



# *Curriculum Outline*

*for*

*General Surgery  
Residency*

**2013–2014**

SURGICAL COUNCIL ON  
RESIDENT EDUCATION

***[www.surgicalcore.org](http://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<sup>®</sup> 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](http://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.

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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

# PATIENT CARE CURRICULUM OUTLINE

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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](http://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](http://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.

## **Category 1: Abdomen – General**

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### **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 peritonei

### **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

## Category 3: Abdomen – Biliary

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### 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

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### **COMPLEX** (CONT.)

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

## Category 4: Abdomen – Liver

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### 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

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### 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
- Periapillary 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

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### 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

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### 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

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### 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

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### 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**

- Stricturoplasty for Crohn's Disease

## Category 10: Alimentary Tract – Large Intestine

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### 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

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### Operations/Procedures

#### ***ESSENTIAL — COMMON***

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

#### ***COMPLEX***

- ERCP

## Category 13: Breast

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### 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

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### 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

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## 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**

- Iliioinguinal - Femoral Lymphadenectomy
- Soft Tissue Sarcoma - Resection

# Category 16: Surgical Critical Care

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## Diseases/Conditions

### **BROAD**

- Abdominal Compartment Syndrome
- Anaphylaxis
- Cardiac Arrhythmias - 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

# Category 17: Trauma

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## 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

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### **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
- Thoracoscopy for Management of Hemothorax
- Truncal and Peripheral Vessels - Repair
- Ureteral Injury - Repair

(continued next page)

## Category 17: Trauma

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### *COMPLEX*

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

# Category 18: Vascular – Arterial Disease

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## 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**

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### **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**

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### **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

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### 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
- Gastroschisis/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

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## Category 23: Pediatric Surgery

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### **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

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### **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  
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**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  
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

**Endocrine**

Addisonian Crisis  
Adrenal Cancer  
Adrenal Mass  
Hyperaldosteronism - Primary  
Hypercortisolism - Cushing Syndrome/Disease  
Hyperparathyroidism - Primary  
Hyperthyroidism  
Hypothyroidism - Postoperative

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**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 Shock

**Trauma**

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  
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**Trauma (cont.)**

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

**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/Emphyema  
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 peritonei

### **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

**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 Aganglionosis (Hirschsprung's Disease)  
Congenital Diaphragmatic Hernia  
Cryptorchidism  
Duodenal Atresia/Stenosis  
Esophageal Atresia/Tracheoesophageal Fistula  
Gastroschisis/Omphalocele  
Imperforate Anus  
Intestinal Atresia/Meconium 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**

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**Abdomen - General**

Exploratory Laparotomy - Laparoscopic  
Exploratory Laparotomy - Open  
Peritoneal Dialysis Catheter Insertion  
Peritoneal Lesion - Biopsy

**Abdomen - Hernia**

Inguinal and Femoral Hernia - Laparoscopic Repair  
Inguinal and Femoral Hernia - Open Repair  
Ventral Hernia - Laparoscopic Repair  
Ventral Hernia - Open Repair

**Abdomen - Biliary**

Cholecystectomy with or without Cholangiography - Laparoscopic  
Cholecystectomy with or without Cholangiography - Open

**Abdomen - Liver**

Hepatic Biopsy - Laparoscopic  
Hepatic Biopsy - Open

**Abdomen - Spleen**

Splenectomy - Laparoscopic  
Splenectomy - Open

**Alimentary Tract - Esophagus**

Antireflux Procedure - Laparoscopic

**Alimentary Tract - Stomach**

Gastrostomy - Open  
Gastrostomy - Percutaneous Endoscopic

**Alimentary Tract - Small Intestine**

Adhesiolysis - Laparoscopic  
Adhesiolysis - Open  
Feeding Jejunostomy - Laparoscopic  
Feeding Jejunostomy - Open  
Ileostomy  
Ileostomy Closure  
Small Intestinal Resection - Open

**Alimentary Tract - Large Intestine**

Appendectomy - Laparoscopic  
Appendectomy - Open  
Colectomy, Partial - Laparoscopic  
Colectomy, Partial - Open  
Colostomy  
Colostomy Closure

**Alimentary Tract - Anorectal**

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

**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 Caval 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

### **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

Orchiectomy

Ureteral Injury, Iatrogenic - Repair

### **Gynecology**

Hysterectomy

Salpingo-Oophorectomy

### **Head and Neck**

Cricothyroidotomy

### **Nervous System**

Nerve Block - Digital

Nerve Block - Intercostal

## **COMPLEX**

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### **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**

Strictureplasty 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/Gastroschisis - 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**

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- 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**

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- 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**

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- 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**

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- 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**

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- 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**

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- 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**

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

## **Category 8: Nutrition and Metabolism**

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- 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**

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

## **Category 10: Pharmacology**

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- 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**

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- 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**

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- 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**

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

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