

Effective for residents who enter training on or after July 1, 2020.

DEFINITION

General Surgery is the branch of surgery concerned with the study, diagnosis and management of a broad range of conditions involving the alimentary tract, liver and pancreas, endocrine glands, breast, skin and soft tissues, as well as conditions arising from traumatic injuries.

GENERAL SURGERY PRACTICE

General surgeons provide care for patients with diverse, undifferentiated, and often complex conditions affecting the alimentary tract, liver and pancreas, spleen, lymph nodes, breast, adrenal glands, abdominal wall, skin and soft tissues, and head and neck. They are often the first point of contact for patients with a new diagnosis of cancer, at any stage of the disease. General surgeons are involved in the management of critically ill patients and patients with traumatic injuries.

General surgeons assess and diagnose elective and emergency presentations, and determine a patient's treatment options. They provide preoperative, operative and postoperative management. The operative skills of General Surgery include open and minimally invasive surgery (MIS) procedures, and upper and lower gastrointestinal (GI) endoscopy. General surgeons provide non-operative treatments, including preventive and therapeutic interventions, as appropriate. They lead trauma teams, providing primary and secondary assessment as well as definitive operative and non-operative care for patients with traumatic injuries.

General surgeons collaborate with medical specialists and other health professionals in the multidisciplinary care of patients, in the operating room, the endoscopy suite, the emergency department, and inpatient and outpatient settings.

General surgeons work in a variety of health care environments ranging from practices in small communities to large tertiary academic centres. The practice of any individual general surgeon will depend on their location and its resources, the needs of that community/setting, and the other surgical and nonsurgical specialists working in that location. General surgeons in large academic centres and urban areas typically practice within a focused and specialized scope of the discipline, while those working in small communities and rural or remote areas typically practice in the full breadth of the discipline, performing a wide spectrum of procedures to meet the needs of the community.

GENERAL SURGERY COMPETENCIES

Medical Expert

Definition:

As *Medical Experts*, general surgeons integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional values in their provision of high-quality and safe patient-centred care. Medical Expert is the central physician Role in the CanMEDS Framework and defines the physician's clinical scope of practice.

Key and Enabling Competencies: General surgeons are able to...

1. Practise medicine within their defined scope of practice and expertise

- 1.1. Demonstrate a commitment to high-quality care of their patients
- 1.2. Integrate the CanMEDS Intrinsic Roles into their practice of General Surgery
- 1.3. Apply the competencies of Surgical Foundations
- 1.4. Apply knowledge of the clinical and biomedical sciences relevant to General Surgery
 - 1.4.1. Surgical anatomy, including arterial supply, venous and lymphatic drainage, and innervation of:
 - 1.4.1.1. Esophagus, including relationships to other structures in the neck, mediastinum, and upper abdomen
 - 1.4.1.2. Stomach and duodenum, including relationships to other structures in the abdomen
 - 1.4.1.3. Small intestine, including relationships to other structures in the abdomen
 - 1.4.1.4. Colon, including relationships to other structures in the abdomen, peritoneal attachments and anatomy of the retroperitoneum
 - 1.4.1.5. Rectum and anus, including relationships to other structures in the pelvis and perineum, anal sphincter complex, pelvic floor musculature, and perirectal and perianal spaces
 - 1.4.1.6. Liver and biliary tract, including relationships to other structures in the abdomen, and segmental anatomy of the liver, common variants of biliary anatomy, common variants of hepatic arterial supply and venous drainage, and the relationship of the portal and systemic circulations
 - 1.4.1.7. Pancreas, including relationships to other structures in the abdomen, and gross anatomic divisions of the pancreas, ductal anatomy and its common variants
 - 1.4.1.8. Spleen, including relationships to other structures in the abdomen and specific attachments, and common locations of accessory splenic tissue

GENERAL SURGERY COMPETENCIES (2020)

- 1.4.1.9. Lymph nodes, including the basic structure of a lymph node, the organization of the lymphatic system, including the thoracic duct and cisterna chyli, and lymph node levels in the neck, axilla, and groin
 - 1.4.1.10. Breast and axilla, including relationships to adjacent structures and locations of major nerves
 - 1.4.1.11. Adrenal glands, including relationships to other structures in the abdomen and the component zones of the glands
 - 1.4.1.12. Abdominal wall, including muscular and fascial components
 - 1.4.1.13. Inguinal and femoral regions
 - 1.4.1.14. Normal and delayed testicular descent, and layers of the spermatic cord
 - 1.4.1.15. Skin and soft tissue, including the epidermis, dermis, and cutaneous adnexal structures
 - 1.4.1.16. Major blood vessels throughout the body, excluding the intracranial vessels, including normal branching patterns and distributions, and common variants
 - 1.4.1.17. Head and neck, including:
 - 1.4.1.17.1. Major structures of the neck, including the triangles of the neck, major arteries, veins, nerves, and lymph node groups
 - 1.4.1.17.2. Thyroid gland, including its relationships to other structures, its arterial supply and venous drainage, and the location of the superior laryngeal nerves and recurrent laryngeal nerves
 - 1.4.1.17.3. Parathyroid glands, including the typical and atypical locations of the glands
 - 1.4.1.17.4. Salivary glands, including the parotid and submandibular glands, and their ducts
 - 1.4.1.18. Abdomen and pelvis relevant to pediatric surgery
 - 1.4.1.19. Abdomen and pelvis in the pregnant patient
- 1.4.2. Surgical anatomy relevant to trauma, including:
- 1.4.2.1. Cervical, including vessels, trachea, and esophagus
 - 1.4.2.2. Thoracic, including chest wall, lung, pleura, mediastinal vascular, and aerodigestive structures
 - 1.4.2.3. Abdominal, including liver, spleen, stomach, duodenum, small and large bowel, rectum, and bladder
 - 1.4.2.4. Retroperitoneal, including major vascular structures, duodenum, pancreas, kidneys, and ureters
 - 1.4.2.5. Skeletal, including pelvis, and long bones of the upper and lower extremities

