

### 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 sharp, tearing pain that radiates to his back. He has a blood pressure of 180/110 mmHg and a heart rate of 100 bpm. Physical examination is unremarkable. An electrocardiogram (ECG) shows sinus tachycardia. A chest X-ray is normal. The patient is given aspirin and nitroglycerin. A computed tomography (CT) scan of the chest shows aortic dissection. The patient is transferred to the intensive care unit for further management.

Parameter	Value
Blood Pressure	180/110 mmHg
Heart Rate	100 bpm
ECG	Sinus tachycardia
Chest X-ray	Normal
CT Scan	Aortic dissection

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 initiate intravenous beta-blockade to reduce the heart rate and blood pressure. This is the first step in the management of aortic dissection, regardless of the type. The goal is to reduce the shear stress on the aortic wall. After beta-blockade, the patient should be transferred to the operating room for surgical repair of the ascending aorta and replacement of the aortic valve. This is because the patient has a Type A dissection, which involves the ascending aorta. Type B dissections, which involve only the descending aorta, are managed medically with beta-blockade and antihypertensive therapy.