Department:

Selection, application and interpretation of available investigative modalities in the assessment of patient problems in the Emergency Department.

VIII. Manipulative / Procedural Skills in Emergency Medicine:

Indications, contraindications, pre-requisite steps, priority setting in the application of technical skills in the Emergency Department. Preferred and alternate methods, recognition and assessment of manipulative procedural skills performed in the Emergency Department.

IX. Emergency Medical Services:

Organizational and administrative aspects of Emergency Medical Services, pre hospital care, disaster planning, quality assurance programs in emergency medicine, medico legal aspects of emergency medical care, staff education and career development research.

4. Program Structure:

4.1 To ensure that the candidate achieves the desired objectives of the training program, they are rotated amongst different mandatory specialties, electives, and assessed in an appropriate evaluation process.

During the five years of training:

- Candidates are based at a mother hospital where they will be assigned a local tutor for the duration of the whole program.
- Candidates will be sent to various specialties, which are relevant to the specialty of emergency medicine for different periods of time depending on the nature of the specialty.
- Minimum duration spent in the adult emergency medicine department is 23 months out of the five years.

4.2 Elective Component:

Electives taken in the following areas are acceptable:

- 4.2.1. Epidemiology.
- 4.2.2. Research.
- 4.2.3. Different specialties of Medicine.
- 4.2.4. Different specialties of Surgery.

The trainee should participate in the following during the program:

- A) Post graduate lectures in Emergency Medicine.

- B) Monthly interactive sessions.
- C) Journal club.
- D) Workshops.
- E) Case presentations and Grand rounds.

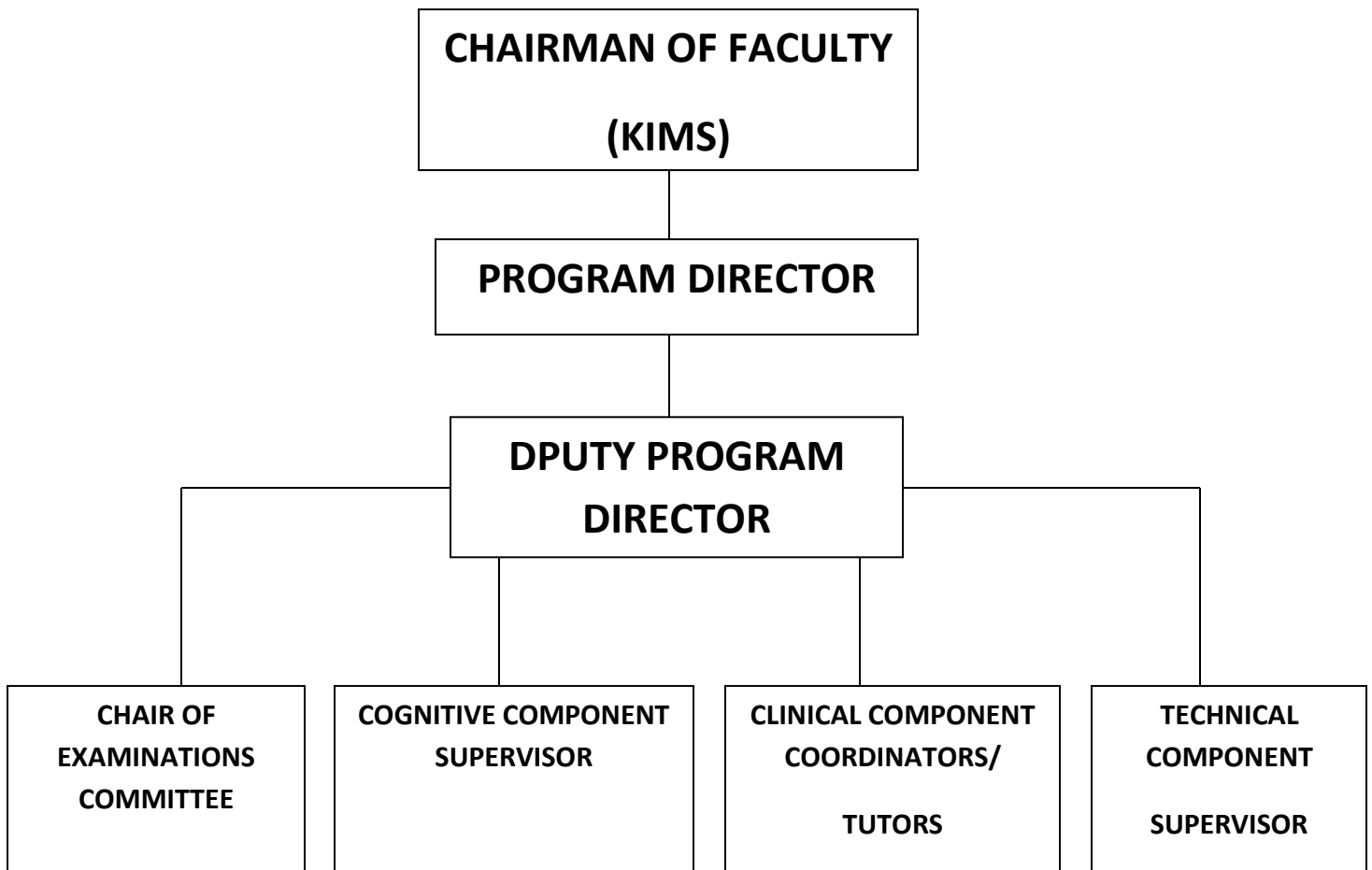
Vacation Time during the program:

The candidate is allowed one month vacation in each year but no more than 2 weeks from a 2 month rotation or one week from a one month rotation.

<p>Year I: Adult Emergency Dept.: 2 months.</p>	<p>One month each: General surgery, radiology, anesthesia, internal medicine, ophthalmology, ENT, Obs/Gyn., Pediatric ED, Orthopedics and plastic surgery.</p>
<p>Year II: Adult Emergency Dept.: 2 months.</p>	<p>ICU: 3 months. CCU: 2 months. One month each: Pediatric ED, psychiatry, pediatric anesthesia, orthopedics, neurosurgery.</p>
<p>Year III: Adult Emergency Dept.: 6 months</p>	<p>Pediatric ED: 3 months. One month each: EMS, emergency ultrasound and toxicology.</p>
<p>Year IV: Adult Emergency Dept.: 7 months</p>	<p>Trauma: 2 months (Trauma Center). One month each: CCU-electrophysiology, elective, pediatric ED.</p>
<p>Year V: Adult Emergency Dept.: 7 months</p>	<p>Elective: 2 months. One month each: clinical teaching unit, ED administration, final exam preparation.</p>

5. Organizational Framework of Emergency Medicine Specialist Training:

EMERGENCY MEDICINE BOARD



- **COGNITIVE COMPONENT SUPERVISOR:** (LECTURES, MEETINGS, GRAND ROUNDS)
- **CLINICAL COMPONENT COORDINATORS/TUTORS:** (ROTATIONS AND CLINICAL ASPECT OF THE PROGRAM)
- **TECHNICAL COMPONENT SUPERVISOR:** (WORKSHOPS, LOG BOOKS)

The program of training leading to membership in Emergency Medicine is designed to provide practical training and experience under supervision.

5.1 The academic council (KIMS) has the final responsibility for the training program which is run by the faculty of Emergency Medicine (KIMS).

5.2 Training, Accreditation and Examination Board is responsible for:

- 5.2.1. Management of the training program.
- 5.2.2. Approval of the appointment of coordinators.
- 5.2.3. Recognition of training centers as well as regular evaluation of these centers.
- 5.2.4. Identification, nomination and appointment of supervisors.
- 5.2.5. Approval of nomination of trainers.
- 5.2.6. Acceptance of trainee.
- 5.2.7. Approving and reviewing the annual program for each trainee in conjunction with the supervisor, trainer and trainee.
- 5.2.8. Keeping progress records of trainees.