- 1.4.2.6. Spine and spinal cord
- 1.4.3. Physiology relevant to General Surgery, including:
 - 1.4.3.1. Esophagus
 - 1.4.3.1.1. Pharyngoesophageal function
 - 1.4.3.1.2. Peristalsis
 - 1.4.3.1.3. Lower esophageal sphincter function
 - 1.4.3.1.4. Antireflux mechanisms
 - 1.4.3.2. Stomach and duodenum
 - 1.4.3.2.1. Gastric acid secretion
 - 1.4.3.2.2. Gastric emptying
 - 1.4.3.2.3. Duodenal exocrine and endocrine function
 - 1.4.3.3. Small intestine, including absorption of water, electrolytes, macronutrients, micronutrients, and trace elements
 - 1.4.3.4. Colon, including fluid absorption and colonic motility
 - 1.4.3.5. Fecal continence and defecation
 - 1.4.3.6. Liver, biliary tract, and pancreas
 - 1.4.3.6.1. Liver blood flow, including imaging of blood flow and changes with regeneration
 - 1.4.3.6.2. Bilirubin metabolism, including bile production, excretion, and enterohepatic circulation
 - 1.4.3.6.3. Pancreatic endocrine function
 - 1.4.3.6.4. Pancreatic exocrine function
 - 1.4.3.7. Spleen
 - 1.4.3.7.1. Immunologic and hematologic function
 - 1.4.3.7.2. Alterations to peripheral blood and immune function post-splenectomy
 - 1.4.3.8. Breast
 - 1.4.3.8.1. Hormonally-mediated breast changes during puberty, the menstrual cycle, pregnancy, and menopause
 - 1.4.3.8.2. Lactation
 - 1.4.3.9. Adrenal glands
 - 1.4.3.9.1. Hormones produced by each zone

GENERAL SURGERY COMPETENCIES (2020)

- 1.4.3.9.2. Hormone regulation
- 1.4.3.9.3. Effect of exogenous adrenal hormones on the function of the adrenal glands

- 1.4.3.10. Skin and soft tissue
 - 1.4.3.10.1. Response to ultraviolet light
 - 1.4.3.10.2. Response to radiation used for therapeutic purposes,
 - 1.4.3.10.3. Response to thermal injury

- 1.4.3.11. Thyroid gland
- 1.4.3.12. Parathyroid gland
- 1.4.3.13. Physiological differences of pediatric surgical patients compared to adults, and the clinical consequences of these differences for the surgical care of children, including responses to hypovolemia, physiologic stress, and surgical stress
- 1.4.3.14. Physiological changes of pregnancy that may impact surgical care

- 1.4.4. Pathology as relevant to General Surgery
- 1.4.5. Principles of antimicrobial prophylaxis, antibiotic stewardship, and infection prevention and control
- 1.4.6. Principles of oncology
 - 1.4.6.1. Tumour biology
 - 1.4.6.1.1. The cell cycle and normal regulatory mechanisms
 - 1.4.6.1.2. Effects of radiation on the cell cycle
 - 1.4.6.1.3. Mechanisms of action of systemic therapies, including targeted therapies, on the cell cycle
 - 1.4.6.1.4. Cellular differentiation in normal, premalignant, and malignant tissues
 - 1.4.6.1.5. Growth and dissemination patterns of cancer

 - 1.4.6.2. Tumour genetics
 - 1.4.6.2.1. Oncogenes and tumour suppressor genes
 - 1.4.6.2.2. Role of genetic testing in suspected hereditary cancers
 - 1.4.6.2.3. Common familial cancer syndromes and their genetic mechanisms

 - 1.4.6.3. Cancer epidemiology, including incidence, prevalence, and risk factors

GENERAL SURGERY COMPETENCIES (2020)

- 1.4.6.4. Prevention of malignancy
 - 1.4.6.4.1. Methods that can be used to protect against or limit the risk of malignancy, including environmental factors, medications, and vaccines
 - 1.4.6.4.2. Definition and important attributes of a screening test, and malignancies for which there are effective screening tests
 - 1.4.6.4.3. Role of prophylactic surgery in patients at high risk
- 1.4.6.5. Diagnostic tools to establish diagnosis and evaluate patients with cancer
 - 1.4.6.5.1. Role of and the potential impact of molecular diagnostics on treatment, prognosis, and outcome
- 1.4.6.6. Cancer staging and risk stratification
- 1.4.6.7. Treatment of patients with malignancies
 - 1.4.6.7.1. Surgical options in the diagnosis and staging, cure, prolongation of survival, improvement in quality of life, and/or palliation of malignancy
 - 1.4.6.7.2. Principles of neoadjuvant, adjuvant and palliative therapies for malignancies, including chemotherapy, radiotherapy, immunotherapy, and hormonal therapy
 - 1.4.6.7.3. Role of treatments that provide effective palliation, enhance prevention and decrease recurrence, and improve quality of life
- 1.4.6.8. Principles of a follow-up program for patients who have been treated for malignancy
- 1.4.6.9. Guidelines for management of malignancy
- 1.4.7. Principles of injury and management of trauma
 - 1.4.7.1. Principles of trauma in special populations, including pediatric, geriatric, and pregnant patients
 - 1.4.7.2. Common mechanisms of pediatric trauma and common pediatric injury patterns
- 1.4.8. Techniques, indications, contra-indications, alternative treatment options, and common complications of surgical procedures relevant to General Surgery
- 1.4.9. Principles of minimally invasive surgery (MIS)
 - 1.4.9.1. Equipment function, common equipment-related problems, and their solutions

- 1.4.9.2. Applications, indications and contraindications of the MIS approach
- 1.4.9.3. Effects of pneumoperitoneum on organ systems
- 1.4.9.4. Effects of pneumoperitoneum on the pregnant patient and fetus

- 1.4.10. Principles of endoscopy
 - 1.4.10.1. Equipment function, common equipment-related problems, and their solutions
 - 1.4.10.2. Potential risks and complications of endoscopic procedures for patient, operator, and assistant, and the measures appropriate to minimize such hazards
 - 1.4.10.3. Infection control and sedation, as relevant to the endoscopy suite

- 1.4.11. Principles of nutrition
 - 1.4.11.1. Normal requirements for calories, carbohydrates, fat, protein, vitamins, trace elements, and minerals
 - 1.4.11.2. Nutritional assessment techniques
 - 1.4.11.3. Effects of trauma and illness on nutritional requirements
 - 1.4.11.4. Indications for enteral and parenteral nutrition supplementation and their potential complications

- 1.4.12. Principles of palliative care
 - 1.4.12.1. Definition and goals of palliative care
 - 1.4.12.2. Role of surgery in the palliation of malignancy, including debulking, relief of gastrointestinal obstruction, and prevention of bleeding

- 1.5. Perform appropriately timed clinical assessments with recommendations that are presented in an organized manner
- 1.6. Carry out professional duties in the face of multiple competing demands
- 1.7. Recognize and respond to the complexity, uncertainty, and ambiguity inherent in General Surgery practice

2. Perform a patient-centred clinical assessment and establish a management plan

- 2.1. Prioritize issues to be addressed in a patient encounter
 - 2.1.1. Recognize, resuscitate, and stabilize patients who have sustained major injuries, or are at risk of cardiopulmonary arrest

GENERAL SURGERY COMPETENCIES (2020)

