
SURGICAL COUNCIL ON RESIDENT EDUCATION

www.surgicalcore.org
CURRICULUM OUTLINE
FOR
GENERAL SURGERY RESIDENCY

Patient Care and Medical Knowledge

2013–2014

Surgical Council on Resident Education
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Originally published in 2008, the SCORE® Curriculum Outline for General Surgery Residency is a list of patient care and medical knowledge topics to be covered in a five-year general surgery residency program. The outline is updated annually to remain contemporary and reflect feedback from SCORE member organizations and specialty surgical societies.

The patient care outline consists of 28 organ system-based categories containing a total of 574 topics. Each category is separated into Diseases/Conditions (Broad and Focused) and Operations/Procedures (Essential-Common, Essential-Uncommon, and Complex). The medical knowledge section contains 13 categories with a total of 81 topics.

For this edition, some procedures have been consolidated, and several of the Complex topics deleted. Changes from the previous edition are indicated in the Excel version of this outline, available at www.surgicalcore.org. Please note topics listed in this booklet may not directly match those currently on the SCORE Portal — this booklet is forward-looking, reflecting the latest updates.

The Surgical Council on Resident Education (SCORE) is a nonprofit consortium formed in 2006 by the principal organizations involved in U.S. surgical education. SCORE’s mission is to improve the education of general surgery residents (trainees) through the development of a national curriculum for general surgery residency training. The members of SCORE are:

- American Board of Surgery
- American College of Surgeons
- American Surgical Association
- Association of Program Directors in Surgery
- Association for Surgical Education
- Residency Review Committee for Surgery of the ACGME
- Society of American Gastrointestinal and Endoscopic Surgeons
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ABOUT THIS DOCUMENT

SCORE was founded in 2006 by the leading organizations involved in U.S. surgical education to answer the question, “What do we expect our residents to know and be able to do proficiently by the end of their training?” As described by the Accreditation Council on Graduate Medical Education (ACGME), we expect our graduating residents to be competent in six areas: patient care and procedural skills; medical knowledge; professionalism; communication; practice-based learning; and systems-based practice. In 2004, the General Surgery Residency Committee of the American Board of Surgery began to develop a patient care curriculum by listing the specific patient care competencies expected of graduating general surgery residents. This effort was then expanded into this document, with significant input from the Association of Program Directors in Surgery, as well as many specialty surgical societies.

The patient care competency was chosen as the first subject for curriculum development because many felt this area was the most in need of definition and attention. An outline of topics for the medical knowledge competency was added for the 2010-2011 edition. The other four ACGME competences will be added in the future.

This outline should not be viewed as static. It will be reviewed annually to introduce new topics as needed, delete obsolete topics, or change the depth and breadth of existing topics.

EXPLANATION OF THE CURRICULUM OUTLINE

This document contains a list of patient care topics to be included in a curriculum for a five-year general surgery residency training program. It also specifies in basic terms the depth and breadth of training that is expected for each (see “Classification System” on page 5).

To care for the surgical patient, not only is it necessary to master knowledge related to specific diseases and operations, but also knowledge of systems and conditions that affect the body as a whole, such as sepsis or coagulopathy. The topics
in the medical knowledge section are generally of this variety, and also cover areas such as biostatistics and perioperative complications.

This outline has been approved by SCORE as the basis for full curriculum development. Learning objectives are first developed for each topic. Instructional materials are then identified or created to support the teaching of that topic. Assessment tools are also being developed to determine if residents have actually acquired the desired knowledge and skills, and finally the effectiveness of the entire program will have to be regularly evaluated. When all of these have been accomplished, the curriculum will be complete.

THE SCORE PORTAL

SCORE has created the SCORE Portal (www.surgicalcore.org) for the delivery of instructional content and assessment in support of the curriculum to general surgery residency programs. Learning “modules” are available on the portal for most of the topics listed in this booklet, with modules for the remaining topics to be posted by the end of this academic year. The Excel version of this outline indicates which topics do not yet have modules on the portal.

Each module on the portal features learning objectives, study questions and a variety of resource materials, including textbook chapters, videos and radiologic images. Multiple-choice questions are also available to assess resident knowledge. Additional features to facilitate online learning will be implemented in the 2013-2014 academic year, as well as new content. For more information, please visit www.surgicalcore.org.
CLASSIFICATION SYSTEM

The patient care curriculum topics are organized into 28 organ system-based categories. Within each category, the topics are further separated into diseases/conditions and operations/procedures. The topics are then stratified as follows:

Diseases/Conditions

Two levels:

- **BROAD** – A resident should be able to care for all aspects of disease and provide comprehensive management.

- **FOCUSED** – A resident should be able to make the diagnosis, provide initial management/stabilization, but will not be expected to be able to provide comprehensive management.

Operations/Procedures

Three levels:

- **ESSENTIAL – COMMON** – Frequently performed operations in general surgery; specific procedure competency is required by end of training.

- **ESSENTIAL – UNCOMMON** – Uncommon, often urgent, operations seen in general surgery practice but not typically done in significant numbers by residents; specific procedure competency required by end of training (but may not be attained by case volume alone).

- **COMPLEX** – Not consistently performed by general surgeons in training and not typically performed in general surgery practice. Generic experience in complex procedures is required but not competence in individual procedures. Some residency programs may provide sufficient experience for competence in specific procedures.
PATIENT CARE

Category 1: Abdomen – General

Diseases/Conditions

**BROAD**
- Abdominal Pain - Acute
- Intra-abdominal Abscess
- Mesenteric Cyst
- Rectus Sheath Hematoma

**FOCUSED**
- Abdominal Pain - Chronic
- Ascites - Chylous
- Bacterial Peritonitis - Spontaneous
- Desmoids/Fibromatoses
- Peritoneal Neoplasms - Carcinomatosis
- Peritoneal Neoplasms - Pseudomyxoma peritoneii

Operations/Procedures

**ESSENTIAL — COMMON**
- Exploratory Laparotomy - Laparoscopic
- Exploratory Laparotomy - Open
- Peritoneal Dialysis Catheter Insertion
- Peritoneal Lesion - Biopsy

**ESSENTIAL — UNCOMMON**
- Intra-abdominal Abscess - Drainage

**COMPLEX**
- Pseudomyxoma - Operation
- Retroperitoneal Lymph Node Dissection - Laparoscopic
- Retroperitoneal Lymph Node Dissection - Open
Category 2: Abdomen – Hernia

Diseases/Conditions

BROAD
- Femoral Hernia
- Inguinal Hernia
- Miscellaneous Hernias
- Prosthetic Mesh Infections - Management
- Umbilical and Epigastric Hernias
- Ventral Hernia

Operations/Procedures

ESSENTIAL – COMMON
- Inguinal and Femoral Hernia - Laparoscopic Repair
- Inguinal and Femoral Hernia - Open Repair
- Ventral Hernia - Laparoscopic Repair
- Ventral Hernia - Open Repair

ESSENTIAL – UNCOMMON
- Abdominal Wall Reconstruction - Components Separation
- Miscellaneous Hernias - Repair

COMPLEX
- Diaphragmatic Hernia - Repair
Diseases/Conditions

BROAD
- Bile Duct Injury - Iatrogenic
- Cholangitis
- Cholecystitis - Acalculous
- Cholecystitis - Acute
- Cholecystitis - Chronic
- Choledocholithiasis
- Gallbladder Cancer - Incidental
- Gallbladder Polyps
- Gallstone Ileus
- Jaundice - Obstructive
- Pancreatitis - Biliary

FOCUSED
- Ampullary Stenosis/Sphincter of Oddi Dysfunction
- Bile Duct Neoplasms
- Choledochal Cyst
- Gallbladder Cancer
- Sclerosing Cholangitis

Operations/Procedures

ESSENTIAL — COMMON
- Cholecystectomy with or without Cholangiography - Laparoscopic
- Cholecystectomy with or without Cholangiography - Open

