

Pediatric Anesthesiology Fellowship **ACGME Case Minimum Definitions**

Effective July 1, 2026

Last updated: June 17, 2026

Note to Fellows: Please be sure to log all anesthetics and procedures performed during your fellowship year. Remember that one procedure can count for multiple categories. For instance, a craniostomy repair could be logged under “craniofacial reconstruction”, “difficult airway”, “high volume blood loss or third space loss”, and “vasoactive infusion management”, in addition to ASA, age, and vascular access categories, depending on how the case proceeds. Please note that this document contains examples for each category, but is not meant to be exhaustive. In addition, some procedures can potentially fit into multiple categories (especially for cardiac patients/procedures). Please use your best judgement to determine the appropriate classification and discuss with your program director if you are unsure how to proceed.

American Society of Anesthesiologists (ASA) Physical Status

Definition: ASA Physical Status classification for pediatric patients is defined on the ASA website. Please note that pediatric disease classification differs from adult classification in some circumstances. Emergent cases should be logged under the respective ASA PS numeric category. Any ASA PS greater than IV should be logged in the ASA IV category.

References:

1. [Statement on ASA Physical Status Classification System](#), last updated December 13, 2020.

ASA PS Classification	Definition	Pediatric Examples include but not limited to:	Required Minimum
ASA I	A normal healthy patient	Healthy (no acute or chronic disease), normal BMI percentile for age	25
ASA II	Patient with mild systemic disease	Asymptomatic congenital cardiac disease, well controlled dysrhythmias, asthma without exacerbation, well controlled epilepsy, non-insulin dependent diabetes mellitus, abnormal BMI percentile for age, mild-moderate OSA, oncologic state in remission, autism with mild limitation	50
ASA III	A patient with severe systemic disease	Uncorrected stable congenital cardiac abnormality, asthma with exacerbation, poorly controlled epilepsy, insulin dependent diabetes mellitus, morbid obesity, malnutrition, severe OSA, oncologic state, renal failure, muscular dystrophy, cystic fibrosis, history of organ transplantation, brain/spinal cord malformation, symptomatic hydrocephalus, premature infant PCA <60 weeks, autism with severe limitations, metabolic disease,	60

		difficult airway, long-term parenteral nutrition. Full term infants <6 weeks of age.	
ASA IV	A patient with severe systemic disease that is a constant threat to life	Symptomatic congenital cardiac abnormality, congestive heart failure, active sequelae of prematurity, acute hypoxic-ischemic encephalopathy, shock, sepsis, disseminated intravascular coagulopathy, automatic implantable cardioverter-defibrillator, ventilator dependence, endocrinopathy, severe trauma, severe respiratory distress, advanced oncologic state.	30
ASA V	A moribund patient who is not expected to survive without the operation	Massive trauma, intracranial hemorrhage with mass effect, patient requiring ECMO, respiratory failure or arrest, malignant hypertension, decompensated congestive heart failure, hepatic encephalopathy, ischemic bowel or multiple organ/systemic dysfunction.	None required (log as ASA IV)

Age of Patient

Definition: Post-menstrual age (PMA) is the total time since conception and includes both the gestational age at delivery as well as the chronological age (time since delivery). Prematurity is defined as delivery before 37 weeks gestational age. The neonatal period is the first month of life.

Rationale: Perioperative adverse events, including respiratory and cardiac events, are more common in younger patients compared to older children. Prematurity is an independent risk factor for increased anesthetic risk and this effect persists into adolescence. Due to this increased risk, training in pediatric anesthesia should include a focus on care of neonates, infants, and young pediatric patients. Given the persistent effect of prematurity and ongoing transitional physiology on anesthesia risk, infants up to 45 weeks PMA will be included in the neonatal category for fellowship case logs.