- 2.2. Elicit a history, perform a physical exam, select appropriate investigations, and interpret their results for the purpose of diagnosis and management, disease prevention, and health promotion
 - 2.2.1. Gather a relevant clinical history
 - 2.2.2. Identify and interpret the clinical significance of findings in a physical examination
 - 2.2.3. Recognize findings suggestive of non-accidental injury
 - 2.2.4. Select appropriate methods to stage malignancies
 - 2.2.5. Select and interpret medical imaging
 - 2.2.5.1. Radiography
 - 2.2.5.2. Ultrasonography
 - 2.2.5.3. Computed tomography (CT)
 - 2.2.5.4. Magnetic resonance imaging (MRI)
 - 2.2.5.5. Nuclear imaging
 - 2.2.5.6. Positron emission tomography (PET)
 - 2.2.6. Interpret the clinical relevance of laboratory and pathology reports
 - 2.2.7. Determine the indications for, and benefits and risks of surgical intervention for the clinical presentation
 - 2.2.8. Assess peri-operative risk
- 2.3. Establish goals of care in collaboration with patients and their families¹, which may include slowing disease progression, treating symptoms, achieving cure, improving function, and palliation
 - 2.3.1. Identify opportunities for advance care planning discussions and explore the patient's values, wishes and preferences related to end-of life-care
 - 2.3.1.1. Apply knowledge of settings for end-of-life care, including home, hospice, palliative care units, and hospital
 - 2.3.2. Establish the patient's preferences for goals of care and resuscitation, and review when changes occur in clinical status

¹ 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.

- 2.4. Establish a patient-centred management plan, including non-operative, preoperative, operative, and postoperative care for patients with the following conditions:

Esophagus

- 2.4.1. Anatomic abnormalities, including esophageal diverticula and hiatus hernia
- 2.4.2. Gastroesophageal reflux disease and its complications, including Barrett's esophagus
- 2.4.3. Infectious and inflammatory conditions, including eosinophilic esophagitis
- 2.4.4. Injuries, including perforation, trauma, and caustic exposure
- 2.4.5. Neoplasms of the esophagus, including benign and malignant
- 2.4.6. Obstruction, including foreign bodies and strictures
- 2.4.7. Pharyngoesophageal motility disorders

Stomach and duodenum

- 2.4.8. Gastric foreign bodies
- 2.4.9. Neoplasms of the stomach, including benign and malignant
- 2.4.10. Neoplasms of the duodenum, including benign and malignant
- 2.4.11. Peptic ulcer disease and its complications, including hemorrhage, perforation, and obstruction
 - 2.4.11.1. Long-term complications after peptic ulcer surgery
- 2.4.12. Stress gastritis
- 2.4.13. Vascular compression of the duodenum

Small intestine

- 2.4.14. Inflammatory conditions, including Crohn's disease, neutropenic enteritis, and radiation enteritis
- 2.4.15. Ischemia, including acute and chronic
- 2.4.16. Benign and malignant neoplasms, including
 - 2.4.16.1. Adenocarcinoma
 - 2.4.16.2. Carcinomatosis
 - 2.4.16.3. Gastrointestinal (GI) stromal tumours
 - 2.4.16.4. Lymphoma
 - 2.4.16.5. Neuroendocrine tumours
 - 2.4.16.6. Metastases from other sites

GENERAL SURGERY COMPETENCIES (2020)

- 2.4.17. Obstruction, including adhesions, intussusception, and gallstone ileus
- 2.4.18. Other conditions, including infectious diseases, hemorrhage, foreign bodies, and short bowel syndrome
- 2.4.19. Post-operative complications, including ileus, anastomotic leaks, and entero-cutaneous fistulae

Colon

- 2.4.20. Appendicitis
- 2.4.21. Complications following colostomy
- 2.4.22. Diverticular disease and its complications
- 2.4.23. Hemorrhage
- 2.4.24. Infectious conditions, including conditions caused by *Clostridium difficile* and cytomegalovirus
- 2.4.25. Inflammatory conditions, including neutropenic colitis, radiation colitis, and inflammatory bowel diseases including Crohn's disease, ulcerative colitis, and microscopic colitis
- 2.4.26. Ischemia, including occlusive and non-occlusive disease
- 2.4.27. Motility disorders, including irritable bowel syndrome, colonic inertia, and acute and chronic pseudo-obstruction
- 2.4.28. Neoplasms, including benign and malignant
 - 2.4.28.1. Sporadic cancer, including mechanism and adenoma-to-carcinoma sequence
 - 2.4.28.2. Familial cancer, including familial adenomatous polyposis (FAP), hereditary nonpolyposis colorectal cancer (HNPCC), and other polyposis syndromes
- 2.4.29. Obstruction
- 2.4.30. Perforation

Rectum and anus

- 2.4.31. Rectal conditions
 - 2.4.31.1. Fecal incontinence
 - 2.4.31.2. Neoplasms, including benign and malignant
 - 2.4.31.3. Obstructed defecation
 - 2.4.31.4. Proctitis, including due to ulcerative colitis, radiation, and sexually transmitted infection
 - 2.4.31.5. Rectal prolapse, rectocele

2.4.31.6. Rectovaginal fistula

2.4.32. Anal and perianal conditions

2.4.32.1. Abscess

2.4.32.2. Anal fissure, including acute and chronic

2.4.32.3. Condyloma

2.4.32.4. Fistula

2.4.32.5. Hemorrhoids

2.4.32.6. Neoplasms of the anal canal and perianal skin

2.4.32.7. Pruritus ani

Liver

2.4.33. Acute liver failure, including referral for transplantation if indicated

2.4.34. Infections, including viral, bacterial, and parasitic

2.4.35. Liver cysts, including benign (simple and complex), and malignant

2.4.36. Portal hypertension

2.4.37. Neoplasms, including benign and malignant

Biliary tract

2.4.38. Benign inflammatory processes

2.4.39. Biliary obstruction and its complications

2.4.40. Biliary tract injury

2.4.41. Neoplasms, including benign and malignant

2.4.42. Stone formation and complications

Pancreas

2.4.43. Cystic lesions, including inflammatory, infectious, and neoplastic

2.4.44. Neoplasms, including benign and malignant

2.4.45. Pancreatitis, including local and systemic complications

Spleen

2.4.46. Cystic lesions

2.4.47. Hemolytic anemias

2.4.48. Idiopathic thrombocytopenic purpura

2.4.49. Neoplasms, including benign and malignant

- 2.4.50. Overwhelming post-splenectomy sepsis/infection
- 2.4.51. Splenic abscess and infection
- 2.4.52. Splenic vein thrombosis and left sided portal hypertension
- 2.4.53. Splenomegaly and hypersplenism

Lymph nodes

- 2.4.54. Conditions affecting lymph nodes, including inflammatory, infectious and neoplastic diseases
- 2.4.55. Conditions affecting the lymphatic system, including lymphedema and chyle leakage