ESSENTIAL — UNCOMMON
- Cholecystostomy
- Choledochoenteric Anastomosis
- Choledochoscopy
- Common Bile Duct Exploration - Open
- Gallbladder Cancer, Incidentally Noted - Operation

COMPLEX
- Bile Duct Cancer - Operation
- Bile Duct Injury - Acute Repair

(continued next page)
Category 3: Abdomen – Biliary

**COMPLEX (cont.)**

- Bile Duct Neoplasms - Operation
- Common Bile Duct Exploration - Laparoscopic
- Gallbladder Cancer - Operation, Planned
- Transduodenal Sphincteroplasty
- Ultrasound of the Biliary Tree
Diseases/Conditions

**BROAD**
- Hepatic Abscess
- Hepatic Mass - Evaluation

**FOCUSED**
- Budd-Chiari Syndrome
- Cirrhosis/Portal Hypertension (Ascites)
- Esophageal Varices
- Hepatic Neoplasms - Benign
- Hepatic Neoplasms - Malignant
- Hepatic Neoplasms - Metastatic
- Hepatitis - Viral (Occupational Risk)

Operations/Procedures

**ESSENTIAL — COMMON**
- Hepatic Biopsy - Laparoscopic
- Hepatic Biopsy - Open

**ESSENTIAL — UNCOMMON**
- Hepatic Abscess - Drainage

**COMPLEX**
- Hepatic Ultrasound - Intraoperative
- Portal-Systemic Shunt
- Segmentectomy/Lobectomy - Laparoscopic
- Segmentectomy/Lobectomy - Open
Category 5: Abdomen – Pancreas

Diseases/Conditions

**BROAD**
- Pancreatic Pseudocyst
- Pancreatitis - Acute/Pancreatic Necrosis/Abscess

**FOCUSED**
- Pancreas Divisum
- Pancreatic Neoplasms - Cystic
- Pancreatic Neoplasms - Endocrine
- Pancreatic Neoplasms - Exocrine
- Pancreatic Neoplasms - Exocrine (Intraductal Papillary Mucinous Neoplasms)
- Pancreatitis - Autoimmune
- Pancreatitis - Chronic (Including Hereditary Pancreatitis)/Pancreatic Insufficiency
- Periampullary Neoplasms - Other

Operations/Procedures

**ESSENTIAL — UNCOMMON**
- Pancreatectomy - Distal
- Pancreatic Debridement
- Pancreatic Pseudocyst - Drainage

**COMPLEX**
- Ampullary Resection for Tumor
- Pancreatectomy - Frey and Beger Procedures
- Pancreatectomy - Total
- Pancreatic Ultrasound - Intraoperative
- Pancreaticoduodenectomy
- Pancreaticojejunostomy - Longitudinal
Category 6: Abdomen – Spleen

Diseases/Conditions

**BROAD**
- Postsplenectomy Sepsis
- Splenic Abscess

**FOCUSED**
- Hemolytic Anemias
- Hypersplenism - Secondary and Splenomegaly
- Idiopathic Thrombocytopenic Purpura
- Splenic Cysts and Neoplasms

Operations/Procedures

**ESSENTIAL — COMMON**
- Splenectomy - Laparoscopic
- Splenectomy - Open

**ESSENTIAL — UNCOMMON**
- Splenectomy/Splenorrhaphy - Partial
Category 7: Alimentary Tract – Esophagus

Diseases/Conditions

**BROAD**
- Achalasia
- Dysphagia
- Esophageal Diverticula
- Esophageal Perforation - Iatrogenic
- Esophageal Perforation - Spontaneous
- Gastroesophageal Reflux/Barrett’s Esophagus
- Hiatal Hernias
- Mallory-Weiss Syndrome
- Stricture

**FOCUSED**
- Esophageal Caustic Ingestion
- Esophageal Foreign Bodies
- Esophageal Motility Disorders other than Achalasia
- Esophageal Neoplasms - Benign
- Esophageal Neoplasms - Malignant

Operations/Procedures

**ESSENTIAL — COMMON**
- Antireflux Procedure - Laparoscopic

**ESSENTIAL — UNCOMMON**
- Antireflux Procedure - Open
- Cricopharyngeal Myotomy with Zenker’s Diverticulum - Excision
- Esophageal Perforation - Repair/Resection
- Paraesophageal Hernia - Laparoscopic Repair
- Paraesophageal Hernia - Open Repair

**COMPLEX**
- Esophagectomy/Esophagogastrectomy
- Esophagomyotomy (Heller)
Category 8: Alimentary Tract – Stomach

Diseases/Conditions

BROAD
• Duodenal Ulcer
• Gastric Cancer
• Gastric Carcinoid Tumor
• Gastric Lymphoma
• Gastric Polyps
• Gastric Ulcer
• Gastrointestinal Bleeding - Upper
• Peptic Ulcer Disease with Bleeding
• Peptic Ulcer Disease with Obstruction
• Peptic Ulcer Disease with Perforation
• Stress Gastritis

FOCUSED
• Gastric Bezoars and Foreign Bodies
• Gastroparesis
• Morbid Obesity
• Postgastrectomy Syndromes

Operations/Procedures

ESSENTIAL – COMMON
• Gastrostomy - Open
• Gastrostomy - Percutaneous Endoscopic

ESSENTIAL – UNCOMMON
• Duodenal Perforation - Repair
• Gastrectomy - Partial/Total
• Vagotomy and Drainage

COMPLEX
• Morbid Obesity - Operation
• Postgastrectomy Syndromes - Revisional Procedures
Category 9: Alimentary Tract – Small Intestine

Diseases/Conditions

**BROAD**
- Enterocutaneous Fistula
- Intussusception
- Meckel’s Diverticulum
- Mesenteric Ischemia - Acute (Arterial, Venous, and Nonocclusive)
- Paralytic Ileus
- Pneumatosis
- Radiation Enteritis
- Small Intestinal Adenocarcinoma
- Small Intestinal Carcinoid Tumor
- Small Intestinal Crohn’s Disease - Surgical Management
- Small Intestinal GISTs
- Small Intestinal Lymphoma
- Small Intestinal Obstruction
- Small Intestinal Polyps

**FOCUSED**
- Enteric Infections and Blind Loop Syndrome
- Short Bowel Syndrome

Operations/Procedures

**ESSENTIAL — COMMON**
- Adhesiolysis - Laparoscopic
- Adhesiolysis - Open
- Feeding Jejunostomy - Laparoscopic
- Feeding Jejunostomy - Open
- Ileostomy
- Ileostomy Closure
- Small Intestinal Resection - Open

**ESSENTIAL — UNCOMMON**
- Small Intestinal Resection - Laparoscopic
- Superior Mesenteric Artery Embolectomy/Thrombectomy

**COMPLEX**
- Strictureplasty for Crohn’s Disease

> Back to TOC
Category 10: Alimentary Tract – Large Intestine

Diseases/Conditions

**BROAD**
- Appendiceal Neoplasms
- Appendicitis - Acute
- Clostridium Difficile-Associated Diarrhea
- Colitis - Ischemic
- Colon Cancer
- Colon Neoplasms - Miscellaneous
- Colonic Crohn’s Disease - Surgical Management
- Colonic Polyps
- Colonic Volvulus
- Diverticular Bleeding
- Diverticulitis
- Gastrointestinal Bleeding - Lower
- Obstruction - Large Intestinal
- Ulcerative Colitis - Surgical Management

**FOCUSED**
- Appendicitis - Chronic
- Constipation - Functional
- Irritable Bowel Syndrome

Operations/Procedures

**ESSENTIAL – COMMON**
- Appendectomy - Laparoscopic
- Appendectomy - Open
- Colectomy, Partial - Laparoscopic
- Colectomy, Partial - Open
- Colostomy
- Colostomy Closure

