

JANUARY 2016
VERSION 1.0

(NOTE: Throughout this document, references to the patient's family are intended to include all those who are personally significant to the patient and are concerned with his or her care, including, according to the patient's circumstances, family members, partners, caregivers, legal guardians, and substitute decision makers.)

DEFINITION

Trauma General Surgery is that area of enhanced competence within General Surgery concerned with the study of patients with injuries, and health services delivery and injury prevention. The clinical focus of this practice includes acute resuscitation, surgical and medical management, and post-discharge care of patients, especially those with multi-system and severe injuries. Trauma General Surgeons are injury specialists whose academic roles include the study of epidemiology of injury, and the basic science and physiology of critical illness and injury, as well as education and administration.

ELIGIBILITY REQUIREMENTS

The Area of Focused Competence (AFC) trainee must be eligible for or have achieved Royal College certification in General Surgery, or equivalent. All trainees must be certified in their primary specialty in order to be eligible for the Royal College certification portfolio in Trauma General Surgery.

GOALS

Upon completion of training, an AFC diplomate is expected to function as a competent specialist in Trauma General Surgery, capable of an enhanced practice in this area of focused competence, within the scope of General Surgery. The AFC trainee must acquire a working knowledge of the theoretical basis of the discipline, including its foundations in science and research, as it applies to surgical practice.

The discipline of Trauma General Surgery also includes responsibility for

- care of patients with injuries, from initial resuscitation through to definitive management and discharge;
- management and coordination of the transport of patients with multi-system injuries within an inclusive trauma system by acting in the role of a regional resource;
- provision of effective leadership to optimize trauma care;
- engagement with others to promote injury prevention and advance the care for patients with injuries; and
- advancement of the discipline of Trauma General Surgery through scholarship.

Diplomates must demonstrate the requisite knowledge, skills, and behaviours for effective patient-centred care and service to a diverse population. In all aspects of specialist practice, the diplomate must be able to address ethical issues and issues of gender, sexual orientation, age, culture, beliefs, and ethnicity in a professional manner.

At the completion of training, the diplomate will have acquired the following competencies and will function effectively as a:

Medical Expert

Definition:

As *Medical Experts*, Trauma General Surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centred care. *Medical Expert* is the central physician Role in the CanMEDS framework.

Key and Enabling Competencies: Trauma General Surgeons are able to...

1. Function effectively as consultants, integrating all of the CanMEDS Roles to provide optimal, ethical, and patient-centred medical care

- 1.1. Perform a consultation, including the presentation of well-documented assessments and recommendations in oral, written and/or electronic form in response to a request from another health care professional
- 1.2. Demonstrate use of all CanMEDS competencies relevant to Trauma General Surgery
- 1.3. Identify and appropriately respond to relevant ethical issues arising in patient care
- 1.4. Demonstrate the ability to prioritize professional duties when faced with multiple patients and clinical problems
- 1.5. Lead a trauma team for major trauma resuscitation
- 1.6. Demonstrate compassionate and patient-centred care
- 1.7. Recognize and respond to the ethical dimensions in medical decision-making
- 1.8. Demonstrate medical expertise in situations other than patient care, such as providing expert legal testimony or advising governments, as needed

2. Establish and maintain clinical knowledge, skills, and behaviours appropriate to Trauma General Surgery

- 2.1. Apply knowledge of the clinical, socio-behavioural, and fundamental biomedical sciences relevant to Trauma General Surgery
 - 2.1.1. Anatomy, physiology, and biochemistry relevant to care of adult and pediatric patients with injuries
 - 2.1.2. Patterns and mechanisms of injury in adult and pediatric patients, including but not limited to falls, penetrating trauma, and chemical-biologic-radiation-nuclear (CBRN), blast, burn, environmental, and vehicular injuries
 - 2.1.3. Prioritization of injuries

