THE AMERICAN BOARD OF SURGERY

PEDIATRIC SURGERY ENTRUSTABLE PROFESSIONAL ACTIVITIES CLINICAL COMPETENCY COMMITTEE GUIDE

Last updated October 2025

This document is intended to be a resource for pediatric surgery program Clinical Competency Committees (CCCs) to utilize when reviewing trainee performance with the aid of Entrustable Professional Activities (EPAs) data. Each EPA phase of care has been linked to the related ACGME Surgery Milestones and can be found in the included tables.

MILESTONE KEY:
PC - Patient Care
MK - Medical Knowledge
SBP - Systems-Based Practice
PBLI - Practice-Based Learning and Improvement
PROF - Professionalism
ICS - Interpersonal and Communication Skills

For a listing of ACGME surgery milestones, please see this document. (https://www.acgme.org/globalassets/pdfs/milestones/pediatricsurgerymilestones.pdf)

CCC Guide
Evaluation and Management of a Patient with an Anorectal Malformation

Description of the Activity:

Pediatric surgeons must be able to evaluate and manage pediatric patients with an anorectal malformation (ARM), from prenatal counseling to reconstructive procedures, to adolescence, in a variety of practice settings. The key features of ARM include:

- A spectrum of anomalies with multiple subtypes ranging from mild to severe, depending on the specific nature of the malformation
  - Some cases may involve only minor abnormalities that can be corrected with relatively simple surgical procedures, while others may require more complex surgical interventions
- Abnormalities in the genitourinary tract, such as the urinary and reproductive organs
- Associated conditions, such as VACTERL (vertebral defects, anal atresia, cardiac defects, tracheoesophageal fistula, renal anomalies, and limb abnormalities

The prognosis and long-term outcomes for pediatric patients with ARM depend on the severity of the malformation, the success of surgical interventions, and the presence of any associated conditions. Early detection and intervention are crucial for optimizing outcomes and improving the quality of life for affected individuals.

In Scope:

Diagnoses:
- Male and female:
  - Low and high ARMs
- Gender nonspecific:
  - Rectoperineal
  - Without fistula
- Male:
  - Bladder neck
  - Rectourethral (bulbar/prostatic)
- Female:
  - Cloaca (short/long)
  - Cloacal exstrophy
  - Rectovestibular

Procedures:
- Anoplasty
- Antegrade continence enema
- Cloacal repair
- Diverting colostomy
- Laparoscopic-assisted anorectal pull-through
- PSARP/anterior sagittal anorectoplasty

Special populations:
- Currarino syndrome
- VACTERL (complex decision-making)

Out of scope:

Diagnoses/procedures:
- Bladder exstrophy
- Disorder of sexual development
- Fissures
- Fistula-in-ano
- Hemorrhoids
- Pilonidal disease
- Prolapse

Level	Nonoperative /Preoperative	Intraoperative	Postoperative
1 Limited Participation	PC1 L1 MK1 L1 ICS1 L1 ICS2 L1	PC5 L1 PC7 L1 PC8 L1 MK1 L1	PC1 L1 PC9 L1 ICS1 L1 ICS2 L1
2 Direct Supervision	PC1 L2 MK1 L2 ICS1 L2 ICS2 L2	PC5 L2 PC7 L2 PC8 L2 MK1 L2	PC1 L2 PC9 L2 ICS1 L2 ICS2 L2
3 Indirect Supervision	PC1 L3 MK1 L3 ICS1 L3 ICS2 L3	PC5 L3 PC7 L3 PC8 L3 MK1 L3	PC1 L3 PC9 L3 ICS1 L3 ICS2 L3
4 Practice Ready	PC1 L4 MK1 L4 ICS1 L4 ICS2 L4	PC5 L4 PC7 L4 PC8 L4 MK1 L4	PC1 L4 PC9 L4 ICS1 L4 ICS2 L4

Description of the Activity:

Abdominal wall defects are a common congenital anomaly treated by pediatric surgeons that almost always require surgical repair either in the urgent setting immediately after birth or in a delayed fashion. The essential function of this activity is the definitive diagnosis, workup, and treatment of the spectrum of abdominal wall defects from the prenatal phase of care to long-term follow-up.

In scope:

Diagnoses:

- Cloacal exstrophy
- GS
- Omphalocele

Procedures:

- GS – silo followed by repair
- Omphalocele – epithelization of the sac with delayed repair
- Initial operative management of cloacal exstrophy
- Primary suture closure
- Sutureless closure
- Staged repair

Special populations:

- OEIS complex
- Pentalogy of Cantrell

Out of scope:

None

Level	Nonoperative /Preoperative	Intraoperative	Postoperative
1 Limited Participation	PC1 L1 MK1 L1 MK2 L1 ICS1 L1 ICS2 L1	PC5 L1 PC8 L1 MK1 L1	PC9 L1 MK2 L1 ICS1 L1 ICS2 L1
2 Direct Supervision	PC1 L2 MK1 L2 MK2 L2 ICS1 L2 ICS2 L1	PC5 L2 PC8 L2 MK1 L2	PC9 L2 MK2 L2 ICS1 L2 ICS2 L2
3 Indirect Supervision	PC1 L3 MK1 L3 MK2 L3 ICS1 L3 ICS2 L3	PC5 L3 PC8 L3 MK1 L3	PC9 L3 MK2 L3 ICS1 L3 ICS2 L3
4 Practice Ready	PC1 L4 MK1 L4 MK2 L4 ICS1 L4 ICS2 L4	PC5 L4 PC8 L4 MK1 L4	PC9 L4 MK2 L4 ICS1 L4 ICS2 L4

Description of the Activity:

Obesity is a common condition affecting at least 14.5 million children in the United States. It is encountered by pediatric surgeons in elective and emergent care settings when treating a myriad of pediatric surgical conditions. It is now so common that pediatric bariatric surgery has become a mainstay of severe obesity treatment in childhood. The essential function of this activity is the definitive treatment of severe obesity in childhood and the recognition of how obesity affects the care of children with other pediatric surgical conditions.