Age	Required Minimum
Neonate (<45 weeks postmenstrual age PMA)	25
45-week PMA to 6 months old	20
7 months to 2 years	50
3 to 6 years	30
7 to 12 years	28
13 to 17 years	15

References:

1. Havidich JE, Beach M, Dierdorf SF, et al. Preterm versus Term Children: Analysis of Sedation/Anesthesia Adverse Events and Longitudinal Risk. *Pediatrics*. 2016; 137(3):e20150463. PMID: 26917674.

2. Murat I, Constant I, Maud'huy H. Perioperative anaesthetic morbidity in children: a database of 24,165 anaesthetics over a 30-month period. *Paediatr Anaesth.* 2004; 14(2):158-166. PMID: 14962332.

Case Characteristics

Difficult airway:

Required minimum: 10

Definition: Planning for or management of an anticipated difficult airway.

Rationale: The ASA practice guidelines define a difficult airway as the clinical situation in which anticipated or unanticipated difficulty or failure is experienced by a physician trained in anesthesia care, including but not limited to one or more of the following: face-mask ventilation, laryngoscopy, ventilation using a supraglottic airway, tracheal intubation, extubation, or invasive airway. Difficult airway management may be anticipated in association with syndromes involving atypical airway anatomy, physiologic airway abnormalities (i.e., impaired functional reserve), or normal airways that are managed in austere environments. Difficult airway management may also be unanticipated. Difficult airway management in infants and children can be associated with significant morbidity. Pediatric patients have a smaller airway size, decreased oxygen reserve and high oxygen consumption, requiring conscientious planning, preparation, communication and deliberate practice for the trainee to become facile with approaches and techniques necessary to afford the best possible outcome.

References:

1. Sohn L, Peyton J, von Ungern-Sternberg BS, et al. Error traps in pediatric difficult airway management. *Paediatr Anaesth.* 2021; 31(12):1271-1275. PMID: 34478189.
2. Engelhardt T, Fiadjoe JE, Weiss M, et al. A framework for the management of the pediatric airway. *Paediatr Anaesth.* 2019; 29(10):985-992. PMID: 31402534.
3. Apfelbaum JL, Hagberg CA, Connis RT, et al. 2022 American Society of Anesthesiologists Practice Guidelines for Management of the Difficult Airway. *Anesthesiology.* 2022; 136(1):31-81. PMID: 34762729.

Examples include	Does not include
● Planning for anticipated difficult airway management, including use of advanced airway equipment or coordination with other airway specialists ● Management of a difficult airway, including ○ management of native airway ○ airway successfully secured ○ airway not secured or advanced intervention required (awakening, ECMO, surgical airway) ● Management of normal airways in austere environments (e.g., airway emergence or code in a non-OR environment, loss of airway or reintubation during surgery, conversion of airway during procedure)	● Patient with prior history of difficult airway that has resolved ● Patient with current difficult airway not managed by the anesthesia team ○ established tracheostomy in place ○ airway managed entirely by ENT surgeon

Cardiac patient presenting for non-cardiac procedures

Definition: Patients with unrepaired, repaired, or stable/palliated cardiac disease presenting for non-cardiac procedures under anesthesia. This includes any surgical, interventional, or diagnostic

imaging procedures that do not meet criteria for the cardiac procedures categories (see later section).

Rationale: Children with moderate to severe congenital heart disease having non-cardiac procedures are at greater risk of cardiac arrest, morbidity and mortality than children without congenital heart disease. Continued advances in surgical and interventional techniques have led to significant improvements in survival rates and prevalence of patients with repaired and palliated congenital heart disease. Approximately 40% of all children who have palliative congenital heart disease have also undergone at least one noncardiac surgical procedure by the age of 5, increasing the likelihood that any anesthesiologist could possibly encounter these patients in the future.