**ESSENTIAL – UNCOMMON**
- Colectomy - Subtotal (with Ileorectal Anastomosis/Ileostomy)

**COMPLEX**
- Coloproctectomy - Total (with Ileorectal Pull-Through)
Category 11: Alimentary Tract – Anorectal

Diseases/Conditions

BROAD
• Anal Cancer
• Anal Fissure
• Anorectal Abscess and Fistulae
• Hemorrhoids
• Perianal Condylomas
• Rectal Cancer

FOCUSED
• Anal Dysplasia/Sexually Transmitted Diseases
• Fecal Incontinence
• Pelvic Floor Dysfunction
• Rectal Prolapse

Operations/Procedures

ESSENTIAL – COMMON
• Anal Fistulotomy/Seton Placement
• Anal Sphincterotomy - Internal
• Anorectal Abscess - Drainage
• Banding for Internal Hemorrhoids
• Hemorrhoidectomy
• Perianal Condylomas - Excision

ESSENTIAL – UNCOMMON
• Anal Cancer - Excision
• Rectal Prolapse - Repair

COMPLEX
• Anorectal Fistulae - Complex Repair
• Hemorrhoidectomy - Stapled
• Incontinence/Constipation - Operation
• Rectal Cancer - Abdominoperineal Resection and Pelvic Exenteration
• Rectal Cancer - Transanal Resection
Category 12: Endoscopy

Operations/Procedures

**ESSENTIAL — COMMON**

- Bronchoalveolar Lavage
- Bronchoscopy
- Colonoscopy
- Esophagogastroduodenoscopy
- Laryngoscopy
- Proctoscopy

**COMPLEX**

- ERCP
Category 13: Breast

Diseases/Conditions

**BROAD**
- Atypical Ductal Hyperplasia
- Benign Disease - Fat Necrosis
- Breast Cancer - Hereditary
- Breast Cancer - Inflammatory
- Breast Cancer - Male
- Breast Cancer - Occult with Axillary Metastasis
- Breast Cancer - Paget’s Disease of the Nipple
- Breast Cancer - Phyllodes Tumor
- Breast Cancer during Pregnancy and Lactation
- Breast Mass
- Ductal Carcinoma In Situ
- Fibroadenoma
- Fibrocystic Breast Changes
- Galactocele
- Gynecomastia
- Intraductal Papilloma
- Invasive Ductal Carcinoma
- Invasive Lobular Carcinoma
- Lobular Carcinoma In Situ
- Mastitis and Abscess
- Mondor Disease
- Nipple Discharge
- Radial Scar

**FOCUSED**
- Postmastectomy Reconstruction Options

Operations/Procedures

**ESSENTIAL — COMMON**
- Axillary Lymphadenectomy
- Axillary Sentinel Lymph Node Biopsy
- Breast Biopsy with or without Needle Localization
- Breast Cyst - Aspiration
- Duct Excision
- Mastectomy - Modified Radical
- Mastectomy - Partial
- Mastectomy - Simple

**ESSENTIAL — UNCOMMON**
- Mastectomy - Radical

**COMPLEX**
- Breast Biopsy - Image-Guided
Category 14: Endocrine

Diseases/Conditions

BROAD

• Addisonian Crisis
• Adrenal Cancer
• Adrenal Mass
• Hyperaldosteronism - Primary
• Hypercortisolism - Cushing Syndrome/Disease
• Hyperparathyroidism - Primary
• Hyperthyroidism
• Hypothyroidism - Postoperative
• Pheochromocytoma
• Thyroid Cancer - Follicular
• Thyroid Cancer - Papillary
• Thyroid Nodule

FOCUSED

• Hyperparathyroidism - Recurrent or Persistent
• Hyperparathyroidism - Secondary and Tertiary
• Miscellaneous Thyroid Malignant Neoplasms
• Multiple Endocrine Neoplasias
• Parathyroid Cancer
• Thyroiditis

Operations/Procedures

ESSENTIAL — COMMON

• Parathyroidectomy
• Thyroidectomy - Partial or Total

ESSENTIAL — UNCOMMON

• Ultrasound of the Thyroid

COMPLEX

• Adrenalectomy
Category 15: Skin and Soft Tissue

Diseases/Conditions

BROAD
• Apocrine Tumor
• Basal Cell Carcinoma
• Cellulitis
• Dermatofibrosarcoma
• Eccrine Tumor
• Epidermal Cyst
• Felon
• Hidradenitis
• Melanoma
• Merkel Cell Tumor
• Necrotizing Soft Tissue Infections
• Nevi
• Paronychia
• Pilonidal Cyst/Sinus
• Soft Tissue Masses - Evaluation
• Squamous Cell Carcinoma
• Surgical Site Infection

FOCUSED
• Decubitus Ulcer
• Lymphedema/Lymphangitis
• Soft Tissue Sarcomas

Operations/Procedures

ESSENTIAL — COMMON
• Melanoma - Wide Local Excision
• Pilonidal Cystectomy
• Sentinel Lymph Node Biopsy for Melanoma
• Skin/Soft Tissue Lesions - Excisional and Incisional Biopsy
• Soft Tissue Infections - Incision, Drainage, Debridement

COMPLEX
• Ilioinguinal - Femoral Lymphadenectomy
• Soft Tissue Sarcoma - Resection
Category 16: Surgical Critical Care

Diseases/Conditions

**BROAD**
- Abdominal Compartment Syndrome
- Anaphylaxis
- Cardiac Arrythymias - Common
- Cardiac Failure
- Cardiogenic Shock
- Coagulopathy
- Derangements of Electrolytes and Acid-Base Balance
- Endocrine Dysfunction
- Gastrointestinal Failure
- Hepatic Failure and Hepatorenal Syndrome
- Hypovolemic Shock
- Neurogenic Shock
- Neurologic Dysfunction
- Pneumonia - Hospital-Acquired
- Renal Failure
- Respiratory Failure
- Septic Shock

Operations/Procedures

**ESSENTIAL — COMMON**
- Airway Management/Ventilator Management
- Arterial Catheter Placement
- Central Venous Catheter Placement
- Compartment Pressures (Abdomen, Extremity) - Measurement
- Defibrillation and Cardioversion
- Endotracheal Intubation
- Enteral Feeding Tube Placement
- Oxygen Administration Devices
- Paracentesis
- Pulmonary Artery Catheter Placement
- Thoracentesis
- Ultrasound Use for Intravascular Access
- Urinary Catheterization

**COMPLEX**
- Cardiac Pacing
- Transvenous Temporary Pacemaker

> Back to TOC
Category 17: Trauma

Diseases/Conditions

BROAD

• Aortic Injury
• Bladder Injury
• Blunt Trauma
• Burns - Electrical and Chemical
• Burns - Flame and Scald
• Cardiac Tamponade
• Colon and Rectal Injury
• Diaphragmatic Injury
• Esophageal Injury
• Frostbite and Hypothermia
• Gastric Injury
• Geriatric Trauma
• Hemothorax - Injury-Related
• Hepatic Injury
• Laryngeal and Tracheal Injury
• Myocardial Contusion
• Pancreatic and Duodenal Injury
• Pediatric Trauma
• Pelvic Fractures
• Penetrating Trauma
• Pharyngeal and Cervical Esophageal Injury
• Pneumothorax - Injury-Related
• Pulmonary Contusion
• Pulmonary Laceration
• Renal Injury
• Retroperitoneal Hematoma
• Rib Fractures
• Small Intestinal Injury
• Splenic Injury
• Sternal Fractures
• Trauma in Pregnancy
• Ureteral Injury
• Vascular Injury - Abdomen
• Vascular Injury - Extremities
• Vascular Injury - Neck
• Vascular Injury - Thorax

(continued next page)
Category 17: Trauma

FOCUSED
• Animal and Insect Bites and Stings
• Extremity Fractures and Traumatic Amputations
• Head Injury - Penetrating and Closed
• Human Bites
• Nerve Injury - Neck
• Smoke Inhalation Injury and Carbon Monoxide Poisoning
• Spine Fracture
• Sprains, Strains, and Dislocations
• Tracheal and Bronchial Injury
• Urethral Injury

