



# Submedicine Mini-Osce

**Collected by: Laith Sami**

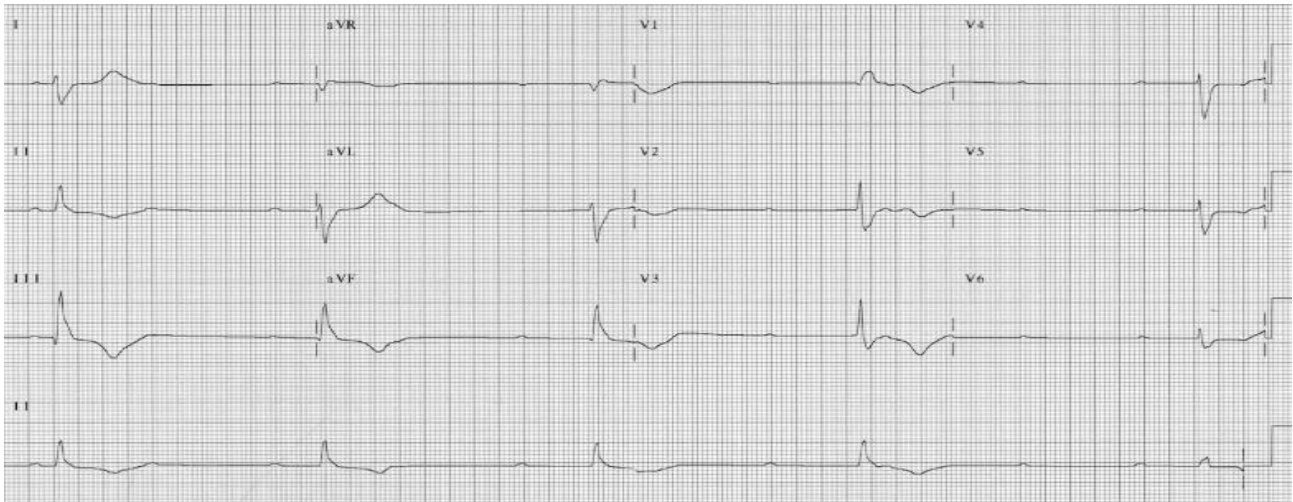
# Emergency Medicine

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# ***CHEST PAIN AND ACS***

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1) Look at these Electrocardiogram (ECG) carefully, then answer the following questions? (*Mini OSCE 018+019*)



- A) What is your diagnosis: **Complete heart block**
- B) Progressive prolongation of the PR interval is seen in: **Mobitz type 1 heart block.**
- C) Leads that represent the anterior wall of the myocardium: **V3-V4.**

2) A 47-year-old asthmatic patient presents to the Emergency Room (ER) with complaints of sudden onset palpitations, shortness of breath, and mild chest discomfort that started 2 hours ago. He also reports feeling lightheaded and slightly dizzy. He denies any loss of consciousness, severe chest pain, or recent trauma? (*Mini OSCE 018*)



A) What does this ECG present? **Atrial fibrillation**

B) what is your first treatment? **Diltiazem**

3) The ideal period after ER presentation within which percutaneous coronary angioplasty (PCI) should be performed on a patient with STEMI: (*FINAL 018*)

A) 15 minutes

B) 30 minutes

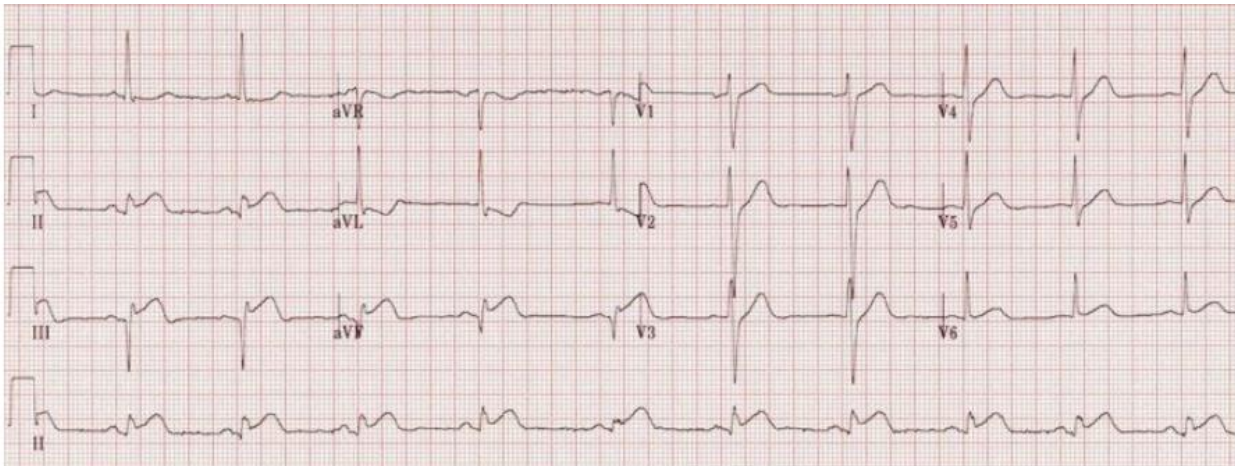
C) 60 minutes

D) 90 minutes

**Answer: D**

4) An old female patient was at the grocery store when she experienced chest pain that radiated to her left arm. She also reported diaphoresis. At the emergency department, an ECG was performed. The most likely location for the patient's MI is:

*(Mini OSCE 018)*



- A) Anterolateral
- B) Septal
- C) Inferior
- D) Posterior

**Answer: C**

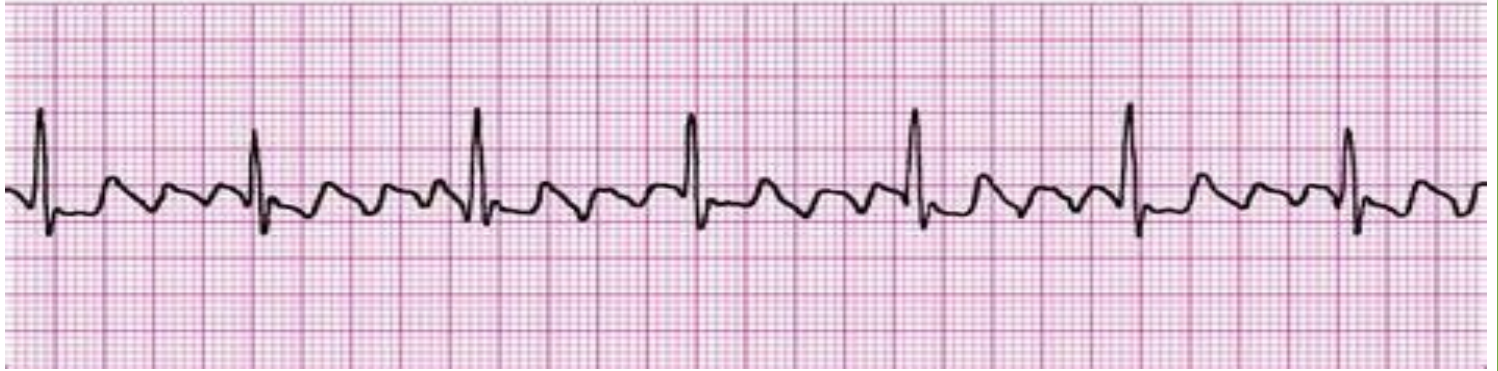
5) 55 years old, HTN, DM, Hypercholesterolemia with a history of stable angina presented with chest pain radiating to the upper limbs what do you expect to find in ECG: *(FINAL 018)*

- A) Short Qt
- B) Normal ECG
- C) Non-specific ST changes
- D) ST depression
- E) ST elevation

**Answer is: E**

6) What's the diagnosis depending on this ECG strip?