Breast

- 2.4.56. Cysts
- 2.4.57. Gynecomastia
- 2.4.58. Infection
- 2.4.59. Mastalgia
- 2.4.60. Neoplasms, including benign and malignant
- 2.4.61. Nipple discharge

Adrenal gland

- 2.4.62. Adrenal hemorrhage
- 2.4.63. Adrenal insufficiency
- 2.4.64. Adrenal suppression
- 2.4.65. Catecholamine excess disorders
- 2.4.66. Cushing's disease and Cushing's syndrome
- 2.4.67. Neoplasms of the adrenal cortex and adrenal medulla, including benign and malignant
- 2.4.68. Primary hyperaldosteronism

Abdominal wall

- 2.4.69. Anatomic abnormalities resulting in the following hernias
 - 2.4.69.1. Direct inguinal
 - 2.4.69.2. Femoral
 - 2.4.69.3. Indirect inguinal
 - 2.4.69.4. Lumbar
 - 2.4.69.5. Obturator

2.4.69.6. Spigelian

2.4.69.7. Umbilical

2.4.70. Structural abnormalities resulting in the following hernias

2.4.70.1. Internal

2.4.70.2. Parastomal

2.4.70.3. Ventral

Skin and soft tissue

2.4.71. Injuries

2.4.71.1. Bites

2.4.71.2. Exposure to caustic substances

2.4.71.3. Pressure

2.4.71.4. Radiation

2.4.71.5. Thermal

2.4.72. Infections

2.4.72.1. Actinomycosis

2.4.72.2. Folliculitis, furuncles, and carbuncles

2.4.72.3. Necrotizing soft tissue infection

2.4.72.4. Paronychia

2.4.72.5. Staphylococcal scalded skin syndrome

2.4.73. Inflammatory conditions

2.4.73.1. Hidradenitis suppurativa

2.4.73.2. Pilonidal disease

2.4.73.3. Pyoderma gangrenosum

2.4.74. Neoplasms

2.4.74.1. Benign tumours of the skin and subcutaneous soft tissue, including keratoses, nevi, soft tissue tumours, and neural tumours

2.4.74.2. Malignant tumors of the skin and subcutaneous tissue, including basal cell carcinoma, squamous cell carcinoma, malignant melanoma, extramammary Paget's disease, and soft tissue sarcomas

2.4.75. Cysts

2.4.75.1. Dermoid tumour/cyst

2.4.75.2. Epidermal and trichilemmal cysts

Vascular

2.4.76. Chronic venous disease

2.4.77. Upper and lower limb ischemia, including acute and chronic

2.4.78. Visceral ischemia, including acute and chronic

Head and neck

2.4.79. Cysts of the neck

2.4.80. Hyperparathyroidism

2.4.81. Hyperthyroidism and hypothyroidism

2.4.82. Neoplasms of the head and neck, including benign, premalignant, and malignant

2.4.83. Neoplasms of the salivary glands, including benign and malignant

2.4.84. Neoplasms of the thyroid gland, including benign and malignant

Trauma

2.4.85. Shock, including hemorrhagic, obstructive, and neurogenic

2.4.86. Head injury

2.4.86.1. Traumatic brain injury and raised intracranial pressure (ICP)

2.4.86.2. Eye injuries

2.4.86.3. Facial injuries

2.4.87. Neck injury

2.4.87.1. Injuries to aerodigestive tract

2.4.87.2. Injuries to the major blood vessels

2.4.88. Thoracic injury

2.4.88.1. Esophageal injuries

2.4.88.2. Hemopericardium secondary to penetrating trauma

2.4.88.3. Hemothorax

2.4.88.4. Inhalation injuries

2.4.88.5. Major airway injuries

2.4.88.6. Pneumothorax and tension pneumothorax

GENERAL SURGERY COMPETENCIES (2020)

2.4.88.7. Pulmonary contusion

2.4.88.8. Traumatic aortic tear

2.4.89. Abdominal injury

2.4.89.1. Abdominal compartment syndrome

2.4.89.2. Hollow viscus injuries

2.4.89.3. Retroperitoneal injuries

2.4.89.4. Solid organ injuries

2.4.90. Musculoskeletal injury

2.4.90.1. Compartment syndrome

2.4.90.2. Extremity injuries

2.4.90.3. Pelvic fractures

2.4.90.4. Spine and spinal cord injuries

2.4.91. Vascular injury

2.4.92. Skin and soft tissue injury

2.4.92.1. Blast injury

2.4.92.2. Chemical and thermal burns, and burn wound sepsis

2.4.92.3. Major skin and soft tissue loss

Pediatric surgery

2.4.93. Gastrointestinal tract obstruction, including pyloric stenosis, malrotation and volvulus, congenital bands, Hirschsprung's disease, foreign bodies, and intussusception

2.4.94. Common pediatric neck masses

Conditions which may not require operative treatment but for whom it is appropriate that their care be overseen by a general surgeon

2.4.95. Benign breast conditions

2.4.96. Benign and malignant obstructions of the alimentary tract

2.4.97. Inflammatory diseases of the skin, alimentary tract, and pancreas

2.4.98. Nutritional deficiency states

3. Plan and perform procedures and therapies for the purpose of assessment and/or management

3.1. Determine the most appropriate procedures or therapies

3.1.1. Resuscitation and stabilization

3.1.1.1. Cervical spine stabilization

3.1.1.2. Management of the acutely ill patient, including the diagnosis and treatment of shock and the acute abdomen

3.1.1.3. Resuscitation of the patient with multiple injuries

3.1.1.4. Initiation of massive transfusion

3.1.1.5. Initial management of orthopedic injuries

3.1.1.6. Initial management of patients with soft tissue injuries, including burn injuries

3.1.1.7. Resuscitation and stabilization in pediatric trauma patients, including:

3.1.1.7.1. Establishment of intravenous or intraosseous access

3.1.1.7.2. Provision of appropriate intravenous fluid resuscitation

3.1.1.7.3. Determination of the need for blood transfusion

3.1.1.7.4. Determination of the need for operative intervention locally or transfer to a pediatric centre

3.1.1.7.5. Application of the principles of non-operative management of solid organ injuries

3.1.2. Screening and surveillance for malignancies

3.1.3. Prophylactic use of anticoagulants

3.1.4. Prophylactic and therapeutic use of pharmacologic agents, including antibiotics and corticosteroids

3.1.5. Selection and timing of immunization prior to splenectomy

3.1.6. Non-operative management

3.1.7. Selection of open or MIS approach based on relevant patient and operating environment factors

3.1.8. Endoscopy

3.1.8.1. Appropriate monitoring of patients undergoing upper GI endoscopy or colonoscopy

3.1.8.2. Use of medications to facilitate endoscopic procedures, including sedatives, narcotic analgesics, and antispasmodic medications