References:

1. Nasr VG, Markham LW, Clay M, et al. American Heart Association Council on Lifelong Congenital Heart Disease and Heart Health in the Young and Council on Cardiovascular Radiology and Intervention. Perioperative Considerations for Pediatric Patients With Congenital Heart Disease Presenting for Noncardiac Procedures: A Scientific Statement From the American Heart Association. *Circ Cardiovasc Qual Outcomes*. 2023; 16(1):e000113. PMID: 36519439.
2. Brown ML, DiNardo JA, Nasr VG. Anesthesia in Pediatric Patients With Congenital Heart Disease Undergoing Noncardiac Surgery: Defining the Risk. *J Cardiothorac Vasc Anesth*. 202; 34(2):470-478. PMID: 31345716.
3. Faraoni D, Zurakowski D, Vo D, et al. Post-Operative Outcomes in Children With and Without Congenital Heart Disease Undergoing Noncardiac Surgery. *J Am Coll Cardiol*. 2016; 67(7):793-801. PMID: 26892415.
4. Ramamoorthy C, Haberkern CM, Bhananker SM, et al. Anesthesia-related cardiac arrest in children with heart disease: data from the Pediatric Perioperative Cardiac Arrest (POCA) registry. *Anes Analg*. 2010;110(5):1376-1382. PMID: 20103543.

Patient with unrepaired cyanosis, severe pulmonary hypertension, valvular dysfunction requiring medications, or awaiting heart transplant Required minimum: 8	Patient with repaired congenital heart disease with residual effect Required minimum: 8	Do not include
Patients with pulmonary arterial hypertension (PAH) with any of the following • Greater than half systemic RV pressures • Requiring two or more pulmonary vasodilator medications • Eisenmenger physiology		Patients with PAH not meeting listed criteria
Patients with severe valvular heart disease with functional limitations	Patients with previous surgical valve repair with mild-to-moderate regurgitation or mild stenosis	Patients with previous surgical valve repair not meeting listed criteria

Patients with atrioventricular septal defects or endocardial cushion defects that are unrepaired or have significant hemodynamic effects	Patients with atrioventricular septal defects or endocardial cushion defects with minimal residual shunting or valve disease and stable biventricular function	Patients with repaired atrioventricular septal defects or endocardial cushion defects with no residual shunting or structural abnormalities
	Patients with pacemaker and/or implantable cardiac defibrillator for management of dysrhythmias, conduction abnormalities, or cardiac resynchronization therapy.	Patients with a history of dysrhythmias status post successful electrophysiological ablation or on stable medical therapy without clinical symptoms
Patients with cardiomyopathy with any of the following • Reduced ejection fraction • Reduced functional capacity • Awaiting heart transplant • Requiring mechanical circulatory support (e.g., ECMO or VAD) for cardiac dysfunction	Patients post-heart transplant with acute rejection or decreased function	Patients post-heart transplant with no signs/symptoms of acute rejection

Out of operating room/remote anesthesia:

Required minimum: 20

Definition: Procedures that occur outside of the main anesthetizing location.

Rationale: Caring for patients outside of the operating room can pose unique challenges including lack of resources (including equipment and personnel), unique procedures and associated complications, factors that limit physician access to the patient, and need for varying levels of sedation or anesthesia.

References:

1. Khawaja AA, Turnin D, Beltram R. Incidence and causes of adverse events in diagnostic radiological studies requiring anesthesia in the wake-up safe registry. *J Patient Saf.* 2021;17(8):e1261-1266. PMID: 29521816.
2. Sobey J, Tsai MH, Evans RE. An update on pediatric sedation techniques in nonoperating room locations. *Curr Opin Anaesthesiol.* 2021;34(4):445-454. PMID: 34039846.

Examples include	Does not include
• Procedures performed outside of the main pediatric anesthetizing location, including but not limited to ○ radiology locations ○ bedside procedures (ICU or floor)	• Procedures performed in main pediatric anesthetizing location

Shared airway case:

Required minimum: 10

Definition: A procedure in which the anesthesiologist must maintain a patient's airway within close proximity to the surgical or procedural area.

Rationale: Procedures involving a shared airway require close communication and coordination between proceduralist and anesthesiologist. Maintaining appropriate anesthetic depth is essential when utilizing the native airway, while patients with advanced airways are at risk for unintended extubation or compromised ventilation. In many instances, intraoperative fire is a risk.