Operations/Procedures

ESSENTIAL — COMMON
• Focused Abdominal Sonography for Trauma (FAST)
• Gastrointestinal Tract Injury - Operation
• Temporary Closure of the Abdomen
• Wounds, Major - Debride/Suture

ESSENTIAL — UNCOMMON
• Abdominal Aorta or Vena Cava Injury - Repair
• Bladder Injury - Repair
• Cardiac Injury - Repair
• Carotid Artery Injury - Repair
• Duodenal Trauma - Management
• Esophageal Injury - Operation
• Exploratory Laparoscopy
• Exploratory Laparotomy
• Fasciotomy for Injury
• Hepatic Injury - Packing and Repair
• Neck Exploration for Injury
• Pancreatic Injury - Operation
• Renal Injury - Repair/Resection
• Splenectomy/Splenorrhaphy
• Thoracoscopic for Management of Hemothorax
• Truncal and Peripheral Vessels - Repair
• Ureteral Injury - Repair

(continued next page)
Category 17: Trauma

**COMPLEX**

- Burn Debridement and Grafting of Major Burns
- Hepatic Injury - Resection
- Tendon - Repair
Category 18: Vascular – Arterial Disease

Diseases/Conditions

**BROAD**
- Acute Arterial Thrombosis
- Acute Limb Ischemia
- Aortic Thrombosis
- Aortoiliac Disease
- Cerebrovascular Disease
- Compartment Syndromes
- Diabetic Foot Infections
- Peripheral Arterial Emboli
- Peripheral Vascular Disease and Claudication

**FOCUSED**
- Aortic Dissection
- Arterial Aneurysms - Aortic
- Arterial Aneurysms - Peripheral
- Arterial Aneurysms - Visceral
- Carotid Body Tumors
- Chronic Visceral Disease
- Hypercoagulable Syndromes
- Nonatherosclerotic Occlusive Diseases
- Renal Artery Disease
- Thoracic Outlet Syndrome
- Vascular Graft Infections

Operations/Procedures

**ESSENTIAL – COMMON**
- Amputations - Lower Extremity
- Carotid Endarterectomy
- Embolectomy/Thrombectomy - Arterial

**ESSENTIAL – UNCOMMON**
- Abdominal Aortic Aneurysm - Endovascular/ Open Repair
- Aortofemoral Bypass
- Extra-anatomic Bypass
- Femoral-popliteal Bypass
- Infrapopliteal Bypass

(continued next page)
Category 18: Vascular – Arterial Disease

**COMPLEX**
- Arterial Occlusive Disease - Endarterectomy
- Endovascular - Therapeutic, Including Thrombolysis
- Femoral Aneurysm - Repair
- Graft-enteric Fistula - Management
- Infrarenal and Aortoiliac Aneurysm - Repair
- Popliteal Aneurysm - Repair
- Pseudoaneurysm - Repair
- Suprarenal Abdominal Aortic Aneurysm - Repair
- Ultrasound in Diagnosis of Vascular Diseases
- Visceral Occlusive Disease - Operation
Category 19: Vascular – Venous

Diseases/Conditions

BROAD
• Thrombophlebitis - Acute and Suppurative
• Varicose Veins
• Venous Stasis/Chronic Venous Insufficiency
• Venous Thrombosis/Pulmonary Embolism

Operations/Procedures

ESSENTIAL — COMMON
• Vena Caval Filter - Insertion
• Venous Insufficiency/Varicose Veins - Operation

ESSENTIAL — UNCOMMON
• Sclerotherapy - Peripheral Vein
Category 20: Vascular – Access

Diseases/Conditions

*BROAD*
- Vascular Access for Dialysis
- Venous Access for Long-Term Therapy

Operations/Procedures

*ESSENTIAL – COMMON*
- Arteriovenous Graft/Fistula
- Percutaneous Vascular Access
- Venous Access Devices - Insertion
Category 21: Transplantation

Diseases/Conditions

**BROAD**
- Brain Death
- Indications for Transplantation (Kidney, Liver, Pancreas)

**FOCUSED**
- Donor Selection Criteria
- Opportunistic Infections
- Organ Preservation
- Post-transplant Malignancies

Operations/Procedures

**COMPLEX**
- En Bloc Abdominal Organ Retrieval
- Live Donor Hepatectomy
- Live Donor Nephrectomy
- Liver Transplant
- Pancreas Transplant
- Renal Transplant
- Renal-Pancreas Transplant
Category 22: Thoracic Surgery

Diseases/Conditions

**BROAD**
- Hemothorax
- Pleural Effusion/Empyema
- Pneumothorax

**FOCUSED**
- Chylothorax
- Lung Cancer
- Mediastinal Tumors and Cysts
- Mediastinitis
- Metastatic Tumors of the Lung
- Superior Vena Cava Syndrome
- Tracheoesophageal Fistula
- Tracheoinnominate Fistula

Operations/Procedures

**ESSENTIAL — COMMON**
- Chest Tube Placement and Management

**ESSENTIAL — UNCOMMON**
- Exploratory Thoracotomy - Open and Thoracoscopic
- Partial Pulmonary Resection - Open and Thoracoscopic
- Pericardial Window for Drainage

**COMPLEX**
- Empyema - Management
- Pleurodesis
Category 23: Pediatric Surgery

Diseases/Conditions

**BROAD**
- Abdominal Mass
- Abdominal Pain - Acute
- Gastrointestinal Bleeding - Lower
- Hypertrophic Pyloric Stenosis
- Inguinal Hernia
- Intussusception
- Malrotation
- Meckel’s Diverticulum
- Tracheal/Esophageal Foreign Bodies
- Umbilical Hernia

**FOCUSED**
- Biliary Atresia
- Choledochal Cysts
- Congenital Aganglionosis (Hirschsprung’s Disease)
- Congenital Diaphragmatic Hernia
- Cryptorchidism
- Duodenal Atresia/Stenosis
- Esophageal Atresia/Tracheoesophageal Fistula
- Gastrochisis/Omphalocele
- Imperforate Anus
- Intestinal Atresia/Meconium Ileus
- Necrotizing Enterocolitis
- Neuroblastoma
- Wilms Tumor

Operations/Procedures

**ESSENTIAL — COMMON**
- Inguinal Hernia - Repair
- Umbilical Hernia - Repair

**ESSENTIAL — UNCOMMON**
- Intussusception - Operation
- Malrotation - Operation
- Meckel’s Diverticulum - Excision
- Pyloromyotomy

(continued next page)
Category 23: Pediatric Surgery

**COMPLEX**

- Antireflux Procedure
- Branchial Cleft Anomaly - Excision
- Chest Wall Deformity - Repair
- Diaphragmatic Hernia - Repair
- Esophageal Atresia/Tracheoesophageal Fistula - Repair
- Hirschsprung’s Disease - Operation
- Imperforate Anus - Operation
- Intestinal Atresia/Stenosis - Repair
- Meconium Ileus - Operation
- Necrotizing Enterocolitis - Operation
- Omphalocele/Gastroschisis - Repair
- Orchiopexy
- Thyroglossal Duct Cyst - Excision
- Wilms Tumor/Neuroblastoma - Excision
Category 24: Plastic Surgery

Diseases/Conditions

BROAD
• Abdominal Wall Reconstruction

Operations/Procedures

ESSENTIAL — COMMON
• Skin Grafting

ESSENTIAL — UNCOMMON
• Complex Wound Closure
Category 25: Genitourinary

Diseases/Conditions

BROAD
• Hydrocele

FOCUSED
• Genitourinary Neoplasms
• Obstructive Uropathy and Urolithiasis
• Ureteral Injury - Iatrogenic

Operations/Procedures

ESSENTIAL — UNCOMMON
• Cystostomy
• Hydrocelectomy
• Nephrectomy
• Orchiectomy
• Ureteral Injury, iatrogenic - Repair
Category 26: Gynecology