*(Mini OSCE 018)*

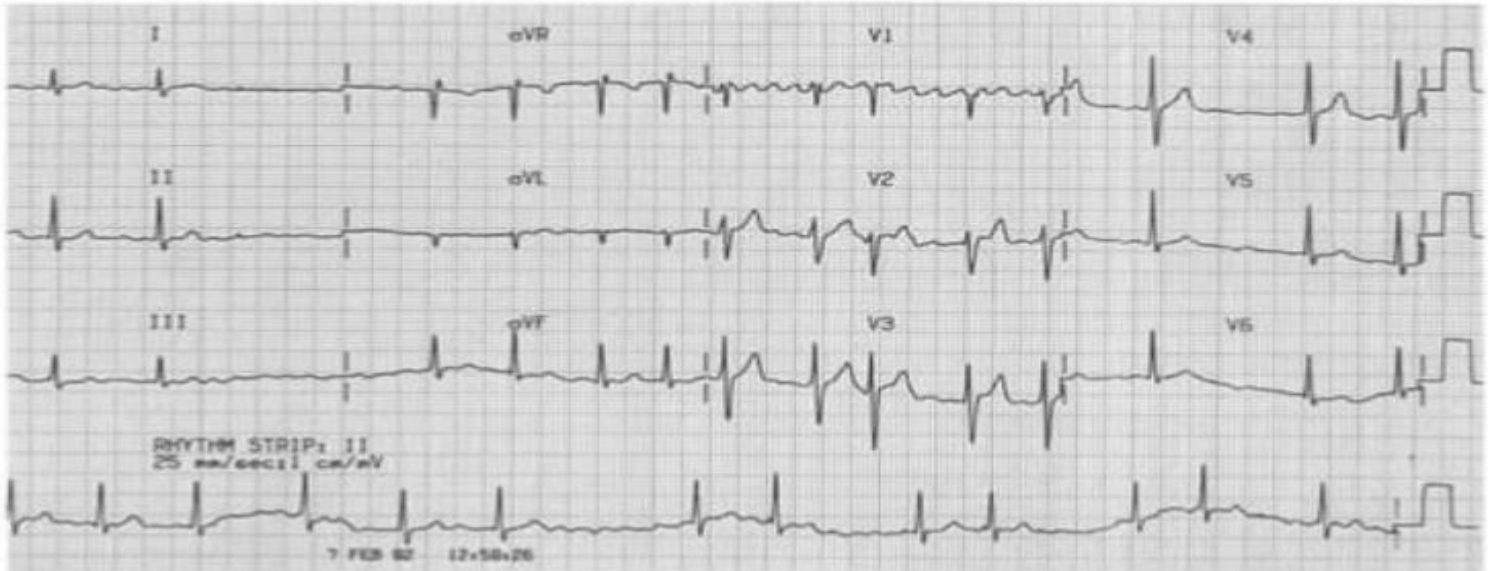


- A) Normal ECG
- B) First-degree heart block
- C) Second-degree heart block
- D) Atrial flutter
- E) Atrial fibrillation

**Answer: D**



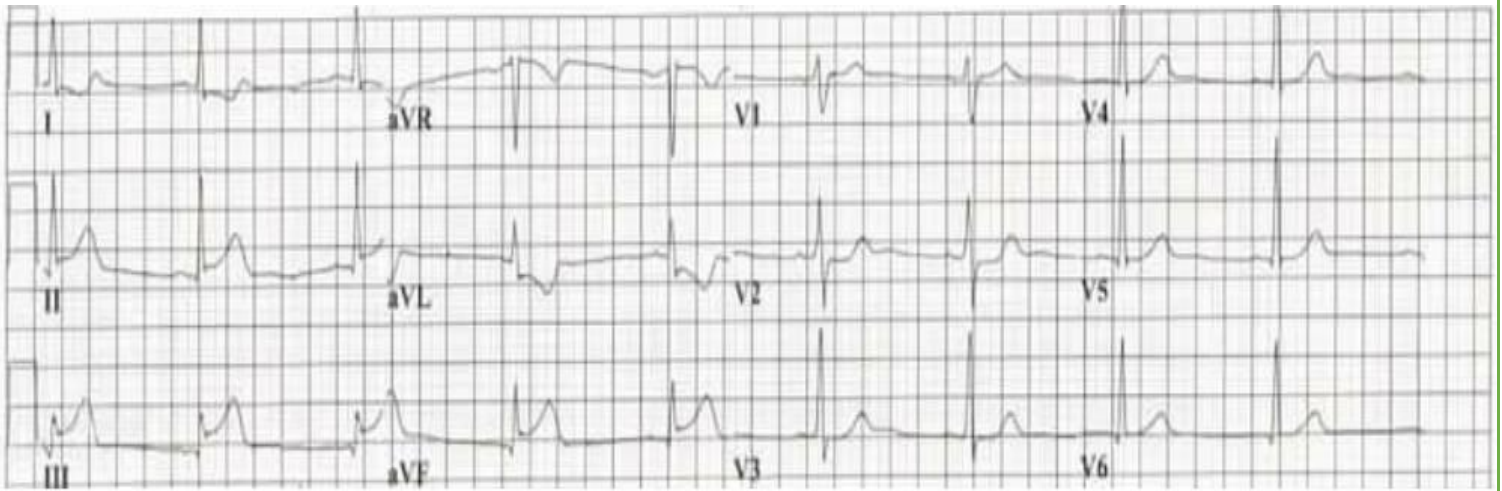
7) A 73-year-old ICU patient who became unresponsive. An ECG was done, this is his ECG strip. His blood pressure was 70/40. What's the best next step for management? (*Mini OSCE 018*)



- A) Cardioversion with 50 Joules
- B) Adenosine 6mg
- C) Amiodarone 300mg
- D) Diltiazem 0.25mg
- E) Lidocaine 100mg

**Answer: A**

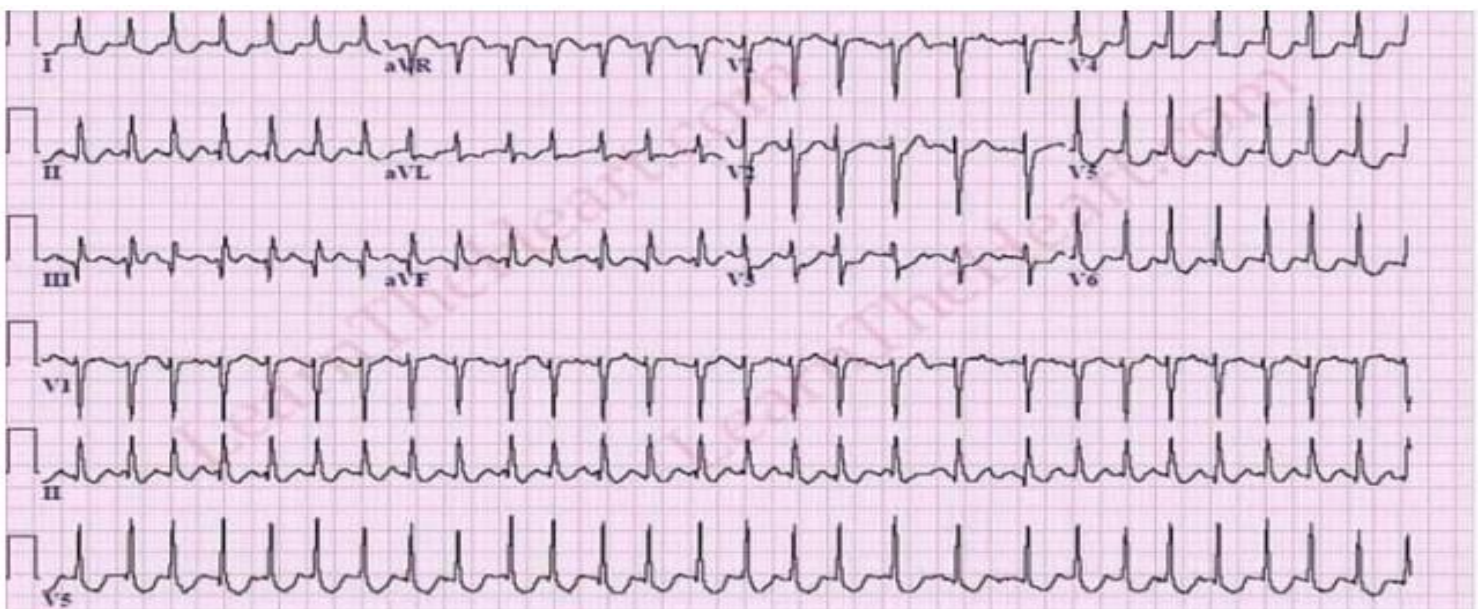
8) Which of the following is true about this ECG strip? (*FINAL 018*)



