

### Notice

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# Emergency Medicine

PreTest™ Self-Assessment and Review

## Introduction

*Emergency Medicine: PreTest Self-Assessment and Review, Second Edition*, is intended to provide medical students, as well as house officers and physicians, with a convenient tool for assessing and improving their knowledge of emergency medicine. The 500 questions in this book are similar in format and complexity to those included in Step 2 of the United States Medical Licensing Examination (USMLE). They may also be a useful study tool for Step 3 and clerkship examinations.

Each question in this book has a corresponding answer, a reference to a text that provides background for the answer, and a short discussion of various issues raised by the question and its answer. A listing of references for the entire book follows the last chapter. For multiple-choice questions, the **one best** response to each question should be selected. For matching

sets, a group of questions will be preceded by a list of lettered options. For each question in the matching set, select **one** lettered option that is **most** closely associated with the question.

To simulate the time constraints imposed by the qualifying examinations for which this book is intended as a practice guide, the student or physician should allot about one minute for each question. After answering all questions in a chapter, as much time as necessary should be spent reviewing the explanations for each question at the end of the chapter. Attention should be given to all explanations, even if the examinee answered the question correctly. Those seeking more information on a subject should refer to the reference materials listed or to other standard texts in emergency medicine.

# Chest Pain and Cardiac Dysrhythmias

## Questions

1. A 59-year-old man presents to the emergency department (ED) complaining of new onset chest pain that radiates to his left arm. He has a history of hypertension, hypercholesterolemia, and a 20-pack-year smoking history. His electrocardiogram (ECG) is remarkable for T-wave inversions in the lateral leads. Which of the following is the most appropriate next step in management?

- Give the patient two nitroglycerin tablets sublingually and observe if his chest pain resolves.
- Place the patient on a cardiac monitor, administer oxygen, and give aspirin.
- Call the cardiac catheterization laboratory for immediate percutaneous intervention (PCI).
- Order a chest x-ray; administer aspirin, clopidogrel, and heparin.
- Start a  $\beta$ -blocker immediately.

2. A 36-year-old woman presents to the ED with sudden onset of left-sided chest pain and mild shortness of breath that began the night before. She was able to fall asleep without difficulty but woke up in the morning with persistent pain that is worsened upon taking a deep breath. She walked up the stairs at home and became very short of breath, which made her come to the ED. Two weeks ago, she took a 7-hour flight from Europe and since then has left-sided calf pain and swelling. What is the most common ECG finding for this patient's presentation?

- S<sub>1</sub>Q<sub>3</sub>T<sub>3</sub> pattern
- Atrial fibrillation
- Right-axis deviation
- Right-atrial enlargement
- Tachycardia or nonspecific ST-T-wave changes