Diseases/Conditions

**BROAD**
- Ectopic Pregnancy
- Ovarian Mass/Cyst - Incidental
- Pelvic Inflammatory Disease

**FOCUSED**
- Endometriosis
- Ovarian Neoplasms - Benign and Malignant
- Uterine Neoplasms - Benign and Malignant

Operations/Procedures

**ESSENTIAL — UNCOMMON**
- Hysterectomy
- Salpingo-Oophorectomy

**COMPLEX**
- Cesarean Section
Category 27: Head and Neck

Diseases/Conditions

**BROAD**
- Neck Mass - Evaluation
- Upper Airway Obstruction

**FOCUSED**
- Lymphoma/Hodgkin’s Disease
- Oral Cavity/Pharynx, Laryngeal, and Salivary Gland Cancer

Operations/Procedures

**ESSENTIAL — COMMON**
- Lymph Node Biopsy
- Tracheostomy

**ESSENTIAL — UNCOMMON**
- Cricothyroidotomy

**COMPLEX**
- Modified Neck Dissection
- Parotidectomy
Category 28: Nervous System

Diseases/Conditions

BROAD
• Pain, Acute - Management

FOCUSED
• Pain, Chronic - Management

Operations/Procedures

ESSENTIAL — UNCOMMON
• Nerve Block - Digital
• Nerve Block - Intercostal

COMPLEX
• Nerve Block(s) - Peripheral other than Digital
DISEASES/CONDITIONS BY LEVEL

**BROAD**

**Abdomen - General**
Abdominal Pain - Acute
Intra-abdominal Abscess
Mesenteric Cyst
Rectus Sheath Hematoma

**Abdomen - Hernia**
Femoral Hernia
Inguinal Hernia
Miscellaneous Hernias
Prosthetic Mesh Infections - Management
Umbilical and Epigastric Hernias
Ventral Hernia

**Abdomen - Biliary**
Bile Duct Injury - Iatrogenic
Cholangitis
Cholecystitis - Acalculous
Cholecystitis - Acute
Cholecystitis - Chronic
Choledocholithiasis
Gallbladder Cancer - Incidental
Gallbladder Polyps
Gallstone Ileus
Jaundice - Obstructive
Pancreatitis - Biliary

**Abdomen - Liver**
Hepatic Abscess
Hepatic Mass - Evaluation

**Abdomen - Pancreas**
Pancreatic Pseudocyst
Pancreatitis - Acute/Pancreatic Necrosis/Abscess

**Abdomen - Spleen**
Postsplenectomy Sepsis
Splenic Abscess

**Alimentary Tract - Esophagus**
Achalasia
Dysphagia
Esophageal Diverticula
Esophageal Perforation - Iatrogenic
Esophageal Perforation - Spontaneous
Gastroesophageal Reflux/Barrett’s Esophagus
Hiatal Hernias
Mallory-Weiss Syndrome
Stricture

**Alimentary Tract - Stomach**
Duodenal Ulcer
Gastric Cancer
Gastric Carcinoid Tumor
Gastric Lymphoma
Gastric Polyps
Gastric Ulcer
Gastrointestinal Bleeding - Upper
Peptic Ulcer Disease with Bleeding
Peptic Ulcer Disease with Obstruction
Peptic Ulcer Disease with Perforation
Stress Gastritis

**Alimentary Tract - Small Intestine**
Enterocutaneous Fistula
Intussusception
Meckel’s Diverticulum
Mesenteric Ischemia - Acute (Arterial, Venous, and Nonocclusive)
Paralytic Ileus
Pneumatosis
Radiation Enteritis
(continued next page)
Alimentary Tract - Small Intestine (cont.)
Small Intestinal Adenocarcinoma
Small Intestinal Carcinoid Tumor
Small Intestinal Crohn’s Disease - Surgical Management
Small Intestinal GISTs
Small Intestinal Lymphoma
Small Intestinal Obstruction
Small Intestinal Polyps

Alimentary Tract - Large Intestine
Appendiceal Neoplasms
Appendicitis - Acute
Clostridium Difficile-Associated Diarrhea
Colitis - Ischemic
Colon Cancer
Colon Neoplasms - Miscellaneous
Colonic Crohn’s Disease - Surgical Management
Colonic Polyps
Colonic Volvulus
Diverticular Bleeding
Diverticulitis
Gastrointestinal Bleeding - Lower
Obstruction - Large Intestinal
Ulcerative Colitis - Surgical Management

Alimentary Tract - Anorectal
Anal Cancer
Anal Fissure
Anorectal Abscess and Fistulae
Hemorrhoids
Perianal Condylomas
Rectal Cancer

Breast
Atypical Ductal Hyperplasia
Benign Disease - Fat Necrosis
Breast Cancer - Hereditary
Breast Cancer - Inflammatory
Breast Cancer - Male
Breast Cancer - Occult with Axillary Metastasis
Breast Cancer - Paget’s Disease of the Nipple
Breast Cancer - Phyllodes Tumor
Breast Cancer during Pregnancy and Lactation
Breast Mass
Ductal Carcinoma In Situ
Fibroadenoma
Invasive Lobular Carcinoma
Invasive Ductal Carcinoma
Lobular Carcinoma In Situ
Mastitis and Abscess
Mondor Disease
Nipple Discharge
Radial Scar

Endocrine
Addisonian Crisis
Adrenal Cancer
Adrenal Mass
Hyperaldosteronism - Primary
Hypercortisolism - Cushing Syndrome/Disease
Hyperparathyroidism - Primary
Hyperthyroidism
Hypothyroidism - Postoperative
(continued next page)
Endocrine (cont.)
- Pheochromocytoma
- Thyroid Cancer - Follicular
- Thyroid Cancer - Papillary
- Thyroid Nodule

Skin and Soft Tissue
- Apocrine Tumor
- Basal Cell Carcinoma
- Cellulitis
- Dermatofibrosarcoma
- Eccrine Tumor
- Epidermal Cyst
- Felon
- Hidradenitis
- Melanoma
- Merkel Cell Tumor
- Necrotizing Soft Tissue Infections
- Nevi
- Paronychia
- Pilonidal Cyst/Sinus
- Soft Tissue Masses - Evaluation
- Squamous Cell Carcinoma
- Surgical Site Infection

Surgical Critical Care
- Abdominal Compartment Syndrome
- Anaphylaxis
- Cardiac Arrhythmia - Common
- Cardiac Failure
- Cardiogenic Shock
- Coagulopathy
- Derangements of Electrolytes and Acid-Base Balance
- Endocrine Dysfunction
- Gastrointestinal Failure
- Hepatic Failure and Hepatorenal Syndrome
- Hypovolemic Shock
- Neurogenic Shock
- Neurologic Dysfunction
- Pneumonia - Hospital-Acquired
- Renal Failure
- Respiratory Failure
- Septic Failure

Trauma
- Aortic Injury
- Bladder Injury
- Blunt Trauma
- Burns - Electrical and Chemical
- Burns - Flame and Scalp
- Cardiac Tamponade
- Colon and Rectal Injury
- Diaphragmatic Injury
- Esophageal Injury
- Frostbite and Hypothermia
- Gastric Injury
- Geriatric Trauma
- Hemothorax - Injury-Related
- Hepatic Injury
- Laryngeal and Tracheal Injury
- Myocardial Contusion
- Pancreatic and Duodenal Injury
- Pediatric Trauma
- Pelvic Fractures
- Penetrating Trauma
- Pharyngeal and Cervical Esophageal Injury
- Pneumothorax - Injury-Related

(continued next page)
BROAD (cont.)