- 3.2. Obtain and document informed consent, explaining the risks and benefits of, and the rationale for, a proposed procedure or therapy
 - 3.2.1. Recognize and address challenges arising in emergency situations and when patient capacity to provide consent is limited
- 3.3. Prioritize procedures or therapies, taking into account clinical urgency and available resources
 - 3.3.1. Triage patients appropriately for emergent, urgent or elective care and interventions
 - 3.3.2. Select patients appropriately for intraoperative pathology consultations
- 3.4. Perform procedures in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances

Diagnostic procedures

- 3.4.1. Fine needle aspiration (FNA), core needle biopsy, and incisional biopsy of lesions of the skin and soft tissues, lymph nodes, breast, liver, spleen, peritoneum, and omentum
- 3.4.2. Punch biopsy of lesions of the skin and breast
- 3.4.3. Excisional biopsy of skin, breast, soft tissue lesions and lymph nodes
- 3.4.4. Sentinel lymph node biopsy for breast neoplasms and melanoma
- 3.4.5. Tissue sampling for diagnosis of malignancies, including optimal handling of specimens for evaluation by pathologists and other laboratory professionals
 - 3.4.5.1. Lesional sampling for intraoperative pathology consultation

Endoscopy

- 3.4.6. Diagnostic upper GI endoscopy and colonoscopy, which may include forceps biopsy
- 3.4.7. Upper GI endoscopy for hemostasis
- 3.4.8. Colonoscopy for hemostasis
- 3.4.9. Endoscopic polypectomy
- 3.4.10. Endoscopic foreign body removal
- 3.4.11. Insertion of feeding tubes
- 3.4.12. Management of complications of endoscopic procedures, including perforation of the gastrointestinal tract, hemorrhage, and infection

Skills of minimally invasive surgery (MIS)

- 3.4.13. Patient positioning to optimize patient safety and to facilitate access during MIS procedures
- 3.4.14. Safe access to the peritoneal cavity using open and closed techniques
- 3.4.15. Port site selection, placement, and closure
- 3.4.16. Laparoscopic placement of sutures
- 3.4.17. Hemostasis

Surgical procedures

Esophagus

- 3.4.18. Control of perforation

Stomach and duodenum

- 3.4.19. Operative bypass for malignant or benign disease of the stomach or duodenum
- 3.4.20. Insertion of percutaneous endoscopic gastrostomy and open gastrostomy tubes
- 3.4.21. Operative management of the acute complications from bariatric surgery
- 3.4.22. Operative management of bleeding from duodenal and gastric ulcers
- 3.4.23. Operative management of complications from peptic ulcer disease
- 3.4.24. Operative management of the difficult duodenal stump
- 3.4.25. Bypass procedures for upper GI obstruction
- 3.4.26. Wedge resection of the stomach or duodenum
- 3.4.27. Partial or total gastrectomy for gastric neoplasms
- 3.4.28. Operative management of gastric volvulus

Small intestine

- 3.4.29. Operative management of small bowel obstruction
- 3.4.30. Creation of loop and end ileostomies, and their reversal
- 3.4.31. Insertion of feeding jejunostomy tubes
- 3.4.32. Reduction of intussusception
- 3.4.33. Segmental resection of the small bowel with or without anastomosis
- 3.4.34. Simple stricturoplasty
- 3.4.35. Enteric bypass
- 3.4.36. Repair of lacerations and enterotomies

GENERAL SURGERY COMPETENCIES (2020)

- 3.4.37. Repair of small bowel fistulae
- 3.4.38. Removal of foreign bodies

Colon

- 3.4.39. Resection with anastomosis of the intra-abdominal colon, including right, extended right, transverse, left, sigmoid, and total colectomies
- 3.4.40. Appendectomy
- 3.4.41. Diversion and defunctioning of the colon
- 3.4.42. Hartmann's resection and reversal
- 3.4.43. Repair of colonic fistulae, including colovesical, colovaginal, and coloenteric fistulae
- 3.4.44. Colonic lavage as part of another colonic surgical procedure

Rectum and anus

- 3.4.45. Diversion for benign or malignant ano-rectal disorders
- 3.4.46. Operative management of acute and chronic hemorrhoidal disease
- 3.4.47. Operative management of acute and chronic anal fissures
- 3.4.48. Operative management of uncomplicated perianal and perirectal abscesses
- 3.4.49. Operative management of uncomplicated anal fistulae
- 3.4.50. Proctectomy and anastomosis for lesions in the upper and middle thirds of the rectum
- 3.4.51. Abdominoperineal resection for benign or malignant diseases of the rectum or anus
- 3.4.52. Total mesorectal excision for rectal malignancy
- 3.4.53. Management of rectal prolapse by abdominal approaches
- 3.4.54. Removal of rectal foreign bodies
- 3.4.55. Transanal resection of benign lesions

Hepatobiliary

- 3.4.56. Wedge resection of the liver
- 3.4.57. Cholecystectomy
- 3.4.58. Partial cholecystectomy
- 3.4.59. Common bile duct (CBD) exploration for choledocholithiasis
- 3.4.60. Cholecystostomy and tube decompression of the CBD for emergency management of severe infection

Pancreas

- 3.4.61. Operative management of necrotizing pancreatitis
- 3.4.62. Pancreatic cystogastrostomy

Spleen

- 3.4.63. Splenectomy
- 3.4.64. Ligation of a splenic artery aneurysm
- 3.4.65. Surgical management of cystic lesions of the spleen

Lymph nodes

- 3.4.66. Axillary dissection (levels I and II)

Breast

- 3.4.67. Cyst aspiration
- 3.4.68. Incision and drainage of abscesses
- 3.4.69. Major and minor duct excision
- 3.4.70. Lumpectomy with or without localization
- 3.4.71. Mastectomy, including segmental, modified radical, skin sparing, and nipple sparing

Abdominal wall

- 3.4.72. Repair of hernias of the abdominal wall, groin, and diaphragm
- 3.4.73. Repair of abdominal wound dehiscence
- 3.4.74. Operative management of abdominal compartment syndrome and open abdomen
- 3.4.75. Operative management of the infected abdominal wall prosthesis

Skin and soft tissue

- 3.4.76. Surgical drainage of superficial abscesses
- 3.4.77. Repair of basic traumatic injuries
- 3.4.78. Simple resection of benign tumours
- 3.4.79. Simple resection of malignant tumours
- 3.4.80. Surgical debridement of complicated infections
- 3.4.81. Operative management of pilonidal disease
- 3.4.82. Operative management of hidradenitis suppurativa