In scope:

Diagnoses:
- Hypothalamic obesity
- Monogenic obesity
- Polygenic obesity
- Syndromic obesity

Procedures
- Laparoscopic Roux-en-Y gastric bypass
- Laparoscopic sleeve gastrectomy
- Special considerations in general surgery procedures commonly performed in patients with obesity (eg, appendectomy, cholecystectomy)

Special populations
- Autism spectrum disorders associated with obesity

Out of scope:

Diagnoses/procedures:

- Adult patients
- Endoscopic therapies or other devices not approved in patients under 18
- Revisional surgery
- Single anastomosis duodenal-ileal bypass (with or without sleeve gastrectomy), biliopancreatic diversion/duodenal switch, and other malabsorptive procedures not currently used in the pediatric population

Level	Nonoperative /Preoperative	Intraoperative	Postoperative
1 Limited Participation	PC1 L1 MK3 L1 ICS1 L1 ICS2 L1 PBLI1 L1	PC3 L1	PC9 L1 PBLI1 L1 ICS1 L1 ICS2 L1
2 Direct Supervision	PC1 L2 MK3 L2 ICS1 L2 ICS2 L2 PBLI1 L2	PC3 L2	PC9 L2 PBLI1 L2 ICS1 L2 ICS2 L2
3 Indirect Supervision	PC1 L3 MK3 L3 ICS1 L3 ICS2 L3 PBLI1 L3	PC3 L3	PC9 L3 PBLI1 L3 ICS1 L3 ICS2 L3
4 Practice Ready	PC1 L4 MK3 L4 ICS1 L4 ICS2 L4 PBLI1 L4	PC3 L4	PC9 L4 PBLI1 L4 ICS1 L4 ICS2 L4

Description of the Activity:

Pediatric surgeons must be able to evaluate and manage common gastrointestinal conditions in children, including pyloric stenosis, intussusception, and gastroesophageal reflux disease (GERD) as a complication of enteral access, regardless of the clinic or resource setting.

In scope:

Diagnoses:

- Congenital neurologic/neuromuscular
- Discussion for nasojejunal tube
- Dysphagia
- Failure to thrive
- Hypertrophic pyloric stenosis
- Ileocolic intussusception
- Indications for gastrostomy in a neonate
- Intussusception
- Pathologic lead point versus viral lymphadenopathy
- Severe reflux/GERD (including discussion for Nissen fundoplication or another surgical choice)
- Small bowel intussusception
- Younger child (< 3 years) versus older child

Procedures:

- Antireflux surgery
- Gastrostomy: laparoscopic, open (tube vs button), laparoscopic-assisted percutaneous endoscopic gastrostomy
- Intussusception: radiologic reduction, laparoscopic versus open, reduction versus resection
- Pyloromyotomy: laparoscopic or open

Special populations:

- GERD/severe reflux
- Long-gap esophageal atresia
- Pathologic lead point: Meckel diverticulum, polyps, Henoch-Schonlein purpura, tumor
- Patients younger than 5 years

Out of scope:

Diagnoses/procedures:

- Need for enteral access in a patient older than 1 year
- Rotational anomalies (see EPA: E&M of a Patient with a Rotational Anomaly)

Level	Nonoperative /Preoperative	Intraoperative	Postoperative
1 Limited Participation	PC1 L1 ICS1 L1	PC2 L1 PC3 L1 PC5 L1	MK3 L1 ICS1 L1 ICS2 L1
2 Direct Supervision	PC1 L2 ICS1 L2	PC2 L2 PC3 L2 PC5 L2	MK3 L2 ICS1 L2 ICS2 L2
3 Indirect Supervision	PC1 L3 ICS1 L3	PC2 L3 PC3 L3 PC5 L3	MK3 L3 ICS1 L3 ICS2 L3
4 Practice Ready	PC1 L4 ICS1 L4	PC2 L4 PC3 L4 PC5 L4	MK3 L4 ICS1 L4 ICS2 L4

Description of the Activity:

Congenital diaphragmatic hernia (CDH) is a cornerstone diagnosis in pediatric surgery. Although rare, it is associated with significant individual and societal costs. The care of a patient with CDH may start with the prenatal diagnosis and continue through adolescence. The essential functions of this activity include prenatal counseling, complex critical care including extracorporeal life support (ECLS), definitive repair, and surveillance. The spectrum of disease includes Morgagni and Bochdalek hernias as well as diaphragmatic eventration.