References:

1. Bradley J, Lee GS, Peyton J. Anesthesia for shared airway surgery in children. *Paediatr Anaesth.* 2020;30(3):288-295. PMID: 31898366.
2. Lee PJ, MacLennan A, Naughton NN, et al. An analysis of reintubations from a quality assurance database of 152,000 cases. *J Clin Anesth.* 2003;15(8):575-81. PMID: 14724078.
3. Ing C, Chui I, Ohkawa S, et al. Incidence and causes of perioperative endotracheal reintubation in children: a review of 28,208 anesthetics. *Paediatr Anaesth.* 2013;23(7):621-6. PMID: 22817271.

Examples include	Does not include
● Laryngeal or tracheal procedures, including but not limited to ○ Bronchoscopy ○ Tracheostomy ○ Tracheal reconstruction ○ Drug-induced sleep endoscopy ● Infant mandibular distraction ● Upper endoscopic procedures in infants or small children	● Airway procedures performed under CPB or ECMO ● Procedures performed in a patient with tracheostomy (except tracheal reconstruction) ● Tonsillectomy/adenoidectomy ● Upper endoscopic procedures in older children or adolescent patients

Single lung ventilation:

Required minimum: 5

Definition: Placement and/or management of an airway device that is used to achieve single lung ventilation (SLV) or management of single lung ventilation physiology.

Rationale: SLV may be indicated to facilitate surgical exposure or to anatomically isolate one lung from another. Management of SLV requires placement of specific airway devices, understanding of single lung physiology, appropriate ventilator management, and knowledge of potential complications of airway devices. Compared to adults, achieving and managing SLV in young children is complicated by an increased risk for hypoxemia and the need to appropriately select and size airway devices.

References:

1. Templeton TW, Piccioni F, Chatterjee D. An Update in One-Lung Ventilation in Children. *Anes Analg.* 2021; 132(5):1389-1399. PMID: 33215885.
2. Lazar A, Chatterjee D, Templeton TW. Error traps in pediatric one-lung ventilation. *Paediatr Anaesth.* 2022; 32(2):346-353. PMID: 34767676.

Examples include	Does not include
● Procedures with successful or attempted placement of a lung isolation device, including an endobronchial tube, bronchial blocker, uninvent tube, or a double lumen endotracheal tube ● Procedures that include management of single lung ventilation physiology	● Procedures in which surgical exposure is achieved by surgical compression of the operative lung AND ventilation changes are minimal (not single lung physiology)

High volume blood loss or third space losses:

Required minimum: 10

Definition: Procedures involving high volume insensible or blood loss, defined as transfusion or volume resuscitation of more than 40mL/kg over 6 hours or one blood volume within 24 hours.

This includes resuscitation with blood products, cell saver, or intravenous fluids.

Rationale: Procedures involving high volume blood loss or third space losses pose a significant challenge in resuscitation during anesthetic management. Derangements in acid/base and electrolytes or hypovolemia can lead to complications and affect postoperative outcomes. These effects are amplified in infants and small children. Proactive planning including obtaining adequate intravenous access and communicating with surgeon/proceduralist and transfusion services is critical for success.

References:

1. Diab YA, Wong EC, Luban NL. Massive transfusion in children and neonates. *Br J Haematol*. 2013;161(1):15-26. PMID: 23432321.
2. Long, JB, Engorn BM, Hill KD, et al. Postoperative Hematocrit and Adverse Outcomes in Pediatric Cardiac Surgery Patients: A Cross-Sectional Study From the Society of Thoracic Surgeons and Congenital Cardiac Anesthesia Society Database Collaboration. *Anesth Analg*. 2021; 133(5):1077-1088. PMID: 33721876.
3. Lee AC, Reduque LL, Luban NL et al. Transfusion-associated hyperkalemic cardiac arrest in pediatric patients receiving massive transfusion. *Transfusion*. 2014;54(1):244-254. PMID: 23581425.
4. Tan GM, Murto K, Downey L, et al. Error traps in Pediatric Patient Blood Management in the Perioperative Period. *Pediatr Anesth*. 2023;33(8):609-619. PMID: 37144721.