GENERAL SURGERY COMPETENCIES (2020)

Vascular

- 3.4.83. Laparotomy, exposure of great vessels, and proximal and distal vessel control
- 3.4.84. Provision of vascular access
- 3.4.85. Lower extremity amputation

Head and neck

- 3.4.86. Tracheostomy
- 3.4.87. Thyroidectomy
- 3.4.88. Parathyroidectomy

Trauma

- 3.4.89. Establishment of a surgical airway
- 3.4.90. Surgical exploration of penetrating neck injuries with control of major vascular injuries
- 3.4.91. Insertion of chest tubes
- 3.4.92. Resuscitative thoracotomy
- 3.4.93. Trauma laparotomy, including exploration of retroperitoneal hematomas
- 3.4.94. Damage control surgery for massive intra-abdominal hemorrhage or multiple intra-abdominal injuries
- 3.4.95. Initial operative assessment of rectal trauma and diversion surgery
- 3.4.96. Decompressive laparotomy for abdominal compartment syndrome
- 3.4.97. Operative management of the open abdomen
- 3.4.98. Repair of bladder injuries
- 3.4.99. Fasciotomy for limb compartment syndromes

Pediatric surgery

- 3.4.100. Appendectomy in children over the age of two years
- 3.4.101. Inguinal, umbilical, and epigastric hernia repairs in children over the age of two years
- 3.4.102. Laparotomy for acute abdomen in children over the age of two years
- 3.4.103. Laparotomy for bowel obstruction in children over the age of two years
- 3.4.104. Incision and drainage of superficial abscesses
- 3.4.105. Excision of benign lesions of the skin and subcutaneous tissue
- 3.4.106. Operative management of ingrown toenails
- 3.4.107. Operative management of pilonidal disease

3.5. Provide perioperative care and surgical management in collaboration with a subspecialty surgeon

Endoscopy

- 3.5.1. Stenting
- 3.5.2. Dilation of strictures
- 3.5.3. Endoscopic management of variceal bleeding

Esophagus

- 3.5.4. Esophageal dilation
- 3.5.5. Repair of esophageal perforation
- 3.5.6. Cricopharyngeal myotomy
- 3.5.7. Anti-reflux surgery
- 3.5.8. Heller myotomy

Stomach and duodenum

- 3.5.9. Extended procedures for locally advanced gastric cancer

Small intestine

- 3.5.10. Complex stricturoplasty

Rectum and anus

- 3.5.11. Low rectal cancer restorative procedures, including lower third and coloanal anastomoses
- 3.5.12. Complex anal fistula repair
- 3.5.13. Rectal prolapse repairs requiring perineal approaches
- 3.5.14. Rectovaginal fistula repair

Hepatobiliary

- 3.5.15. Simple anatomical and non-anatomical liver resections
- 3.5.16. Marsupialization of simple liver cysts
- 3.5.17. Surgical management of Echinococcal cysts
- 3.5.18. Biliary enteric bypass and bile duct repair below common hepatic duct (CHD) bifurcation

Pancreas

- 3.5.19. Distal pancreatectomy
- 3.5.20. Transduodenal biopsy of the pancreas

Spleen

- 3.5.21. Partial splenectomy

Lymph nodes

- 3.5.22. Axillary dissection level III
- 3.5.23. Inguinal lymph node dissection

Adrenal gland

- 3.5.24. Adrenalectomy

Abdominal wall and hernia

- 3.5.25. Operative management of a perineal hernia
- 3.5.26. Operative management of a ventral hernia with an enteroatmospheric fistula

Skin and soft tissue

- 3.5.27. Basic skin grafting
- 3.5.28. Basic skin and soft tissue flaps

Vascular

- 3.5.29. Arterial embolectomy
- 3.5.30. Emergency aortic aneurysm repair
- 3.5.31. Operative management of varicose veins

Head and neck

- 3.5.32. Thyroglossal duct cyst excision
- 3.5.33. Lateral neck dissection
- 3.5.34. Central lymph node dissection
- 3.5.35. Operative management of ranulas and mucoceles

Trauma

- 3.5.36. Operative management of complex duodenal injuries
- 3.5.37. Operative management of complex pancreatic injuries
- 3.5.38. Operative management of cardiac injuries
- 3.5.39. Operative management of major vascular injuries
- 3.5.40. Operative management of renal injuries

- 3.5.41. Non-anatomic lung resection
- 3.5.42. Hemorrhage control in the chest
- 3.5.43. Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA)

Pediatric surgery

- 3.5.44. Pyloromyotomy
- 3.5.45. Circumcision
- 3.5.46. Minor oral surgical procedures, including treatment of ranula, tongue tie, and mucocele

4. Establish plans for ongoing care and, when appropriate, timely consultation

- 4.1. Implement a patient-centred care plan that supports ongoing care, follow-up on investigations, response to treatment, and further consultation
 - 4.1.1. Identify indications for consultation with other health care professionals
 - 4.1.1.1. Provide referral for advanced operative or endoscopic procedures
 - 4.1.1.2. Identify indications for and timing of consultation with medical and/or radiation oncologists
 - 4.1.2. Provide follow-up on results of investigations and response to treatment
 - 4.1.3. Recognize and manage complications
 - 4.1.3.1. Perioperative complications related to pneumoperitoneum, including acidosis, hypotension, hypoxia, and pneumothorax
 - 4.1.3.2. Perioperative complications of abdominal access, including injuries to the abdominal viscera and blood vessels
 - 4.1.4. Provide management of and/or referral for end-of-life care

5. Actively contribute, as an individual and as a member of a team providing care, to the continuous improvement of health care quality and patient safety

- 5.1. Recognize and respond to harm from health care delivery, including patient safety incidents
- 5.2. Adopt strategies that promote patient safety and address human and system factors
 - 5.2.1. Participate and/or lead in a pause or checklist immediately before surgical incision
 - 5.2.2. Apply strategies to enhance patient and provider safety and reduce the risk of complications from surgical interventions

Communicator

Definition:

As *Communicators*, general surgeons form relationships with patients and their families that facilitate the gathering and sharing of essential information for effective health care.

Key and Enabling Competencies: General surgeons are able to...