5.3 Examination Board:

It is responsible for the assessment of each trainee on completion of the program.

5.4 Program Director:

A recognized specialist in Emergency Medicine who coordinates the program in liaison with the training and accreditation boards.

5.5 Supervisor:

The supervisor is a designated, medically qualified person who has a direct supervisory responsibility for a designated trainee or more. He/ she is the

person most directly responsible for the overall training program of the specified trainee and this would be expected to be expressed by regular meetings with him/her. The choice of the supervisor for each candidate should be made after consultation with the trainee and the coordinator. The responsibilities include

- 5.5.1. Preparation (in conjunction with trainee or trainers) of the training program for a specified candidate.
- 5.5.2. Regular tutorials and supervision of the trainees.
- 5.5.3. Nomination of trainers to be approved by the program coordinator or the country committee.
- 5.5.4. The Annual evaluation of trainees for the board of training and examination.

5.6 Tutor:

A designated medically qualified person fully acquainted with the work of the unit or program in which the training will be conducted. He/she is selected by the supervisor and coordinator. He/she will provide on job supervision, assistance and advice on a particular topic or in connection with a specific problem or project.

Responsibilities include:

- 5.6.1. Supervision and regular evaluation of the trainee.
- 5.6.2. Ensuring that the person of the organization (unit program) are adequately briefed and able to carry out their part of the program successfully.

5.7 Training Center:

It is a unit in the ministry of health. The training center is expected to have the following facilities:

- 5.7.1. The head of the center is an experienced person who is actively involved in the work of the center.
- 5.7.2. The organizational set up of the work is clearly defined centrally and peripherally.
- 5.7.3. There are clear objectives for the program of work and regular evaluation of its activities.

- 5.7.4 There is a clear *flow* system of information between the field and the center.
- 5.7.5 There is minimum man power and facilities to ensure the effective work of the health team.
- 5.7.6 An updated and accessible library.
- 5.7.7 Continuous educational activities.
- 5.7.8 A link with academic and scientific institutes in the country/ region or international health organizations.

5.8 Trainee:

Individual trainee should:

5.8.1. Admission Requirements:

To be accepted in the program the candidate has to fulfill the following requirements:

1. Bachelor degree in medicine and surgery
 2. Successful completion of one year of rotating internship
 3. Two recommendation letters
 4. Pass the council oral exam (interview)
- 5.8.2. Ensure that he/she understands the basic areas of work covered by the unit or program.
 - 5.8.3. Establish a relation of trust with the trainer where frank activities and comments become possible.
 - 5.8.4. Keep a brief record of the experience gained to facilitate regular review.
 - 5.8.5. Keep up to date with recent development in the specialty of Emergency Medicine including attendance of scientific meetings as well as regular reading of relevant literature and periodicals.
 - 5.8.6. Inform the trainer or supervisor at an early stage of any problem, which prevents achieving the training objectives.

6.0 Resident Evaluation:

6.1. The evaluation will be as follows:

- 6.1.1. Evaluation will be at the end of each rotation conducted by residency director and supervisor in attendance of the resident.

- 6.1.2. Another evaluation will be at the end of each training year conducted by residency director and supervisor.
- 6.1.3. Thorough review of the candidate's assessment from various specialists conducted by the specialty consultant.

N.B. If the performance of the candidate throughout the year has been unsatisfactory, it is at the discretion of the course director (program director) to fail or to prevent progress to the next residency year and ask the candidate to repeat either parts of the residency or the whole year.

- 6.1.4. Final (end) of program assessment.

6.2 Expulsion from the program:

Candidates can be expelled from the program at the discretion of the supervising consultant and course director for any of the below reasons:

- 6.2.1. Misconduct or conduct unbecoming of an EM doctor.
- 6.2.2. Continuous failure in various parts of the program.
- 6.2.3. Failure to abide by strict working hours related to the program.

7.0 Regulations of the Examination:

The trainee must pass part one and part two of the membership of the KIMS specialty in Emergency Medicine.

7.1 Part One:

It is mandatory to complete the first two years of training in Emergency Medicine before being entitled to appear in part one of the membership of specialty in Emergency Medicine (KIMS).

The examination will consist of multiple choice questions.

The Examination will be graded as follows:

- A) Pass.
- B) Fail.

If a candidate is unsuccessful he/she can repeat the examination twice. A candidate can proceed to the third year of residency if unsuccessful at the first attempt of part 1 examination, but cannot continue to the fourth year if unsuccessful at the second attempt as well. If unsuccessful after 3 attempts, the candidate will be unable to continue in the program.

7.2 Part Two:

Candidates who will be eligible to sit part two must have successfully completed five years of training requirement in Emergency Medicine, and must have passed part one successfully before they are entitled to appear in the examination leading to part two of membership of specialty in Emergency Medicine (KIMS).

The examination of part two in Emergency Medicine consists of a written, an oral and clinical components.

- A) Written Examination will consist of two papers of short essay questions, each of three hours duration. Candidates will be expected to know pathophysiology, pharmacology and clinical management.
- B) Objective Structured Clinical Examinations (OSCEs) designed to assess the required medical knowledge, clinical skills, and communication skills of the candidate.
- C) Oral examination:
 - Case scenarios
 - Audio-visual components

Candidates will be asked questions dealing with the breadth and depth of Emergency Medicine and relevant basic sciences. This may be achieved utilizing single or multiple real case scenarios and by direct questioning of the pathophysiologic basis of disease.

If a candidate is unsuccessful he/she can repeat the examination twice. If unsuccessful after 3 attempts, the candidate will require a year's training in emergency medicine before being eligible to sit the examination again.

8.0 Core Curriculum of The Program

8.1. Principles of Emergency Care

- 8.1.1. Recognition / intervention of acute Illness and Injury.
- 8.1.2. Resuscitation / Stabilization of the seriously Ill and Injured patient.

8.2. Acute Disorders by Body Systems

- 8.2.1. Head and Neck.
- 8.2.2. Eye.
- 8.2.3. Cardiovascular.
- 8.2.4. Thoracic / Respiratory.
- 8.2.5. Abdominal / Gastrointestinal.
- 8.2.6. Renal / Urinary Tract.
- 8.2.7. Genital tract.
- 8.2.8. Dermatological.
- 8.2.9. Musculoskeletal / Rheumatologic.
- 8.2.10. Nervous System.
- 8.2.11. Psychological / Behavioral.
- 8.2.12. Hematological.
- 8.2.13. Endocrine / Metabolic / Nutritional.
- 8.2.14. Acid Base.
- 8.2.15. Fluid and Electrolyte.
- 8.2.16. Allergic / Immunological.

8.3. Trauma

- 8.3.1. Multiple Trauma.
- 8.3.2. Trauma to the Head, Neck (Including CNS and Spinal Tract).
- 8.3.3. Trauma to the Face (Including Eyes/Ears/Nose/Tongue/ Mouth/ Teeth).
- 8.3.4. Trauma to the Chest.
- 8.3.5. Trauma to the Heart and cardiovascular System.
- 8.3.6. Trauma to the Abdomen.
- 8.3.7. Trauma to the Urogenital System.
- 8.3.8. Trauma to the Musculoskeletal System.
- 8.3.9. Trauma to the Hand / wrist.
- 8.3.10. Trauma to Skin / Soft Compartments.

