Critical Care Board Review

Gary M. Hunninghake, MD, MPH
Brigham and Women’s Hospital

Disclosures

• None

Case #1

• A 22 yo man with AML, s/p 2 cycles of chemotherapy, presents with 24 hr of worsening dyspnea, fever with \( T_{\text{max}} 38.7 \, ^\circ \text{C} \).
• BP= 96/55. WBC=0.8K
• 7:30 / 3/67 / 15
  – 40% FM
Interpretation: Pure metabolic acidosis with hypoxemia

Case #2

• 67 yo man with hx of htn, renal insufficiency, hypothyroidism, PVD, now POD #2 fem-pop bypass.
• Becomes restless, combative
• BP- 140/95, HR-110/min.
 You are asked to come and evaluate

Case #3

• A 73 yo man with a hx of prostate cancer collapses while boarding a bus in a crowded urban bus terminal.
• Bystander CPR is begun, a transit policeman arrives, attaches an AED which recommends “shock” and discharges.
• The patient is intubated for airway protection by EMS and brought to the closest hospital unconscious but with a stable blood pressure.

Case #4

• An 81 yo man is admitted for pneumonia.
• Vital signs: BP 100/60 (normally 140/80), HR 110/min, T-101.8.
• Initial labs:
  – WBC-12K
  – Electrolytes normal
  – Blood glucose 180 mg/dl
An intensive glucose control strategy is discussed.
Case #5
You are evaluating a 28 year old pregnant female who presents with an acute onset of shortness of breath, tachycardia, and hypoxemia. You have considered the diagnosis of a pulmonary embolism.

Case #6
A 45 yo man with sarcoidosis is admitted to the ICU for hemoptysis. He estimates approximately 300 ml bright red blood over the past 6 hours.
- Recent pulmonary function:
  - FEV1: 1.3 L (40% predicted)
  - TLC: 55% predicted
  - DLCO: 40% predicted
- ABG on admission:
  - 7.54 / 25 / 67 / 21

- Which of the following is NOT true?

Case #7
- A 41 yo man is intubated for respiratory distress, impending respiratory failure.
- Past medical history: obesity, DM, asthma.
- He weighs 280 lbs, BMI-39.
- Which of the following is true?

  A. He is more likely to have catheter-related infections than someone of normal weight.
  B. His ICU mortality is higher than someone of normal weight.
  C. He is likely to have more days on mechanical ventilation than someone of normal weight.
  D. His weight is not relevant to his prognosis.
  E. When setting the tidal volume on his ventilator, his current weight rather than ideal body weight must be used.