# Critical Thinking Case Two

## Case Questions

### Question 1

The classic signs of Myocardial Infarction that Mr. Jones experienced include excruciating chest pain radiated pain to the jaw and radiated pain to the left arm. Mr. Jones also had breathing difficulties and is diaphoretic. Chest pain is a symptom most synonymous with people less than 65 years old. The patients feel tightening of the chest. As well, the pain radiates from the center of the chest to the jaws and most commonly to the left hand. The patient develops breathing problems because of the dysfunction of the left ventricle. Mr. Jones did not show other signs, which are profuse sweating, vomiting, and nausea that is caused by nervous upset. Some patients present symptom of syncope, which is caused by severe hypotension or arrhythmia. Myocardial Ischemia causes Myocardial Infraction.

### Question 2

Myocardial Infarction is characterized by elevated or depressed ST, lengthened PRI and pathological Q waves (Bolooki & Askari, 2010). The location affected was the Inferior MI. The affected coronary arteries are the Right Coronary Artery.

### Question 3

The cardiac enzymes that determine MI are the Cardiac Troponins T and I (Tidy, 2014). The enzymes should be measured immediately at presentation and 12 hours later. The first measurement should not be made later than 6 hours from the onset of Myocardial Injury.

### Question 4

The top priority diagnosis would be reduced cardiac output, which is as a result of the Myocardial infarction.

### Question 5

Mr. Jones receives Sublingual Nitroglycerin. The Purpose of Sublingual nitroglycerin is to reduce the load on the cardiac muscles. The heart uses less energy, and thus less oxygen and the reduction of demand for oxygen. It also vasodilates the coronary arteries, allowing more blood to flow back to the heart. Mr. Jones also receives Amiodarone. Amiodarone is meant to lessen the likelihood of arrhythmia. He later receives dobutamine, which is expected to improve his blood pressure.

### Question 6

One can distinguish Wenchebach rhythm through an increase in the PR interval, which in turn, causes the loss QRS wave.

### Question 7

The administration of Thrombolytic therapy may worsen the situation of a patient with a stroke, which involves bleeding in the brains the situation. It causes increased bleeding (MedlinePlus, 2017). Contraindication includes a patient, who has recently gone through surgery in the recent past or a patient on blood thinners. It is employed in myocardial infarction to break down blood clots in the coronary vessels. The breakdown of the clots would allow blood to flow to the heart muscles. The use of this therapy can, however, bring about bleeding in the brain and hemorrhagic stroke, which can lead to death.

**Question 8**

A common complication is an arrhythmia, which Mr. Jones experienced. The treatment given was Amiodarone to reduce the loading on the heart. The identification of arrhythmia originates from the elongated PR interval.   
**Question 9**

The Cardiac Catheterization can be carried out. It would help the doctor in determining the pressure in the cardiac vessels. The doctor is also able to identify any abnormalities in blood vessels, valves and heart by injecting dye and observing it in an X-Ray.

## References

Bolooki, H., Askari, A., (2010). *Acute Myocardial Infarction*. Cleveland: Cleveland Clinic a Center for Continuing Education.

MedlinePlus (2017). *Thrombolytic Therapy*. Bethesda, MD: U.S. National Library of Medicine.

Tidy, C. (2014). *Cardiac Enzymes and Markers for Myocardial Infarction*. UK: Patient Info.