In scope:

Diagnoses:
- Congenital diaphragmatic hernia:
  - Bochdalek
  - Morgagni
- Diaphragmatic eventration

Procedures:
- Laparoscopic repair
- Muscle flap
- Open CDH repair +/– mesh
- Thoracoscopic CDH repair +/– mesh

Special populations:
- Prenatal consultation
- Patients needing repair on ECLS

Out of scope:

Diagnoses/procedures:
- Hiatal hernia
- Traumatic diaphragmatic hernia

Level	Nonoperative /Preoperative	Intraoperative	Postoperative
1 Limited Participation	PC1 L1 PC10 L1 MK2 L1 PBLI1 L1 ICS1 L1 ICS2 L1	PC4 L1 PC10 L1	PC1 L1 PC10 L1 ICS1 L1 ICS2 L1 PBLI1 L1
2 Direct Supervision	PC1 L2 PC10 L2 MK2 L2 PBLI1 L2 ICS1 L2 ICS2 L2	PC4 L2 PC10 L2	PC1 L2 PC10 L2 ICS1 L2 ICS2 L2 PBLI1 L2
3 Indirect Supervision	PC1 L3 PC10 L3 MK2 L3 PBLI1 L3 ICS1 L3 ICS2 L3	PC4 L3 PC10 L3	PC1 L3 PC10 L3 ICS1 L3 ICS2 L3 PBLI1 L3
4 Practice Ready	PC1 L4 PC10 L4 MK2 L4 PBLI1 L4 ICS1 L4 ICS2 L4	PC4 L4 PC10 L4	PC1 L4 PC10 L4 ICS1 L4 ICS2 L4 PBLI1 L4

Description of the Activity:

Infants with congenital lung lesions are frequently referred to pediatric general surgeons in the inpatient and outpatient settings. These surgeons should be able to perform and counsel families on fetal risk stratification; diagnose and treat patients with congenital lung lesions; and select the optimal operative treatment, approach, and timing. Patient/family-centered, evidenced-based, and shared decision-making is necessary to ensure optimal outcomes.

In scope:

Diagnoses:
- Bronchogenic cyst
- Bronchopulmonary sequestration
- Congenital lobar emphysema
- Congenital lung lesion
- CPAM

Procedures:
- Open pulmonary lobectomy
- Thoracoscopic nonanatomic resection
- Thoracoscopic pulmonary lobectomy

Special populations:
- Patients with an intra-abdominal pulmonary sequestration
- Neonates
- Fetus

Out of scope:

Diagnoses/procedures:
- Congenital diaphragmatic hernia (see specific EPA)
- Extracorporeal membrane oxygenation (see specific EPA)

Level	Nonoperative /Preoperative	Intraoperative	Postoperative
1 Limited Participation	PC1 L1 PC3 L1 MK1 L1 MK2 L1 ICS1 L1 ICS2 L1	PC3 L1 PC4 L1 ICS2 L1	PC9 L1 ICS2 L1
2 Direct Supervision	PC1 L2 PC3 L3 MK1 L2 MK2 L2 ICS1 L2 ICS2 L2	PC3 L2 PC4 L2 ICS2 L2	PC9 L2 ICS2 L2
3 Indirect Supervision	PC1 L3 PC3 L3 MK1 L3 MK2 L3 ICS1 L3 ICS2 L3	PC3 L3 PC4 L3 ICS2 L3	PC9 L3 ICS2 L3
4 Practice Ready	PC1 L4 PC3 L4 MK1 L4 MK2 L4 ICS1 L4 ICS2 L4	PC3 L4 PC4 L4 ICS2 L4	PC9 L4 ICS2 L4

Description of the Activity:

Extracorporeal life support (ECLS) is necessary in reversible conditions when additional pulmonary or cardiac support is required. A pediatric surgeon is expected to have expertise in indications and contraindications for ECLS; techniques for cannulation; strategies for anticoagulation, especially during procedures; prevention and management of complications; and readiness for decannulation.

In scope:

Diagnoses:
- All diagnoses that require ECLS support (sepsis, congenital diaphragmatic hernia, meconium aspiration, burns, acute respiratory distress syndrome/respiratory failure)

Procedures:
- Distal perfusion cannula
- Ultrasound/fluoroscopic guidance
- Veno-venous and veno-arterial (neck, femoral)

Special populations
- Neonates
- Adolescents
- Extracorporeal cardiopulmonary resuscitation (ECPR)

Out of scope:

Diagnoses/procedures:
- Central cannulation
- Congenital cardiac disease

Level	Nonoperative /Preoperative	Intraoperative	Postoperative
1 Limited Participation	PC1 L1 PC10 L1 P1 L1 ICS2 L1	PC7 L1 PBLI1 L1 ICS2 L1	PC10 L1 P1 L1 ICS2 L1
2 Direct Supervision	PC1 L2 PC10 L2 P1 L2 ICS2 L2	PC7 L2 PBLI1 L2 ICS2 L2	PC10 L2 P1 L2 ICS2 L2
3 Indirect Supervision	PC1 L3 PC10 L3 P1 L3 ICS2 L3	PC7 L3 PBLI1 L3 ICS2 L3	PC10 L3 P1 L3 ICS2 L3
4 Practice Ready	PC1 L4 PC10 L4 P1 L4 ICS2 L4	PC7 L4 PBLI1 L4 ICS2 L4	PC10 L4 P1 L4 ICS2 L4

Description of the Activity:

Esophageal atresia is encountered relatively infrequently by pediatric surgeons, and its management requires meticulous clinical decision-making and operative technique. The essential functions of this activity are the establishment of effective swallowing and oral nutrition, minimization of respiratory compromise, and identification of associated congenital conditions.

