

QUESTION

A 65-year-old male patient with a long history of hypertension and hyperlipidemia presents to the emergency department with acute chest pain. The patient reports a sudden onset of severe, crushing chest pain that radiates to the left arm and jaw. He has a history of smoking 20 cigarettes per day for 30 years and is currently on amlodipine and atorvastatin. His vital signs are: blood pressure 180/110 mmHg, heart rate 110 bpm, respiratory rate 20 breaths per minute, and oxygen saturation 92% on room air. Physical examination reveals a clear lung field, normal heart sounds, and no lower extremity edema. An electrocardiogram (ECG) shows ST-segment elevation in leads V1, V2, and V3, consistent with an anterior wall myocardial infarction. The patient is currently on aspirin, beta-blockers, and statins.

Parameter	Value	Reference Range
Blood Pressure	180/110 mmHg	90-120/60-80 mmHg
Heart Rate	110 bpm	60-100 bpm
Respiratory Rate	20 breaths per minute	12-20 breaths per minute
Oxygen Saturation	92% on room air	95-100% on room air
ECG Findings	ST-segment elevation in leads V1, V2, and V3	Normal ECG

What is the most appropriate next step in the management of this patient?

ANSWER



The most appropriate next step in the management of this patient is to administer aspirin, followed by a P2Y12 inhibitor (such as clopidogrel or ticagrelor), and a third antiplatelet agent (such as a glycoprotein IIb/IIIa inhibitor) if the patient is not on one already. This is followed by reperfusion therapy, either primary percutaneous coronary intervention (PPCI) or fibrinolytic therapy, depending on the patient's condition and the availability of PPCI. The patient should also receive beta-blockers, statins, and ACE inhibitors as secondary prevention.

The patient should be transferred to a cardiac catheterization laboratory for PPCI as soon as possible.