- A) It shows pathological Q wave in the chest leads
- B) It shows ECG changes of a lateral MI
- C) It shows ECG changes of an anterior MI
- D) It shows ECG changes of an inferior MI

**Answer: D**

9) A 55-year-old asthmatic patient who presented with the feeling that her heart is racing. An ECG was done & this is her ECG strip. She's stable. What's the best next step for management (*FINAL 018*)





- A) Diltiazem
- B) Amiodarone
- C) Cardioversion
- D) Adenosine
- E) Atropine

**Answer: A [This ECG shows Afib]**

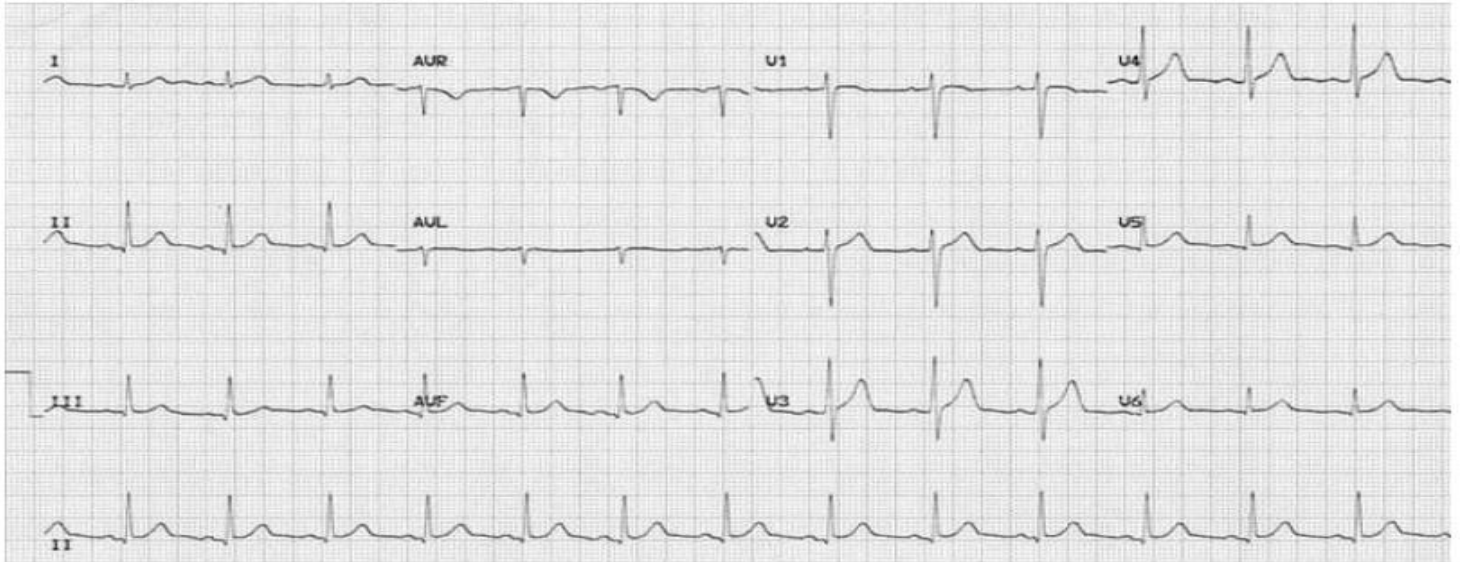
**10) A 75-year-old patient who became unresponsive, was brought to the ER but regained consciousness & is now feeling better. He's hypertensive & takes amlodipine. He's not complaining of anything but his heart rate is 35 BPM with the following ECG. What's the best next step? (*Mini OSCE 018*)**



- A) Amiodarone
- B) Stop amlodipine & arrange for a temporary pacemaker
- C) Isoprenaline infusion
- D) Manage as an inpatient with a permanent pacemaker
- E) Stop amlodipine & admit for 24-hour cardiac monitoring

**Answer: D [This is a third-degree block, NOT a second-degree block type 2, the P-R intervals are NOT equal]**

11) A Patient works as a farmer and started having chest pain while working, he took a break for 10 minutes and then resumed work. He started having the same pain again: (*Mini OSCE 018*)



- A) Angina
- B) Abnormal chest discomfort
- C) Acute pericarditis
- D) Nonspecific ECG changes

**Answer: A**

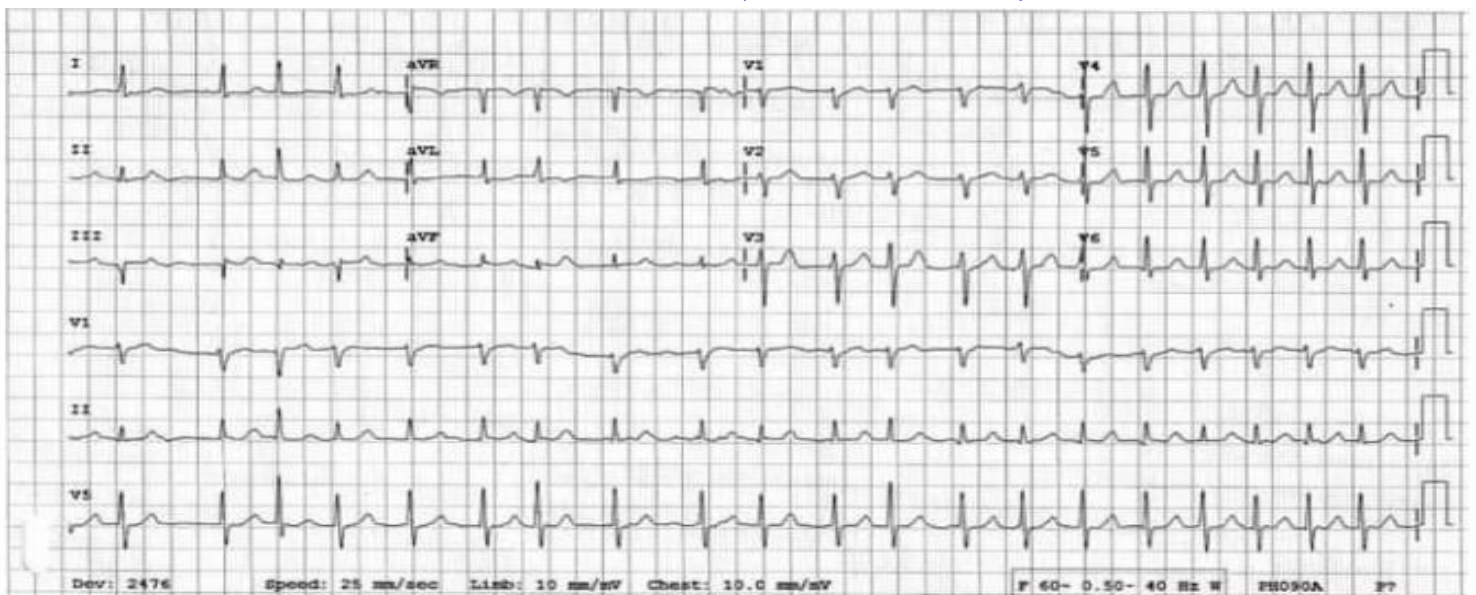
12) Which artery is affected depending on the following ECG panel?