Trauma (cont.)
Pulmonary Contusion
Pulmonary Laceration
Renal Injury
Retroperitoneal Hematoma
Rib Fractures
Small Intestinal Injury
Spleenic Injury
Sternal Fractures
Trauma in Pregnancy
Ureteral Injury
Vascular Injury - Abdomen
Vascular Injury - Extremities
Vascular Injury - Neck
Vascular Injury - Thorax

Vascular - Arterial Disease
Acute Arterial Thrombosis
Acute Limb Ischemia
Aortic Thrombosis
Aortoiliac Disease
Cerebrovascular Disease
Compartment Syndromes
Diabetic Foot Infections
Peripheral Arterial Emboli
Peripheral Vascular Disease and Claudication

Vascular - Venous
Thrombophlebitis - Acute and Suppurative
Varicose Veins
Venous Stasis/Chronic Venous Insufficiency
Venous Thrombosis/Pulmonary Embolism

Vascular - Access
Vascular Access for Dialysis
Venous Access for Long-Term Therapy

Transplantation
Brain Death
Indications for Transplantation (Kidney, Liver, Pancreas)

Thoracic Surgery
Hemothorax
Pleural Effusion/Empyema
Pneumothorax

Pediatric Surgery
Abdominal Mass
Abdominal Pain - Acute
Gastrointestinal Bleeding - Lower
Hypertrophic Pyloric Stenosis
Inguinal Hernia
Intussusception
Malrotation
Meckel's Diverticulum
Tracheal/Esophageal Foreign Bodies
Umbilical Hernia

Plastic Surgery
Abdominal Wall Reconstruction

Genitourinary
Hydrocele

Gynecology
Ectopic Pregnancy
Ovarian Mass/Cyst - Incidental
Pelvic Inflammatory Disease

Head and Neck
Neck Mass - Evaluation
Upper Airway Obstruction

Nervous System
Pain, Acute - Management
Abdomen - General
Abdominal Pain - Chronic
Ascites - Chylous
Bacterial Peritonitis - Spontaneous
Desmoids/Fibromatoses
Peritoneal Neoplasms - Carcinomatosis
Peritoneal Neoplasms - Pseudomyxoma peritoneii

Abdomen - Biliary
Ampullary Stenosis/Sphincter of Oddi Dysfunction
Bile Duct Neoplasms
Choledochal Cyst
Gallbladder Cancer
Sclerosing Cholangitis

Abdomen - Liver
Budd-Chiari Syndrome
Cirrhosis/Portal Hypertension (Ascites)
Esophageal Varices
Hepatic Neoplasms - Benign
Hepatic Neoplasms - Malignant
Hepatic Neoplasms - Metastatic
Hepatitis - Viral (Occupational Risk)

Abdomen - Pancreas
Pancreas Divisum
Pancreatic Neoplasms - Cystic
Pancreatic Neoplasms - Endocrine
Pancreatic Neoplasms - Exocrine
Pancreatic Neoplasms - Exocrine (Intraductal Papillary Mucinous Neoplasms)
Pancreatitis - Autoimmune
Pancreatitis - Chronic (Including Hereditary Pancreatitis)/Pancreatic Insufficiency
Periampullary Neoplasms - Other

Abdomen - Spleen
Hemolytic Anemias
Hypersplenism - Secondary and Splenomegaly
Idiopathic Thrombocytopenic Purpura
Splenic Cysts and Neoplasms

Alimentary Tract - Esophagus
Esophageal Caustic Ingestion
Esophageal Foreign Bodies
Esophageal Motility Disorders other than Achalasia
Esophageal Neoplasms - Benign
Esophageal Neoplasms - Malignant

Alimentary Tract - Stomach
Gastric Bezoars and Foreign Bodies
Gastroparesis
Morbid Obesity
Postgastrectomy Syndromes

Alimentary Tract - Small Intestine
Enteric Infections and Blind Loop Syndrome
Short Bowel Syndrome

Alimentary Tract - Large Intestine
Appendicitis - Chronic
Constipation - Functional
Irritable Bowel Syndrome

Alimentary Tract - Anorectal
Anal Dysplasia/Sexually Transmitted Diseases
Fecal Incontinence
Pelvic Floor Dysfunction
Rectal Prolapse

Breast
Postmastectomy Reconstruction Options

> Back to TOC
Endocrine
Hyperparathyroidism - Recurrent or Persistent
Hyperparathyroidism - Secondary and Tertiary
Miscellaneous Thyroid Malignant Neoplasms
Multiple Endocrine Neoplasias
Parathyroid Cancer
Thyroiditis

Skin and Soft Tissue
Decubitus Ulcer
Lymphedema/Lymphangitis
Soft Tissue Sarcomas

Trauma
Animal and Insect Bites and Stings
Extremity Fractures and Traumatic Amputations
Head Injury - Penetrating and Closed
Human Bites
Nerve Injury - Neck
Smoke Inhalation Injury and Carbon Monoxide Poisoning
Spine Fracture
Sprains, Strains, and Dislocations
Tracheal and Bronchial Injury
Urethral Injury

Vascular - Arterial Disease
Aortic Dissection
Arterial Aneurysms - Aortic
Arterial Aneurysms - Peripheral
Arterial Aneurysms - Visceral
Carotid Body Tumors
Chronic Visceral Disease
Hypercoagulable Syndromes
Nonatherosclerotic Occlusive Diseases
Renal Artery Disease
Thoracic Outlet Syndrome
Vascular Graft Infections

Transplantation
Donor Selection Criteria
Opportunistic Infections
Organ Preservation
Post-transplant Malignancies

Thoracic Surgery
Chylothorax
Lung Cancer
 Mediastinal Tumors and Cysts
 Mediastinitis
 Metastatic Tumors of the Lung
 Superior Vena Cava Syndrome
 Tracheoesophageal Fistula
 Tracheoinnominate Fistula

Pediatric Surgery
Biliary Atresia
Choledochal Cysts
Congenital Æganglionosis (Hirschsprung’s Disease)
Congenital Diaphragmatic Hernia
Cryptorchidism
Duodenal Atresia/Stenosis
Esophageal Atresia/Tracheoesophageal Fistula
Gastrochisis/Omphalocele
Imperforate Anus
Intestinal Atresia/Mecoonium Ileus
Necrotizing Enterocolitis
Neuroblastoma
Wilms Tumor
Genitourinary
Genitourinary Neoplasms
Obstructive Uropathy and Urolithiasis
Ureteral Injury - Iatrogenic

Gynecology
Endometriosis
Ovarian Neoplasm - Benign and Malignant
Uterine Neoplasms - Benign and Malignant

Head and Neck
Lymphoma/Hodgkin’s Disease
Oral Cavity/Pharynx, Laryngeal, and Salivary Gland Cancer

