

## **AUGUST 2008 DAC ANSWERS**

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**Friday, August 29, 2008**

During attempted awake intubation, the patient gags when the laryngoscope presses on the base of the tongue. Which of the following cranial nerves is responsible for the afferent limb of this reflex?

- a. trigeminal
- b. facial
- c. glossopharyngeal
- d. vagus
- e. hypoglossal

Answer: C

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**Thursday, August 28, 2008**

Which of the following EEG findings is expected during maintenance anesthesia with high-dose fentanyl (50 mcg/kg), nitrous oxide, and oxygen?

- a. low-frequency high-voltage activity
- b. non-dominant hemispheric slowing
- c. predominant alpha activity
- d. prominent beta activity
- e. spindle-shaped bursts

Answer: A

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**Wednesday, August 27, 2008**

Epidural administration of corticosteroids is most effective in relieving pain in patients with which of the following conditions?

- a. back pain caused by metastatic cancer
- b. postherpetic neuralgia
- c. postlaminectomy syndrome
- d. postural low back pain
- e. radiculopathy following disk herniation

Answer: E

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**Tuesday, August 26, 2008**

3 hours after total thyroidectomy, a 33 old-woman develops inspiratory stridor. The most likely cause is:

- a. hematoma formation
- b. tracheomalacia
- c. tetany
- d. recurrent laryngeal nerve injury
- e. superior laryngeal nerve injury

Answer: A

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**Monday, August 25, 2008**

Following protamine administration, profound pulmonary hypertension is most likely initiated by:

- a. epinephrine
- b. histamine
- c. leukotriene
- d. norepinephrine
- e. tromboxane

Answer: E

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**Friday, August 22, 2008**

A 70 kg 22-year-old patient with head trauma and multiple fractures of the long bones is scheduled for fixation of bilateral femoral fractures. Preoperative laboratory studies show a serum Na concentration of 150 mEq/l, a serum K concentration of 3.1 mEq/l and a urine output greater than 500 ml/h. Which of the following agents will decrease urine output?

- a. 3% saline solution
- b. 5% dextrose solution
- c. Glucagons
- d. Hydrocortisone
- e. Vasopressin

Answer: E

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**Thursday, August 21, 2008**

Block of each of the following nerves is required for inguinal herniorrhaphy EXCEPT the:

- a. genitofemoral
- b. iliohypogastric
- c. ilioinguinal
- d. obturator
- e. twelfth thoracic

Answer: D

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**Wednesday, August 20, 2008**

Undesirable muscarinic effects of anticholinesterase agents used for antagonism of muscle relaxants include each of the following EXCEPT:

- a. increased secretions
- b. bradycardia
- c. increased gastrointestinal motility
- d. increased urinary sphincter tone
- e. bronchoconstriction

Answer: D

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**Tuesday, August 19, 2008**

Each of the following is an effect of rapid infusion of mannitol EXCEPT:

- a. depletion of electrolytes
- b. impaired platelets adhesiveness
- c. increased intracranial pressure
- d. increased intravascular fluid volume
- e. increased renal blood flow

Answer: B

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**Monday, August 18, 2008**

Perception of pain from cutaneous sources involves each of the following EXCEPT:

- a. frontal lobe gyri
- b. lateral spinothalamic tracts
- c. periaqueductal gray matter
- d. spinal dorsal horn lamina V
- e. unmyelinated C fibers

Answer: A

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**Friday, August 15, 2008**

A parturient receives ketamine 2 mg/kg and succinylcholine 1.5 mg/kg for induction prior to elective cesarean delivery. Which of the following is most likely to be present in the newborn infant?

- a. normal muscle tone
- b. bradycardia
- c. opisthotonus
- d. respiratory depression
- e. seizures

Answer: A

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**Thursday, August 14, 2008**

Compared with a normal child, which of the following is expected during inhalation induction in a child with a 2: 1 left to right intracardiac shunt?