- A) Left circumflex artery
- B) Left marginal artery
- C) Left main stem
- D) Left anterior descending artery
- E) Right coronary artery

**Answer: D**

13) What does this ECG present? (*Mini OSCE 018*)



- A) Atrial flutter
- B) Heart block
- C) Atrial fibrillation

**Answer: C**

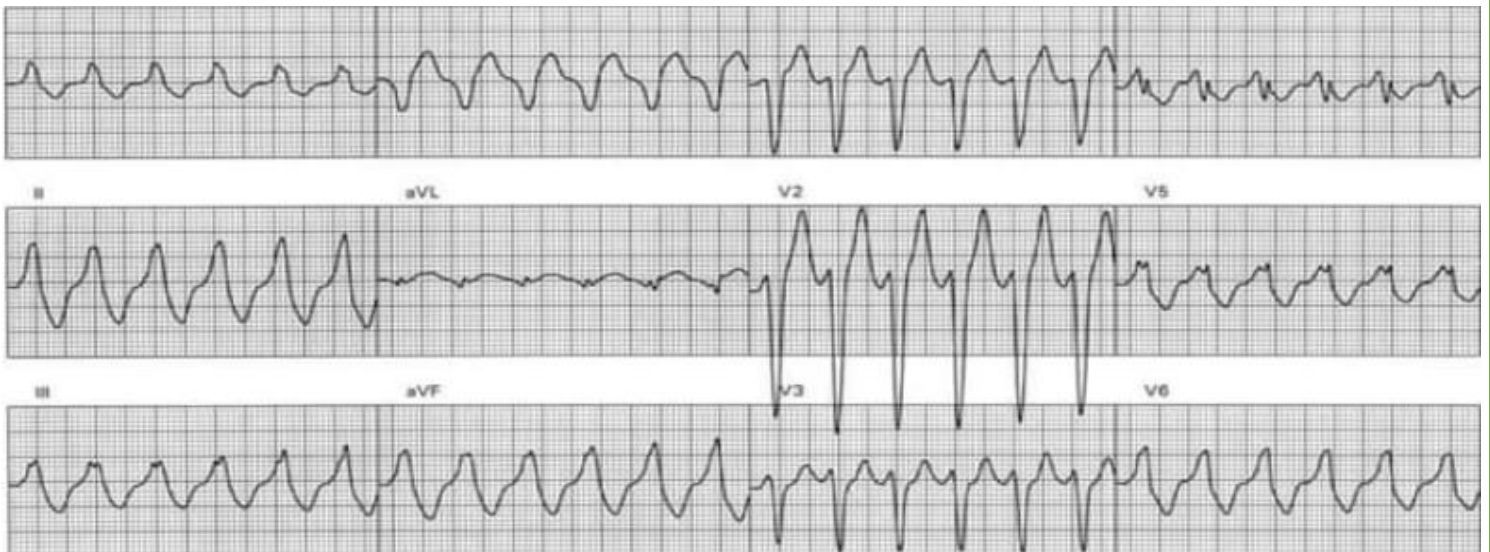
**14) The most appropriate management for pulseless electrical activity:**

*(Mini OSCE 018+019)*

- A) Amiodarone
- B) Epinephrine
- C) Beta blocker
- D) Atropine

**Answer: B**

**15) Patient with normal vitals, HR is 170, with the following ECG what do you give? *(Mini OSCE 018)***



- A) Synchronized DC
- B) Adenosine
- C) Diltiazem
- D) Amiodarone

**Answer: D**

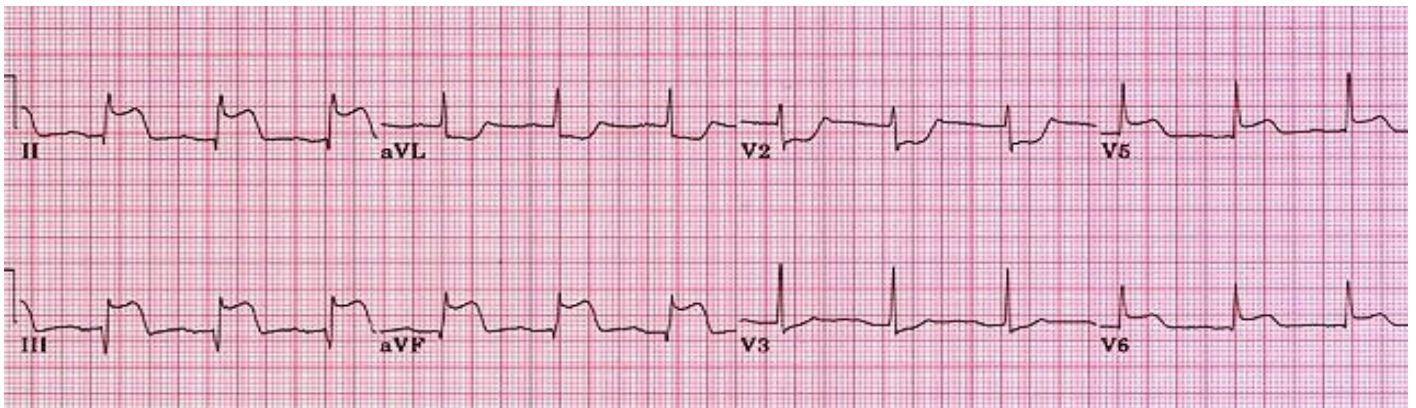


16) A patient with diabetes, hypertension, and hypercholesterolemia presented to the ER with chest pain that radiated to his left arm. His ECG showed T wave inversions in the lateral leads (There was no ECG picture in this question. The question stated the findings in the question stem). The best next step in management is: (*FINAL 018*)

- A) Call cardiology and arrange for immediate PCI
- B) Connect him to a cardiac monitor and administer aspirin and nitroglycerin

**Answer: B**

17) Look at these Electrocardiogram (ECG) carefully, then answer the following questions? (*Mini OSCE 019*)



- A) Based on the leads, what's the location? **inferior MI (was in leads II, III, aVF)**
- B) What's the door-to-balloon time? **90 minutes**
- C) After activating the Cath lab, which drugs to give? **Morphine and Nitroglycerin and Aspirin (MONA!!)**



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# ***BASIC LIFE SUPPORT***

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1) Answer the following questions: (*Mini OSCE 018+019*)

A) What is the time in 2-person  
CPR: **Every 5 cycles**

B) what is the time to assess pulse  
before starting chest compressions:  
**10 sec**



2) Ahmad was at home watching television when he suddenly collapsed. His wife, who was in the room, noted that he lost consciousness and stopped breathing. She immediately called emergency medical services (EMS), write the sequence of management? (*Mini OSCE 019*)

**Chest compression, defibrillation, invasive airway**

3) The chest compression to rescue breath ratio in a pediatric patient during CPR is: (*FINAL 018*)

- A) 15:2
- B) 15:3
- C) 30:2
- D) 30:3

**Answer: A**

**4) Choose the correct steps of basic life support (BLS):**

*(Mini OSCE 018+019)*

- A) Assess the victim, activate EMS and bring AED, perform chest compressions, rescue breaths
- B) Assess the victim, perform chest compression, rescue breathing, defibrillation

**Answer: A**

**5) The most appropriate management for pulseless electrical activity: *(Mini OSCE 017+018+019)***

- A) Amiodarone
- B) Epinephrine
- C) Beta blocker
- D) Atropine

**Answer: B**

**6) In two-rescuer CPR, when do the two rescuers switch turns in performing chest compressions? *(Mini OSCE 019)***

- A) After 1 cycle of CPR
- B) After 2 cycles of CPR
- C) After 5 cycles of CPR
- D) After 10 cycles of CPR

**Answer: C**

**7) When giving rescue breaths to an apneic patient with a pulse, when should you re-check the pulse? *(Mini OSCE 018+019)***

- A) Every 10 seconds
- B) Every minute
- C) Every 2 minutes
- D) Every 5 minutes

**Answer: C**

**8)After finding an unresponsive child, yelling for help, & confirming the child isn't breathing, what would be your next course of action? (FINAL 018)**

- A. Leave the child & search for an AED
- B. Deliver rescue breaths as most cardiac arrests occur due to breathing problems
- C. Begin back blows & chest thrusts
- D. Deliver 30 chest compressions
- E. Start Heimlich maneuver