In scope:

Diagnoses:
- Esophageal atresia
- Tracheoesophageal fistula

Procedures:
- Bronchoscopy
- Esophageal atresia repair
- Esophagoscopy with or without dilation
- TEF ligation/division
- Thoracoscopic esophageal atresia repair

Special populations:
- Long gap, H-type
- Recurrent TEF
- Unstable patient (eg, severe respiratory distress)
- VACTERL

Out of scope:

Diagnoses/procedures:
- Esophageal stricture
- Iatrogenic tracheoesophageal fistula

Level	Nonoperative /Preoperative	Intraoperative	Postoperative
1 Limited Participation	PC1 L1 MK1 L1 MK2 L1 ICS2 L1	PC2 L1 PC4 L1 PC8 L1	PC9 L1
2 Direct Supervision	PC1 L2 MK1 L2 MK2 L2 ICS2 L2	PC2 L2 PC4 L2 PC8 L2	PC9 L2
3 Indirect Supervision	PC1 L3 MK1 L3 MK2 L3 ICS2 L3	PC2 L3 PC4 L3 PC8 L3	PC9 L3
4 Practice Ready	PC1 L4 MK1 L4 MK2 L4 ICS2 L4	PC2 L4 PC4 L4 PC8 L4	PC9 L4

Description of the Activity:

Pediatric surgeons commonly encounter patients with genitourinary conditions in both the elective (phimosis, cryptorchidism) and emergent (testicular or ovarian torsion) settings. In these instances, the pediatric surgeon must be able to evaluate the broad spectrum of presentations for these conditions as well as initiate timely investigation and surgical intervention.

In scope:

Diagnoses:
- Cryptorchidism
  - Inguinal testes
  - Intra-abdominal testes
- Ovarian torsion
  - Ovarian cyst
    - Hemorrhagic
    - Ruptured versus intraovarian
- Paraphimosis
- Paratubular cyst

Procedures:
- Circumcision
- Circumcision revision
- Orchidopexy (including laparoscopic-assisted, Fowler-Stephens stage 1 and 2)
- Ovary-preserving cystectomy
- Reduction paraphimosis

Special populations:
- Older children with missed cryptorchidism
- Intersex

Out of scope:

Diagnoses/procedures:
- Acquired postinguinal hernia
- Bilateral undescended testes
- Congenital hydrocele
- Gastroschisis, prune belly
- Ischemic gonads
- Retractile testes

Level	Nonoperative /Preoperative	Intraoperative	Postoperative
1 Limited Participation	PC1 L1 PBLI1 L1 MK1 L1 ICS1 L1	PC7 L1 MK1 L1	PC9 L1 ICS1 L1
2 Direct Supervision	PC1 L2 PBLI1 L2 MK1 L2 ICS1 L2	PC7 L2 MK1 L2	PC9 L2 ICS1 L2
3 Indirect Supervision	PC1 L3 PBLI1 L3 MK1 L3 ICS1 L3	PC7 L3 MK1 L3	PC9 L3 ICS1 L3
4 Practice Ready	PC1 L4 PBLI1 L4 MK1 L4 ICS1 L4	PC7 L4 MK1 L4	PC9 L4 ICS1 L4

Description of the Activity:

Biliary atresia (BA) and choledochal cyst (CC) are congenital diseases that occur in infancy and early childhood. Infants with BA and CC are frequently referred to pediatric general surgeons in the inpatient and outpatient settings. The pediatric surgeon should be able to perform and counsel families on fetal risk stratification and diagnose and treat patients with these conditions, selecting the optimal operative treatment, approach, and timing. Patient- and family-centered, evidenced-based, and shared decision-making is necessary to ensure ideal outcomes.

In scope:

Diagnoses:
- BA
- CC
- Workup for neonatal jaundice:
  - Congenital
  - Genetic
  - Infectious
  - Mechanical
  - Metabolic

Procedures:
- Hepaticojejunostomy
- Intraoperative cholangiography
- Laparoscopic versus open choledochal cyst resection with hepaticoduodenostomy
- Liver biopsy
- Portoenterostomy

Special populations:
- Prenatally diagnosed cystic BA
- Type 4 choledochal cysts
- Inflamed choledochal cyst that cannot be separated

Out of scope:

Diagnoses/procedures:
- Bile duct cancer
- Gallbladder cancer
- Hepatic angiosarcoma
- Hepatoblastoma
- Neonatal vascular malformation and vascular tumor

Level	Nonoperative /Preoperative	Intraoperative	Postoperative
1 Limited Participation	PC1 L1 ICS1 L1 ICS2 L1	PC5 L1 MK1 L1	PC9 L1 ICS1 L1 ICS2 L1
2 Direct Supervision	PC1 L2 ICS1 L2 ICS2 L2	PC5 L2 MK1 L2	PC9 L2 ICS1 L2 ICS2 L2
3 Indirect Supervision	PC1 L3 ICS1 L3 ICS2 L3	PC5 L3 MK1 L3	PC9 L3 ICS1 L3 ICS2 L3
4 Practice Ready	PC1 L4 ICS1 L4 ICS2 L4	PC5 L4 MK1 L4	PC9 L4 ICS1 L4 ICS2 L4

Description of the Activity:

Hirschsprung disease (HD) is a condition that every pediatric surgeon will encounter during their career. Pediatric surgeons may encounter these patients during the newborn period or later in life for those not diagnosed in early infancy. The surgeon must be able to diagnose and treat these patients in both the inpatient and outpatient settings and on an acute and elective basis. Given the lifelong implications of HD, the pediatric surgeon will ensure proper transition of care as the patient becomes an adult.