- a. decreased rate of rise of alveolar anesthetic tension
- b. decreased anesthetic concentration in pulmonary bed
- c. decreased cerebral blood flow
- d. increased anesthetic concentration in vena cava blood
- e. no difference in time for anesthetic induction

Answer: E

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**Wednesday, August 13, 2008**

Which of the following combinations of anesthetic and incorrect vaporizer results in the smallest error in delivered concentration?

- a. enflurane in a halothane vaporizer
- b. enflurane in a isoflurane vaporizer
- c. halothane in a desflurane vaporizer
- d. isoflurane in a halothane vaporizer
- e. sevoflurane in a desflurane vaporizer

Answer: D

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**Tuesday, August 12, 2008**

A patient is placed in the prone jackknife position for lumbar subarachnoid injection of tetracaine 10 mg in 10 ml of preservative-free sterile water. Which of the following results is most likely?

- a. respiratory insufficiency
- b. sensory and motor block at T4-S1
- c. sensory and motor block at L1-S5
- d. sensory loss without motor block at L1-S5
- e. sensory and motor block at S3-S5

Answer: C

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**Monday, August 11, 2008**

Which of the following malfunctions causes the line isolation monitor to alarm?

- a. discharge of static electricity
- b. flow of current to ground in the isolated circuit
- c. interruption of current to electrical outlets caused by a circuit breaker
- d. surge of current in the main power supply
- e. total electrical current exceeding circuit capacity

Answer: B

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**Friday, August 8, 2008**

A 65-year-old patient with COPD sustained fractures of ribs 4 through 8 on the left one hour ago. Examination shows agitation, heart rate of 120 bpm, respiratory rate of 30/min, and blood pressure of 180/100 mmHg. PaO<sub>2</sub> is 70 mmHg PaCO<sub>2</sub> is 35 mmHg on room air. Radiographs of the chest show no abnormalities.

Which of the following is the most appropriate management?

- a. continuous epidural analgesia using local anesthetics
- b. mechanical ventilation
- c. infusion of midazolam
- d. patient-controlled analgesia with morphine
- e. surgical stabilization of rib fractures

Answer: A

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**Thursday, August 7, 2008**

Which of the following statements concerning nalbuphine is true?

- a. it causes partial reversal of morphine-induced ventilatory depression
- b. analgesia is partially mediated by delta receptor agonism
- c. its antagonist effects are mediated at kappa receptors
- d. duration of action is significantly shorter than that of morphine
- e. ventilatory drive is not depressed

Answer: A

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**Wednesday, August 6, 2008**

Which of the following statements concerning the metabolism of atracurium is true?

- a. it is related to cardiac output
- b. it is decreased by hyperthermia
- c. it is unaffected by increasing age
- d. it is decreased by low plasma cholinesterase activity
- e. it is decreased in renal failure

Answer: C

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**Tuesday, August 5, 2008**

When inspired gases are humidified

- a. most particles 1 to 2 microns in size are deposited in the trachea
- b. respiratory epithelial cilia become less active
- c. alveolar water vapor pressure is unchanged
- d. respiratory heat loss is abolished
- e. sterilization of breathing apparatus is mandatory

Answer: C

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**Monday, August 04, 2008**

A 2.3 kg 1-day-old term infant requires repair of gastroschisis. Which of the following combinations is most appropriate for intraoperative fluid management?

- a. D5W for maintenance and LR for replacement of third space losses
- b. D10W for maintenance and LR for replacement of third space losses
- c. LR for maintenance and replacement of third space losses
- d. LR for maintenance and albumin 5% for replacement of third space losses
- e. NSS for maintenance and LR for replacement of third space losses

Answer: B

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**Friday, August 1, 2008**

When inspired gases are humidified

- a. most particles 1 to 2 microns in size are deposited in the trachea
- b. respiratory epithelial cilia becomes less active
- c. alveolar water vapor pressure is unchanged
- d. respiratory heat loss is abolished
- e. sterilization of breathing apparatus is mandatory

Answer: C