8.4. Acute Age-Related Disorders: Pediatric Disorders

- 8.4.1. Clinical Assessment on Infant / child.
- 8.4.2. Resuscitation.
- 8.4.3. Neonatal Conditions.
- 8.4.4. Specific clinical Presentations / Considerations.
- 8.4.5. Acute Pediatric Disorders by Body Systems.
- 8.4.6. Congenital / Development Syndromes.
- 8.4.7. Toxicological Disorders in Childhood.
- 8.4.8. Infectious Disorders in childhood.
- 8.4.9. Pediatric Hematology / Oncology.
- 8.4.10. Child Abuse / Deprivation / Family Dysfunction.

8.5. Acute Age-Related Disorders: Geriatric Disorders

- 8.5.1. Physiology of Aging.
- 8.5.2. History and Physical Examination of the Elderly.
- 8.5.3. Specific Clinical Presentations / Consideration.
- 8.5.4. Evaluation of Functional Ability.
- 8.5.5. Effect of Aging on Diagnostic Test.
- 8.5.6. Pharmacokinetics in the Elderly.
- 8.5.7. Common Psychosocial Disorders in the Elderly.
- 8.5.8. Geriatric Disorders presenting with Variable Manifestations.

8.6. Toxicology

- 8.6.1. General Principal of Drug Absorption / Kinetics / Excretion.
- 8.6.2. General Approach to Poisoned / Overdosed Patient.
- 8.6.3. Specific Clinical Presentations / Considerations.
- 8.6.4. Drug Interactions / Adverse Reactions.
- 8.6.5. Drug Acting at Synaptic and Neuroeffector Sites.
- 8.6.6. Medicinal Agent.
- 8.6.7. Specific Toxic Agents / Poisons (Toxidromes).
- 8.6.8. Plant poisons.
- 8.6.9. Toxins Produced by Biological Agents.
- 8.6.10. Neurotoxins /cellular Toxins.
- 8.6.11. Local Acting Drugs.
- 8.6.12. Food poisons.

8.7. Environmental Disorders

- 8.7.1. Pathophysiology in Environmental Disorders.
- 8.7.2. Clinical Syndromes – heat Induced.
- 8.7.3. Clinical Syndromes – Cold Induced.
- 8.7.4. Clinical Syndromes – Water Immersion.
- 8.7.5. Hyperbaric Syndromes.
- 8.7.6. Hypobaric Syndromes.
- 8.7.7. Contamination of Air.
- 8.7.8. Radiation Exposure / Syndromes.
- 8.7.9. Microwave / Laser Exposure.
- 8.7.10. Electrical Injuries.
- 8.7.11. Chemical Injuries.
- 8.7.12. Animal Bites.
- 8.7.13. Insect / Arthropod Bites / stings.
- 8.7.14. Transport of Hazardous products.

8.8. Investigative Modalities in Emergency Medicine

- 8.8.1. Hospital Laboratory Determinations.
- 8.8.2. Emergency Department Laboratory Assessments.
- 8.8.3. Physiological Measurements – Static.
- 8.8.4. Physiological Measurements – Invasive.
- 8.8.5. Imaging.

8.9. Manipulative / Procedural Skills Emergency Medicine

- 8.9.1. Resuscitation.
- 8.9.2. Airway Management.
- 8.9.3. Ventilation.
- 8.9.4. Venous Access.
- 8.9.5. Arterial Access.
- 8.9.6. Stabilization / Immobilization.
- 8.9.7. Emergency Department Anesthesia / Analgesia.
- 8.9.8. Wound Management (Skin and Soft Tissue).
- 8.9.9. Assessment of Infectious Processes.
- 8.9.10. Management of Superficial Infection.
- 8.9.11. Plastic Surgery Procedures.
- 8.9.12. Musculoskeletal Procedures.

- 8.9.13. Neurological / Neurosurgical Procedures.
- 8.9.14. Specific Procedural Skills Common to All Specialties.
- 8.9.15. Toxicological.

8.10. Emergency Medicine Services (EMS)

- 8.10.1. Pre-hospital Emergency Medicine Service.
- 8.10.2. Emergency Department Administration.
- 8.10.3. Disaster Medicine.
- 8.10.4. Medico-legal Aspects of Emergency Medicine.
- 8.10.5. History Education Research in Emergency Medicine.
- 8.10.6. Emergency Medicine Organization and Liaisons.

ROTATION SPECIFIC GOALS AND OBJECTIVES:

EMERGENCY MEDICINE, PGY1-2:

Medical Expert:

- Perform an appropriate history and physical exam based on the presenting complaint
- Identify the problem list and the primary reason for the ED visit
- Develop an approach to the systematic management of the critically ill patient
- Develop a relevant differential diagnosis
 - o Generate a “can’t miss” list for all presenting complaints
- Develop a basic plan while patient is in the ED
- Adequately reassess patients with appropriate frequency
- Develop a disposition plan in a timely fashion investigations
- Develop a rationale for ordering and be able to interpret:
 - o Laboratory tests
 - o Radiologic imaging including simple X-rays and head CT
 - o Electrocardiogram
 - o Arterial and venous blood gases
- ED Ultrasound (PGY-2 only):
 - o Be able to complete a timely FAST and abdominal aorta EDUS
 - o Be aware of limitations to EDUS

- o Appropriately use US for central line placement
- o Be aware of additional uses of ultrasound (peripheral line placement, abscess drainage, etc.)
- Procedures to master:
 - o Fracture reduction
 - o Suturing
 - o Abscess incision and drainage
 - o Slit lamp examination
 - o Nasal packing
- Procedures to perform competently and safely:
 - o Endotracheal intubation using direct laryngoscopy, video laryngoscopy (Glidescope®), tube introducer (Bougie)
 - o Central line insertion (internal jugular, subclavian, and femoral)
 - o Arterial line insertion (femoral and radial)
 - o Chest tube insertion
 - o Lumbar puncture
 - o Arthrocentesis
 - o Procedural sedation
- Procedures to be able to discuss indications, contraindications, and approach:
 - o Cricothyroidotomy
 - o Transvenous pacing
 - o Lateral canthotomy
 - o ED thoracotomy
 - o Post-mortem C-section

Communicator:

- Conduct a clinical encounter with sound demonstration of establishing rapport, data gathering, and providing information to patients
- Identify patient context, beliefs, and preferences
- Communicate clear discharge instructions to patients and/or families
- Present a clear verbal case report to attending staff
- Chart clearly, including pertinent positive/negative findings, investigations, reassessments and discharge instructions
- Writes clear, legible, and accurate prescriptions

Collaborator:

- Describe the roles and responsibilities of an Emergency Medicine specialist
- Describes the roles and responsibilities to other professionals within the Emergency Department team
- Recognize and respect the diversity of roles, responsibilities and competencies of other professionals in relation to those of the Emergency Medicine Specialist
- Solicit input from appropriate members of the health care team and keeps the team apprised of management plans and rationale
- Respect team ethics, including confidentiality, resource allocation and professionalism
- Respond positively to request for help and advice
- Demonstrate a respectful attitude towards other colleagues and members of an interprofessional team
- Work with other professionals to prevent conflict
- Consult with other physician colleagues in a clear and professional manner
- Act as a team player with all members of both the Emergency Department and Consultant teams

Health Advocate:

- Identify the determinants of health that affect a particular patient, including the ability to recognize and assess the psychosocial economic and biologic factors influencing the health of those served in the ED
- Recognize the issues, settings, circumstances or situations in which advocacy on behalf of patients (individual or the ED patient population more generally) or society is appropriate

Manager:

- Describe the role of the ED in healthcare system
- Describe the general cost of common EM tests, supplies and Rx
- Identify flow issues for specific patients in the ED

Scholar Teaching:

- Develop and initiate teachable moments
- Explain core EM concepts and principles to more junior learners
- Identify at least one learning issue/objective per shift
- Read around cases, using appropriate resources
- Be able to perform a literature search while working a clinical shift and be familiar with commonly used search engines and databases
- Be able to integrate current literature into daily practice

Professional:

- Is on time for commitments
- Exhibit honesty, integrity, commitment, altruism and respect for the practice of medicine
- Demonstrate commitment to quality care
- Maintain appropriate relationships with patients and colleagues
- Recognize principles of patient confidentiality
- Be able to define ethical and legal principles in patient confidentiality
- Develop behaviors to balance personal health and professional commitment
- Be aware of personal limitations and seek assistance when appropriate

EMERGENCY MEDICINE PGY3:

Medical Expert:

- Independently develop and execute a complete treatment plan for most (>75%) patients.
- Demonstrate the ability to independently resuscitate a critically ill or traumatized patient
- Anticipate the patient's course and needs in the ED and plan appropriately and efficiently
- Develop a disposition plan in a timely fashion investigations
- Appropriately order and interpret, including identifying subtle findings for:
 - o X-ray
 - o Head CT
 - o Electrocardiogram
- Procedures to master:
 - o Endotracheal intubation using direct laryngoscopy, video laryngoscopy

(Glidescope®), tube introducer (Bougie)

- o Central line insertion (internal jugular, subclavian, and femoral)
- o Arterial line insertion (femoral and radial)
- o Chest tube insertion
- o Lumbar puncture
- o Arthrocentesis
- o Procedural sedation

Communicator:

- Communicate concisely and safely with staff with an emphasis on patient disposition at the initial report
- Engage patient, family, and other health professionals in shared decision making
- Effectively break bad news and discuss end of life issues with patients and family
- Identify resources to overcome barriers in communication (language, disability, etc.)

Collaborator:

- Appropriately delegate tasks to other health professionals
- Coordinate activities and interactions of other investigative and consulting services for efficient patient care
 - o Use a calm demeanour
 - o Make decisions confidently
 - o Takes on the leadership role
 - o Maintains global perspective (avoid fixation)
 - o Elicits feedback from team members
 - o Direct consultant teams confidently
 - o Reassess and reprioritize the team

Manager:

- Be able to safely and independently assess multiple patients before discussing with staff
- During a period of surge, be able to start the patient encounter on multiple patients concisely and safely reassess appropriately

- Be able to safely see an appropriate number of patients:
 - 60% of the minor/low acuity patients
 - 80% of the acute patients

Health Advocate:

- Be able to identify and intervene with the high risk patient in the community
- Be able to identify the barriers to care and treatment plans

Scholar Teaching:

- Be able to diagnose a junior learner
 - Assess knowledge level of the learner
 - Clarify the needs of the learner
- Be able to teach procedures
- Be able to complete the assessment for medical students
- Be able to identify deficiencies in procedural experience and pursue to correct
- Identify the most efficient resources for current evidence while on shift

Professional:

- Be able to identify ethical dilemmas in patient care
- Be able to identify resources and strategy in resolving ethical dilemmas
- Appropriately manage conflicts with and between other health care professionals
- Be able to describe the issues and strategies to ensure physician health and sustainable practice
- Be able to describe the impact of shiftwork on health and strategies to mitigate

EMERGENCY MEDICINE PG4-5:

Medical Expert:

- Independently develop and execute a complete treatment plan for almost all patients

- Recognize common presentations of uncommon conditions and atypical presentations of common conditions
- Independently resuscitate a critically ill or traumatized patient without staff intervention
- Develop a disposition plan in a timely fashion

Communicator:

- Develop efficient charting habits to be able to have charts complete by the end of shift
- Manage difficult communication scenarios effectively

Collaborator:

- Provide consultant level advice to referring physicians and other health professionals
- Elicit relevant information from physicians referring patients to the ED
- Engage colleagues and other professionals to address and improve patient care
- Perform and accept safe and effective patient handover
- Interface with consultants at a staff level in terms of efficiency and professionalism

Manager:

- Be able to safely and independently manage all patients in the high acuity area
- Be able to safely and independently manage 70% of patients in the low acuity area
- Be able to adjust working pace and efficiency to manage times of high and low patient volumes
- Develop strategies to address patient flow in situations of bed block

Health Advocate:

- Demonstrate an understanding of health policy and how it affects patients in the ED and the community
- Identify preventative health opportunities and intervene

Scholar Teaching:

- Be able to teach at a staff level with latest evidence
- Be able to teach multiple learners
- Develop strategies for maintenance of competence
- Learn the Royal College MOC system
- Identify and enroll patients appropriate for studies in the ED

Professional:

- Demonstrate commitment to highest quality patient care
- Recognize other professionals in need and respond appropriately
- Recognize and respond to unprofessional behaviour

ANESTHESIA

Medical Expert:

Gain knowledge of the following:

- Airway anatomy
- Airway management
- Mechanical ventilation
- Fluid resuscitation
- Blood and blood product administration
- Invasive monitoring
- Pharmacology of anesthetic agents
- Local and regional anesthetic agents
- Use of paralytic agents
- Awake intubation
- Regional anaesthesia
- Cricothyrotomy and jet ventilation
- Difficult airway algorithms
- Assessment of the airway and predictors of difficult airway/BVM
- Oral and nasopharyngeal airway device use
- Insertion of LMA
- Assisted ventilation (including BVM)
- Endotracheal intubation with and without paralysis
- Use of rescue airway devices: illuminated stylet, Bougie, and glidescope

- Vascular access

Communicator :

- Effective communication with patients and family
- Accurate and timely record keeping

Collaborator:

- Recognize the role of other members of the anesthesia and operating suite team
- Interact effectively and respectfully with other team members

Manager:

- Allocate finite health care resources wisely
- Manage time efficiently
- Demonstrate team leadership skills

Health Advocate:

- Advocate appropriately on behalf of patients

Scholar:

- Critically appraise anesthesia literature
- Integrate current literature into daily activities

Professional:

- Demonstrate integrity and honesty
- Demonstrate compassion and respect in all patient encounters
- Learn and apply ethical principles appropriately
- Be aware of personal limitations and seek assistance when appropriate

CARDIOLOGY

Medical Expert:

- Develop clinical assessment skills in the cardiac patient
- Develop appropriate differential diagnosis for sentinel cardiac presentations
- Develop knowledge of acute ischemic and non-ischemic cardiac disease
- Develop ECG interpretation skills
- Develop knowledge and management of pacemakers and common

pacemaker problems

- Develop knowledge of pharmacology of cardiovascular agents and the appropriate use of these agents
- Manage common cardiac conditions including:
 - o Acute coronary syndromes
 - o Hypertension
 - o Pericarditis
 - o Congestive heart failure

Gain knowledge of, where applicable:

- Insertion and management of transvenous pacemakers

Develop the following technical skills:

- Central venous access
- Invasive hemodynamic monitoring
- Transcutaneous cardiac pacing
- Electrical cardioversion

Communicator:

- Communicate effectively with patients and families
- Demonstrate compassion and empathy for the critically ill and their families
- Document effectively and efficiently on the medical record

Collaborator:

- Recognize the roles of other members of the CCU team
- Act as a consultant to other services requesting CCU assistance

Manager:

- Efficiently manage the cardiac arrest team
- Gain an understanding of the ethical use of critical care resources
- Develop team leadership skills
- Manage a CCU team, delegate work, and provide feedback to junior learners

Health Advocate:

- Advocate appropriately on behalf of patients
- Respect and understand patient wishes for resuscitation and life support measures

- Understand the determinants of health and their impact on patients

Scholar:

- Critical appraisal skills of cardiology literature
- An ability to integrate current cardiology literature into daily practice
- Skills in managing multiple junior learners and providing for their learning needs

