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

This year’s patient care outline consists of 28 organ system-based categories, containing a total of 613 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 and 80 topics.

For this edition, many topics have been condensed and renamed to better reflect the general topic area. In addition, topic names have been reformatted to emphasize the keywords of the description. The topics are also now listed alphabetically within each category level. **The topics listed in this booklet may not directly match those currently on the SCORE Portal** — this booklet is forward-looking, reflecting the latest updates to the curriculum outline.

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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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 at 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 (ABS) began to develop a patient care curriculum by listing the specific patient care competencies they 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 (APDS), as well as many specialty surgical societies.

The patient care competency was chosen as the subject for initial curriculum development because many felt this area was the most in need of definition and attention. The first SCORE Curriculum Outline was published in 2008; it has subsequently been revised annually. An outline of topics for the medical knowledge competency was added for the 2010-2011 edition, with the other four ACGME competences to 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. The medical knowledge topics are organized into 13 separate subject matter categories.

This outline has been approved as the basis for full curriculum development by the ABS and SCORE. 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 General Surgery Resident Curriculum Portal (SCORE Portal) 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 more to come. Each module 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. In 2013, the SCORE Portal will be moving to a new learning management system with greater search and customization features, as well as additional content. For more information about the SCORE Portal, 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.
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 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
Category 3: Abdomen – Biliary

Diseases/Conditions

BROAD

• Bile Duct Injury - Iatrogenic
• Cholangitis
• 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
• Incidental Bile Duct Injury - Treatment

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
Category 4: Abdomen – Liver

Diseases/Conditions

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

**FOCUSED**
- Budd-Chiari Syndrome
- Cirrhosis/Portal Hypertension (Ascites)
- Esophageal Varices
- Hepatic Failure and Hepatorenal Syndrome
- 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/Absscess

FOCUSED

• Pancreas Divisum
• Pancreatic Neoplasms - Cystic
• Pancreatic Neoplasms - Endocrine
• Pancreatic Neoplasms - Exocrine
• Pancreatic Neoplasms - Exocrine (Intraductal Papillary Mucinous Neoplasms)
• Pancreatic Neoplasms - Lymphoma
• 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/Eosophagogastrectomy
- Esophagomyotomy (Heller) - Laparoscopic
- Esophagomyotomy (Heller) - Open
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
- Truncal Vagotomy and Drainage

COMPLEX
- Morbid Obesity - Operation
- Postgastrectomy Syndromes - Revisional Procedures
- Proximal Gastric Vagotomy
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**
- Stricturoplasty for Crohn’s Disease
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
- Rectal Cancer - 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

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 Arrythmias - Common
- Cardiac Failure
- Cardiogenic Shock
- Coagulopathy
- Derangements of Electrolytes and Acid-Base Balance
- Endocrine Dysfunction
- Gastrointestinal Failure
- Hepatic Failure
- 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
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
- Renal Injury - Repair/Resection
- Neck Exploration for Injury
- Pancreatic Injury - Operation
- Splenectomy/Splenorrhaphy
- Thoracoscopic for Management of Hemothorax

(continued next page)
Category 17: Trauma

**COMPLEX**

- Burn Debridement and Grafting of Major Burns
- Hepatic Injury - Resection
- Intracranial Pressure Monitor - Placement
- Pancreatic Injury - Resection
- Tendon - Repair
- Thoracic Aorta, Innominate, Subclavian Injury - 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
• Miscellaneous Arterial Occlusive Diseases
• Renal Artery Disease
• Thoracic Outlet Syndrome
• Upper Extremity Disease
• Vascular Graft Infections

Operations/Procedures

ESSENTIAL — COMMON
• Amputations - Lower Extremity
• Carotid Endarterectomy
• Embolectomy/Thrombectomy - Arterial

ESSENTIAL — UNCOMMON
• Abdominal Aortic Aneurysm - Endovascular/Open Repair
• Aorto-femoral Bypass
• Femoral-femoral Bypass
• Femoral-popliteal Bypass
• Infrapopliteal Bypass

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Category 18: Vascular – Arterial Disease

COMPLEX
- Amputation - Transmetatarsal
- Amputation - Upper Extremity
- Arteriovenous Malformation - Repair
- Axillo-femoral Bypass
- Carotid Body Tumor - Excision
- Celiac/Superior Mesenteric Bypass/Endarterectomy
- Endovascular - Thrombolysis
- Endovascular Treatment of Arterial Disease
- Femoral Aneurysm - Repair
- Graft Thrombectomy/Revision
- Graft-enteric Fistula - Management
- Infrarenal Aortoiliac Aneurysm - Repair
- Other Endarterectomy
- Popliteal Aneurysm - Repair
- Profunda Endarterectomy
- Pseudoaneurysm Repair/Injection
- Renal Endarterectomy/Bypass
- Revise/Re-do Lower Extremity Bypass
- Suprarenal Abdominal Aortic Aneurysm - Repair
- Thoracic Outlet Decompression
- Vascular Ultrasound Evaluation
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

