



## IN-TRAINING EXAMINATION GAPS IN KNOWLEDGE REPORTS

Below is a list of In-Training Examination (ITE) topics describing the questions that a majority of residents incorrectly answered. 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.

### 2017 GAPS IN KNOWLEDGE REPORT

- Successful placement of an adductor canal block will result in weakness of the vastus medialis muscle
- Daily palpation of the dressing site for tenderness is recommended by the CDC as a method of preventing catheter-related bloodstream infections with central venous catheters
- Hypoalbuminemia is a potential cause of metabolic alkalosis
- The posterior cricoarytenoid muscles are solely responsible for abduction of the vocal cords, and are attached between the posterior cricoid cartilage and the arytenoid cartilages bilaterally

### 2016 GAPS IN KNOWLEDGE REPORT

- When viewed on a chest radiograph, the correct position of the tip of a central venous catheter placed via the right internal jugular vein is above the level of the carina
- As minute ventilation increases linearly in a mechanically ventilated patient, PACO<sub>2</sub> decreases asymptotically, with a more rapid decline initially
- When a patient develops a generalized seizure during hyperbaric oxygen therapy, the most appropriate initial treatment is to discontinue inhaled oxygen
- Hyperglycemia should be avoided in the management of patients with hypokalemic periodic paralysis
- Hyperthyroidism will increase beta-1 adrenoceptor density in cardiac sarcolemma
- When placing a femoral nerve block using a nerve stimulator, contraction of the sartorius muscle indicates that the needle needs to be moved deeper and more laterally
- Obesity is a risk factor for postoperative ischemic optic neuropathy after spinal fusion in the prone position
- General anesthesia with sevofurane will result in peripheral vasodilation, blunting the skin's normal vasoconstrictive response to hypothermia
- Occlusion of the gas outlet ports in the oxygenator of the cardiopulmonary bypass machine can result in a gas embolism
- The ASA Physical Status Classification System was originally developed for facilitating comparison of anesthetic data
- During one lung ventilation, ACE inhibitors can attenuate hypoxic pulmonary vasoconstriction

## 2015 GAPS IN KNOWLEDGE REPORT

- An increase in butyrylcholinesterase activity in morbidly obese patients contributes to their relative resistance to succinylcholine
- The 3-glucuronide metabolite of hydromorphone will accumulate in renal insufficiency and may cause neuro excitation and cognitive impairment
- Dehydration will increase the strong ion deficit
- A child functioning at a high cognitive level is likely to have increased preoperative anxiety
- Of residents with a substance use disorder who continue training, at least 40% will eventually relapse
- Resuscitation of the unresponsive drowning victim begins with rescue breaths
- Lorazepam undergoes glucuronidation in the liver
- Recent placement of cardiac drug-eluting stents is a contra-indication to surgery in a free-standing outpatient surgery center
- Lipogenesis is associated with a higher respiratory quotient than gluconeogenesis
- Prazosin is a selective alpha-1 receptor antagonist
- An infant with a tracheoesophageal fistula and esophageal atresia may also have coarctation of the aorta
- The ASA Guidelines recommend that a back-up power source be available during delivery of an office-based anesthetic
- Hypercapnia following administration of oxygen to a patient with chronic obstructive pulmonary disease is primarily due to ventilation-perfusion mismatching

## 2014 GAPS IN KNOWLEDGE REPORT

- Patients receiving heparin 5000 U BID for more than 5 days may develop a decrease in their platelet count. According to ASRA guidelines, a platelet count may be indicated before removing an epidural catheter in patients who have been receiving subcutaneous heparin for this period of time
- Society for Ambulatory Anesthesia Guidelines for the management of Postoperative Nausea and Vomiting do not recommend metoclopramide as an antiemetic for a patient who has received prophylactic ondansetron intraoperatively
- Controlled hypotension during embolization of an intracranial arteriovenous malformation reduces blood flow through the AVM and allows for the more controlled placement of embolic material
- The adjusted odds ratio determines the effect size in a multivariate logistic regression model
- The sodium concentration of Lactated Ringer's solution is 130 mEq/L and, therefore, is less than that of plasma
- Increased fibrinogen levels contribute to the hypercoagulable state found during pregnancy
- The cervical levels on an AP radiograph of the neck can be determined by identifying the vertebra associated with the first rib, which is the first thoracic vertebra
- During TEE evaluation of myocardial function, the mid-esophageal two-chamber view allows imaging of the region of the left ventricle perfused by the right coronary artery
- Neuromuscular blocking agents do not effectively treat myotonic reactions in patients with myotonic dystrophy

- Ingestion of water 2 hours preoperatively does not cause a decrease in gastric pH
- In ventilated patients, sucralfate is superior to H2 blockers in preventing ventilator-associated pneumonia; proton pump inhibitors actually increase risk