1. Establish professional therapeutic relationships with patients and their families

- 1.1. Communicate using a patient-centred approach that encourages patient trust and autonomy and is characterized by empathy, respect, and compassion
- 1.2. Optimize the physical environment for patient comfort, dignity, privacy, engagement, and safety
- 1.3. Recognize when the perspectives values, or biases of patients, patients' families, physicians, or other health care professionals may have an impact on the quality of care, and modify the approach to the patient accordingly
- 1.4. Respond to a patient's non-verbal behaviours to enhance communication
- 1.5. Manage disagreements and emotionally charged conversations
 - 1.5.1. Discuss autopsy and organ donation when appropriate
- 1.6. Adapt to the unique needs and preferences of each patient and to his or her clinical condition and circumstances
 - 1.6.1. Apply a proactive approach to managing patient expectations and needs through the course of their illness

2. Elicit and synthesize accurate and relevant information, incorporating the perspectives of patients and their families

- 2.1. Use patient-centred interviewing skills to effectively gather relevant biomedical and psychosocial information
- 2.2. Provide a clear structure for and manage the flow of an entire patient encounter
 - 2.2.1. Gather information accurately and effectively under time constraints
- 2.3. Seek and synthesize relevant information from other sources, including the patient's family, with the patient's consent

3. Share health care information and plans with patients and their families

- 3.1. Share information and explanations that are clear, accurate, and timely, while assessing for patient and family understanding
 - 3.1.1. Convey treatment options, including operative, nonoperative, interventional radiology, and endoscopic measures

3.1.2. Use appropriate language and terminology to optimize patient and family understanding and enhance patient dignity

3.2. Disclose harmful patient safety incidents to patients and their families

4. Engage patients and their families in developing plans that reflect the patient's health care needs and goals

4.1. Facilitate discussions with patients and their families in a way that is respectful, non-judgmental, and culturally safe

4.2. Assist patients and their families to identify, access, and make use of information and communication technologies to support their care and manage their health

4.3. Use communication skills and strategies that help patients and their families make informed decisions regarding their health

5. Document and share written and electronic information about the medical encounter to optimize clinical decision-making, patient safety, confidentiality, and privacy

5.1. Document clinical encounters in an accurate, complete, timely, and accessible manner, in compliance with regulatory and legal requirements

5.1.1. Document discussions regarding informed consent in an accurate and complete manner

5.1.2. Provide concise, clear descriptions of surgical procedures

5.1.3. Provide consultation, discharge, progress, and clinic notes that are well organized, document all relevant findings, and provide a clear opinion and a plan for ongoing management

5.1.4. Provide appropriate and accurate clinical, imaging and intraoperative information on pathology specimen requisitions

5.1.5. Document advance care planning and goals of care discussions

5.2. Communicate effectively using a written health record, electronic medical record, or other digital technology

5.3. Share information with patients and others in a manner that enhances understanding and that respects patient privacy and confidentiality

Collaborator

Definition:

As *Collaborators*, general surgeons work effectively with other health care professionals to provide safe, high-quality patient-centred care.

Key and Enabling Competencies: General surgeons are able to...

1. Work effectively with physicians and other colleagues in the health care professions

- 1.1. Establish and maintain positive relationships with physicians and other colleagues in the health care professions to support relationship-centred collaborative care
- 1.2. Negotiate overlapping and shared responsibilities with physicians and other colleagues in the health care professions in episodic and ongoing care
 - 1.2.1. Provide relevant information to family physicians, other consultant specialists, and other health care professionals to facilitate patient care
 - 1.2.2. Utilize interprofessional expertise and community resources to facilitate appropriate and effective patient discharge
- 1.3. Engage in respectful shared decision-making with physicians and other colleagues in the health care professions
 - 1.3.1. Seek appropriate input from colleagues in planning treatment
 - 1.3.2. Work with others to assess and plan care
 - 1.3.2.1. Participate in the intra- and interprofessional management of cancer patients
 - 1.3.2.2. Recognize the role of intra- and interprofessional planning in the care of the palliative patient
 - 1.3.2.3. Work with nursing, social work, spiritual care, and other health care providers to provide an integrated palliative approach to care
 - 1.3.3. Work with other members of the operating team to provide safe and effective care for patients
 - 1.3.3.1. Communicate clearly and concisely with all team members in the operating room
 - 1.3.3.2. Request or provide intra-operative consultations, when appropriate
 - 1.3.4. Work effectively with colleagues to optimize the quality of postoperative medical care
 - 1.3.4.1. Consult with experts in pain management to optimize postoperative pain control
 - 1.3.4.2. Consult and work with experts in critical care and other disciplines, including other health professionals

2. Work with physicians and other colleagues in the health care professions to promote understanding, manage differences, and resolve conflicts

- 2.1. Show respect toward collaborators

- 2.2. Implement strategies to promote understanding, manage differences, and resolve conflict in a manner that supports a collaborative culture

3. Hand over the care of a patient to another health care professional to facilitate continuity of safe patient care

- 3.1. Determine when care should be transferred to another physician or health care professional
- 3.2. Demonstrate safe handover of care, using both oral and written communication, during a patient transition to a different health care professional, setting, or stage of care
 - 3.2.1. Work with operating team members to transfer patients and their relevant information safely to postoperative care providers

Leader

Definition:

As *Leaders*, general surgeons engage with others to contribute to a vision of a high-quality health care system and take responsibility for the delivery of excellent patient care through their activities as clinicians, administrators, scholars, or teachers.

Key and Enabling Competencies: General surgeons are able to...

1. Contribute to the improvement of health care delivery in teams, organizations, and systems

- 1.1. Apply the science of quality improvement to systems of patient care
 - 1.1.1. Demonstrate awareness of guidelines for reporting surgical results
- 1.2. Contribute to a culture that promotes patient safety
- 1.3. Analyze patient safety incidents to enhance systems of care
 - 1.3.1. Participate in reviews of patient complications and deaths
- 1.4. Use health informatics to improve the quality of patient care and optimize patient safety

2. Engage in the stewardship of health care resources

- 2.1. Allocate health care resources for optimal patient care
- 2.2. Apply evidence and management processes to achieve cost-appropriate care
 - 2.2.1. Recognize the responsibility to forgo treatments that are futile

3. Demonstrate leadership in professional practice

- 3.1. Demonstrate leadership skills to enhance health care
- 3.2. Facilitate change in health care to enhance services and outcomes

4. Manage career planning, finances, and health human resources in a practice

- 4.1. Set priorities and manage time to integrate practice and personal life
- 4.2. Manage personal professional practice(s) and career
 - 4.2.1. Assume the role of trauma team leader, as appropriate, to oversee the care of the patient with multiple injuries
 - 4.2.2. Lead the multidisciplinary care of critically ill patients
 - 4.2.3. Demonstrate knowledge of the financial and administrative aspects of general surgery practice, including but not limited to billing, overhead costs, and staffing
- 4.3. Implement processes to ensure personal practice improvement
 - 4.3.1. Maintain an electronic record of operative procedures performed, including treatment complications and surgical complications as a source of reflection on performance and stimulus for personal practice improvement

Health Advocate

Definition:

As Health Advocates, general surgeons contribute their expertise and influence as they work with communities or patient populations to improve health. They work with those they serve to determine and understand needs, speak on behalf of others when required, and support the mobilization of resources to effect change.