In scope:

Diagnoses:
- HAEC
- Normal-segment HD

Procedures:
- Botox injection
- Laparoscopic-assisted /open pull-through
- Leveling colostomy/ileostomy
- Rectal biopsy (punch or open)
- Rectal irrigation/decompression
- Soave/Swenson with or without Duhamel

Special populations:
- Hereditary populations
- Long-segment
- Trisomy 21

Out of scope:

Diagnoses/procedures:
- Anorectal malformation (see specific EPA)
- Idiopathic constipation

Level	Nonoperative /Preoperative	Intraoperative	Postoperative
1 Limited Participation	PC1 L1 MK1 L1 ICS1 L1	PC3 L1 PC5 L1 ICS2 L1	PC9 L1 ICS1 L1 ICS2 L1
2 Direct Supervision	PC1 L2 MK1 L2 ICS1 L2	PC3 L2 PC5 L2 ICS2 L2	PC9 L2 ICS1 L2 ICS2 L2
3 Indirect Supervision	PC1 L3 MK1 L3 ICS1 L3	PC3 L3 PC5 L3 ICS2 L3	PC9 L3 ICS1 L3 ICS2 L3
4 Practice Ready	PC1 L4 MK1 L4 ICS1 L4	PC3 L4 PC5 L4 ICS2 L4	PC9 L4 ICS1 L4 ICS2 L4

Description of the Activity:

Pediatric surgeons are frequently called upon to evaluate an infant with a groin mass, scrotal swelling, or other symptoms of an inguinal hernia or hydrocele. The pediatric surgeon must be able to evaluate and manage these infants in the outpatient or elective settings as well as those who present in the emergency department or neonatal intensive care unit with urgent or emergent conditions.

In scope:

Diagnoses:
- Direct inguinal hernia
- Indirect inguinal hernia
- Recurrent inguinal hernia
- Sliding hernia
- Femoral hernia
- Communicating hydrocele

Procedures:
- Femoral hernia repair
- Laparoscopic inguinal hernia repair
- Open high ligation
- Tissue repair

Special populations:
- Patients with preterm (< 36 weeks gestational age) incarcerated inguinal hernia

Out of scope:

Diagnoses/procedures:
- Umbilical hernia
- Ventral hernia
- Spigelian hernia
- Incisional hernia

Level	Nonoperative /Preoperative	Intraoperative	Postoperative
1 Limited Participation	PC1 L1 MK1 L1 MK2 L1 PBLI1 L1 ICS1 L1	PC3 L1 PC5 L1 PC8 L1	PC9 L1 ICS1 L1
2 Direct Supervision	PC1 L2 MK1 L2 MK2 L2 PBLI1 L2 ICS1 L2	PC3 L2 PC5 L2 PC8 L2	PC9 L2 ICS1 L2
3 Indirect Supervision	PC1 L3 MK1 L3 MK2 L3 PBLI1 L3 ICS1 L3	PC3 L3 PC5 L3 PC8 L3	PC9 L3 ICS1 L3
4 Practice Ready	PC1 L4 MK1 L4 MK2 L4 PBLI1 L4 ICS1 L4	PC3 L4 PC5 L4 PC8 L4	PC9 L4 ICS1 L4

Description of the Activity:

Neonatal intestinal conditions (eg, atresia, meconial disease) are a set of conditions occasionally encountered by pediatric surgeons in a semi-elective setting among the in-house, newborn patient population. Surgeons must be able to identify and treat the spectrum of neonatal conditions presenting as intestinal obstruction and determine the appropriate plan of care for pre- and postnatal presentations.

In scope:

Diagnoses:
- Colon atresia
- Duodenal atresia
- Meconium ileus
- Meconium Plug
- Neonatal bowel obstruction
- Small bowel atresia
- Small left colon

Procedures:
- Duodenoduodenostomy
- Neonatal laparotomy
- Operative irrigation
- Tapering enteroplasty
- Various stoma configurations (eg, Bishop-Koop, Santulli)

Special populations:
- Cystic fibrosis
- Trisomy 21

Out of scope:

Diagnoses/procedures:
- Acute necrotizing enterocolitis (covered in a separate EPA)
- Anorectal malformation (covered in a separate EPA)
- Duplication cyst
- Hirschsprung disease (covered in a separate EPA)
- Malrotation and volvulus (covered in a separate EPA)
- Omphalomesenteric duct
- Appendicitis
- Premature intestinal dysfunction

Level	Nonoperative /Preoperative	Intraoperative	Postoperative
1 Limited Participation	PC1 L1 ICS1 L1 ICS2 L1	PC5 L1 PC8 L1 MK1 L1	PC1 L1 PC9 L1 ICS2 L1
2 Direct Supervision	PC1 L2 ICS1 L2 ICS2 L2	PC5 L2 PC8 L2 MK1 L2	PC1 L2 PC9 L2 ICS2 L2
3 Indirect Supervision	PC1 L3 ICS1 L3 ICS2 L3	PC5 L3 PC8 L3 MK1 L3	PC1 L3 PC9 L3 ICS2 L3
4 Practice Ready	PC1 L4 ICS1 L4 ICS2 L4	PC5 L4 PC8 L4 MK1 L4	PC1 L4 PC9 L4 ICS2 L4