Professional:

- Demonstrate integrity and honesty
- Demonstrate compassion and respect in all patient encounters
- Learn and apply ethical principles appropriately
- Be aware of personal limitations and seek assistance when appropriate

CRITICAL CARE

Medical Expert:

- Develop clinical assessment of the critically ill
- Become able to identify problems in the critically ill
- Develop appropriate differential diagnosis in the critically ill
- Develop knowledge of multi-system disease and failure
- Develop knowledge for recognition and management of the septic patient
- Develop knowledge of pharmacology of critical care agents

The learner should gain competence in the following technical skills:

- Central venous access
- Noninvasive hemodynamic monitoring
- Invasive hemodynamic monitoring
- Airway management
- Mechanical ventilation management

Communicator:

- Communicate effectively with patients and families
- Discuss resuscitation and end of life care with patients and families
- Keep accurate and efficient records

Collaborator:

- Recognize the roles of and interact effectively with other physicians and health care workers

Manager:

- Recognize the need for Intensive Care admission
- Gain understanding and judgment in selection of appropriate Intensive Care patients
- Manage the cardiac arrest team effectively and professionally
- Develop awareness of appropriate and ethical uses of critical care resources
- Develop team leadership skills

Health Advocate:

- Understand when and how to advocate appropriate on behalf of patients
- Respect patient wishes for resuscitation and life support measures
- Understand the determinants of health and their impact on patients

Scholar:

- Proficiency in critical appraisal of critical care literature
- The ability to apply current literature into daily practice

Professional:

- Demonstrate integrity and honesty
- Demonstrate compassion and respect in all patient encounters
- Learn and apply ethical principles appropriately
- Be aware of personal limitations and seek assistance when appropriate

INTERNAL MEDICINE**Medical Expert:**

- Develop clinical assessment skills of the medically ill
- Develop appropriate differential diagnoses in the medically ill
- Recognize acute medical conditions and management principles
- Develop an understanding of the pathophysiology of acute medical diseases

Gain knowledge, where applicable, in the following skills:

- Paracentesis
- Thoracentesis
- Lumbar puncture

Communicator:

- Communicate effectively with patients and families
- Keep accurate and efficient records

Collaborator:

- Recognize the roles of and interact effectively with other physicians and health care workers
- Effectively participate and contribute to the internal medicine team

Manager:

- Develop awareness of appropriate use of health care resources
- Develop an understanding of the indications for hospital admission
- Develop team leadership skills

Health Advocate:

- Understand when and how to advocate appropriate on behalf of patients
- Understand the determinants of health and their impact on patients

Scholar:

The candidate should develop:

- Proficiency in critical appraisal of the medical literature
- The ability to apply current literature into daily practice
- The ability to teach junior learners (medical students)

Professional:

- Demonstrate integrity and honesty
- Demonstrate compassion and respect in all patient encounters
- Learn and apply ethical principles appropriately
- Be aware of personal limitations and seek assistance when appropriate

GENERAL SURGERY**Medical Expert:**

- Develop clinical assessment skills of the acute abdomen
- Develop differential diagnoses for sentinel general surgical presentations
- Develop recognition of the acute abdomen
- Develop recognition of acute surgical conditions
- Develop skills in managing the traumatized victim (if at a trauma centre)

- Develop skills in identifying and managing common general surgical problems

Gain knowledge of, and where applicable, experience in:

- The uses and techniques of diagnostic peritoneal lavage
- Central venous access
- Tube thoracostomy
- Incision and drainage
- FAST ultrasound

Communicator:

- Communicate effectively with patients and families
- Keep accurate and efficient records

Collaborator:

- Recognize the roles of and interact effectively with other physicians and health care workers

Manager:

- Develop awareness of appropriate use of health care resources
- Develop team leadership skills

Health Advocate:

- Understand when and how to advocate appropriate on behalf of patients
- Understand the determinants of health and their impact on patients

Scholar:

Develop:

- Proficiency in critical appraisal of general surgical literature, as applicable
- The ability to apply current literature into daily practice

Professional:

- Demonstrate integrity and honesty
- Demonstrate compassion and respect in all patient encounters
- Learn and apply ethical principles appropriately
- Be aware of personal limitations and seek assistance when appropriate

EMERGENCY ULTRASOUND

Medical Expert:

- Develop clinical assessment skills in the undifferentiated patient
- Develop appropriate differential diagnoses for different patient presentations
- Develop and understanding of ultrasound physics
- Develop the ability to operate an ultrasound machine appropriate for the ED setting
- Understand the limitations of the ED ultrasound

Communicator:

- Effectively communicate with patients and families
- Chart accurately, efficiently and in an organized manner

Collaborator:

- Effectively interact with other members of the emergency department team
- Effectively interact with other users of the ultrasound
- Effectively interact with ultrasonographers and radiologists for better patient care
- Be able to collaborate effectively with consultant services for better patient care

Manager:

- Understand appropriate use of diagnostic imaging and laboratory investigations
- Identify patients who need hospital admission
- Identify patients who need in-ED consultation
- Identify the need for and arrange for appropriate outpatient follow-up
- Understand principles of ED triage
- Understand principles of security and safety in the ED
- Understand principles of patient flow and overcrowding

Health Advocate:

- Be an effective patient advocate
- Understand and respect patient wishes for resuscitation and life support measures
- Be aware of the determinants of health and their impact on patients

Scholar:

- Proficiency in critical appraisal of emergency medicine and relevant specialty literature
- Ability to integrate current literature into daily practice
- Ability to effectively access information technology for patient care during and after a shift
- Skills in managing and teaching junior learners
- Self directed learning skills

Professional:

- Demonstrate integrity and honesty
- Recognize own limitations in using ultrasound and interpretation
- Demonstrate compassion and respect in all patient encounters
- Learn and apply ethical principles appropriately
- Be aware of personal limitations and seek assistance when appropriate

TOXICOLOGY

Medical Expert:

- Develop clinical assessment skills of the poisoned patient
- Develop appropriate differential diagnoses of patient presentations (ie fever or delirium):
 - o Toxicologic
 - o Non-toxicologic
- Develop knowledge of issues unique to toxicology:
 - o Major toxidromes
 - o Principles of pharmacokinetics
 - o Principles of pharmacopathophysiology
 - o Principles of elimination and decontamination
 - o Principles of pharmacology of common antidotes
- Develop an understanding of the specific indications for and limitations of:
 - o Gastric lavage
 - o Whole bowel irrigation
 - o Activated charcoal (including multi-dose charcoal)
 - o Hemodialysis and hemoperfusion
 - o Hyperbaric oxygen
- Develop knowledge of specific poisonings relevant to emergency medicine:

- o Cardiotoxic drugs (digoxin, beta blockers, calcium channel blockers)
- o Ethanol intoxication and withdrawal
- o Methanol, ethylene glycol and isopropyl alcohol
- o Narcotic intoxication and withdrawal
- o Salicylates
- o Acetaminophen
- o Iron
- o Environmental toxins (cyanide, carbon monoxide, organophosphates)
- o Sedative hypnotics and psychotropics (including TCA's)
- o Methemoglobinemia

Communicator:

- Communicate effectively with patients and families
- Keep accurate and efficient records

Collaborator:

- Demonstrate proficiency while interacting with referring physicians
- Recognize the roles of and interact effectively with other physicians and health care workers

Manager:

- Develop awareness of indications for diagnostic imaging and laboratory investigations
- Recognize indications for hospital admission
- Understand the role of the Poison Control Centre and how to access it
- Develop awareness of appropriate use of health care resources

Health Advocate:

- Understand when and how to advocate appropriate on behalf of patients
- Understand the determinants of health and their impact on patients

Scholar:

- Proficiency in critical appraisal of the toxicology literature
- The ability to apply current literature into daily practice

Professional:

- Demonstrate integrity and honesty
- Demonstrate compassion and respect in all patient encounters

- Learn and apply ethical principles appropriately
- Be aware of personal limitations and seek assistance when appropriate

OBSTETRICS / GYNECOLOGY

Medical Expert:

- Develop clinical assessment skills of the pregnant patient
- Develops appropriate differential diagnosis in the pregnant patient
- Develop knowledge of complications in pregnancy:
 - o Ectopic pregnancy
 - o Placenta previa
 - o Abruptio placenta
 - o Threatened, missed, and incomplete abortion
 - o Premature and preterm labor
 - o Preeclampsia and eclampsia
 - o Fetal distress
 - o Postpartum hemorrhage
 - o Postpartum infection
- Develop knowledge of the pathophysiology of gynecologic conditions:
 - o Sexually transmitted diseases
 - o Abnormal vaginal bleeding (dysmenorrhea, menorrhagia, etc.)