Examples include	Does not include
● Intraoperative or postoperative/PICU management of patients who require transfusion or volume resuscitation ○ >40mL/kg in 6 hours OR ○ >one blood volume in 24 hours ○ May include autologous blood products, cell saver transfusions, or other crystalloid or colloid fluids ● Procedures requiring activation of massive transfusion protocol ● Procedures requiring management of sequela of blood loss and replacement, including metabolic and coagulation-related derangements	● Transfusion or resuscitation while on CPB

Vasoactive infusion management:

Required minimum: 15

Definition: Procedures that involve continuous administration of vasoactive medications.

Rationale: Cardiovascular factors and medication administration are the two most common causes of anesthesia-related perioperative cardiac arrest in children. The administration of vasoactive medications in children is complicated by developmental changes in cardiovascular physiology, including age-related changes in cardiomyocyte structure and function, transitional

neonatal circulation, autonomic regulation of cardiovascular function, and normal vital sign ranges.

References:

1. Ramamoorthy C, Haberkern CM, Bhananker SM, et al. Anesthesia-related cardiac arrest in children with heart disease: data from the Pediatric Perioperative Cardiac Arrest (POCA) registry. *Anesth Analg*. 2010; 110(5):1376-1382. PMID: 20103543.
2. Waberski A, Unegbu C, Deutsch N. "Cardiovascular physiology". *Smith's Anesthesia for Infants and Children*, 8th Ed. Davis PJ, Elsevier, 2022, 90-118.
3. Nasr VG, Valencia E, Staffa SJ, et al. Comprehensive Risk Assessment of Morbidity in Pediatric Patients Undergoing Noncardiac Surgery: An Institutional Experience. *Anesth Analg*. 2020;131(5):1607-1615. PMID: 33079885.

Examples include	Does not include
● Procedures in which vasoactive medications are continuously administered and titrated to regulate hemodynamics	● Procedures in which vasoactive medications are administered as intermittent boluses ● Procedures in which vasopressin is administered for management of diabetes insipidus

Neuromonitoring:

Required minimum: 10

Definition: Procedures in which intraoperative neuromonitoring (IONM) is used to guide the surgical procedure and anesthetic or physiologic management must be adjusted to facilitate monitoring.

Rationale: IONM provides real-time, dynamic assessment of neural structures at risk for intraoperative damage, assessment of cortical function, and identification of targets for surgical resection. Monitoring modalities include electroencephalography (EEG), evoked potential monitoring, and electromyography (EMG). IONM requires constant coordination with the monitoring and surgical teams as well as appropriate selection of anesthetic agents and modification of physiologic variables that affect neural perfusion.

References:

1. Tan JM, Cohen DE. "Monitoring". *Smith's Anesthesia for Infants and Children*, 8th Ed. Davis PJ, Elsevier, 2022, 358-381.
2. Hammon DE, Chidambaran V, Templeton TW, et al. Error traps and preventative strategies for adolescent idiopathic scoliosis spinal surgery. *Paediatr Anaesth*. 2023; 33(11):894-904. PMID: 37528658.

Examples include	Does not include
● Procedures with evoked potential monitoring in which anesthetic selection and physiologic management will affect IONM signals, including but not limited to ○ Spinal cord procedures ○ Intracerebral procedures ● Patients requiring neuromonitoring due to risk for cervical cord compression	● Procedures in which neuromonitoring has minimal effects on anesthetic management, including ○ Auditory brainstem response testing ○ Facial or recurrent laryngeal nerve monitoring ○ Tethered cord release ● Procedures in which global cerebral perfusion is monitored (e.g., NIRS)

• Epilepsy procedures directed by cortical monitoring	
---	--

Surgical Procedures

Cardiac with bypass:

Required minimum: 15

Definition: Patients undergoing cardiac, great vessel, airway, thoracic, and mediastinal procedures with cardiopulmonary bypass (CPB).