Nervous System
Pain, Chronic - Management

OPERATIONS/PROCEDURES BY LEVEL

ESSENTIAL–COMMON

<table>
<thead>
<tr>
<th>Abdomen - General</th>
</tr>
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<tbody>
<tr>
<td>Exploratory Laparotomy - Laparoscopic</td>
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<tr>
<td>Exploratory Laparotomy - Open</td>
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<tr>
<td>Peritoneal Dialysis Catheter Insertion</td>
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<tr>
<td>Peritoneal Lesion - Biopsy</td>
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<thead>
<tr>
<th>Abdomen - Hernia</th>
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<tbody>
<tr>
<td>Inguinal and Femoral Hernia - Laparoscopic Repair</td>
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<tr>
<td>Inguinal and Femoral Hernia - Open Repair</td>
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<tr>
<td>Ventral Hernia - Laparoscopic Repair</td>
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<tr>
<td>Ventral Hernia - Open Repair</td>
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<thead>
<tr>
<th>Abdomen - Biliary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cholecystectomy with or without Cholangiography - Laparoscopic</td>
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<tr>
<td>Cholecystectomy with or without Cholangiography - Open</td>
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<table>
<thead>
<tr>
<th>Abdomen - Liver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatic Biopsy - Laparoscopic</td>
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<tr>
<td>Hepatic Biopsy - Open</td>
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<thead>
<tr>
<th>Abdomen - Spleen</th>
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<tbody>
<tr>
<td>Splenectomy - Laparoscopic</td>
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<td>Splenectomy - Open</td>
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<thead>
<tr>
<th>Alimentary Tract - Esophagus</th>
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<tbody>
<tr>
<td>Antireflux Procedure - Laparoscopic</td>
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<thead>
<tr>
<th>Alimentary Tract - Stomach</th>
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<tbody>
<tr>
<td>Gastrostomy - Open</td>
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<tr>
<td>Gastrostomy - Percutaneous Endoscopic</td>
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<thead>
<tr>
<th>Alimentary Tract - Small Intestine</th>
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<tbody>
<tr>
<td>Adhesiolysis - Laparoscopic</td>
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<tr>
<td>Adhesiolysis - Open</td>
</tr>
<tr>
<td>Feeding Jejunostomy - Laparoscopic</td>
</tr>
<tr>
<td>Feeding Jejunostomy - Open</td>
</tr>
<tr>
<td>Ileostomy</td>
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<tr>
<td>Ileostomy Closure</td>
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<tr>
<td>Small Intestinal Resection - Open</td>
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<thead>
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<th>Alimentary Tract - Large Intestine</th>
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<tbody>
<tr>
<td>Appendectomy - Laparoscopic</td>
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<tr>
<td>Appendectomy - Open</td>
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<tr>
<td>Colectomy, Partial - Laparoscopic</td>
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<td>Colectomy, Partial - Open</td>
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<tr>
<td>Colostomy</td>
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<tr>
<td>Colostomy Closure</td>
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<th>Alimentary Tract - Anorectal</th>
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<tbody>
<tr>
<td>Anal Fistulotomy/Seton Placement</td>
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<tr>
<td>Anal Sphincterotomy - Internal</td>
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<tr>
<td>Anorectal Abscess - Drainage</td>
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<tr>
<td>Banding for Internal Hemorrhoids</td>
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<tr>
<td>Hemorrhoidectomy</td>
</tr>
<tr>
<td>Perianal Condylomas - Excision</td>
</tr>
</tbody>
</table>
ESSENTIAL—COMMON (CONT.)

**Endoscopy**
- Bronchoalveolar Lavage
- Bronchoscopy
- Colonoscopy
- Esophagogastroduodenoscopy
- Laryngoscopy
- Proctoscopy

**Breast**
- Axillary Lymphadenectomy
- Axillary Sentinel Lymph Node Biopsy
- Breast Biopsy with or without Needle Localization
- Breast Cyst - Aspiration
- Duct Excision
- Mastectomy - Modified Radical
- Mastectomy - Partial
- Mastectomy - Simple

**Endocrine**
- Parathyroidectomy
- Thyroidectomy - Partial or Total

**Skin and Soft Tissue**
- Melanoma - Wide Local Excision
- Pilonidal Cystectomy
- Sentinel Lymph Node Biopsy for Melanoma
- Skin/Soft Tissue Lesions - Excisional and Incisional Biopsy
- Soft Tissue Infections - Incision, Drainage, Debridement

**Surgical Critical Care**
- Airway Management/Ventilator Management
- Arterial Catheter Placement
- Central Venous Catheter Placement
- Compartment Pressures (Abdomen, Extremity) - Measurement
- Defibrillation and Cardioversion
- Endotracheal Intubation
- Enteral Feeding Tube Placement
- Oxygen Administration Devices
- Paracentesis
- Pulmonary Artery Catheter Placement
- Thoracentesis
- Ultrasound Use for Intravascular Access
- Urinary Catheterization

**Trauma**
- Focused Abdominal Sonography for Trauma (FAST)
- Gastrointestinal Tract Injury - Operation
- Temporary Closure of the Abdomen
- Wounds, Major - Debride/Suture

**Vascular - Arterial Disease**
- Amputations - Lower Extremity
- Carotid Endarterectomy
- Embolectomy/Thrombectomy - Arterial

**Vascular - Venous**
- Vena Cava Filter - Insertion
- Venous Insufficiency/Varicose Veins - Operation

**Vascular - Access**
- Arteriovenous Graft/Fistula
- Percutaneous Vascular Access
- Venous Access Devices - Insertion

**Thoracic Surgery**
- Chest Tube Placement and Management

**Pediatric Surgery**
- Inguinal Hernia - Repair
- Umbilical Hernia - Repair

**Plastic Surgery**
- Skin Grafting

**Head and Neck**
- Lymph Node Biopsy
- Tracheostomy
Abdomen - General
Intra-abdominal Abscess - Drainage

Abdomen - Hernia
Abdominal Wall Reconstruction - Components Separation
Miscellaneous Hernias - Repair

Abdomen - Biliary
Cholecystostomy
Choledochoenteric Anastomosis
Choledochoscopy
Common Bile Duct Exploration - Open
Gallbladder Cancer, Incidentally Noted - Operation

Abdomen - Liver
Hepatic Abscess - Drainage

Abdomen - Pancreas
Pancreatectomy - Distal
Pancreatic Debridement
Pancreatic Pseudocyst - Drainage

Abdomen - Spleen
Splenectomy/Splenorrhaphy - Partial

Alimentary Tract - Esophagus
Antireflux Procedure - Open
Cricopharyngeal Myotomy with Zenker’s Diverticulum - Excision
Esophageal Perforation - Repair/Resection
Paraesophageal Hernia - Laparoscopic Repair
Paraesophageal Hernia - Open Repair

Alimentary Tract - Stomach
Duodenal Perforation - Repair
Gastrectomy - Partial/Total
Vagotomy and Drainage

Alimentary Tract - Small Intestine
Small Intestinal Resection - Laparoscopic
Superior Mesenteric Artery Embolectomy/Thrombectomy

Alimentary Tract - Large Intestine
Colectomy - Subtotal (with Ileorectal Anastomosis/Ileostomy)

Alimentary Tract - Anorectal
Anal Cancer - Excision
Rectal Prolapse - Repair

Breast
Mastectomy - Radical

Endocrine
Ultrasound of the Thyroid

Trauma
Abdominal Aorta or Vena Cava Injury - Repair
Bladder Injury - Repair
Cardiac Injury - Repair
Carotid Artery Injury - Repair
Duodenal Trauma - Management
Esophageal Injury - Operation
Exploratory Laparoscopy
Exploratory Laparotomy
Fasciotomy for Injury
Hepatic Injury - Packing and Repair
Neck Exploration for Injury
Pancreatic Injury - Operation
Renal Injury - Repair/Resection
Splenectomy/Splenorrhaphy
Thoracoscopy for Management of Hemothorax
Truncal and Peripheral Vessels - Repair
Ureteral Injury - Repair

Vascular - Arterial Disease
Abdominal Aortic Aneurysm - Endovascular/Open Repair
Aortofemoral Bypass
Extra-anatomic Bypass
Femoral-popliteal Bypass
Infrapopliteal Bypass
ESSENTIAL – UNCOMMON (CONT.)