- 2.1.4. Prognostication of injury survival and outcomes in various populations
- 2.1.5. Principles of diagnostic imaging in patients with injuries
- 2.1.6. Management of the patient with severe injuries in a critical care setting
- 2.1.7. Principles of acute resuscitation, evaluation, and prioritization of initial management of patients with injuries
 - 2.1.7.1. Transfusion of blood products
 - 2.1.7.2. Fluid management
 - 2.1.7.3. Damage control
- 2.2. Demonstrate knowledge of the evaluation and management of the following, including, where applicable, post-traumatic and post-operative complications:
 - 2.2.1. Damage control resuscitation
 - 2.2.2. Damage control surgery
 - 2.2.3. Head and neck trauma
 - 2.2.3.1. Traumatic brain injury
 - 2.2.3.2. Craniofacial fractures, including control of hemorrhage
 - 2.2.3.3. Basal skull fractures
 - 2.2.3.4. Ocular compartment syndromes
 - 2.2.3.5. Blunt and penetrating neck injuries
 - 2.2.3.6. Blunt cerebrovascular injuries
 - 2.2.3.7. Aerodigestive tract injuries
 - 2.2.3.8. Major airway injuries
 - 2.2.3.9. Laryngeal fractures
 - 2.2.4. Thoracic trauma
 - 2.2.4.1. Penetrating injuries to lung and mediastinal structures
 - 2.2.4.2. Rib fractures
 - 2.2.4.2.1. Flail chest
 - 2.2.4.3. Lung contusion, laceration, pneumothorax, hemothorax
 - 2.2.4.4. Esophageal injuries
 - 2.2.4.5. Blunt and penetrating cardiac injuries
 - 2.2.4.6. Traumatic aortic tear
 - 2.2.4.7. Injuries to major vascular structures in the upper mediastinum
 - 2.2.4.8. Injuries to major vascular structures in the pulmonary hilum

2.2.5. Abdominal trauma

- 2.2.5.1. Blunt and penetrating multi-cavitary and multi-system injuries
- 2.2.5.2. Great vessel and retroperitoneal injuries
 - 2.2.5.2.1. Aorta
 - 2.2.5.2.2. Inferior vena cava
- 2.2.5.3. Hepatic injuries
- 2.2.5.4. Splenic injuries
- 2.2.5.5. Pancreatic-duodenal injuries
- 2.2.5.6. Hollow viscus injuries and mesenteric injuries
- 2.2.5.7. Intra-abdominal hypertension and abdominal compartment syndrome
- 2.2.5.8. Diaphragmatic injuries
- 2.2.5.9. Traumatic abdominal wall disruption
- 2.2.5.10. Genitourinary tract injuries

2.2.6. Musculoskeletal trauma

- 2.2.6.1. Pelvic fractures
- 2.2.6.2. Open and closed extremity fractures
- 2.2.6.3. Mangled extremities and indications for damage control orthopedic principles
- 2.2.6.4. Fat embolism
- 2.2.6.5. Limb compartment syndromes
- 2.2.6.6. Hand and foot injuries
- 2.2.6.7. Spine fractures
- 2.2.6.8. Spinal cord injuries

2.2.7. Trauma in special populations

- 2.2.7.1. Pregnant women
 - 2.2.7.1.1. Patterns of injury, including but not limited to intimate partner abuse
 - 2.2.7.1.2. Priorities in maternal and fetal resuscitation, and probabilities of fetal survival
 - 2.2.7.1.3. Fetal monitoring and signs of fetal distress
 - 2.2.7.1.4. Amniotic fluid embolism
 - 2.2.7.1.5. Uterine rupture
 - 2.2.7.1.6. Placental abruption
 - 2.2.7.1.7. Role of cesarean section (C-section) and perimortem C-section

