

# CME QUESTIONS

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**INSTRUCTIONS**

- The answer grid and evaluation form should be submitted as a printout from the ITACCS website.
- On the answer form at the bottom of page 211, circle only one response next to each number.
- Complete the evaluation form.
- Keep a copy of your completed answer form and evaluation form.
- Write a check for \$200 (or \$100 accompanied by verification of current ITACCS membership), payable to the International Trauma Anesthesia and Critical Care Society.
- Mail the forms and your check (and membership verification, if applicable) to ITACCS, Department of CME Credit, PO Box 4826, Baltimore, MD 21211.
- The completed test will be accepted for grading if received by March 31, 2007.
- Please allow 4 to 6 weeks for processing.

**CME QUESTIONS**

<p>1. Clinically significant hypothermia induces any of the following except:</p> <ul style="list-style-type: none"> <li>a. Cardiac arrhythmias</li> <li>b. Decreased cardiac output</li> <li>c. Right shift of the oxygen-hemoglobin dissociation curve</li> <li>d. Inhibition of the coagulation cascade</li> </ul>	<p>5. Rewarming the patient is a high priority because:</p> <ul style="list-style-type: none"> <li>a. It decreases the time for closing the abdominal wall in case the patient undergoes damage control.</li> <li>b. Coagulopathy and acidosis can be corrected and maintained only after the body temperature returns to normal.</li> <li>c. It reduces heat generation.</li> <li>d. It reduces the need for transfusion.</li> </ul>	<p>9. Abdominal compartment syndrome is an acute condition in which increased intraabdominal pressure causes organ dysfunction as a result of intraabdominal hypertension greater than:</p> <ul style="list-style-type: none"> <li>a. 10 mm Hg</li> <li>b. 15 mm Hg</li> <li>c. 20 mm Hg</li> <li>d. 25 mm Hg</li> <li>e. 30 mm Hg</li> </ul>
<p>2. In the original work by Stone et al, the mortality rate associated with using coagulopathy as an indication for the institution of damage control was:</p> <ul style="list-style-type: none"> <li style="width: 50%;">a. 25%</li> <li style="width: 50%;">b. 35%</li> <li style="width: 50%;">c. 50%</li> <li style="width: 50%;">d. 70%</li> </ul>	<p>6. Which physiologic indication predicts the need for damage control?</p> <ul style="list-style-type: none"> <li>a. Serum bicarbonate <math>\leq 22</math> mEq/L</li> <li>b. Hypothermia <math>&lt; 35^{\circ}\text{C}</math>.</li> <li>c. Intraoperative volume replacement <math>\geq 12,000</math> mL.</li> <li>d. Acidosis <math>\leq 7.3</math></li> </ul>	<p>10. The triad of hypothermia, acidosis, and coagulopathy is referred to as the “bloody vicious cycle.”</p> <ul style="list-style-type: none"> <li>a. True</li> <li>b. False</li> </ul>
<p>3. The best candidates for damage control surgery are patients who are exsanguinating.</p> <ul style="list-style-type: none"> <li>a. True</li> <li>b. False</li> </ul>	<p>7. “Damage control” is a term adopted from U.S. military language.</p> <ul style="list-style-type: none"> <li>a. True</li> <li>b. False</li> </ul>	<p>11. The five stages of damage control include all the following except:</p> <ul style="list-style-type: none"> <li>a. Obtaining hemostasis</li> <li>b. Obtaining control of contamination</li> <li>c. Warming the patient</li> <li>d. Resuscitating the patient in the ICU</li> <li>e. Decompressing raised intraabdominal pressure</li> </ul>
<p>4. According to Asensio, the first step in the algorithm for the management of the exsanguinating patient is to:</p> <ul style="list-style-type: none"> <li>a. Determine the presence of an exsanguinating injury.</li> <li>b. Resuscitate the patient as per Advanced Trauma Life Support protocol.</li> <li>c. Rapidly transport to the operating room.</li> <li>d. Perform an emergency department thoracotomy to stop a possible subdiaphragmatic bleeding point.</li> </ul>	<p>8. The indications for a damage control procedure include all the following except:</p> <ul style="list-style-type: none"> <li>a. pH 7.1</li> <li>b. Temperature <math>&lt; 32^{\circ}\text{C}</math></li> <li>c. Hemoglobin <math>&lt; 7.0</math> g/dL.</li> <li>d. Mean arterial pressure of 50 mm Hg</li> <li>e. Severe coagulopathy</li> </ul>	<p>12. The initial closure of the abdominal wound is best achieved by:</p> <ul style="list-style-type: none"> <li>a. Sandwich closure using abdominal drapes</li> <li>b. Suture of the sheath</li> <li>c. Leaving the abdominal wound open with a dressing</li> <li>d. Skin graft</li> <li>e. Subcuticular closure of skin</li> </ul>

