

A 42-year-old male with no past cardiovascular medical history comes to the med OPD with a complaint of shortness of breath and lower extremity edema for 1 month. He is afebrile with a heart rate of 160 beats per minute, respirations 20 per minute, blood pressure 88/66 mm Hg and oxygen saturation 92% on room air. His jugular venous pressure is markedly elevated. Lung exam reveals diffuse rales. A II/VI systolic ejection murmur is appreciated at the right upper sternal border. An S3 heart sound is present, and the apex beat is laterally displaced; There is 3+ pitting edema up to his knees. His ECG confirms atrial fibrillation with an uncontrolled ventricular rate.

1. What is the most appropriate initial management?
2. Classify causes of atrial fibrillation ?
3. List further diagnostic investigations?
4. Outline plan of future treatment?