**Answer: D**

**9)While performing CPR on an infant, another rescuer appears on the scene, what do you do next? (FINAL 018+019)**

- A. Immediately transport the patient
- B. Wait until exhausted, then switch
- C. Have the second rescuer help with CPR, to minimize fatigue
- D. Have the second rescuer begin ventilations; ratio 30:2
- E. Ask the second rescuer to call for help

**Answer: E or C**

**10)After finding someone who is unresponsive, has a pulse but does not appear to be breathing, you find you are unable to give them CPR, what do you do next? (Mini OSCE 018)**

- A. Begin CPR
- B. Repeat the head tilt/chin lift maneuver & attempt the breath again
- C. Abdominal thrusts
- D. Heimlich maneuver
- E. Leave the child & search for an AED

**Answer: B**

**11) Arriving first to the scene, you find an unresponsive person with no pulse that has thrown up. You feel CPR is not something you are comfortable giving them. What would be the next best thing for you to do? (FINAL 018+019)**

- A. Wipe off the face or cover with a shirt
- B. Compression only CPR
- C. Go & get help
- D. Do not initiate resuscitation
- E. One last choice that made no sense

**Answer: B**

**12) What's the First line treatment of bradycardia:**

*(Mini OSCE 017+ 018+019)*

**Atropine.**

**13) Choose the correct steps of basic life support (BLS):**

*(Mini OSCE 018+019)*

- A) Assess the victim, activate EMS and bring AED, perform chest compressions, rescue breaths
- B) Assess the victim, perform chest compression, rescue breathing, defibrillation

**Answer: A**

**14) Which of the following is wrong about CPR? (FINAL 018+019)**

- A. Push 2 inches deep
- B. Minimize interruptions

- C. 30:2 ratio
- D. Allow for partial recoil
- E. One last thing that was correct

**Answer: D**

**15)Farmer presented with cyanosis, frothy mouth secretions, difficulty breathing, pinpoint pupils, the FIRST thing you should do is: (*Mini OSCE 017+018*)**

- A) Clear Airways
- B) Give Atropine
- C) Give Pralidoxime

**Answer: A**

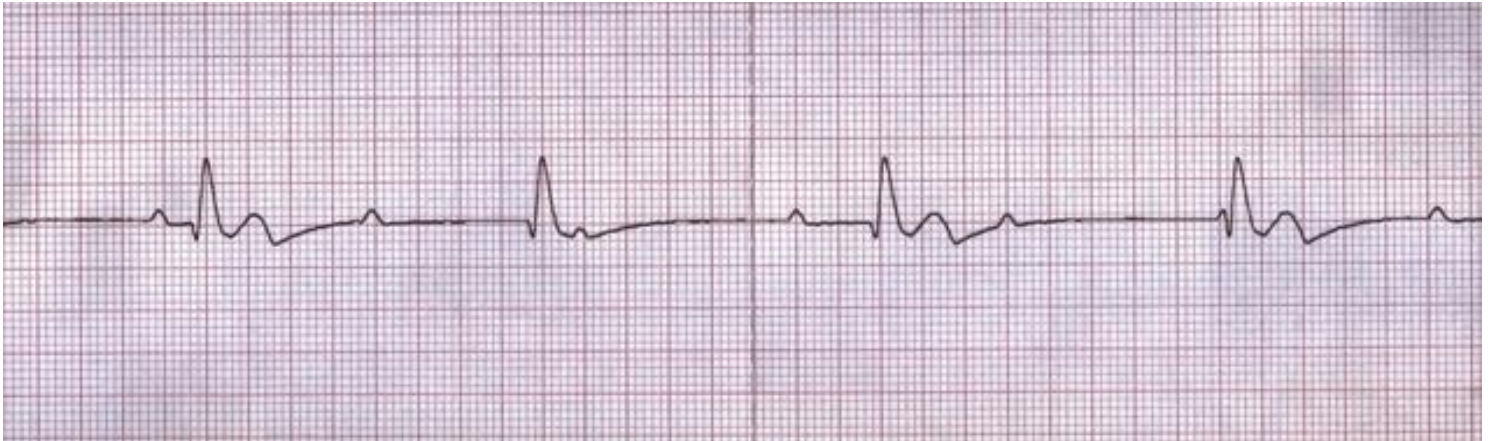
**16)When you are on the way to your lunch break you find an unconscious person.... (*Mini OSCE 019*)**

- A) First thing to check? **Response and breathing**
- B) After calling the help and before the help arrives what will you do? **Early CPR to buy time**
- C) Ratio of CPR? **30:2**
- D) The name of the device of rhythm check and how use it? **Automated external defibrillator (AED), Attach Pads to Victim's Bare Chest then stand clear and deliver shock**





17) Look at these Electrocardiogram (ECG) carefully, then answer the following questions? (*Mini OSCE 019*)



A) What would you call it if you still couldn't feel a pulse?

pulseless electrical activity

B) How long are you allowed to stop during CPR (to check pulse/insert endotracheal tube): 10 seconds

C) When you stop to assess the pulse and rhythm every? 2-3minutes  
[5 cpr cycles]

D) Which drug is used in this case?

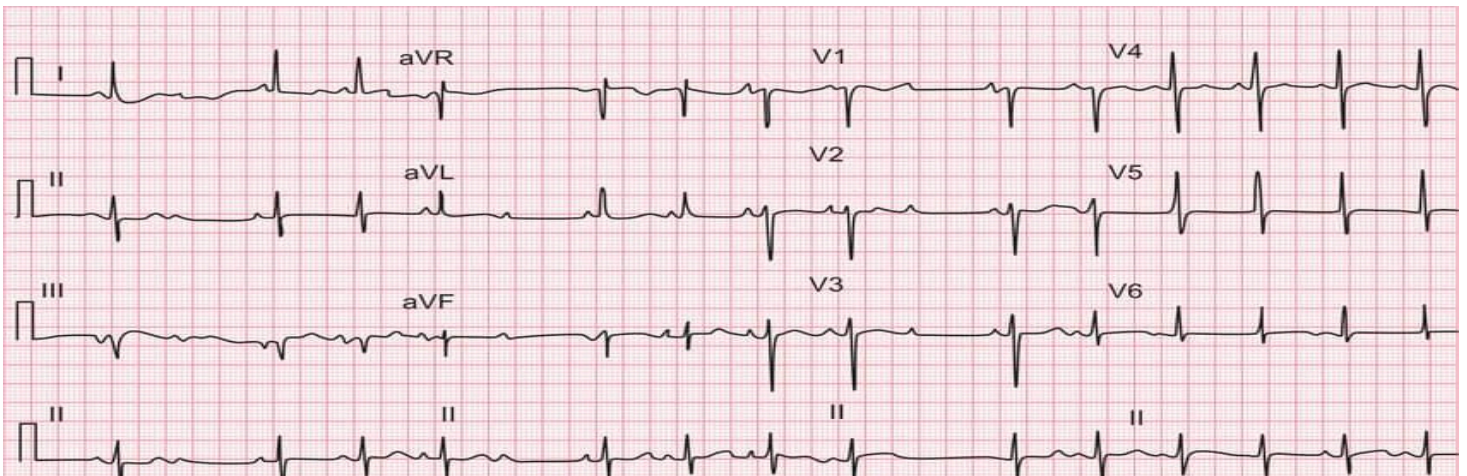
Epinephrine

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# ARRHYTHMIA

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1) Look at these Electrocardiogram (ECG) carefully, what is the treatment? (*Mini OSCE 019*)

