The following reports describe concepts from the In-Training Examination 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.

2023 GAPS IN KNOWLEDGE REPORT

- Using a non-depolarizing neuromuscular blocker in a patient with amyotrophic lateral sclerosis leads to an exaggerated pharmocodynamic response.
- When PEEP is increased in a mechanically ventilated patient, dead space increases.
- Hypoactive delirium is treated with intravenous haloperidol.
- Assuming an ethnic minority does not speak English is a form of microaggression.
- Use of perioperative esmolol reduces intraoperative anesthetic requirements.
- Minor surgery is associated with succinylcholine-associated myalgias.
- In patients with increased extracellular fluid volume, medications that mostly distribute in the extracellular compartment may require an increase in the initial dose.

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 of associated with performance of 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 radiationinduced 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.