Description of the Activity:

"Other oncological conditions" is a heterogeneous group of rare malignant tumors that pediatric surgeons may encounter, consisting of lymphoma; sacrococcygeal teratoma (SCT) and other teratomas; chest wall lesions such as Ewing sarcoma, osteosarcoma, and primitive neuroectodermal tumor (PNET); solid or cystic ovarian masses; testicular masses; and metastases to the lung and liver. Hepatoblastomas, mediastinal masses, and sarcomas are other rare diagnoses included in this group. Each of these tumors is treated differently regarding workup and surgical treatment. All pediatric patients with oncological masses need to be treated by a multidisciplinary team that may include clinicians in pediatric surgery, radiation oncology, pathology, interventional radiology, and pediatric oncology. The treatment details of every patient are discussed at a tumor board, with all specialties participating in the care of the patient, depending on the type and location of the tumor. For most pediatric malignant conditions, national protocols are available for treatment, surgery, and follow-up that follow the best available evidence. Optimal assessment, management, and intervention are needed to provide an ideal long-term outcome for the patient.

In scope:

Diagnoses:
- Chest wall lesion (PNET, osteosarcoma)
- Germ cell tumor
- Lung or liver tumor
- Lymphoma
- Metastasis
- Ovarian mass (solid/cystic)
- SCT
- Teratoma
- Testicular mass

Procedures:
- Biopsy (oncological principles)
- Liver resection
- Oophorectomy and ovarian-sparing surgery
- SCT excision
- Testicular biopsy/removal

Special populations:
- Anterior mediastinal mass
- Fertility preservation
- Hereditary oncologic conditions

Special skills:
- Communication ("the non-urgent difficult conversation")
- Multidisciplinary care (tumor board)
- Palliative decision-making

Out of scope:

Diagnoses/procedures:
- Wilms tumor/neuroblastoma (covered in a separate EPA)
- Breast lesion/melanoma sentinel lymph node biopsy

Level	Nonoperative /Preoperative	Intraoperative	Postoperative
1 Limited Participation	PC1 L1 MK1 L1 PBLI1 L1 ICS1 L1 ICS2 L1	PC6 L1 MK1 L1 ICS2 L1	PC1 L1 PC9 P1 MK1 L1 ICS1 L1 ICS2 L1
2 Direct Supervision	PC1 L2 MK1 L2 PBLI1 L2 ICS1 L2 ICS2 L2	PC6 L2 MK1 L2 ICS2 L2	PC1 L2 PC9 P2 MK1 L2 ICS1 L2 ICS2 L2
3 Indirect Supervision	PC1 L3 MK1 L3 PBLI1 L3 ICS1 L3 ICS2 L3	PC6 L3 MK1 L3 ICS2 L3	PC1 L3 PC9 P3 MK1 L3 ICS1 L3 ICS2 L3
4 Practice Ready	PC1 L4 MK1 L4 PBLI1 L4 ICS1 L4 ICS2 L4	PC6 L4 MK1 L4 ICS2 L4	PC1 L4 PC9 P4 MK1 L4 ICS1 L4 ICS2 L4

Description of the Activity:

Pediatric surgeons are frequently called upon to evaluate a neonate with bloody stools, abdominal distension, abdominal tenderness, or laboratory or radiographic evidence of necrotizing enterocolitis (NEC) or perforated viscus. The pediatric surgeon must be able to expeditiously evaluate and manage these patients often in the neonatal intensive care unit (NICU) but also occasionally in the emergency department, pediatric or cardiac ward, or intensive care unit. The pediatric surgeon must decide when medical or surgical treatments are most appropriate and choose the appropriate intervention (eg, peritoneal drain, laparotomy), taking into account the infant's clinical status, stability, gestational age/weight, and presumed diagnosis.

In scope:

Diagnoses:
- NEC
- SIP/FIP
- NEC stricture

Procedures:
- Bowel anastomosis
- Neonatal laparotomy
- Peritoneal drainage
- Stoma
- Temporary closure

Special populations:
- NEC totalis

Out of scope:

Diagnoses/procedures:
- Gastric perforation or other causes of neonatal pneumoperitoneum
- Intestinal failure

Level	Nonoperative /Preoperative	Intraoperative	Postoperative
1 Limited Participation	PC1 L1 MK2 L1 P1 L1 P2 L1 ICS2 L1 ICS1 L1	PC5 L1 PC8 L1 P1 L1 ICS2 L1	PC9 L1 MK2 L1 P1 L1 ICS1 L1 ICS2 L1
2 Direct Supervision	PC1 L2 MK2 L2 P1 L2 P2 L2 ICS2 L2 ICS1 L2	PC5 L2 PC8 L2 P1 L2 ICS2 L2	PC9 L2 MK2 L2 P1 L2 ICS1 L2 ICS2 L2
3 Indirect Supervision	PC1 L3 MK2 L3 P1 L3 P2 L3 ICS2 L3 ICS1 L3	PC5 L3 PC8 L3 P1 L3 ICS2 L3	PC9 L3 MK2 L3 P1 L3 ICS1 L3 ICS2 L3
4 Practice Ready	PC1 L4 MK2 L4 P1 L4 P2 L4 ICS2 L4 ICS1 L4	PC5 L4 PC8 L4 P1 L4 ICS2 L4	PC9 L4 MK2 L4 P1 L4 ICS1 L4 ICS2 L4

Description of the Activity:

Rotational anomalies are conditions commonly encountered by pediatric surgeons in elective and emergent care settings. These surgeons must be able to accurately identify and manage the spectrum of rotational anomalies in the elective and emergent settings. In addition, the surgeon must understand which comorbid conditions can occur with rotational anomalies and how these may influence the presentation and management of rotational anomalies.