Gain competence in the following technical skills:

- Ability to assess patients in labor
- Ability to perform uncomplicated delivery
- Ability to recognize complicated delivery
- Interpretation of fetal heart tracings and significance of abnormalities
- Pelvic exam (speculum and bimanual exam)

Communicator:

- Communicate effectively with patients and families
- Keep accurate and efficient records

Collaborator:

- Recognize the roles of and interact effectively with other physicians and health care workers

Manager:

- Understand indications for admission to the case room

- Understand the contraindications to transferring patients in labor
- Develop awareness of appropriate use of health care resources
- Develop team leadership skills

Health Advocate:

- Understand when and how to advocate appropriate on behalf of patients
- Understand the determinants of health and their impact on patients

Scholar:

- Develop proficiency in critical appraisal of the literature
- Be able to apply current literature into daily practice

Professional:

- Demonstrate integrity and honesty
- Demonstrate compassion and respect in all patient encounters
- Learn and apply ethical principles appropriately
- Be aware of personal limitations and seek assistance when appropriate

PEDIATRIC ANESTHESIA

Medical Expert:

Gain knowledge of the following:

- Pediatric airway anatomy, including differences from the adult airway
- Airway management including an approach to the difficult pediatric airway
- Mechanical ventilation, including:
 - o Different modes of ventilation
 - o Weight-based tidal volumes
 - o Age-based respiratory rates
- Pharmacology, indications and contraindications for:
 - o Anaesthetic agents
 - o Paralytics
 - o Inhalational anaesthetics
 - o Analgesics
- Fluid resuscitation and basic physiologic differences in the pediatric patient, including blood and blood product administration in the pediatric

patient

- Temperature homeostasis
- Management of laryngospasm
- Local and regional anesthetic agents
- NPO regimens
- Out-of-OR issues and management of pediatric patients in these settings

Gain knowledge of, where applicable in the following technical skills:

- Use of alternative and rescue airway devices (if available), including:
 - Pediatric LMA
 - Illuminated stylet
 - Bougie
 - Glidescope
 - Needle cricothyrotomy and transtracheal jet ventilation
- Invasive monitoring
- Local and regional anaesthetic techniques and procedures
- Oral and nasopharyngeal airway device use
- Bag-valve-mask ventilation, including:
 - Selection of appropriately sized mask and bagger ability to bag with age-appropriate rates and volumes
- Endotracheal intubation with and without paralysis, including:
 - Knowledge and use of different laryngoscopy blades
 - Use of cuffed and uncuffed endotracheal tubes
 - LMA's
- Inhalational inductions
- Vascular access, especially peripheral intravenous cannulation

Communicator:

Demonstrate:

- Effective communication with patients and family
- The ability to describe child's clinical condition to consultants using appropriate terminology
- Accurate and timely record keeping
- Concise and accurate preoperative histories

Collaborator:

- Recognize the role of other members of the anesthesia and operating

suite team

- Interact effectively and respectfully with other team members

Manager:

- Allocate finite health care resources wisely
- Be capable of planning the equipment and supplies necessary for the pediatric airway
- Manage time efficiently
- Demonstrate team leadership skills

Health Advocate:

- Advocate appropriately on behalf of patients

Scholar:

- Critically appraise anesthesia literature, as applicable
- Integrate current literature into daily activities

Professional:

- Demonstrate integrity and honesty
- Demonstrate compassion and respect in all patient encounters
- Learn and apply ethical principles appropriately
- Be aware of personal limitations and seek assistance when appropriate

PEDIATRIC EM:

Medical Expert:

- Develop knowledge of normal growth and development parameters, including vital signs, at different ages
- Develop clinical assessment skills in the undifferentiated pediatric patient at various age groups (i.e., infant, toddler, school aged child and adolescent).
- Develop clinical assessment skills in the uncooperative pediatric patient

- Develop appropriate differential diagnoses for different patient presentations
- Develop skills in leading a pediatric resuscitation (including real patients OR simulated)
- Gain knowledge of conditions common in pediatric emergency medicine:
 - o The febrile child or neonate
 - o Respiratory conditions (URTI, pneumonia, croup, bronchiolitis, asthma, AOM, pharyngitis)
 - o GI conditions (constipation, gastroenteritis)
 - o Common surgical concerns in pediatrics (appendicitis, incarcerated hernia, testicular torsion, intussusception)
 - o Feeding problems in the infant
 - o Seizures (febrile and non-febrile)
 - o Head injury and concussion
 - o Headache
 - o The irritable or inconsolable child
 - o Musculoskeletal trauma
 - o Pain management in the child
 - o Urinary tract infection
- Gain knowledge of (where applicable) conditions unique to pediatric emergency medicine or with special implications in the pediatric population:
 - o Ingestions and overdose
 - o Trauma (minor and major)
 - o Child abuse/neglect
 - o The septic child or neonate
 - o Diabetic ketoacidosis
 - o Respiratory emergencies (foreign body aspiration, epiglottitis)
 - o Fluid and electrolyte disorders
 - o Congenital and acquired heart disease
 - o Infectious diseases in the pediatric population (roseola, 5th disease, soft tissue infections) including basic knowledge of immunizations
 - o Febrile neutropenia
 - o Jaundice in the neonate
 - o Developmental and syndromic disorders
 - o The technologically dependent child (e.g., tracheostomy, G-tubes, etc.)

Gain experience in:

- Suturing
- Reduction of uncomplicated fractures and dislocations
- Procedural sedation, including becoming familiar with appropriate medication selection and appropriate pediatric dosing
- Interpretation of pediatric (radiographs), including:
 - o Identification of normal pediatric developmental findings (ie thymus gland)
 - o Identification of growth plates
 - o Cervical spine

Gain knowledge of, where applicable, in the following skills:

- Airway management
 - o Includes airway assessment and knowledge of differences of the pediatric airway compared to the adult airway
- Intravenous access
- Intraosseous access
- Tube thoracostomy
- Nasogastric/nasojejunal tube placement
- Lumbar puncture
- Wound management (including glue, suturing, steristrip application)
- Foreign body removal (ear, nose)

Communicator:

- Effectively communicate with children according to their age
- Effectively communicate with families
- Chart accurately, efficiently and in an organized manner

Collaborator:

- Effectively interact with other members of the emergency department team
- Be able to collaborate effectively with consultant services for better patient care
- Observe telephone advice given by pediatric emergency physicians to outside physicians, and where applicable, give advice under supervision
- Provide effective leadership in the ED

Manager:

- Understand appropriate use of diagnostic imaging and laboratory investigations
- Identify patients who need hospital admission or emergency department consultation
- Identify the need for and arrange appropriate outpatient follow-up
- Manage multiple patients safely and effectively
- Understand principles of ED triage in relation to pediatrics:
- Understand principles of security and safety in the ED (i.e., management of the intoxicated or violent child or parent)
- Understand principles of patient flow and overcrowding

Health Advocate:

- Be an effective patient advocate
- Recognize situations potentially indicative of child abuse and neglect and who to contact in these situations
- Understand and be able to advocate for childhood immunizations
- Be aware of the determinants of health and their impact on patients
- Recognize issues of child safety at home and in public places

Scholar:

- Proficiency in critical appraisal of emergency medicine and relevant specialty literature
- Ability to integrate current literature into daily practice
- Ability to effectively access information technology for patient care during and after a shift
- Skills in managing and teaching junior learners
- Self directed learning skills

Professional:

- Demonstrate integrity and honesty
- Demonstrate compassion and respect in all patient encounters
- Learn and apply ethical principles appropriately
- Be aware of personal limitations and seek assistance when appropriate
- Participate in educational activities outside of clinical duties.