Key and Enabling Competencies: General surgeons are able to...

1. Respond to an individual patient's health needs by advocating with the patient within and beyond the clinical environment

- 1.1. Work with patients to address determinants of health that affect them and their access to needed health services or resources
 - 1.1.1. Facilitate timely access to diagnostic, therapeutic, and rehabilitative services and resources
- 1.2. Work with patients and their families to increase opportunities to adopt healthy behaviours

- 1.3. Incorporate disease prevention, health promotion, and health surveillance into interactions with individual patients
 - 1.3.1. Identify opportunities for screening, including colon and breast cancer
 - 1.3.1.1. Recommend screening and surveillance protocols for patients with an inherited syndrome, a familial syndrome, or those suspected of an increased risk of malignancy
 - 1.3.2. Identify families at risk for cancer
 - 1.3.3. Promote smoking cessation and be aware of available resources
 - 1.3.4. Counsel patients regarding preventive strategies for trauma, including seat belt use and child restraints, helmet use, and avoidance of driving while impaired

2. Respond to the needs of the communities or populations they serve by advocating with them for system-level change in a socially accountable manner

- 2.1. Work with a community or population to identify the determinants of health that affect them
 - 2.1.1. Demonstrate an understanding that the needs of the community are affected by determinants of health such as poverty, illiteracy, language, and attitudes towards surgery
 - 2.1.2. Advocate for resources to meet the needs of the community
- 2.2. Improve clinical practice by applying a process of continuous quality improvement to disease prevention, health promotion, and health surveillance activities
- 2.3. Contribute to a process to improve health in the community or population they serve
 - 2.3.1. Promote road safety
 - 2.3.2. Promote organ donation
 - 2.3.3. Recognize the role of specialty societies and other associations which advocate for patients' well-being

Scholar

Definition:

As *Scholars*, general surgeons demonstrate a lifelong commitment to excellence in practice through continuous learning, and by teaching others, evaluating evidence, and contributing to scholarship.

Key and Enabling Competencies: General surgeons are able to...

1. Engage in the continuous enhancement of their professional activities through ongoing learning

- 1.1. Develop, implement, monitor, and revise a personal learning plan to enhance professional practice
 - 1.1.1. Identify clinical questions arising from patient care
 - 1.1.2. Recognize and identify gaps in knowledge and expertise related to a clinical question
- 1.2. Identify opportunities for learning and improvement by regularly reflecting on and assessing their performance using various internal and external data sources
 - 1.2.1. Recognize and reflect on surgical outcomes, including complications, and other learning opportunities in practice
- 1.3. Engage in collaborative learning to continuously improve personal practice and contribute to collective improvements in practice
 - 1.3.1. Conduct practice audits, including the processes and outcomes of operations and other components of care

2. Teach students, residents, the public, and other health care professionals

- 2.1. Recognize the influence of role-modelling and the impact of the formal, informal, and hidden curriculum on learners
- 2.2. Promote a safe learning environment
- 2.3. Ensure patient safety is maintained when learners are involved
- 2.4. Plan and deliver learning activities
- 2.5. Provide feedback to enhance learning and performance
- 2.6. Assess and evaluate learners, teachers, and programs in an educationally appropriate manner

3. Integrate best available evidence into practice

- 3.1. Recognize practice uncertainty and knowledge gaps in clinical and other professional encounters and generate focused questions that can address them
- 3.2. Identify, select, and navigate pre-appraised resources
- 3.3. Critically evaluate the integrity, reliability, and applicability of health-related research and literature
- 3.4. Integrate evidence into decision-making in their practice

4. Contribute to the creation and dissemination of knowledge and practices applicable to health

- 4.1. Demonstrate an understanding of the scientific principles of research and scholarly inquiry and the role of research evidence in health care
- 4.2. Identify ethical principles for research and incorporate them into obtaining informed consent, considering potential harms and benefits, and vulnerable populations
- 4.3. Contribute to the work of a research program
- 4.4. Pose questions amenable to scholarly investigation and select appropriate methods to address them
- 4.5. Summarize and communicate to professional and lay audiences, including patients and their families, the findings of relevant research, and scholarly inquiry

Professional

Definition:

As *Professionals*, general surgeons are committed to the health and well-being of individual patients and society through ethical practice, high personal standards of behaviour, accountability to the profession and society, physician-led regulation, and maintenance of personal health.

Key and Enabling Competencies: General surgeons are able to...

1. Demonstrate a commitment to patients by applying best practices and adhering to high ethical standards

- 1.1. Exhibit appropriate professional behaviours and relationships in all aspects of practice, demonstrating honesty, integrity, humility, commitment, compassion, respect, altruism, respect for diversity, and maintenance of confidentiality
- 1.2. Demonstrate a commitment to excellence in all aspects of practice
 - 1.2.1. Accept responsibility for the overall care of the surgical patient
 - 1.2.2. Demonstrate ongoing commitment to patients and their families at the end of life
- 1.3. Recognize and respond to ethical issues encountered in practice
 - 1.3.1. Apply the principles of autonomy, beneficence, non-maleficence, and justice to surgical decision making
- 1.4. Recognize and manage conflicts of interest
- 1.5. Exhibit professional behaviours in the use of technology-enabled communication

2. Demonstrate a commitment to society by recognizing and responding to societal expectations in health care

- 2.1. Demonstrate accountability to patients, society, and the profession by responding to societal expectations of physicians
- 2.2. Demonstrate a commitment to patient safety and quality improvement

3. Demonstrate a commitment to the profession by adhering to standards and participating in physician-led regulation

- 3.1. Fulfil and adhere to the professional and ethical codes, standards of practice, and laws governing practice
 - 3.1.1. Fulfil the legal duty to report cases suspicious of non-accidental injury
- 3.2. Recognize and respond to unprofessional and unethical behaviours in physicians and other health care professionals
- 3.3. Participate in peer assessment and standard-setting

4. Demonstrate a commitment to physician health and well-being to foster optimal patient care

- 4.1. Exhibit self-awareness and manage influences on personal well-being and professional performance
 - 4.1.1. Demonstrate self-awareness of professional limitations
 - 4.1.2. Recognize and manage occupational health risks from disease transmission, substance abuse, fatigue, and overwork
 - 4.1.3. Prevent, recognize, and manage personal health impairments that may affect surgical competence
 - 4.1.4. Recognize and manage stress from caring for sick or dying patients
- 4.2. Manage personal and professional demands for a sustainable practice throughout the physician life cycle
- 4.3. Promote a culture that recognizes, supports, and responds effectively to colleagues in need

This document is to be reviewed by the Specialty Committee in General Surgery by December 2021.

APPROVED – Specialty Standards Review Committee – June 2019