

## ASSESSMENT QUESTIONS

**Question 1: Troponin monitoring is recommended for which group(s) of surgical patients?**

- a. All inpatients
- b. Inpatients  $\geq$  age 45 with  $\geq$  1 risk factor and all inpatients  $\geq$  age 65 (CORRECT)
- c. All inpatients and outpatients  $\geq$  age 65
- d. Only patient with clinical signs of ischemia in the perioperative period

**Question 2: Which statement is false?**

- a. More than 90% of MINS occurs within 2 postoperative days
- b. More than 90% of MINS is silent
- c. Asymptomatic MINS is much less serious than MINS with chest pain or shortness of breath (CORRECT)
- d. 30-day mortality is 4%

**Question 3: Which statement is false?**

- a. Asymptomatic MINS can be ignored (CORRECT)
- b. Postoperative anticoagulation reduces vascular complications in patients who had MINS
- c. Aspirin, statins, and angiotensin converting enzyme inhibitors should be considered in patients who have MINS
- d. MINS is an opportunity for life-style interventions including smoking cessation, exercise, and healthful eating.

**Question 4: An important principle of cardiovascular hemodynamics includes all of the following, except:**

- a. Cardiac output is directly related to the pressure gradient across a vascular bed
- b. Blood flow is inversely related to systemic vascular resistance
- c. Vasoconstricting agents including phenylephrine decrease systemic vascular resistance (CORRECT)
- d. Optimizing cardiac output and end-organ perfusion is the primary goal of hemodynamic management

**Question 5: Identification of optimal blood pressure using real-time monitoring of cerebral autoregulation demonstrates all of the following, except:**

- a. The mean optimal blood pressure during cardiopulmonary bypass for most patients is 78 mmHg
- b. The mean optimal blood pressure is estimated to be below the cerebral limits of autoregulation in 17% of patients.
- c. The mean optimal blood pressure is estimated to be above the cerebral limits of autoregulation in 29% of patients
- d. The mean optimal blood pressure identifies a specific blood pressure which is ideal for all patients (CORRECT)

**Question 6: Maintaining blood pressure below the optimal blood pressure after cardiac surgery as determined by real-time monitoring of cerebral autoregulation is associated with evidence of brain cellular injury**

- a. True (CORRECT)
- b. False

**Question 7: When a blood pressure cuff that is too small for the patient, how does this alter the blood pressure measurement?**

- a. Underestimates systolic blood pressure
- b. Mean blood pressure is unchanged
- c. Overestimates systolic blood pressure (CORRECT)
- d. Underestimates diastolic blood pressure

**Question 8: Arterial lines should be placed:**

- a. Only placed in the radial artery
- b. Equally safe in both the radial and brachial artery
- c. Should never be placed in the brachial artery
- d. Brachial artery arterial lines are reasonably safe. (CORRECT)

**Question 9: Intraoperative hypotension (i.e. mean arterial pressure less than 55 mmHg)**

- a. Should be tolerated
- b. Treated with fluids and decreased depth of anesthesia
- c. If unresponsive to conservative therapy, should be treated with vasopressors
- d. B and C (CORRECT)