Rationale: Patients who undergo surgical procedures requiring cardiopulmonary bypass are some of the highest risk patients in any procedural space and often require placement of an invasive airway, invasive hemodynamic monitoring, massive transfusion, management of coagulopathy, chronotropy, inotropy, and systemic and pulmonary vascular resistance.

References:

1. Lee AC, Reduque LL, Luban NL et al. Transfusion-associated hyperkalemic cardiac arrest in pediatric patients receiving massive transfusion. *Transfusion*. 2014;54(1):244-254. PMID: 23581425.

Examples include	Does not include
• Any operative procedure utilizing CPB, including but not limited to ○ Cardiac, great vessel, airway, thoracic, and mediastinal procedures ○ Placement of mechanical support devices (e.g., ECMO or VAD) • Procedures may be performed in any location, including OR, cath lab, or the ICU	• Procedures performed on other mechanical support devices (e.g., ECMO or VAD) • Procedures performed with CPB on standby • Transition from CPB to ECMO

Cardiac without bypass (e.g., catheterization lab, chest closure):

Required minimum: 10

Definition: Pediatric patients with congenital or acquired heart disease undergoing cardiac procedures that do not require cardiopulmonary bypass, but involve direct cardiac intervention or are performed in a cardiac setting (i.e. cardiac catheterization lab).

Rationale: There are particular intricacies in the anesthetic management of congenital cardiac physiology in either a minimally invasive setting or in a cardiac setting without the support or backup of cardiopulmonary bypass.

References:

1. Odegard KC, Vincent R, Baijal RG, et al. SCAI/CCAS/SPA Expert Consensus Statement for Anesthesia and Sedation Practice: Recommendations for Patients Undergoing Diagnostic and Therapeutic Procedures in the Pediatric and Congenital Catheterization Laboratory. *Anesth Analg*. 2016;123(5):1201-1209. PMID: 27749349.

Examples include	Does not include
• Surgical cardiac procedures performed	• Procedures done after a patient has

without CPB, with CPB on standby, or on other mechanical support devices (e.g. ECMO or VAD), including but not limited to ○ Cardiac, great vessel, airway, thoracic, and mediastinal procedures ○ Delayed chest closure ○ Placement of mechanical support devices (e.g., ECMO or VAD) ● Cardiac catheterization procedures, including diagnostic, interventional, and electrophysiology studies	separated from CPB ● Patients with congenital heart disease presenting for non-cardiac procedures (see separate category above)
---	--

Spinal fusion:

Required minimum: 5

Definition: Patients undergoing posterior or anterior spinal fusion or growing rod insertion.

Rationale: Spine procedures with hardware instrumentation can be associated with high volume blood loss and resuscitation, which places children undergoing these procedures at a higher risk of anesthesia-related cardiac arrest. In addition, patients may have neuromuscular scoliosis with significant concomitant comorbidities. Intra-operative neuromonitoring may also require adjustments to the anesthetic plan.

References:

1. Bhananker SM, Ramamoorthy C, Geiduschek JM, et al. Anesthesia-related cardiac arrest in children: update from the Pediatric Perioperative Cardiac Arrest registry. *Anesth Analg.* 2007; 105(2):344-350. PMID: 17646488.
2. Jimenez N, Posner KL, Cheney FW, et al. An update on pediatric anesthesia liability: a closed claims analysis. *Anesth Analg.* 2007; 104(1):147-153. PMID: 17179260.