- 2.2.7.2. Pediatric patients
 - 2.2.7.2.1. Special considerations for pediatric trauma
 - 2.2.7.2.2. Patterns of injury, including but not limited to abuse
 - 2.2.7.3. Geriatric patients
 - 2.2.7.3.1. Special considerations for geriatric trauma
 - 2.2.7.3.2. Patterns of injury, including but not limited to abuse
 - 2.3. Demonstrate knowledge of the appropriate use of the following interventions in patients with severe injuries in the critical care setting
 - 2.3.1. Timing and role for venous thromboembolism (VTE) prophylaxis
 - 2.3.2. Timing and role for nutritional supplementation
 - 2.3.3. Timing of and indications for tracheostomy
 - 2.3.4. Monitoring of intracranial pressure (ICP)
 - 2.3.5. Indications for craniotomy and craniectomy for trauma
 - 2.3.6. Surgical treatment of flail chest injuries
 - 2.3.7. Management of open abdomen
 - 2.3.8. Management of abdominal compartment syndrome, including measurement of intra-abdominal pressure
 - 2.3.9. Timing of skeletal fixation and facial fracture fixation
 - 2.3.10. Timing of fasciotomies
 - 2.3.11. Repair, ligation, and use of temporary shunts in acute vascular injuries
 - 2.4. Demonstrate knowledge of the assessment, management, and, as relevant, optimization of quality of life after traumatic injury
 - 2.4.1. Post-traumatic stress disorder (PTSD)
 - 2.4.2. Substance abuse
 - 2.4.3. Rehabilitation
 - 2.4.4. Reintegration
 - 2.4.5. Recidivism
 - 2.5. Demonstrate knowledge of legislation relevant to the practice of Trauma General Surgery, injury prevention, and major medico-legal principles, including but not limited to duty to report to appropriate authorities or agencies
 - 2.6. Describe the CanMEDS framework of competencies relevant to Trauma General Surgery
 - 2.7. Apply lifelong learning skills of the Scholar Role to implement a personal program to keep up to date and enhance areas of professional competence
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3. Perform a complete and appropriate assessment of a patient

- 3.1. Perform the acute assessment and resuscitation of a patient, including but not limited to primary, secondary, and tertiary survey
- 3.2. Identify and effectively explore issues to be addressed in a patient encounter, including the patient's context and preferences
- 3.3. Elicit a functional history that is timely, relevant, concise, and accurate to context of the incapacitated patient with injuries
- 3.4. Perform a focused physical examination
- 3.5. Select medically appropriate investigative methods in a resource-effective and safe, ethical manner
 - 3.5.1. Radiography and fluoroscopy
 - 3.5.2. Ultrasound
 - 3.5.3. Computed tomography (CT) and CT angiography
 - 3.5.4. Magnetic resonance imaging (MRI)
 - 3.5.5. Angiography
- 3.6. Demonstrate effective team leadership and judgment that enables prioritization of injuries and development of a plan of care for the patient

4. Use preventive and therapeutic interventions effectively

- 4.1. Implement a management plan in collaboration with a patient and his/her family
 - 4.1.1. Implement an appropriate management plan in the setting of an unidentified or incapacitated patient or family
- 4.2. Demonstrate appropriate and timely application of preventive interventions relevant to Trauma General Surgery
 - 4.2.1. Nutritional support
 - 4.2.2. Timing and use of venous thromboembolism prophylaxis
- 4.3. Demonstrate appropriate and timely application of therapeutic interventions relevant to Trauma General Surgery
- 4.4. Obtain appropriate informed consent for therapies, including consent for emergency therapies in incapacitated patients
- 4.5. Ensure patients receive appropriate end-of-life care

5. Demonstrate proficient and appropriate use of procedural skills, both diagnostic and therapeutic

- 5.1. Demonstrate effective, appropriate, and timely performance of diagnostic procedures relevant to Trauma General Surgery
 - 5.1.1. Point of care ultrasound

- 5.1.2. Bronchoscopy and laryngoscopy
- 5.1.3. Diagnostic peritoneal lavage
- 5.1.4. Intra-abdominal pressure monitoring
- 5.2. Demonstrate effective, appropriate, and timely performance of operative and non-operative therapeutic procedures relevant to Trauma General Surgery
 - 5.2.1. Airway management
 - 5.2.2. Acute resuscitation of patients with multiple critical injuries
 - 5.2.3. Damage control surgery and resuscitation
 - 5.2.4. Control of hemorrhage
 - 5.2.5. Transfusion of blood products
 - 5.2.6. Non-operative management of solid organ injuries
 - 5.2.7. Head and neck trauma
 - 5.2.7.1. Neck exploration for penetrating trauma
 - 5.2.7.2. Tracheostomy for airway injury
 - 5.2.7.3. Cricothyroidotomy
 - 5.2.7.4. Repair and/or management of major vascular injuries
 - 5.2.7.5. Repair and/or ligation of internal and external jugular venous injuries
 - 5.2.8. Thoracic trauma
 - 5.2.8.1. Thoracostomy tube insertion
 - 5.2.8.2. Thoracotomy for hemorrhage
 - 5.2.8.3. Thoracotomy/thoracoscopy for retained hemothorax
 - 5.2.8.4. Repair or resection of lung for hemorrhage or injury
 - 5.2.8.5. Resuscitative thoracotomy
 - 5.2.8.6. Repair of major flail chest injury
 - 5.2.8.7. Repair or management of major vascular injuries
 - 5.2.8.8. Esophageal exploration
 - 5.2.8.9. Sternotomy and repair of cardiac injury
 - 5.2.8.10. Pericardiotomy and pericardial window
 - 5.2.8.11. Open cardiac massage
 - 5.2.9. Repair of abdominal trauma
 - 5.2.9.1. Management of the open abdomen
 - 5.2.9.1.1. Application of a temporary abdominal closure system/device
 - 5.2.9.1.2. Appropriate definitive closure of the open abdomen