In scope:

Diagnoses
- Malrotation
- Malrotation with midgut volvulus

Procedures
- Ladd procedure – open or minimally invasive

Special populations:
- Newborns and infants
- Older children
- Patients with:
  - Congenital heart disease
  - Heterotaxy

Out of scope:
None

Level	Nonoperative /Preoperative	Intraoperative	Postoperative
1 Limited Participation	PC1 L1 MK1 L1 MK2 L1 P2 L1 ICS1 L1 ICS2 L1	PC5 L1 MK1 L1	PC9 L1 P1 L1 ICS1 L1 ICS2 L1
2 Direct Supervision	PC1 L2 MK1 L2 MK2 L2 P2 L2 ICS1 L2 ICS2 L2	PC5 L2 MK1 L2	PC9 L2 P1 L2 ICS1 L2 ICS2 L2
3 Indirect Supervision	PC1 L3 MK1 L3 MK2 L3 P2 L3 ICS1 L3 ICS2 L3	PC5 L3 MK1 L3	PC9 L3 P1 L3 ICS1 L3 ICS2 L3
4 Practice Ready	PC1 L4 MK1 L4 MK2 L4 P2 L4 ICS1 L4 ICS2 L4	PC5 L4 MK1 L4	PC9 L4 P1 L4 ICS1 L4 ICS2 L4

Description of the Activity:

Trauma is a common clinical problem encountered by pediatric surgeons. The pediatric surgeon should be able to triage, diagnose, and treat injured patients and understand when local resources require consultation of additional health care providers or transfer to a higher level of care. The pediatric surgeon is expected to assess, stabilize, and treat patients in the emergency department as their condition warrants.

In scope:

Diagnoses
- Blunt trauma
- NAT
- Penetrating trauma

Procedures
- Damage control laparotomy
- Laparoscopy
- Pericardial window
- Pericardiocentesis
- Thoracoscopy
- Trauma exploratory laparotomy

Out of scope:

Diagnoses/procedures
- Nontraumatic injury
- Patients >18 years of age

Level	Nonoperative /Preoperative	Intraoperative	Postoperative
1 Limited Participation	PC11 L1 PC1 L1 ICS1 L1 ICS2 L1 SBP2 L1	PC8 L1 PC11 L1 MK1 L1 ICS1 L1	PC11 L1 ICS1 L1 ICS2 L1 SBP1 L1 SBP2 L1 P3 L1
2 Direct Supervision	PC11 L2 PC1 L2 ICS1 L2 ICS2 L2 SBP2 L2	PC8 L2 PC11 L2 MK1 L2 ICS1 L2	PC11 L2 ICS1 L2 ICS2 L2 SBP1 L2 SBP2 L2 P3 L2
3 Indirect Supervision	PC11 L3 PC1 L3 ICS1 L3 ICS2 L3 SBP2 L3	PC8 L3 PC11 L3 MK1 L3 ICS1 L3	PC11 L3 ICS1 L3 ICS2 L3 SBP1 L3 SBP2 L3 P3 L3
4 Practice Ready	PC11 L4 PC1 L4 ICS1 L4 ICS2 L4 SBP2 L4	PC8 L4 PC11 L4 MK1 L4 ICS1 L4	PC11 L4 ICS1 L4 ICS2 L4 SBP1 L4 SBP2 L4 P3 L4

Description of the Activity:

The pediatric surgeon needs to develop the ability to manage unstable pediatric surgical patients, covering critical areas such as diagnosis; initial resuscitation; sepsis management; and preoperative, perioperative, and postoperative care.

In scope:

Diagnoses:

- Cardiogenic shock
- Hemorrhagic shock
- Neurogenic shock
- Septic shock
- Respiratory distress/insufficiency

Procedures:

- Intubation, bronchoscopy, endoscopy, laparotomy, arterial catheter

Special populations:

- Preterm patients (younger than a gestational age of 36 weeks)

Out of scope:

Diagnoses/procedures:

- Trauma patients
- ECLS cannulation (see specific ECLS EPA)
- Vascular access (e.g. central venous catheter, hemodialysis catheter) – see specific EP

Level	Nonoperative /Preoperative	Intraoperative	Postoperative
1 Limited Participation	PC1 L1 PC2 L1 PC10 L1 MK2 L1 MK3 L1 PBLI1 L1 ICS1 L1 ICS2 L1	PC10 L1	PC10 L1 SBP1 L1 SBP2 L1 ICS1 L1 ICS2 L1
2 Direct Supervision	PC1 L2 PC2 L2 PC10 L2 MK2 L2 MK3 L2 PBLI1 L2 ICS1 L2 ICS2 L2	PC10 L2	PC10 L2 SBP1 L2 SBP2 L2 ICS1 L2 ICS2 L2
3 Indirect Supervision	PC1 L3 PC2 L3 PC10 L3 MK2 L3 MK3 L3 PBLI1 L3 ICS1 L3 ICS2 L3	PC10 L3	PC10 L3 SBP1 L3 SBP2 L3 ICS1 L3 ICS2 L3
4 Practice Ready	PC1 L4 PC2 L4 PC10 L4 MK2 L4 MK3 L4 PBLI1 L4 ICS1 L4 ICS2 L4	PC10 L4	PC10 L4 SBP1 L4 SBP2 L4 ICS1 L4 ICS2 L4

Description of the Activity:

Central venous access remains a core component of the surgical care of infants and children. There are broad ranges of the clinical settings and medical conditions in which central access is required. A pediatric surgeon must be able to evaluate and manage a wide variety of healthy and critically ill patients needing venous access and demonstrate an understanding of the technical nuances of safe central line placement in patients of all sizes. A multidisciplinary, team-based approach is critical to the acute and long-term success of tunneled central catheters.