Examples include	Does not include
● Posterior and/or anterior lumbar or thoracic spinal fusion ● Growing rod insertion	● Spine procedures not at risk for blood loss or neuromonitoring ○ Irrigation and debridement ○ Hardware removal (without replacement) ○ Laminectomy or discectomy ○ Growing rod lengthening ○ Casting procedures ● Cervical spine fusions (classify as neurologic surgery) ● Spinal cord tumor (classify as neurologic surgery)

Craniofacial reconstruction:

Required minimum: 5

Definition: Patients undergoing significant craniofacial surgery, often for repair of craniosynostosis, other craniofacial dysostoses, or fracture.

Rationale: Craniofacial procedures can be associated with high volume blood loss and resuscitation, which places children undergoing these procedures at a higher risk of anesthesia-related cardiac arrest. Patients with mid-face hypoplasia or other syndromic conditions can also have associated difficult airways and/or significant obstructive sleep apnea, affecting anesthetic management.

References:

1. Bhananker SM, Ramamoorthy C, Geiduschek JM, et al. Anesthesia-related cardiac arrest in children: update from the Pediatric Perioperative Cardiac Arrest registry. *Anesth Analg*. 2007; 105(2):344-350. PMID: 17646488.
2. Jimenez N, Posner KL, Cheney FW, et al An update on pediatric anesthesia liability: a closed claims analysis. *Anesth Analg*. 2007; 104(1):147-153. PMID: 17179260.
3. Stricker PA, Goobie SM, Cladis FP, et al. Pediatric Craniofacial Collaborative Group. Perioperative Outcomes and Management in Pediatric Complex Cranial Vault Reconstruction: A Multicenter Study from the Pediatric Craniofacial Collaborative Group. *Anesthesiology*. 2017; 126(2):276-287. PMID: 27977460.

Examples include	Does not Include
• Synostosis repair or cranial reconstruction (open or endoscopic) • Maxillary or mandibular reconstruction • Resection of large soft tissue mass of head or neck	• Procedures related to cleft lip, cleft palate repair, or choanal atresia repair • Small bony lesion removal • Rhinoplasty • Injection of facial AVMs or lymphatic malformations

Airway surgery:

Required Minimum: 10

Definition: Surgical procedures involving the manipulation or evaluation of the oropharynx, hypopharynx, or bronchial tree, with the exception of tonsillectomy/adenoidectomy.

Examples include	Does not Include
• Primary cleft palate repair • Laryngeal or tracheal procedures, including but not limited to ○ Rigid or flexible bronchoscopy ○ Tracheostomy ○ Tracheal reconstruction ○ Laser surgery on the airway • Choanal atresia repair	• Tonsillectomy and/or adenoidectomy • Otolaryngology procedures with minimal effect on respiratory function ○ Frenulectomy ○ Cleft lip surgery ○ Myringotomy tubes • Difficult airway management for non-airway surgery

Neurological surgery cases:

Required minimum: 10

Definition: Surgical or interventional procedures involving brain, cervical spine, or spinal cord or brain with neurophysiology or neuromonitoring requirements that affect anesthetic management.

Examples include	Does not Include
• Intracranial or spinal cord tumor resection • Neurovascular procedures, including but not limited to	• VP shunt or reservoir placement or revision • ICP monitor placement or removal

○ Procedures for arteriovenous malformations (e.g., vein of Galen malformation) ○ Revascularization surgery ● Interventional neuroradiology procedures ● Drainage of subdural hematoma ● Epilepsy and movement disorder surgery ○ Craniotomy for seizure focus resection ○ LiTT procedures ○ DBS electrode placement ● Posterior fossa decompression ● Spinal cord detethering ● Cervical spinal fusions/stabilization procedures	● VNS or DBS generator placement ● Neuroradiology procedures without an intervention ● Craniosynostosis repair and cranial reconstruction (classify as craniofacial reconstruction)
---	---

Neonatal surgical cases:

Required minimum: 5

Definition: Major surgical procedures, excluding intestinal procedures and those included in other categories, performed in patients <45wk PMA. Major procedures are those at risk for hemodynamic instability, resuscitation, metabolic derangements, and/or difficult airway management.