- 5.2.9.2. Damage control laparotomy
 - 5.2.9.3. Exploration and management for major intra-abdominal vascular injury
 - 5.2.9.4. Repair of hepatic injury including biliary tract injury
 - 5.2.9.5. Packing for major hepatic injury
 - 5.2.9.6. Trauma splenectomy and splenorrhaphy
 - 5.2.9.7. Repair/resection of hollow viscus injury
 - 5.2.9.8. Sigmoidoscopy and repair of rectal injury
 - 5.2.9.9. Repair/resection of pancreatic injury
 - 5.2.9.10. Repair diaphragmatic injuries
 - 5.2.9.11. Pre-peritoneal pelvic packing
 - 5.2.9.12. Exploration and repair of genitourinary injuries
- 5.3. Participate in the decision making regarding selection and optimal timing of the following therapeutic procedures, demonstrating an understanding of the indications, contraindications, and anatomical principles
- 5.3.1. Treatment of traumatic aortic tear
 - 5.3.2. Interventional techniques
 - 5.3.2.1. Embolization of the blood supply of solid organs and blood vessels
 - 5.3.2.2. Endovascular stenting
 - 5.3.3. Exploration and repair of arteries and veins
 - 5.3.3.1. Carotid artery
 - 5.3.3.2. Subclavian vessels
 - 5.3.3.3. Axillary vessels
 - 5.3.3.4. Iliac, femoral, and popliteal vessels
 - 5.3.4. Damage control orthopedics
 - 5.3.4.1. Mangled extremity
 - 5.3.4.2. Splinting of long bone fractures
 - 5.3.4.3. Hemorrhage related to complex pelvic fracture, including but not limited to embolization
 - 5.3.4.4. Skeletal fixation of pelvic fractures
 - 5.3.4.5. Traumatic amputation
 - 5.3.4.6. Upper and lower extremity fasciotomy

6. Seek appropriate consultation from other health professionals, recognizing the limits of their own expertise

- 6.1. Demonstrate insight into their own limits of expertise
- 6.2. Demonstrate effective, appropriate, and timely consultation of another health professional for optimal patient care
- 6.3. Arrange appropriate followup care services for a patient and his/her family
 - 6.3.1. Ensure the appropriate management and followup of incidental, trauma unrelated findings detected in the course of trauma care, especially in vulnerable or marginalized populations

Communicator

Definition:

As *Communicators*, Trauma General Surgeons effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the clinical encounter.

Key and Enabling Competencies: Trauma General Surgeons are able to...

1. Develop rapport, trust, and ethical therapeutic relationships with patients and families, within the context of the limitations imposed by emergency trauma care

- 1.1. Recognize that being a good communicator is a core clinical skill for a physician, and that effective physician-patient communication can foster patient satisfaction, physician satisfaction, adherence, and improved clinical outcomes
- 1.2. Establish positive therapeutic relationships with patients and their families that are characterized by understanding, trust, respect, honesty and empathy
- 1.3. Respect patient confidentiality, privacy and autonomy
 - 1.3.1. Communicate appropriately with law enforcement personnel

2. Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues, and other professionals

- 2.1. Gather information about injuries and pre-morbid conditions, and about a patient's beliefs, concerns, expectations, and illness experience
- 2.2. Seek out and synthesize relevant information from other sources, such as a patient's family, and other professionals, while respecting individual privacy and confidentiality

3. Convey relevant information and explanations accurately to patients and families, colleagues, and other professionals

- 3.1. Manage the delivery of information to a patient and family, colleagues, and other professionals in a coordinated and humane manner and in such a way that it is understandable and encourages discussion and participation in decision-making