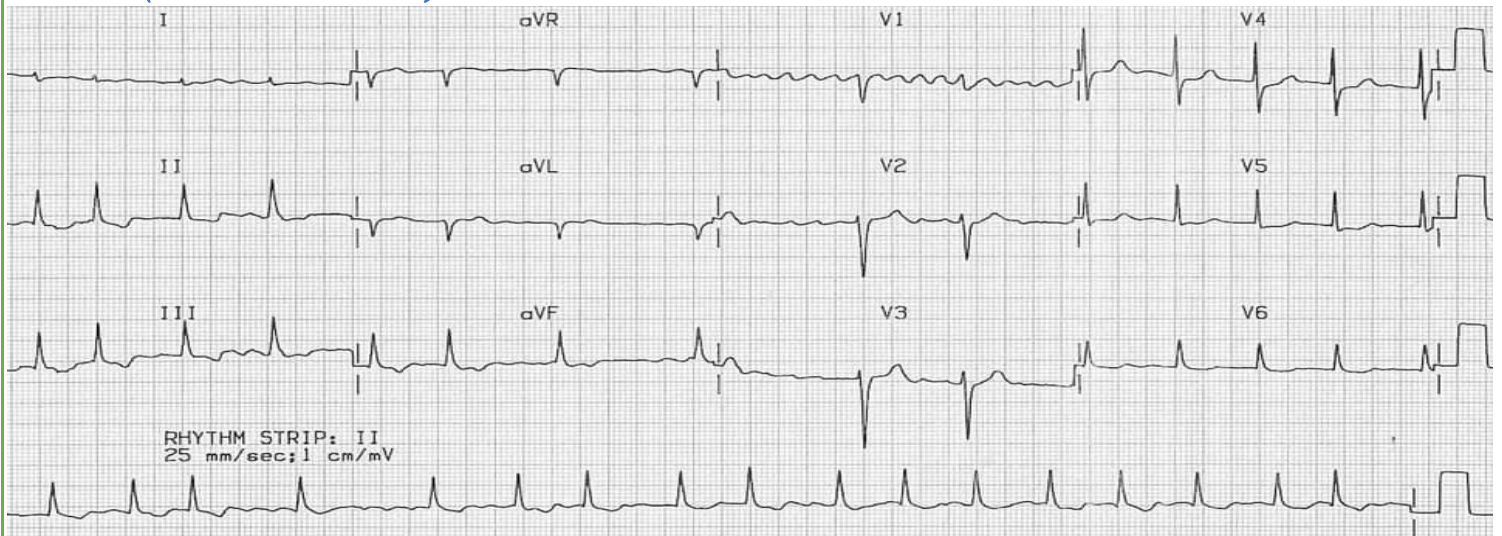


**Manage as an inpatient with a permanent pacemaker**

2) A 67-year-old male who presents to the emergency department with complaints of palpitations, shortness of breath, and dizziness that began 2 days ago. He describes the palpitations as rapid and irregular, occurring intermittently over the past 48 hours. The shortness of breath is worse with exertion and alleviated somewhat by rest. He also reports a feeling of lightheadedness and near-syncope. He denies any chest pain, syncope, or leg swelling.

The patient has a history of similar episodes in the past but never to this severity. He has never sought medical attention for these symptoms previously and has not been on any antiarrhythmic or anticoagulant therapy, Answer the following questions?

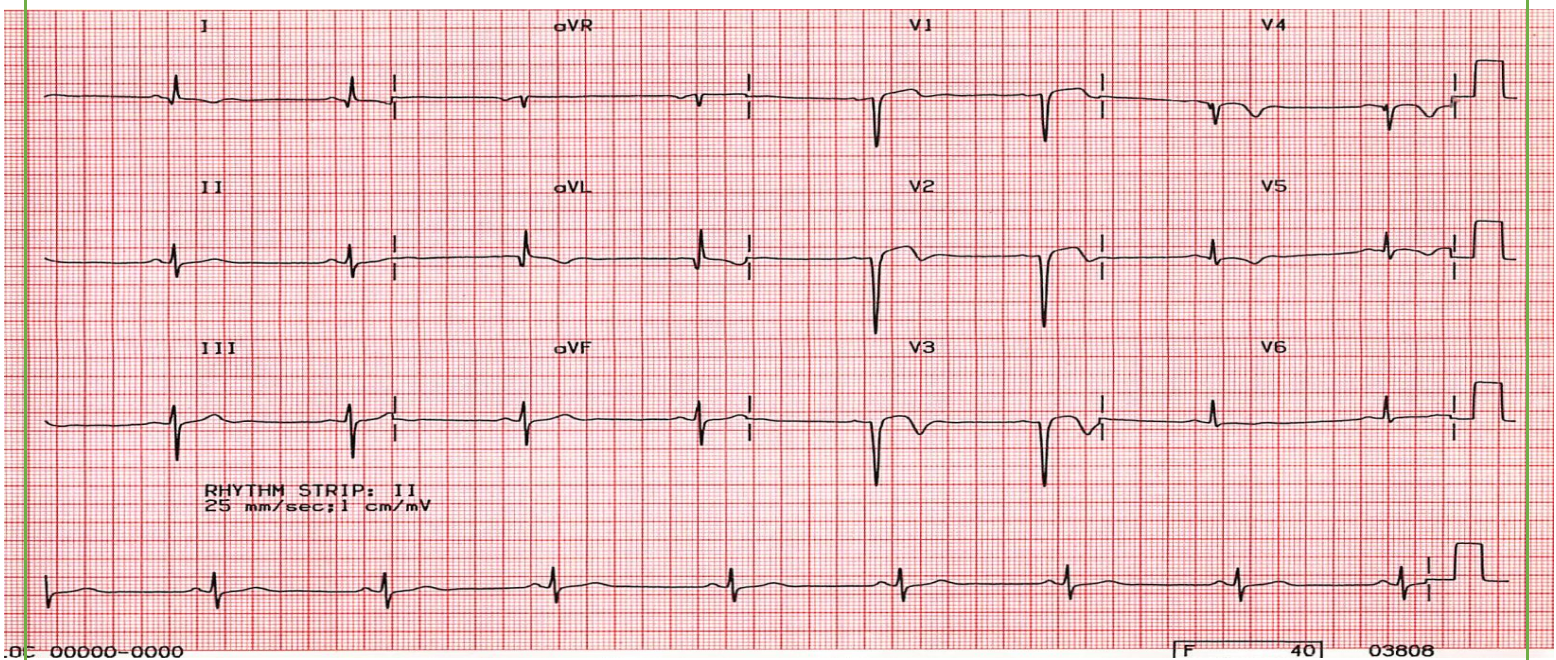
*(Mini OSCE 019)*



- A) What's your diagnosis? **Atrial Fibrillation**
- B) How to manage this case? **Amiodarone and Beta-blockers**
- C) What is the most common system to cause it? **CVS**



