The following reports describe concepts from the In-Training Exam that were most misunderstood by examinees or proved to be especially difficult. Each question was reviewed by the ITE Committee as part of key validation and the correct answer was determined to be accurate. The reports are arranged by year.

### 2022 GAPS IN KNOWLEDGE REPORT

- During transsphenoidal resection of a pituitary tumor, allowing hypercapnia can improve conditions for tumor visualization.
- Normal PaCO₂-ETCO₂ gradient is close to zero in healthy, full term parturients.
- Hypoglycemia is an important potential physiologic derangement following reperfusion during a pancreas transplant.
- Spontaneous abortion is a potential consequence following general anesthesia for appendectomy at 13 weeks’ gestation.
- The primary motor cortex is located anterior to the central sulcus.
- According to ACLS guidelines, procainamide is an appropriate therapeutic choice during the treatment of stable wide-complex tachycardia.
- Laryngeal injury is a strong contraindication to transtracheal jet ventilation.

### 2021 GAPS IN KNOWLEDGE REPORT

- The curve that graphs the relationship of alveolar ventilation vs. PaCO₂ has a specific shape.
- Myopia increases the risk associated with performance of a retrobulbar block.
- The onset of action of remifentanil is altered in a geriatric patient compared to a 40-year-old patient.
- Neurapraxia is not an expected complication of diabetic autonomic neuropathy.
- Splinting due to an abdominal surgical incision will affect small airway resistance.
- Loss of pulmonary surfactant has significant implications for respiratory physiology following freshwater drowning.
- Ganglion impar block is appropriate for the treatment of pain resulting from radiation-induced proctitis.
- Gamma radiation of blood is appropriate for immunodeficient patients.
- Spontaneous ventilation will improve in the supine position compared with the sitting position in patients with certain spinal cord injuries.
• When used as an infusion at 50 mcg/kg/min, propofol has bronchodilatory as well as respiratory depressant effects.

• Amongst the causes of cerebral edema, administration of steroids is most effective for the treatment of vasogenic cerebral edema.

• Inhaled volatile anesthetics will have an increased pharmacodynamic effect in children with cerebral palsy.

• The increase in creatinine clearance that occurs with pregnancy returns to prepregnant levels 8 to 12 weeks postpartum.

• The duration of action of epidural bupivacaine is not greatly affected by the addition of epinephrine.