4. Develop a common understanding on issues, problems, and plans with patients and families, and with other professionals, to develop a shared plan of care

- 4.1. Identify and effectively explore problems to be addressed from a patient encounter, including the patient's context, responses, concerns, and preferences where appropriate
- 4.2. Respect diversity and differences, including but not limited to the impact of gender, religion, and cultural beliefs on decision-making
- 4.3. Engage patients, families, and relevant health professionals in shared decision-making to develop a plan of care, when appropriate
- 4.4. Communicate information about acute injury, disability, and end-of-life issues sensitively to patients and their families
- 4.5. Address challenging communication issues effectively, including but not limited to obtaining informed consent in the context of an incapacitated or unidentified patient, delivering bad news, and addressing anger, confusion, and misunderstanding

5. Convey oral, written, and/or electronic information effectively about trauma resuscitation and comprehensive inpatient care

- 5.1. Convey medical information appropriately to ensure safe transfer of care
- 5.2. Maintain clear, concise, accurate, and appropriate records of resuscitations, operations, inpatient stays, and followup visits
- 5.3. Present oral reports of resuscitations, operations, inpatient stays, and followup visits

6. Present medical information to the public or media about a medical issue

Collaborator

Definition:

As *Collaborators*, Trauma General Surgeons work effectively within a health care team to achieve optimal patient care.

Key and Enabling Competencies: Trauma General Surgeons are able to...

1. Participate effectively and appropriately in an interprofessional health care team

- 1.1. Describe the Trauma General Surgeon's roles and responsibilities to other professionals
- 1.2. Describe the roles and responsibilities of other professionals within the health care team
- 1.3. Recognize and respect the diverse roles, responsibilities, and competencies of other professionals in relation to their own

- 1.4. Work with others to assess, plan, provide, and integrate care for individuals and groups of patients
 - 1.4.1. Demonstrate timely and effective communication with consultants to develop and implement care plans
 - 1.4.2. Engage effectively with pre-hospital care providers and systems to enhance the care of patients with injuries
 - 1.5. Participate effectively in interprofessional team meetings
 - 1.6. Enter into interdependent relationships with other professions for the provision of quality care
 - 1.7. Demonstrate leadership in a health care team, as appropriate
 - 1.7.1. Demonstrate independent leadership of a multidisciplinary and interprofessional trauma team
 - 1.7.2. Demonstrate the ability to effectively delegate tasks to other members of a trauma team
- 2. Work with other health professionals effectively to prevent, negotiate, and resolve interprofessional conflict**
- 2.1. Demonstrate a respectful attitude towards colleagues and members of an interprofessional team
 - 2.2. Work with other professionals to prevent conflicts
 - 2.3. Respect differences and the scopes of practice of other professions
 - 2.4. Reflect on one's own differences, misunderstandings, and limitations that may contribute to interprofessional tension
 - 2.5. Reflect on interprofessional team function
 - 2.6. Employ collaborative negotiation to resolve conflicts and address misunderstandings

Manager

Definition:

As *Managers*, Trauma General Surgeons are integral participants in health care organizations, making decisions concerning the allocation of resources, injury prevention, and contributing to the effectiveness of the health care system and regional trauma systems.

Key and Enabling Competencies: Trauma General Surgeons are able to...

- 1. Participate in activities that contribute to the effectiveness of their health care organizations and systems**
 - 1.1. Work collaboratively with others in their organizations

- 1.1.1. Manage a multidisciplinary and interprofessional team, on trauma service or equivalent, to provide comprehensive trauma care
- 1.1.2. Assume responsibility for multidisciplinary rounds on trauma service or equivalent
- 1.1.3. Demonstrate crisis resource management skills, including but not limited to key leadership and task delegation
- 1.2. Participate in systemic quality process evaluation and improvement, including patient safety initiatives
 - 1.2.1. Participate in trauma care committees that support and advance the care of patients with injuries within the institution and the region
 - 1.2.2. Participate in quality assurance and protocol reviews
 - 1.2.3. Demonstrate an understanding of the importance of trauma registries
- 1.3. Describe the structure and function of the health care and trauma systems, including but not limited to the roles of physicians, as relevant to Trauma General Surgery
 - 1.3.1. Co-ordinated trauma systems
 - 1.3.1.1. Inclusive and exclusive trauma systems
 - 1.3.1.2. American College of Surgeons' Committee on Trauma (ACS-COT) and Trauma Association of Canada (TAC) classifications of trauma centres
 - 1.3.1.3. Trauma centre accreditation process
 - 1.3.2. Relevance of regional and national trauma systems to the health of populations
 - 1.3.3. Pre-hospital systems
 - 1.3.4. Quality improvement programs
 - 1.3.5. Trauma registries
- 1.4. Describe principles of health care financing, including physician remuneration, budgeting, and organizational funding