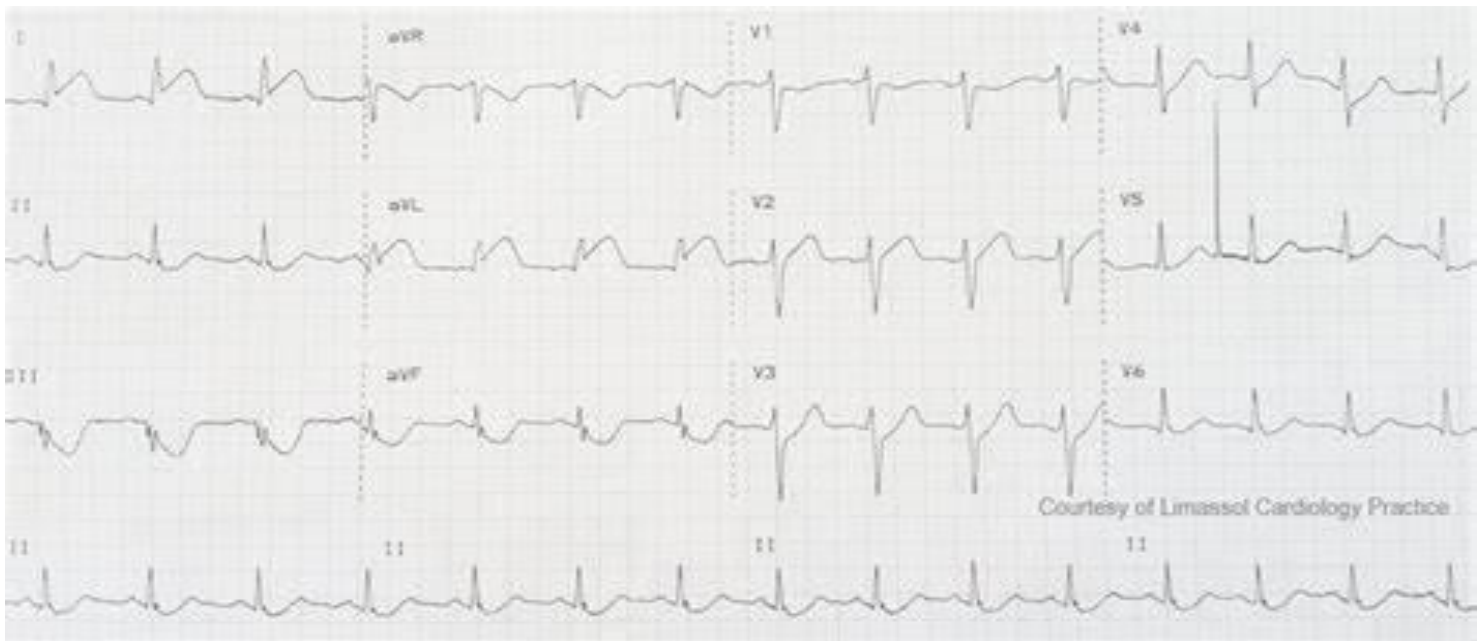
3) Look at these Electrocardiogram (ECG) carefully, then answer the following questions? (*Mini OSCE 019*)



A) Management of Bradycardia with poor perfusion: prepare for transvenous pacing and give atropine and IV adrenaline while preparing.

B) First thing to look for on a bradycardia algorithm: perfusion (other choices: heart rate, rhythm, blood pressure...?)

4) a 58-year-old male patient, arrives at the Emergency Room at 3:00 PM, complaining of chest pain. The pain began suddenly around 2:00 PM while he was at work. He describes the pain as a "crushing" sensation in the center of his chest that radiates to his left arm and jaw. He rates the pain as 8/10 in intensity. The pain is associated with shortness of breath, nausea, and diaphoresis (profuse sweating), regarding these ECG... (*Mini OSCE 018+019*)



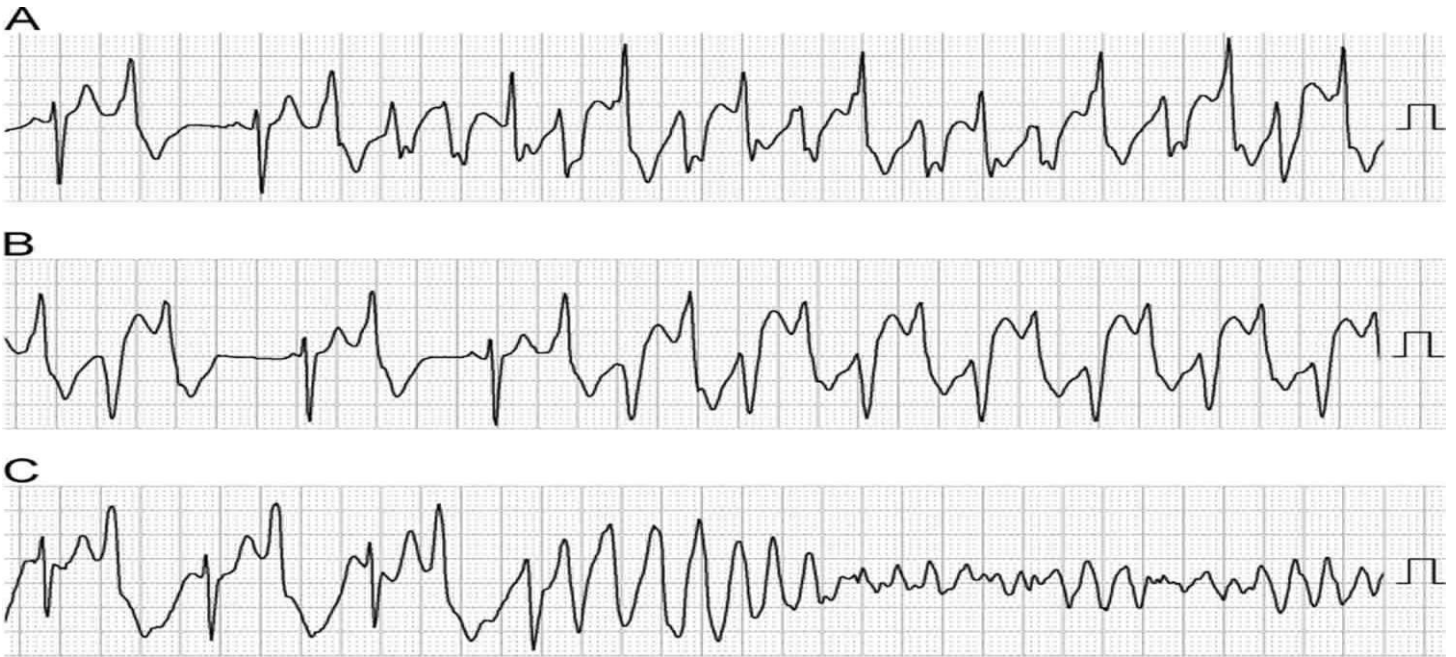
A) What is your diagnosis: **STEMI on lateral wall**

B) What is the definitive management: **percutaneous angioplasty**

C) if the ECG was normal and we did troponin level but we found it elevated, in this case, what's your dx? **NSTEMI**

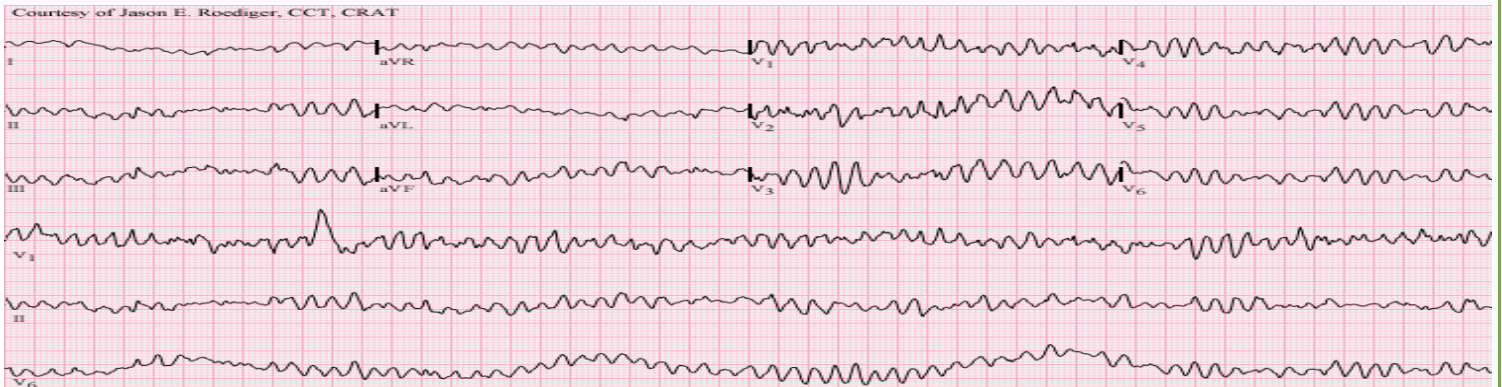


5) A 55 male patient came to the emergency department with a sensation of rapid heartbeats that started suddenly 30 minutes ago. He describes the sensation as "fluttering" in his chest. He denies any chest pain, shortness of breath, dizziness, or syncope. He remains fully conscious and alert, his ECG shows a wide-complex tachycardia consistent with Ventricular Tachycardia, what's your next step? (*Mini OSCE 018+019*)



**Amiodarone**

6) Look at these Electrocardiogram (ECG) carefully, then answer the following questions? (*Mini OSCE 018*)



**What's your next step: Defibrillation**

7) An unresponsive patient with ventricular fibrillation received a shock and the ECG rhythm converted into third-degree AV block. What is the next most appropriate step in management?

