

Management of Sepsis

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This month's quiz is based on the article "Management of Sepsis: The Surviving Sepsis Guidelines for Early Therapy," which begins on page 21 of this issue. Choose the single best answer for each question.

Questions 1 and 2 refer to the following case.

A 45-year-old woman presents to the emergency department with acute pancreatitis related to a history of gallstones. The patient's vital signs are as follows: temperature, 98°F; heart rate, 120 bpm; respiratory rate, 30 breaths/min; blood pressure, 70/35 mm Hg; and oxygen saturation as measured by pulse oximetry, 98% without oxygen supplementation. A chest radiograph is normal. White blood cell count is $12 \times 10^3/\mu\text{L}$, and urinalysis is unremarkable. No other sources of infection are identified.

1. This patient's condition can best be defined as which of the following?

- (A) Multiorgan dysfunction syndrome
- (B) Sepsis
- (C) Septic shock
- (D) Severe sepsis
- (E) Systemic inflammatory response syndrome

2. After ensuring adequate airway and oxygenation, what is the next step in the management of this patient?

- (A) Antibiotic therapy
- (B) β -Blocker therapy to control heart rate
- (C) Intravenous fluid resuscitation
- (D) Surgical consult for gall bladder surgery
- (E) Vasopressor therapy with dopamine

3. All of the following therapies for septic shock have been shown to improve survival in randomized controlled trials EXCEPT?

- (A) Low tidal volume mechanical ventilation in patients with acute respiratory distress syndrome (ARDS)
- (B) Early goal-directed therapy for initial resuscitation
- (C) Use of recombinant human activated protein C

(drotrecogin alfa [activated]) in patients with an Acute Physiology and Chronic Health Evaluation (APACHE II) score > 25

- (D) Tight glucose control in postsurgical patients
- (E) Starting corticosteroid therapy more than 2 weeks after the onset of ARDS

4. Which of the following is a contraindication to the use of drotrecogin alfa?

- (A) APACHE II score > 25
- (B) Platelet count of $40 \times 10^3/\mu\text{L}$
- (C) History of hemorrhagic stroke within the previous 6 months
- (D) Intracranial neoplasm
- (E) Intraspinal surgery within the previous 4 months

5. Which of the following is an indication for using corticosteroids in septic shock?

- (A) ARDS
- (B) Necrotizing pneumonia
- (C) Peritonitis
- (D) Sepsis responding well to fluid resuscitation
- (E) Vasopressor-dependence

6. In the treatment of septic shock, what is the goal for blood pressure?

- (A) Systolic blood pressure ≥ 90 mm Hg
- (B) Mean arterial pressure ≥ 65 mm Hg
- (C) Diastolic blood pressure ≥ 60 mm Hg
- (D) Systolic blood pressure ≥ 80 mm Hg
- (E) Diastolic blood pressure ≥ 40 mm Hg

7. In the treatment of septic shock, what is the goal for urine output?

- (A) Urine output ≤ 0.3 mL/kg/hr
- (B) Urine output ≥ 0.2 mL/kg/hr
- (C) Urine output ≥ 300 mL per day
- (D) Urine output ≥ 0.5 mL/kg/hr

For answers, see page 55.

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Answers to the Clinical Review Quiz, which appears on page 50. The article on sepsis begins on page 21.

1. (E) Systemic inflammatory response syndrome
2. (C) Intravenous fluid resuscitation
3. (E) Starting corticosteroid therapy more than 2 weeks after the onset of ARDS
4. (D) Intracranial neoplasm
5. (E) Vasopressor-dependence
6. (B) Mean arterial pressure ≥ 65 mm Hg
7. (D) Urine output ≥ 0.5 mL/kg/hr

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