

## July 2008 DAC ANSWERS

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### Thursday, July 31, 2008

An 18-year-old woman has knee pain during arthroscopy performed with femoral and sciatic nerve blocks for repair of a torn medial meniscus. The most appropriate management is addition of which of the following blocks?

- a. deep peroneal
- b. obturator
- c. popliteal
- d. saphenous
- e. superficial peroneal

Answer: B

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### Wednesday, July 30, 2008

A 52-year-old man develops oliguria 24 hours after left hemicolectomy. Urinalysis shows a specific gravity of 1.028, an osmolality of 650 mOsm/l and a Na of 10 mEq/l. Which of the following is the most likely diagnosis?

- a. acute tubular necrosis
- b. hypoaldosteronism
- c. hypovolemia
- d. interstitial renal disease
- e. obstructive nephropathy

Answer: C

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### Tuesday, July 29, 2008

In a patient with adult respiratory distress syndrome who is being mechanically ventilated, which of the following findings indicates the most severe disease?

- a. decreased FRC
- b. decreased lung compliance
- c. hypercarbia
- d. hypoxemia
- e. increased dead space

Answer: C

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**Monday July 28, 2008**

A 28-year-old woman undergoes total thyroidectomy. The left recurrent laryngeal nerve is transected during the procedure. Which of the following findings is most likely postoperatively?

- a. normal voice
- b. aphonia
- c. hoarseness
- d. expiratory stridor
- e. inspiratory stridor

Answer: C

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**Friday, July 25, 2008**

Which of the following is the most appropriate management of decreased cardiac output in patients with isolated aortic insufficiency?

- A. dobutamine
- B. esmolol
- C. intra-aortic balloon counterpulsation
- D. norepinephrine
- E. positive pressure ventilation

Answer: A

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**Thursday, July 24, 2008**

You are called to anesthetize a patient for an emergency pericardial window for a large pericardial effusion. Which of the following drugs is most appropriate for initiation of anesthesia?

- A. alfentanil
- B. ketamine
- C. midazolam
- D. propofol
- E. thiopental

Answer: B

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**Wednesday July 23, 2008**

During a craniotomy tumor, a 28-year-old man receives isoflurane 0.75% in nitrous oxide 70% and oxygen. Ventilation is controlled to maintain PaCO<sub>2</sub> at 25 mmHg. Nasopharyngeal temperature is 35.8 C. While the dura mater is open, the surgeon complains that the brain is bulging. The most appropriate management at this time is to:

- A. decrease the inspired isoflurane concentration to 0.5%
- B. hyperventilate further to decrease the PaCO<sub>2</sub> to 20 mmHg
- C. discontinue nitrous oxide
- D. administer thiopental
- E. administer additional muscle relaxants

Answer: D

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**Tuesday, July 22, 2008**

Compared with normal adults, which of the following characteristics of neonates best explains the more rapid inhalation induction in neonates?

- A. greater cardiac index
- B. greater metabolic rate
- C. greater perfusion of vessel-rich organs
- D. greater ratio of alveolar ventilation to functional residual capacity
- E. less lean body mass

Answer: D

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**Thursday July 17, 2008**

Which of the following is the greatest disadvantage of pressure –cycled ventilation?

- A. increased I:E ratio
- B. increased mechanical dead space
- C. increased risk of barotraumas
- D. variable respiratory rates
- E. variable tidal volumes

Answer: E

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**Wednesday July 16, 2008**

Which of the following correctly describes the anatomic location of the stellate ganglion?

- A. anterior to the transverse process of C5
- B. anterior to the transverse process of C7
- C. posterior to the prevertebral fascia
- D. posterior to the vertebral artery
- E. lateral to the carotid artery

Answer: B

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**Tuesday July 15, 2008**

Preoperative evaluation of a patient who has marked malnutrition will demonstrate each of the following EXCEPT:

- A. decreased respiratory muscle function
- B. decreased serum albumin concentration
- C. decreased metabolic rate
- D. suppressed immune function
- E. decreased extracellular fluid volume

Answer: E

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**Monday July 14, 2008**

High positive end-expiratory pressure can result in each of the following EXCEPT:

- A. decreased venous return
- B. increased FRC
- C. a left to right shunt of the ventricular septum
- D. decreased PaO<sub>2</sub>
- E. pulmonary barotrauma

Answer: C

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**Friday July 11, 2008**

Each of the following findings is characteristic of the restrictive lung disease EXCEPT:

- A. decreased elasticity of the lungs
- B. decreased FEV1/FVC ratio
- C. decreased inspiratory reserve volume
- D. increased work of breathing
- E. normal anatomic dead space

Answer: B

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**Thursday July 10, 2008**

Each of the following landmarks is used in performing wrist block to remove a cystic mass on the forth digit EXCEPT the:

- A. extensor pollicis longus tendon
- B. ulnar artery
- C. Palmaris longus tendon
- D. Flexor carpi radialis tendon
- E. Flexor carpi ulnaris tendon

Answer: A

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**Wednesday July 9, 2008**

Pulsus paradoxus is commonly seen during anesthesia in patients with each of the following conditions EXCEPT:

- A. severe asthma
- B. right sided –heart failure
- C. hypovolemia
- D. atrial septal defect
- E. obesity

Answer: D

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**Tuesday July 8, 2008**

Each of the following statements concerning the activated clotting time ( ACT) is true EXCEPT:

- A. the ACT is more sensitive than the APTT to blood heparin concentration
- B. the ACT is prolonged if specimen is not warmed during the assay
- C. the ACT should be greater than 300sec before initiating CPB
- D. hypofibrinogenemia may prolong the ACT after CPB
- E. whole blood is used for measurement of the ACT

Answer: A

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**Monday July 7, 2008**

Each of the following conditions is a cause of agitation in a patient following transurethral resection of the prostate EXCEPT:

- A. bladder distention
- B. glycine absorption
- C. inadequate analgesia
- D. serum sodium concentration of 127mEq/l
- E. systolic pressure of 60 mmHg

Answer: D

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**Friday, July 4, 2008**

IN a patient with ARDS who is being mechanically ventilated, which of the following findings indicates the most severe disease?

- A. decreased FRC
- B. decreased lung compliance
- C. hypercarbia
- D. hypoxemia
- E. increased dead space

Answer: C

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**Thursday, July 3, 2008**

Compared with other volatile inhalation anesthetics, desflurane has which of the following characteristics?

- A. equipotency to isoflurane
- B. greater extent of biotransformation than enflurane
- C. less airway irritation than halothane
- D. lower blood gas solubility coefficient than enflurane
- E. lower vapor pressure than isoflurane

Answer: D

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**Wednesday, July 2, 2008**

A 32-year-old patient with end-stage renal failure has irreversible neuromuscular blockade 2 hours after tracheal intubation with a muscle relaxant. Which of the following is the most likely cause?

- A. Cisatracurium
- B. Doxacurium
- C. Mivacurium
- D. Pancuronium
- E. Vecuronium

Answer: B

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**Tuesday, July 1, 2008**

A 6-year-old boy with spina bifida and chronic indwelling urinary catheter has severe hypotension and hypoxemia during augmentation cystoplasty. Which of the following is the most likely cause?

- A. autonomic neuropathy
- B. disseminated intravascular coagulation
- C. latex allergy
- D. urinary sepsis
- E. venous air embolism

Answer: C