Vascular - Venous
Sclerotherapy - Peripheral Vein

Thoracic Surgery
Exploratory Thoracotomy - Open and Thoracoscopic
Partial Pulmonary Resection - Open and Thoracoscopic
Pericardial Window for Drainage

Pediatric Surgery
Intussusception - Operation
Malrotation - Operation
Meckel's Diverticulum - Excision
Pyloromyotomy

Plastic Surgery
Complex Wound Closure

Genitourinary
Cystostomy
Hydrocelectomy
Nephrectomy
Orchietomy
Ureteral Injury, Iatrogenic - Repair

Gynecology
Hysterectomy
Salpingo-Oophorectomy

Head and Neck
Cricothyroidotomy

Nervous System
Nerve Block - Digital
Nerve Block - Intercostal

COMPLEX

Abdomen - General
Pseudomyxoma - Operation
Retroperitoneal Lymph Node Dissection - Laparoscopic
Retroperitoneal Lymph Node Dissection - Open

Abdomen - Hernia
Diaphragmatic Hernia - Repair

Abdomen - Biliary
Bile Duct Cancer - Operation
Bile Duct Injury - Acute Repair
Bile Duct Neoplasms - Operation
Common Bile Duct Exploration - Laparoscopic
Gallbladder Cancer - Operation, Planned
Transduodenal Sphincteroplasty
Ultrasound of the Biliary Tree

Abdomen - Liver
Hepatic Ultrasound - Intraoperative
Portal-Systemic Shunt
Segmentectomy/Lobectomy - Laparoscopic
Segmentectomy/Lobectomy - Open

Abdomen - Pancreas
Ampullary Resection for Tumor
Pancreatectomy - Frey and Beger Procedures
Pancreatectomy - Total
Pancreatic Ultrasound - Intraoperative
Pancreaticoduodenectomy
Pancreaticojejunostomy - Longitudinal

Alimentary Tract - Esophagus
Esophagectomy/Esophagogastrectomy
Esophagomyotomy (Heller)

Alimentary Tract - Stomach
Morbid Obesity - Operation
Postgastrectomy Syndromes - Revisional Procedures
**Alimentary Tract - Small Intestine**
Stricturoplasty for Crohn’s Disease

**Alimentary Tract - Large Intestine**
Coloproctectomy - Total (with Ileorectal Pull-Through)

**Alimentary Tract - Anorectal**
Anorectal Fistulae - Complex Repair
Hemorrhoidectomy - Stapled
Incontinence/Constipation - Operation
Rectal Cancer - Abdominoperineal Resection and Pelvic Exenteration
Rectal Cancer - Transanal Resection

**Endoscopy**
ERCP

**Breast**
Breast Biopsy - Image-Guided

**Endocrine**
Adrenalectomy

**Skin and Soft Tissue**
Ilioinguinal - Femoral Lymphadenectomy
Soft Tissue Sarcoma - Resection

**Surgical Critical Care**
Cardiac Pacing
Transvenous Temporary Pacemaker

**Trauma**
Burn Debridement and Grafting of Major Burns
Hepatic Injury - Resection
Tendon - Repair

**Vascular - Arterial Disease**
Arterial Occlusive Disease - Endarterectomy
Endovascular - Therapeutic, Including Thrombolysis
Femoral Aneurysm - Repair
Graft-enteric Fistula - Management
Infrarenal and Aortoiliac Aneurysm - Repair
Popliteal Aneurysm - Repair
Pseudoaneurysm - Repair
Suprarenal Abdominal Aortic Aneurysm - Repair
Ultrasound in Diagnosis of Vascular Diseases
Visceral Occlusive Disease - Operation

**Transplantation**
En Bloc Abdominal Organ Retrieval
Live Donor Hepatectomy
Live Donor Nephrectomy
Liver Transplant
Pancreas Transplant
Renal Transplant
Renal-Pancreas Transplant

**Thoracic Surgery**
Empyema - Management
Pleurodesis

**Pediatric Surgery**
Antireflux Procedure
Branchial Cleft Anomaly - Excision
Chest Wall Deformity - Repair
Diaphragmatic Hernia - Repair
Esophageal Atresia/Tracheoesophageal Fistula - Repair
Hirschsprung’s Disease - Operation
Imperforate Anus - Operation
Intestinal Atresia/Stenosis - Repair
Meconium Ileus - Operation
Necrotizing Enterocolitis - Operation
Omphalocele/Gastrochisis - Repair
Orchiopexy
Thyroglossal Duct Cyst - Excision
Wilms Tumor/Neuroblastoma - Excision
Gynecology
Cesarean Section

Head and Neck
Modified Neck Dissection
Parotidectomy

Nervous System
Nerve Block(s) - Peripheral other than Digital
Category 1: Anesthesia

• Anesthesia, General - Agents and Techniques
• Anesthesia, Regional and Local - Agents and Techniques
• Choice of Anesthesia
• Conscious Sedation - Agents and Techniques
• Intraoperative Monitoring and Common Intraoperative Problems
• Postoperative Pain Management

Category 2: Biostatistics and Evaluation of Evidence

• Clinical Trials
• Evaluating the Quality and Applicability of a Study
• How Data is Expressed and Summarized
• Levels of Evidence
• Outcomes
• Research Design
• Surveys and Qualitative Research
• Tests of Significance

Category 3: Fluids, Electrolytes and Acid-Base Balance

• Body Fluid Compartments and Fluid Homeostasis
• Hypocalcemia and Hypercalcemia
• Hypokalemia and Hyperkalemia
• Hyponatremia and Hypernatremia
• Magnesium and Phosphorous Disorders
• Maintenance Fluid and Electrolyte Therapy
• Normal Acid-Base Regulation and Acid-Base Disorders
Category 4: Geriatric Surgery and End-of-Life Care

- Advanced Directives, DNR Orders, and Power of Attorney
- Functional Decline of Aging
- Goal Setting with Elderly Patients and Families
- Medication and Dosing Issues in the Elderly
- Natural and Clinical Impact of Physiologic Effects Associated with Aging
- Palliative and Hospice Care
- Postoperative Delirium
- Preoperative Evaluation of Geriatric Patients

Category 5: Immunology

- Components of the Immune System
- Immune Response to Injury and Infection
- Surgery and Surgical Conditions in Immuno-compromised Hosts
- Transplant Immunology

Category 6: Infection and Antimicrobial Therapy

- Healthcare-Acquired Infections
- Host Defense and Infection
- Infection Control – Avoiding Risk to Self and Others
- Infections – Bacterial, Common
- Infections – Diagnostic Approach
- Infections – Fungal, Common
- Infections – Viral, Common
- Pathophysiology of Sepsis
- Principles of Antimicrobial Resistance
- Sepsis/SIRS Syndrome
- Surgical Site Infections and Prophylaxis
Category 7: Minimally Invasive Surgery – Principles

• MIS Equipment and Troubleshooting
• Physiologic Changes Associated with Pneumoperitoneum
• Principles and Techniques of Abdominal Access
• Robotic Surgery – Principles

Category 8: Nutrition and Metabolism

• Effect of Surgery, Illness, and Injury on Nutritional Requirements
• Nutrition, Enteral – Technique
• Nutrition, Parenteral – Technique
• Nutritional Assessment, Indications, and Choice of Route for Nutritional Support
• Nutritional Pharmacology and Immunonutrition
• Nutritional Requirements
• Nutritional Support – Long-Term

Category 9: Oncology and Tumor Biology

• Chemotherapy - Principles
• Epidemiology
• Genetic Susceptibility
• Immunology
• Molecular Biology
• Radiation Therapy - Principles
• Screening and Biomarkers

Category 10: Pharmacology

• Adverse Effects of Drugs Commonly Used in Surgical Patients
• Principles of Pharmacokinetics, Pharmacodynamics, and Monitoring of Drug Levels
Category 11: Preoperative Evaluation and Perioperative Care

• Common Postoperative Problems
• Evaluation of Surgical Risk
• Perioperative Management of the Patient on Steroids
• Perioperative Management of the Therapeutically Anticoagulated Patient
• Perioperative Prophylaxis for Venous Thromboembolism
• Preoperative Assessment and Management of Cardiac Risk
• Preoperative Assessment and Management of Coexisting Infection
• Preoperative Assessment and Management of Pulmonary Risk

Category 12: Transfusion and Disorders of Coagulation

• Evaluation of Ongoing Bleeding and Laboratory Assessment of Coagulation
• Inherited and Acquired Disorders of Coagulation
• Normal Mechanisms of Hemostasis and Coagulation
• Transfusion – Indications, Risks, Type and Crossmatch, and Component Therapy

Category 13: Wound Healing

• Disturbances of Wound Healing and Chronic Wounds
• Physiology of Normal Wound Healing
• Wound Care – Adjunctive
• Wound Care – Postoperative
• Wound Closure
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