- 13. Coagulopathy associated with damage control surgery should be treated first with:
  - a. Cryoprecipitate
  - b. Aggressive rewarming and correction of acidosis
  - c. Recombinant factor VIIa
  - d. Heparin
  - e. Fresh blood
- 14. Intraabdominal hypertension is an uncommon condition associated with damage control.
  - a. True
  - b. False
- 15. "Shock" may be characterized by which of the following?
  - a. Increased core body temperature
  - b. Decreased blood pressure following hemorrhage
  - c. Bradycardia <60 bpm
  - d. Metabolic alkalosis
- 16. Which of the following is an appropriate physiologic target for fluid resuscitation during uncontrolled hemorrhagic shock?
  - a. Blood pressure of 120/80
  - b. Base deficit = -2
  - c. Hematocrit >25%
  - d. Temperature of 33°C
- 17. During massive transfusion therapy (>10 units of red blood cells in a 4-hour period), which of the following electrolyte abnormalities will require active intervention?
  - a. Hypocalcemia
  - b. Mild hyperkalemia
  - c. Hypochloremia
  - d. Hypomagnesemia
- 18. Adequate resuscitation from hemorrhagic shock requires definitive control of bleeding and which of the following?
  - a. Clearance to normal of elevated serum lactate
  - b. Anticoagulation to a prothrombin time >18 seconds
  - c. Blood pressure and heart rate elevated to >150% of normal
  - d. Urine output >5 mL/kg/hr
- 19. Which of the following therapies will improve end-organ tissue perfusion in the patient with uncontrolled bleeding and severe hemorrhagic shock (SBP <60)?
  - a. Isotonic crystalloid, 1 liter
  - b. 2 units of uncrossmatched type-O blood
  - c. 1 mg epinephrine
  - d. 500 mg sodium bicarbonate
- 20. Deliberate hypothermia, which has been suggested as a treatment for hemorrhagic shock and has demonstrated good results in animal trials, is recommended as a treatment option for trauma patients.
  - a. True
  - b. False

**Evaluation Form: Please rate this self-study activity by marking one response for each statement.**

Did the articles meet their stated objectives?  Yes  No

How do you rank the quality of this educational activity?  5 (high)  4  3  2  1 (low)

Comments: \_\_\_\_\_

Did you perceive any evidence of bias for or against any commercial products?  Yes  No If yes, please explain.

Comments: \_\_\_\_\_

How do you rank the effectiveness of this activity as it pertains to your practice?  5 (high)  4  3  2  1 (low)

Did this material stimulate your intellectual curiosity?  5 (high)  4  3  2  1 (low)

Additional comments about this activity: \_\_\_\_\_

**Answer Form: Please circle the one best answer for each question.**

TraumaCare Fall 2005 issue

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- 1. a b c d
- 2. a b c d
- 3. a b
- 4. a b c d
- 5. a b c d
- 6. a b c d
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- 8. a b c d e
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- 15. a b c d
- 16. a b c d
- 17. a b c d
- 18. a b c d
- 19. a b c d
- 20. a b

I certify that I have completed the "TraumaCare/Fall 2005" activity as designed and claim 10 credit hours in Category 1 of the Physicians Recognition Award of the American Medical Association.

Signature \_\_\_\_\_ Date \_\_\_\_\_

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#### References:

- 1) BMJ Volume 320, 18 March 2000
- 2) To Err Is Human: Building a Safer Health System/Linda T. Kohn, Janet M. Corrigan, and Molla S. Donaldson, Editors, © 2000 by the National Academy of Sciences.

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