PICU:

Medical Expert:

- Develop clinical assessment of the critically ill child
- Develop appropriate differential diagnoses in the critically ill child
- Develop knowledge of pharmacology of critical care agents
- Develop the ability to identify problems and issues in the critically ill
- Develop the ability to lead pediatric resuscitations (real OR simulated)
- Develop an understanding of principles of children with:
 - o Multisystem disease and failure
 - o Sepsis
 - o Cardiopulmonary instability and respiratory distress
 - o Acid-base disorders
 - o Fluid and electrolyte disorders
 - o Seizures and status epilepticus
 - o Major trauma
 - o Congenital heart disease
- Develop an understanding of principles of hemodynamic monitoring in children

The resident should gain experience in:

- Noninvasive hemodynamic monitoring
- Mechanical ventilation management

The resident should gain knowledge of, where applicable, in:

- Central venous access
- Invasive hemodynamic monitoring
- Airway management
- Tube thoracostomy
- Intraosseous access
- Lumbar puncture

Communicator:

- Communicate effectively with patients and families
- Keep accurate and efficient records

Collaborator:

- Recognize the roles of and interact effectively with other physicians and health care workers

Manager:

- Recognize the need for Pediatric Intensive Care admission
- Demonstrate an awareness of the ethical and appropriate use of critical care resources
- Develop team leadership skills

Health Advocate:

- Respect patient and family wishes for resuscitation and life support measures
- Understand when and how to advocate appropriate on behalf of patients
- Understand the determinants of health and their impact on patients

Scholar:

- Proficiency in critical appraisal of the literature
- The ability to apply current literature into daily practice

Professional:

- Demonstrate integrity and honesty
- Demonstrate compassion and respect in all patient encounters
- Learn and apply ethical principles appropriately
- Be aware of personal limitations and seek assistance when appropriate

PLASTICS:

Medical Expert:

- Develop clinical assessment of plastic surgery emergencies
- Develop proficiency in managing burns
- Develop proficiency in managing facial injuries
- Develop proficiency in managing hand injuries

Gain experience in:

- Suturing complex lacerations
- Wound care (including burns)
- Splinting positions and techniques for injuries of the hand (ie volar plate injuries, tendon injuries)
- Interpretation of Xrays of the hand and face

Gain knowledge of, where applicable, in:

- Revision amputation
- Reduction of hand fracture/dislocations
- Extensor tendon repair

Communicator:

- Communicate effectively with patients and families
- Keep accurate and efficient records

Collaborator:

- Recognize the roles of and interact effectively with other physicians and health care workers

Manager:

- Develop awareness of appropriate use of health care resources
- Develop team leadership skills

Health Advocate:

- Understand when and how to advocate appropriate on behalf of patients
- Understand the determinants of health and their impact on patients

Scholar:

- Proficiency in critical appraisal of the literature, as applicable
- The ability to apply current literature into daily practice

Professional:

- Demonstrate integrity and honesty
- Demonstrate compassion and respect in all patient encounters
- Learn and apply ethical principles appropriately
- Be aware of personal limitations and seek assistance when appropriate

EMS:

Medical Expert:

- List several advantages and disadvantages of various modes of patient transport, including ground, rotary wing and fixed wing
- Demonstrate knowledge of the organizational models for EMS
- Demonstrate knowledge of the components of an EMS system
- Understand the role of a medical director
- Understand concepts of direct (online) and indirect (offline) medical control
- Understand EMS communication systems
- Understand the principles of initial management and stabilization of the acutely ill and injured
- Understand the principles of disaster management

Communicator:

- Effectively and respectfully communicate with patients and families
- Effectively and respectfully communicate with physicians, nurses, paramedics and emergency dispatch personnel

Collaborator:

- Develop effective leadership and teamwork skills
- Effectively interact with other members of the EMS team
- Effectively interact with in-hospital healthcare personnel
- Appreciate the level of training and skills of prehospital personnel

Manager:

- Understand the unique role that prehospital transport plays in our

provincial healthcare system

- Interact effectively with in-hospital and out-of-hospital healthcare team members to provide quality patient care
- Understand the role of prehospital dispatch systems in AHS

Health Advocate:

- Be an effective patient advocate
- Understand and respect patient wishes for resuscitation and life support measures
- Demonstrate a consistent interest in the safety of EMS personnel

Scholar:

- Develop proficiency in critical appraisal of prehospital care literature
- Demonstrate an appreciation for the importance of continuing education in prehospital care

Professional:

- Demonstrate integrity and honesty
- Demonstrate compassion and respect in all patient encounters
- Learn and apply ethical principles appropriately
- Be aware of personal limitations and seek assistance when appropriate

NEUROSURGERY:

Medical Expert:

- Develop clinical assessment skills of the neurosurgical patient
- Recognize neurosurgical emergencies
- Develop an understanding of the principles of head trauma
- Develop an understanding of the principles of spine trauma
- Develop an understanding of the principles of intracranial pressure
- Develop an understanding of the principles of non-traumatic intracranial hemorrhage
- Develop an understanding of the indications for diagnostic imaging
- Develop an understanding of the principles of brain death

Gain competence in the following:

- Assessment of shunt function
- Control of raised intracranial pressure
- Airway management in the setting of raised intracranial pressure

Communicator:

- Communicate effectively with patients and families
- Demonstrate empathy for critically ill patients and their families
- Keep accurate and efficient records

Collaborator:

- Recognize the roles of and interact effectively with other physicians and health care workers

Manager:

- Develop awareness of appropriate use of health care resources
- Develop team leadership skills

Health Advocate:

- Develop an awareness and respect for patient wishes
- Understand when and how to advocate appropriate on behalf of patients
- Understand the determinants of health and their impact on patients

Scholar:

- Proficiency in critical appraisal of the neurosurgical literature
- The ability to apply current literature into daily practice

Professional:

- Demonstrate integrity and honesty
- Demonstrate compassion and respect in all patient encounters
- Learn and apply ethical principles appropriately
- Be aware of personal limitations and seek assistance when appropriate

OPHTHALMOLOGY:

Medical Expert:

- Develop a systematic approach to examination of the eye
- Develop competence with slit lamp examination:
 - Assessment of the anterior chamber
 - Assessment of the cornea with and without fluorescein
- Develop understanding of examination of:
 - Intraocular pressures, including:
 - Significance of abnormal measurements
 - Contraindications to measuring
 - Fundi (Note: recognizing methods of assessment of fundi and IOP are different in ophthalmology vs emerg)
- Develop differential diagnoses of common ophthalmologic presentations (red eye, loss of vision)
- Develop understanding of common medical ocular disorders, including:
 - Iritis/uveitis
 - Glaucoma
 - Corneal ulcers/abrasions
 - Conjunctivitis/UV keratitis
 - Scleritis/episcleritis
 - Posterior vitreous detachment/retinal detachment/retinal hemorrhage
 - Optic neuritis
 - Common disorders of the eyelid and lacrimal ducts
 - Retinal arterial and venous occlusions
- Develop understanding of common traumatic ocular disorders, including:
 - Foreign bodies and rust rings (including techniques for safe removal)
 - Subconjunctival hemorrhage
 - Hyphema
 - Corneal abrasions/ulcers
 - Traumatic mydriasis
 - Iridocyclitis/iridodialysis
 - Globe rupture
 - Retinal detachment/hemorrhage

- Develop understanding of chemical exposures to the eye, including:
 - Measurement and significance of pH measurements
 - Principles of eye irrigation
 - Basic understanding of caustic chemicals
- Understand common medications used in ophthalmology, including indications and contraindications

Communicator:

- Communicate effectively with patients and families
- Keep accurate and efficient records

Collaborator:

- Recognize the roles of and interact effectively with other physicians and health care workers
- Make appropriate and timely referrals as part of management of the patient's ophthalmologic condition

Manager:

- Develop awareness of appropriate use of health care resources
- Develop team leadership skills

Health Advocate:

- Understand when and how to advocate appropriate on behalf of patients
- Understand the determinants of health and their impact on patients

Scholar:

- Awareness of current literature as it applies to emergency ophthalmology
- The ability to apply current literature into daily practice

Professional:

- Demonstrate integrity and honesty
- Demonstrate compassion and respect in all patient encounters

- Learn and apply ethical principles appropriately
- Be aware of personal limitations and seek assistance when appropriate

ORTHOPEDICS:

Medical Expert:

- Develop clinical assessment skills of orthopedic problems
- Develop appropriate differential diagnoses
- Develop an understanding of the principles of fracture management
- Develop an understanding of early and late sequelae of orthopedic injuries
- Develop an understanding of the principles of spinal injury and clinical assessment of these injuries

Gain knowledge of, where applicable:

- Measurement of compartment pressures
- Arthrocentesis

Gain competence in the following technical skills:

- Interpretation of adult and pediatric Xrays, including appropriate description of fractures
- Reduction of simple fractures and dislocations
- Clinical assessment for compartment syndrome

Communicator:

- Communicate effectively with patients and families
- Keep accurate and efficient records

Collaborator:

- Recognize the roles of and interact effectively with other physicians and health care workers

Manager:

- Develop an understanding of the indications for diagnostic imaging
- Develop awareness of appropriate use of health care resources
- Develop team leadership skills

Health Advocate:

- Understand when and how to advocate appropriate on behalf of patients
- Understand the determinants of health and their impact on patients

Scholar:

The resident should develop:

- Proficiency in critical appraisal of the orthopedic literature, as applicable
- The ability to apply current literature into daily practice

Professional:

- Demonstrate integrity and honesty
- Demonstrate compassion and respect in all patient encounters
- Learn and apply ethical principles appropriately
- Be aware of personal limitations and seek assistance when appropriate

PSYCHIATRY:

Medical Expert:

- Develop assessment skills of the psychiatric patient
- Develop the ability to perform the mental status examination
- Develop appropriate differential diagnoses in the psychiatric patient
- Develop an understanding of pharmacology and toxicology of psychiatric medications
- Develop the ability to effectively handle difficult Axis II (personality disordered) patients
- Develop an understanding of the principles of chemical and physical restraints
- Develop knowledge specific to emergency psychiatry:
 - o Suicide risk
 - o Homicide risk
 - o The violent patient
 - o Acute psychosis
 - o Organic vs. functional illness
 - o Substance intoxication and withdrawal

Communicator:

- Communicate effectively with patients and families
- Keep accurate and efficient records

Collaborator:

- Recognize the roles of and interact effectively with other physicians and health care workers

Manager:

- Develop an understanding of the principles of certification under the Mental Health Law
- Recognize the indications for psychiatric consultation and admission
- Recognize the hospital and community resources available to the psychiatric patients
- Recognize issues of the safety and security of the medical team
- Develop understanding of the indications for chemical and physical restraints
- Develop team leadership skills

Health Advocate:

- Understand when and how to advocate appropriate on behalf of patients
- Understand the determinants of health and their impact on patients

Scholar:

- Proficiency in critical appraisal of the literature, as applicable
- The ability to apply current literature into daily practice

Professional:

- Demonstrate integrity and honesty
- Demonstrate compassion and respect in all patient encounters
- Learn and apply ethical principles appropriately
- Be aware of personal limitations and seek assistance when appropriate

TRAUMA:

Medical Expert:

- Develop skills in resuscitating the injured patient
 - Develop skills in assessing the injured patient
 - Develop an understanding of the FAST ultrasound
 - Develop skills to identify life threatening injuries
 - Develop understanding of the indications and rationale for massive transfusions, and how to implement the massive transfusion protocol
- The resident should gain knowledge of, where applicable, experience in the following technical skills:
- Immobilization and assessment of the spine, including identification of patients who may be cleared of spinal precautions (in consultation with staff physician)
 - Airway management of the traumatized patient
 - Central vascular access
 - Trauma X-ray interpretation
 - FAST ultrasound
 - Tube thoracostomy
 - Lateral canthotomy
 - Fracture/dislocation reduction
 - Procedural sedation
 - Suturing (including tendon repair and complex lacerations)

Communicator:

The resident should observe telephone advice given by the staff physician and develop understanding of important transport advice and decision-making regarding transport options

- Effectively communicate with patients and families
- Chart accurately, effectively, and in an organized manner

Collaborator:

- Use the other members of the trauma team effectively
- Provide leadership to the trauma team

Manager:

- Appreciate appropriate use of diagnostic imaging and laboratory investigations
- Identify consultant services the injured patient requires
- Identify which traumatized patients require hospitalization
- Understand principles of continuous quality improvement
- Manage multiple trauma patients if necessary
- Understand principles of ED disaster preparedness, including knowledge of regional disaster plans

Health Advocate:

- Advocate for appropriate delivery of time-sensitive investigations and services
- Understand when and how to advocate appropriately on behalf of patients
- Respects patient wishes for resuscitation and life support measures
- Demonstrates awareness of determinants of health and their impact on patients

Scholar:

Develop:

- Skills in critical appraisal of trauma literature
- Skills in effective and timely use of information technology in patient care
- Skills in self-directed learning

Professional:

- Demonstrate integrity and honesty
- Demonstrate compassion and respect in all patient encounters
- Learn and apply ethical principles appropriately
- Be aware of personal limitations and seek assistance when appropriate

ENT:

Medical Expert:

- Develop the ability to rapidly evaluate, diagnose, stabilize, and treat patients with ENT emergencies.

Communicator:

- Demonstrate effective communication with patients, their families, and professional associates.
- Demonstrate the ability to perform an appropriate history and physical exam.

Professional:

- Demonstrate respect, compassion, and integrity.
- Demonstrate the ability to develop an appropriate differential diagnosis and treatment plan.
- Demonstrate appropriate clinical decision making skills.
- Understand the pathophysiology of common ENT disorders.
- Learn the management of acute epistaxis.

Collaborator:

- Demonstrate procedural skills that are technically proficient with level of training.

Manager:

- Learn the basic resources available for the care of the ENT patient.

Scholar:

- Learn the appropriate information resources (i.e., textbooks, handbooks, online resources, etc.) available for care of patient.

Health Advocate:

- Understand when and how to advocate appropriate on behalf of patients
- Understand the determinants of health and their impact on patients