2. Manage their practice and career effectively

- 2.1. Set priorities and manage time to balance patient care, practice requirements, outside activities, and personal life
- 2.2. Manage a practice, including finances and human resources
- 2.3. Implement processes to ensure personal practice improvement
- 2.4. Employ information technology appropriately for patient care

3. Allocate finite health care resources appropriately

- 3.1. Demonstrate an understanding of the importance of just allocation of health care resources, balancing effectiveness, efficiency, and access with optimal patient care
 - 3.1.1. Demonstrate knowledge of appropriate resource allocation for a trauma service
- 3.2. Apply evidence and management processes for cost-appropriate care

4. Serve in administration and leadership roles

- 4.1. Participate effectively in committees and meetings
 - 4.1.1. Participate in local, regional, or national trauma committees
- 4.2. Lead or implement change in health care
 - 4.2.1. Contribute to the development of clinical practice guidelines or similar documents
- 4.3. Plan relevant elements of health care delivery, such as work schedules

Health Advocate

Definition:

As *Health Advocates*, Trauma General Surgeons use their expertise and influence responsibly to advance the health and well-being of individual patients, communities, and populations.

Key and Enabling Competencies: Trauma General Surgeons are able to...

1. Respond to individual patient health needs and issues as part of patient care

- 1.1. Identify the health needs of an individual patient
- 1.2. Identify opportunities for advocacy, health promotion, and injury prevention
 - 1.2.1. Use alcohol screening and brief intervention (ASBI), and posttraumatic stress disorder (PTSD) screening appropriately

2. Respond to the health needs of the communities that they serve

- 2.1. Describe the practice communities that they serve, including but not limited to vulnerable and disadvantaged populations
- 2.2. Identify opportunities for advocacy, health promotion, and injury prevention in the communities that they serve, and respond appropriately

3. Identify the determinants of health for the populations that they serve

- 3.1. Identify the determinants of health of the population, including barriers to access to care and resources
 - 3.1.1. Describe the relevance of regional and national trauma systems to the health of populations
 - 3.1.2. Describe the role of pre-hospital systems, quality improvement programs, and trauma registries in improving the health of populations
- 3.2. Identify vulnerable or marginalized populations within those served and respond appropriately

4. Promote the health of individual patients, communities, and populations

- 4.1. Describe an approach to implementing a change in a determinant of health of the populations they serve
 - 4.1.1. Demonstrate an understanding of the role of health advocacy and public education related to injury prevention initiatives in areas of common concern
 - 4.1.1.1. Vehicular and highway safety and design
 - 4.1.1.2. Substance abuse
 - 4.1.1.3. High risk behaviours
 - 4.1.2. Demonstrate an awareness of the impact of trauma in disadvantaged/marginalized populations, and in developing countries
- 4.2. Describe how public policy impacts on the health of the populations served
 - 4.2.1. Demonstrate an understanding of the creation and endorsement of legislation relevant to injury prevention
- 4.3. Identify points of influence in the health care system and its structure
- 4.4. Describe the ethical and professional issues inherent in health advocacy, including altruism, social justice, autonomy, integrity, and idealism
- 4.5. Demonstrate an appreciation of the possibility of conflict inherent in their role as a health advocate for a patient or community with that of manager or gatekeeper
- 4.6. Describe the role of the medical profession in advocating collectively for health and patient safety
 - 4.6.1. Participate in local, regional, national and/or international activities related to advancing care for the patient with injuries
 - 4.6.2. Participate in local, regional, and/or national activities related to pre-hospital trauma systems/disaster medicine
 - 4.6.3. Develop or participate in injury prevention initiatives

Scholar

Definition:

As *Scholars*, Trauma General Surgeons demonstrate a lifelong commitment to reflective learning, and the creation, dissemination, application, and translation of medical knowledge.