In scope:

Diagnoses:

- All
- Infected line

Procedures:

- Hemodialysis catheter placement
- Tunneled central line placement with or without a subcutaneous port (with imaging guidance)

Special Populations:

- Patients needing long-term vascular access and management
- Patients with limited vascular access
- Preterm patients (younger than a gestational age of 36 weeks)

Out of scope:

Diagnoses/procedures:

- Cutdown access
- Peripherally inserted central catheter (PICC) placement

Level	Nonoperative /Preoperative	Intraoperative	Postoperative
1 Limited Participation	PC1 L1 PBLI1 L1 ICS2 L1 ICS1 L1	PC1 L1 PC7 L1 PC8 L1 MK1 L1 PBLI1 L1 ICS2 L1	PC1 L1 PC9 L1 MK1 L1 PBLI1 L1 ICS1 L1 ICS2 L1
2 Direct Supervision	PC1 L2 PBLI1 L2 ICS2 L2 ICS1 L2	PC1 L2 PC7 L2 PC8 L2 MK1 L2 PBLI1 L2 ICS2 L2	PC1 L2 PC9 L2 MK1 L2 PBLI1 L2 ICS1 L2 ICS2 L2
3 Indirect Supervision	PC1 L3 PBLI1 L3 ICS2 L3 ICS1 L3	PC1 L3 PC7 L3 PC8 L3 MK1 L3 PBLI1 L3 ICS2 L3	PC1 L3 PC9 L3 MK1 L3 PBLI1 L3 ICS1 L3 ICS2 L3
4 Practice Ready	PC1 L4 PBLI1 L4 ICS2 L4 ICS1 L4	PC1 L4 PC7 L4 PC8 L4 MK1 L4 PBLI1 L4 ICS2 L4	PC1 L4 PC9 L4 MK1 L4 PBLI1 L4 ICS1 L4 ICS2 L4

Description of the Activity:

Neuroblastoma and Wilms tumor are the most common intra-abdominal solid tumors in children. The pediatric surgeon needs to identify the child at risk for a malignant abdominal mass, initiate a timely workup, and participate in the surgical care of the patient in the context of the larger oncologic care strategy.

In scope:

Diagnoses:

- Renal tumor
  - Clear cell tumor kidney
  - Mesoblastic nephroma
  - Rhabdoid tumor kidney
  - Wilms tumor
- Neuroblastoma
  - Anatomic location: head/neck, chest, intra-abdominal, pelvic
  - Ganglioneuroma, ganglioneuroblastoma

Procedures:

- Biopsy for neuroblastoma
- Neuroblastoma resection and LN sampling
- Partial nephrectomy with LN dissection
- Thoracic exposure for neuroblastoma resection
- Unilateral radical nephroureterectomy with LN dissection

Special populations:

- Patients with:
  - Bilateral Wilms tumor
  - Syndromic Wilms tumor, Denys-Drash syndrome, WAGR
  - Syndromic neuroblastoma, OMS, invading foramina with paralysis
  - Initial nonoperative treatment:
    - Patients with L2 neuroblastoma encircling vasculature
    - Newborn with an adrenal mass
    - Patients with Wilms tumor invading into the IVC

Out of scope:

Diagnoses/procedures:

- Neurofibromatosis
- Other adrenal tumors: adrenal cortical carcinoma, pheochromocytoma, adrenal hyperplasia, and adrenal hemorrhage
- Other renal tumors

Level	Nonoperative /Preoperative	Intraoperative	Postoperative
1 Limited Participation	PC1 L1 MK1 L1 PBLI1 L1 ICS1 L1 ICS2 L1	PC1 L1 PC6 L1 ICS2 L1 MK1 L1	PC1 L1 PC9 L1 MK1 L1 PBLI1 L1 ICS2 L1 ICS1 L1
2 Direct Supervision	PC1 L2 MK1 L2 PBLI1 L2 ICS1 L2 ICS2 L2	PC1 L2 PC6 L2 ICS2 L2 MK1 L2	PC1 L2 PC9 L2 MK1 L2 PBLI1 L2 ICS2 L2 ICS1 L2
3 Indirect Supervision	PC1 L3 MK1 L3 PBLI1 L3 ICS1 L3 ICS2 L3	PC1 L3 PC6 L3 ICS2 L3 MK1 L3	PC1 L3 PC9 L3 MK1 L3 PBLI1 L3 ICS2 L3 ICS1 L3
4 Practice Ready	PC1 L4 MK1 L4 PBLI1 L4 ICS1 L4 ICS2 L4	PC1 L4 PC6 L4 ICS2 L4 MK1 L4	PC1 L4 PC9 L4 MK1 L4 PBLI1 L4 ICS2 L4 ICS1 L4