Examples include	Does not Include
● Thoracic procedures, including but not limited to ○ Tracheoesophageal fistula ○ Congenital diaphragmatic hernia ○ Thoracotomy or thoracoscopy ○ Mediastinal surgery ● Tumor or mass excision ● Transplant procedures (including cardiac) ● Fetal or ex utero intrapartum treatment (EXIT) procedures ● Vein of Galen malformation ● Myelomeningocele ● Bladder exstrophy	● Procedures on infants ≥ 45 week PMA ● Cardiac procedures (listed as a separate category) ● Percutaneous gastrostomy ● Percutaneous liver or kidney biopsies ● Vascular access procedures

Neonatal intestinal surgery:

Required minimum: 5

Definition: Major intestinal surgical procedures for patients <45wk PMA. Major procedures are those at risk for hemodynamic instability, resuscitation, metabolic derangements and/or difficult airway management.

Examples include	Does not Include
● Necrotizing enterocolitis ● Pyloric stenosis ● Gastroschisis/omphalocele ● Kasai procedure	● Procedures on infants ≥ 45 week PMA ● Minor intestinal procedures ○ Inguinal or umbilical hernia repair ○ Gastrostomy

● Other intestinal surgeries, including but not limited to ○ Intestinal atresia or duplication ○ Volvulus or malrotation ○ Pull-through procedures	○ Appendectomy ● PD catheter placement
---	---

Anesthesiology Procedures

Airway Management:

Category	Definition	Required Minimum
Natural airway	Spontaneous or assisted ventilation using the patient's own anatomical structures while awake, sedated, or under general anesthesia, including management with ● Nasal cannula ● Oxygen mask ● Anesthesia facemask ● Oropharyngeal or nasopharyngeal devices	10
Supraglottic airway	Placement of a supraglottic airway device	20
Direct laryngoscopy	Placement of an endotracheal tube under direct visualization	50
Video laryngoscopy	Placement of an endotracheal tube under indirect (video) visualization	15
Fiberoptic scope use	Use of a fiberoptic scope for any of the following: ● Endotracheal intubation ● Confirmation of double or single lumen endotracheal tube ● Performance of diagnostic or therapeutic procedures with or without endotracheal tube	10

Patients who are managed with multiple airway techniques (e.g., concomitant video laryngoscopy and fiberoptic use) can be listed in both categories.

Vascular Access:

Placement of arterial or central venous catheters in any anatomic location should be included. Unsuccessful attempts are still of education value and may be included at the learner's discretion. Management of a pre-existing arterial or central venous catheter should not be included.

Procedure	Required Minimum
Arterial line placement	20
Central venous line placement	10

Nerve Blocks:

Placement of peripheral or central neuraxial blocks in any anatomic location should be included. Unsuccessful attempts are still of educational value and may be included at the learner's discretion. Management of pre-existing nerve block catheters should not be included.

Procedure	Required Minimum
Peripheral nerve blocks - Includes single-shot nerve blocks and continuous catheters - Bilateral blocks should be logged as two nerve blocks	20
Neuraxial nerve blocks - Includes single-shot nerve blocks and continuous catheters - Includes intrathecal, epidural, and caudal blocks	20

Perform acute pain consultation

Required minimum 10

Definition: Consultation for the management of acute or chronic pain. Consults may include but are not limited to optimization of multimodal analgesia; management of PCA, regional, or epidural analgesia; complementary, integrative, or alternative medicine; and functional restoration.

Rationale: The ABA content outline for the pediatric anesthesiology board examination includes procedural, postoperative, post-traumatic and burn pain, as well as pathophysiology and treatment of pain in the neonate and chronic pain states, including pharmacologic and non-pharmacologic techniques as well as complementary and alternative pain management.

Examples include	Does not include
- Postoperative pain - Trauma and Burn-related pain - Chronic neuropathic pain - Inpatient chronic pain - Oncologic or palliative pain - Complementary/alternative medicine	- Intraoperative or PACU pain management - Intraoperative regional catheter placement - Consultations for opioid or sedation weans only