COMPLEX
- Non-reconstructive Venous Ulcer Operation
- Venous Embolectomy/Thrombectomy
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
- Immunosuppression
- 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
- Pericarditis
- Superior Vena Cava Syndrome
- Tracheoesophageal Fistula
- Tracheoinnominate Fistula

Operations/Procedures

ESSENTIAL — COMMON

- Chest Tube Placement and Management

ESSENTIAL — UNCOMMON

- Exploratory Thoracotomy - Open and Thorascopic
- Partial Pulmonary Resection - Open and Thorascopic
- Pericardial Window for Drainage

COMPLEX

- Diaphragmatic Hernia - Transthoracic Repair
- Empyema - Open Drainage
- Esophagomyotomy (Heller) - Thorascopic/Transthoracic
- Mediastinal Tumor or Cyst - Excision
- Pacemaker Insertion
- Pericardiectomy
- Pleurodesis
- Pneumonectomy
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

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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/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

FOCUSED
• Panniculectomy
• Postmastectomy Reconstruction

Operations/Procedures

ESSENTIAL – COMMON
• Skin Grafting

COMPLEX
• Composite Tissue Transfer
• Scars and Resultant Deformities - Revision
Category 25: Genitourinary

Diseases/Conditions

BROAD

• Hydrocele

FOCUSED

• Bladder Cancer
• Obstructive Uropathy
• Renal Cancer
• Testicular Cancer
• Ureteral Cancer
• Ureteral Injury - iatrogenic
• Urolithiasis

Operations/Procedures

ESSENTIAL – UNCOMMON

• Cystostomy
• Hydrocelectomy
• Nephrectomy
• Orchiectomy
• Ureteral Injury, iatrogenic - Repair

COMPLEX

• Cystectomy
• Urinary Conduit - Ileal
**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**
- Caesarian Section
- Rectocoele - Repair
Category 27: Head and Neck

Diseases/Conditions

BROAD
• Neck Mass - Evaluation
• Upper Airway Obstruction

FOCUSED
• Laryngeal Cancer
• Oral Cavity/Pharynx Cancer
• Salivary Gland Tumors

Operations/Procedures

ESSENTIAL — COMMON
• Lymph Node Biopsy
• Tracheostomy

ESSENTIAL — UNCOMMON
• Cricothyroidotomy

COMPLEX
• Lip/Tongue Lesions - Resection
• 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

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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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**BROAD (CONT.)**

**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
- Nevus
- 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
- 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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BROAD (cont.)

Trauma (cont.)
- Pulmonary Contusion
- Pulmonary Laceration
- Renal Injury
- Retroperitoneal Hematoma
- Rib Fractures
- Small Intestinal Injury
- Splenic Injury
- Sternal Fractures
- Stomach - Injury
- 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
FOCUSED

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 Failure and Hepatorenal Syndrome
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)
Pancreatic Neoplasms - Lymphoma
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
FOCUSED (cont.)

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
Miscellaneous Arterial Occlusive Diseases
Renal Artery Disease
Thoracic Outlet Syndrome
Upper Extremity Disease
Vascular Graft Infections

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

Thoracic Surgery
Chylothorax
Congestive Heart Failure
Lung Cancer
Mediastinal Tumors and Cysts
 Mediastinitis
Metastatic Tumors of the Lung
Pericarditis
Soft Tissue Sarcomas - Chest Wall
Superior Vena Cava Syndrome
Tracheoesophageal Fistula
Tracheoinnominate Fistula
Valvular Heart Disease

Pediatric Surgery
Biliary Atresia
Choledochal Cysts
Congenital Aganglionosis (Hirschsprung's disease)
Congenital Diaphragmatic Hernia
Cryptorchidism
Duodenal Atresia/Stenosis
Esophageal Atresia/Tracheoesophageal Fistula
Gastrochisis/Omphalocele
Imperforate Anus
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FOCUSED (CONT.)