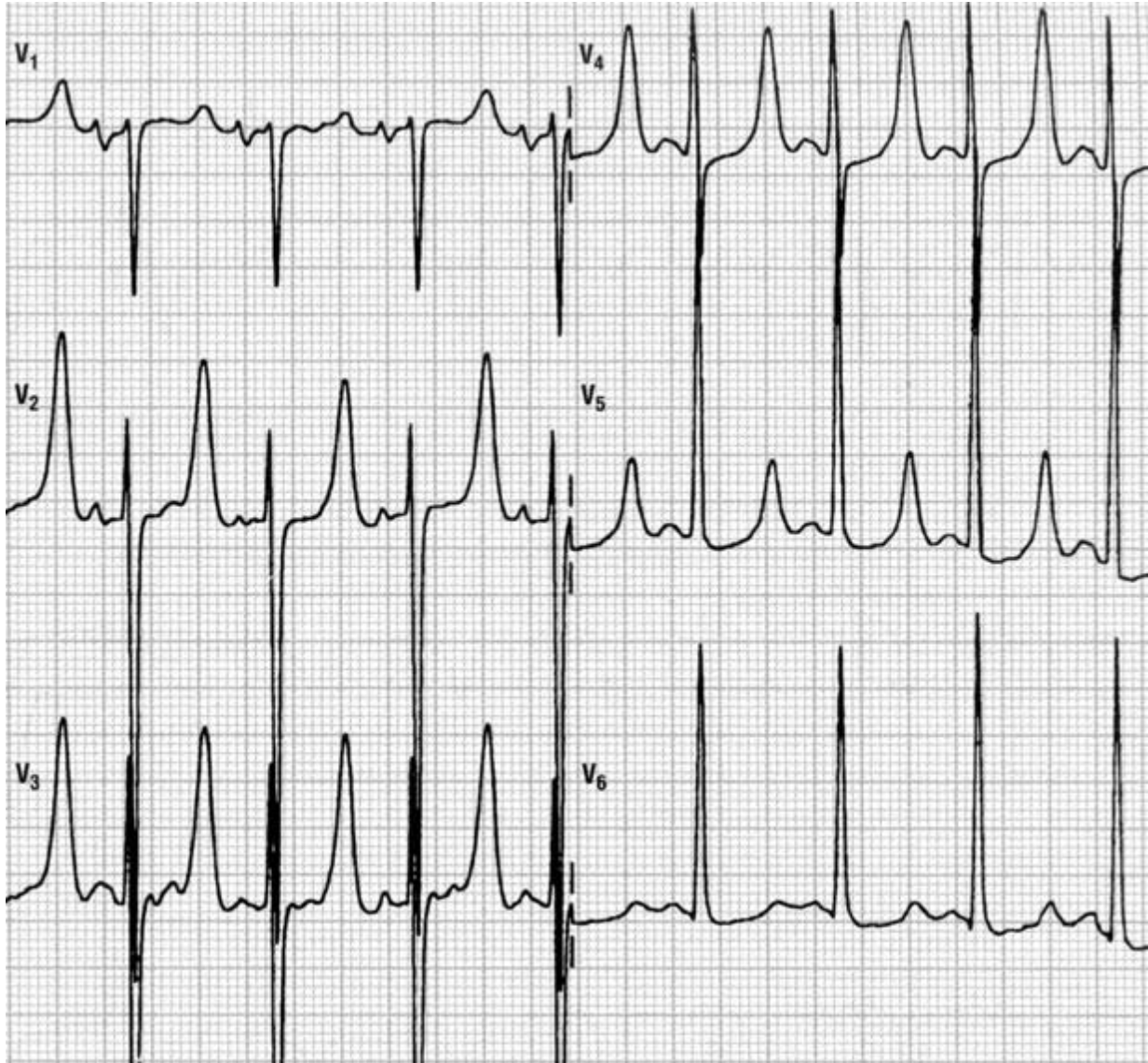
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3. A 51-year-old man with a long history of hypertension presents to the ED complaining of intermittent chest palpitations lasting for a week. He denies chest pain, shortness of breath, nausea, and vomiting. He recalls feeling similar episodes of palpitations a few months ago but they resolved. His blood pressure (BP) is 130/75 mm Hg, heart rate (HR) is 130 beats per minute, respiratory rate (RR) is 16 breaths per minute, and oxygen saturation is 99% on room air. An ECG is seen below. Which of the following is the most appropriate next step in management?



- Sedate patient for immediate synchronized cardioversion with 100 Joules
- Prepare patient for the cardiac catheterization laboratory
- Administer Coumadin
- Administer amiodarone
- Administer diltiazem

4. A 54-year-old woman presents to the ED because of a change in behavior at home. For the past 3 years she has end-stage renal disease requiring dialysis. Her daughter states that the patient has been increasingly tired and occasionally confused for the past 3 days and has not been eating her usual diet. On examination, the patient is alert and oriented to person only. The remainder of her examination is normal. An initial 12-lead ECG is performed as seen below. Which of the following electrolyte abnormalities best explains these findings?



- a. Hypokalemia
- b. Hyperkalemia
- c. Hypocalcemia
- d. Hypercalcemia
- e. Hyponatremia