(*FINAL 018*)

- A) High dose epinephrine
- B) Transcutaneous pacing
- C) Defibrillation
- D) Amiodarone

**Answer: B? Debate over A or B. (Note: The question did not specify whether the pulse had returned after conversion to AV block)**

8) A nurse was connecting a patient to a monitor to keep track of his vitals when the patient suddenly became unresponsive. His ECG is shown in the following picture. The most appropriate next step in management is? (*Mini OSCE 018+019*)



**Ans: Defibrillation (200J)**

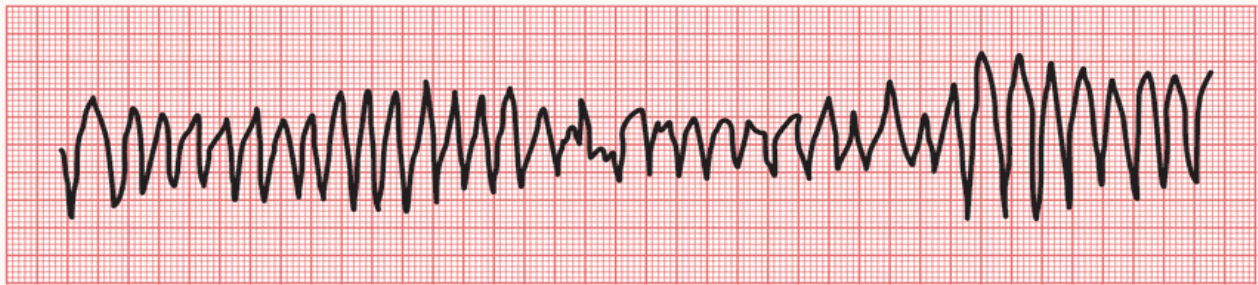
9) a 55-year-old female patient came to the ER with palpitations. the patient was stable with no chest pain nor any signs of heart failure, her heart rate was 130. Her ECG as in the following picture. the best next step in management is? (*Mini OSCE 019*)



**Beta-blocker**

**10) A teenager was brought to ER after he collapsed while he playing football. the rhythm shown is consistent with which arrhythmia?**

*(Mini OSCE 019)*



**ANS: torsade de point**

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# ***STROKE***

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**1) A patient with a history of diabetes and hypertension presented with vertigo, double vision and difficulty speaking. The symptoms shortly resolved afterward (within an hour or two?). The most likely diagnosis and the affected vessel are (*Mini OSCE 018*) :**

- A) Embolic stroke - Middle cerebral artery
- B) Thrombotic stroke - Middle cerebral artery
- C) TIA - vertebrobasilar artery
- D) TIA - middle cerebral artery
- E) Thrombotic stroke - Anterior cerebral artery

**Answer: C**

**2) All of the following are contraindications to thrombolysis therapy EXCEPT: (*Mini OSCE 017+018*)**

- A) The patient presented with weakness but was noticed 5 hours ago by his spouse to be normal
- B) INR >1.7
- C) Platelets <150
- D) Active bleeding
- E) MCA territory of ischemic stroke is >1/3

**Answer: C**



**3) A 52-year-old male patient presents with a complaint of left-hand weakness that developed gradually over the past week. Upon examination, the patient exhibits noticeable pronator drift in the left arm when performing the pronation test, indicating a subtle loss of strength and coordination. Notably, there is no sensory loss in the affected limb, and the patient reports no numbness or tingling sensations. (*Mini OSCE 018+019*)**

- A) Right frontal lobe
- B) Left cerebellum
- C) Right cerebellum
- D) Right parietal
- E) Left parietal.

**Answer: A**

**4) A 55-year-old male patient presents to the emergency department with a sudden, severe headache described as the worst he has ever experienced. The onset was abrupt, occurring while he was at rest. Alongside the headache, he reports significant photosensitivity, nausea, and multiple episodes of vomiting. On examination, the patient is found to have marked neck stiffness, and his blood pressure is elevated at 190/110 mmHg. He appears distressed and cannot tolerate bright lights in the examination room. What is the first-line treatment? (*Mini OSCE 018*)**

**Ans: nicardipine (other choices: ceftriaxone, ketorolac, platelets, vitamin K).**

**5) You're assessing a patient's Glasgow Coma Scale at the bedside. What is the patient's score based on these findings:**

**When you arrive at the patient's bedside the patient's eyes are closed, but they open when you speak to the patient. The patient doesn't respond appropriately to questions asked & says words that don't make sense. In addition, the patient can't obey a motor command. Therefore, when you apply a central stimulus, the patient moves to locate & remove the stimulus.... (FINAL 018)**

- A) E3 V4 M5
- B) E2 V4 M2
- C) E3 V3 M5
- D) E3 V3 M4
- E) E3 V3 M3

**Answer: C**

**6) A patient with Ehlers-Danlos syndrome presented with a headache, stiff neck, photosensitivity and nausea. The next most appropriate medication to administer is: (FINAL 017+018)**

- A) Nicardipine
- B) Ceftriaxone
- C) Beta blocker

**Answer: A**

**7) which of the following arteries is not part of circle of Willis:**

*(Mini OSCE 018+ 019)*

- A) Vertebral artery
- B) Basilar artery
- C) Anterior communicating artery
- D) Posterior communicating artery
- E) Internal carotid artery

**Answer: A**

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# TRAUMA

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**1) In the initial assessment of trauma patients, one of the following conditions DOES NOT affect ventilation: (*Mini OSCE +FINAL 017*)**

- a. Cardiac tamponade
- b. Flail chest and pulmonary contusion
- c. Airway obstruction
- d. Hemothorax
- e. Tension pneumothorax

**Answer: A**

**2) which of the following is Not in the primary survey of trauma patients: (*Mini OSCE 019+FINAL 016*)**

- a. Pelvic x-ray
- b. Chest x-ray
- c. Nasogastric tube
- d. Brain CT
- e. Oxygen

**Answer: C**

**3) Brought to the ER with an altered level of consciousness after falling from 5 stories. HR 110, BP 70/50, and the patient was anxious. What degree is her hypovolemic shock? (*FINAL 017*)**

- a. I
- b. II

- c. III
- d. IV
- e. Irreversible

**Answer: C | Plz refer to the table in qs like this, HR should match the BP, the debate in this qs is due to book=old version. of tables**

**4) In the initial assessment of trauma patients, one of the following conditions DOES NOT affect circulation: (*FINAL 016+017+018*)**

- a. Femoral fracture
- b. Spinal cord injury
- c. Brain trauma
- d. 2nd-degree burn of 20% BSA
- e. Ruptured heart valve

**Answer: D**

**5) A 35-year-old male presents to the emergency department after being involved in a high-speed motor vehicle collision. He was restrained by a seatbelt and reports that the impact occurred to the driver's side of the vehicle (A case of blunt trauma) .....**

***(Mini OSCE 019)***

**A) First approach that you should do: ABCDE, Airway**

**B) How to exclude hemorrhage: Vital signs and FAST (Focused Assessment with Sonography for Trauma), Complete Blood Count (CBC).**

6) The patient was involved in a high-speed motor vehicle collision (RTA) about 1 hour prior to arrival. The patient was the driver and was not wearing a seatbelt. He was ejected from the vehicle and landed on the pavement, sustaining trauma to the abdomen and chest. He reports severe, sharp chest and abdominal pain that has been worsening since the incident. He is also experiencing shortness of breath.... (*Mini OSCE 019*)



- A) What does the A in ABCDE stand for? Airway
- B) How do you manage it? Head-tilt chin-left, intubation
- C) If the heart rate was 140, how do you manage it based on the shock class? aggressive fluid resuscitation and massive blood transfusion
- D) Safe place to insert a chest tube? anterior axillary line, about the 5th rib
- E) Small or large chest tube and why? large, because it's a large effusion