**Pediatric Surgery (cont.)**
- Intestinal Atresia/Meconium Ileus
- Necrotizing Enterocolitis
- Neuroblastoma
- Wilms Tumor

**Plastic Surgery**
- Panniculectomy
- Postmastectomy Reconstruction

**Genitourinary**
- Bladder Cancer
- Obstructive Uropathy
- Renal Cancer
- Testicular Cancer
- Ureteral Cancer
- Ureteral Injury - Iatrogenic
- Urolithiasis

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

**Head and Neck**
- Epistaxis
- Laryngeal Cancer
- Oral Cavity/Pharynx Cancer
- Salivary Gland Tumors

**Nervous System**
- Pain, Chronic - Management

**OPERATIONS/PROCEDURES BY LEVEL**

**ESSENTIAL — COMMON**

**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
ESSENTIAL — COMMON (CONT.)

**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 Sentinel Lymph Node Biopsy
- Axillary Lymphadenectomy
- 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
**ESSENTIAL — COMMON (CONT.)**

**Vascular - Venous**  
Venacaval Filter - Insertion  
Venous Insufficiency/Varicose Veins - Operation

**Vascular - Access**  
Arteriovenous Access - Revision  
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

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**ESSENTIAL — UNCOMMON**

**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  
Incidental Bile Duct Injury - Treatment

**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  
Truncal 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
ESSENTIAL — UNCOMMON (CONT.)

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
Renal Injury - Repair/Resection
Neck Exploration for Injury
Pancreatic Injury - Operation
Splenectomy/Splenorrhaphy
Thoracoscopy for Management of Hemothorax
Truncal and Peripheral Vessels - Repair
Ureteral Injury - Repair
Vascular - Arterial Disease
Abdominal Aortic Aneurysm - Endovascular/Open Repair
Aorto-femoral Bypass
Femoral-femoral Bypass
Femoral-popliteal Bypass
Infrapopliteal Bypass
Vascular - Venous
Sclerotherapy - Peripheral Vein
Thoracic Surgery
Exploratory Thoracotomy - Open
Exploratory Thoracotomy - Thoracoscopic
Partial Pulmonary Resection - Open and Thoracoscopic
Pericardial Window for Drainage
Pediatric Surgery
Intussusception - Operation
Malrotation - Operation
Meckel's Diverticulum - Excision
Pyloromyotomy
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

Abdomen - General
Pseudomyxoma - Operation
Retroperitoneal Lymph Node Dissection - Laparoscopic
Retroperitoneal Lymph Node Dissection - Open
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
Pancreatoduodenectomy
Pancreaticojejunostomy - Longitudinal

Alimentary Tract - Esophagus
Esophagectomy/Esophagogastrectomy
Esophagomyotomy (Heller) - Laparoscopic
Esophagomyotomy (Heller) - Open

Alimentary Tract - Stomach
Morbid Obesity - Operation
Postgastrectomy Syndromes - Revisional Procedures
Proximal Gastric Vagotomy

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
Rectal Cancer - 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

Trauma
Burn Debridement and Grafting of Major Burns
Hepatic Injury - Resection
Intracranial Pressure Monitor - Placement
Pancreatic Injury - Resection
Tendon - Repair
Thoracic Aorta, Innominate, Subclavian Injury - Repair

Vascular - Arterial Disease
Amputation - Transmetatarsal
Amputation - Upper Extremity
Arteriovenous Malformation - Repair
Axillo-femoral Bypass
Carotid Body Tumor - Excision
Celiac/Superior Mesenteric Bypass/Endarterectomy
Endovascular - Thrombolysis
Endovascular Treatment of Arterial Disease
Femoral Aneurysm - Repair
Graft Thrombectomy/Revision
Graft-enteric Fistula - Management

(continued next page)
Vascular - Arterial Disease (cont.)
Infrarenal Aortoiliac Aneurysm - Repair
Other Endarterectomy
Popliteal Aneurysm - Repair
Profunda Endarterectomy
Pseudoaneurysm Repair/Injection
Renal Endarterectomy/Bypass
Revise/Re-do Lower Extremity Bypass
Suprarenal Abdominal Aortic Aneurysm - Repair
Thoracic Outlet Decompression
Vascular Ultrasound Evaluation

Vascular - Venous
Non-reconstructive Venous Ulcer Operation
Venous Embolectomy/Thrombectomy

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

Thoracic Surgery
Diaphragmatic Hernia - Transthoracic Repair
Empyema - Open Drainage
Esophagomyotomy (Heller) - Thoracoscopic/Transthoracic
Mediastinal Tumor or Cyst - Excision
Pacemaker Insertion
Pericardiectomy
Pleurodesis
Pneumonectomy

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/Necrotizing Enterocolitis - Operation
Omphalocele/Gastroschisis - Repair
Orchiopexy
Thyroglossal Duct Cyst - Excision
Wilms Tumor/Neuroblastoma - Excision

Plastic Surgery
Composite Tissue Transfer
Major Reconstructive Procedures
Scars and Resultant Deformities - Revision

Genitourinary
Cystectomy
Urinary Conduit - Ileal

Gynecology
Caesarian Section
Rectocele - Repair

Head and Neck
Lip/Tongue Lesions - Resection
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
- 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 Cross-match, 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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