Key and Enabling Competencies: Trauma General Surgeons are able to...

- 1. Maintain and enhance professional activities through ongoing learning**
 - 1.1. Describe the principles of maintenance of competence
 - 1.2. Describe the principles and strategies for implementing a personal knowledge management system
 - 1.3. Access and interpret the relevant evidence
 - 1.4. Integrate new learning into practice
 - 1.5. Evaluate the impact of any change in practice
 - 1.6. Document the learning process

 - 2. Critically evaluate medical information and its sources, and apply this appropriately to practice decisions**
 - 2.1. Describe the principles of critical appraisal
 - 2.2. Critically appraise retrieved evidence in order to address a clinical question
 - 2.3. Integrate critical appraisal conclusions into clinical care

 - 3. Facilitate the learning of patients, families, students, residents, other health professionals, the public, and others**
 - 3.1. Describe principles of learning relevant to medical education
 - 3.2. Identify collaboratively the learning needs and desired learning outcomes of others
 - 3.3. Select effective teaching strategies and content to facilitate others' learning
 - 3.3.1. Contribute to the education experiences of other health professionals
 - 3.4. Deliver effective lectures or presentations
 - 3.4.1. Lead a journal club on the topic of injury, which includes critical appraisal of the literature
 - 3.5. Demonstrate proficiency and leadership as an instructor, including but not limited to the Advanced Trauma Life Support (ATLS) course

 - 4. Contribute to the development, dissemination, and translation of new knowledge and practices**
 - 4.1. Describe the principles of research and scholarly inquiry
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- 4.2. Describe the principles of research ethics
- 4.3. Describe the principles of population health science
- 4.4. Complete a scholarly research, quality assurance, or educational project relevant to Trauma General Surgery that is suitable for peer-reviewed publication or presentation at an academic meeting

Professional

Definition:

As *Professionals*, Trauma General Surgeons are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

Key and Enabling Competencies: Trauma General Surgeons are able to...

- 1. Demonstrate a commitment to their patients, profession, and society through ethical practice**
- 2. Demonstrate a commitment to their patients, their profession, and society through participation in profession-led regulation**
 - 2.1. Demonstrate familiarity with mandatory reporting policies
 - 2.2. Demonstrate prudence in respecting requirements for patient privacy and confidentiality
- 3. Demonstrate a commitment to physician health and sustainable practice**
 - 3.1. Balance personal and professional priorities to ensure personal health and a sustainable practice
 - 3.2. Strive to heighten personal and professional awareness and insight
 - 3.3. Recognize other professionals in need and respond appropriately

REQUIRED TRAINING EXPERIENCES

The AFC trainee must:

1. Lead clinical decision making for patients with severe injuries.
2. Manage major thoraco-abdominal, vascular, cervical, and extremity injuries as a key member of the surgical team.
3. Collaborate with the critical care unit team in the key surgical decision-making for patients with critical injuries.
4. Complete a scholarly research, quality assurance, or educational project relevant to Trauma General Surgery that is suitable for peer-reviewed publication or presentation at an academic meeting.

5. Participate, as appropriate to level of training, in a governance structure that supports mechanisms to advance the mandate of the Trauma Program within the institution, the university, and the region.
6. Attain and maintain ATLS instructor certification.
7. Complete at least one advanced trauma course:
 - ACS-COT's Advanced Trauma Operative Management (ATOM)
 - Definitive Surgical Trauma Care (DSTC)
 - Advanced Surgical Skills for Exposure in Trauma (ASSET)
 - Emergency Department Echo (EDE 1 and/or 2)
 - another course as approved by the AFC director
8. Perform point of care trauma ultrasound.
9. Participate in the leadership and/or management of day to day aspects of a trauma service or equivalent.

RECOMMENDED TRAINING EXPERIENCES

The AFC trainee should:

1. Complete a dedicated experience in any of critical care, vascular, thoracic, cardiac, burn, plastic, or any other surgery service related to trauma at the discretion of the program director. This may include an elective experience at a high volume trauma centre.
2. Disseminate new knowledge through publications and presentations at meetings.
3. Participate in crisis resource management training.
4. Develop expertise in mass casualty response.

This document is to be reviewed by the AFC committee in Trauma General Surgery by July 2017.

Approved – Specialty Standards Review Committee – September 2015