

Nursing Assessment and Care Planning for Coronary Artery Disease

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The case study demonstrates a sixty nine years old patient named Mr. Jones. His history reveals several symptoms related to CAD ([coronary artery disease](#)) along with hypertension and abdominal problems. Upon checkup, several steps and stages are presented in the form of situations to diagnose and treat the ailment. These may go as follows:

What initial nursing assessments need to be performed for MR. Jones?

The [initial nursing assessment](#) of the patient under consideration i.e., Mr. Jones encompasses several aspects. The respiratory and cardiac assessment comprises issues related to heartbeat, respiration rate and blood pressure as vital signs. Monitoring of ECG reveals ischemic events. Meanwhile, lung sound, oxygen saturation and shortness of breath detect complications in respiratory system. In addition, the evaluation of pain in abdominal area demonstrates gastrointestinal discomfort in alliance with skin conditions. The skin conditions present lessened oxygenation and pallor signs. Further, fluid intake and outburst elaborates fluid balance of the body which resulted into dehydration signs. Finally, cognitive and neurological features present mental status of the patient that ultimately relates to cardiac discomfort.

What diagnostic tests do you anticipate being ordered by the provider?

For diagnostic purposes in the given condition of Mr., Jones, various tests may be proposed for better and efficient treatment. The foremost needed test is ECG (Electrocardiogram) for the assessment of cardiac ischemia. Another test is Chest X-ray for complete status and current picture of lung and heart condition to chalk out any complexity or seriousness in respiratory or cardiac system of the body. Similarly, another test is Troponin (Cardiac Enzyme Levels) to estimate the damage level of myocardial framework. Additionally, the complete blood tests screening includes lipid panel, blood count, metabolic framework, and cholesterol level are mandatory. These blood tests also demonstrate the cholesterol level and liver functioning features of Mr. Jones body. Moreover, Echocardiogram along with Angiography is ordered for evaluating the coronary arteries and to find any type of blockage.

What is the significance of Mr. Jone's weight gain?

The weight gain by Mr. Jones is the crucial indicator of worse cardiac status as a result of fluid retention, as it is three kilograms increase in only three days' time. It usually indicates the accumulation of fluid that burdens pressure on cardiac muscles and functioning. Besides cardiac aspects, the weight gaining also points out excessive fluid presence along lungs area. It impairs breathing ability along with causing potential respiratory discomfort. The results other than chest X-ray can also be deduced from his history of atrial fibrillation in alliance with past records of cardiac dis-rest. Moreover, bilateral crackles demonstrate pulmonary edema and malfunctioning of respiratory system due to weight gain. Finally, it leads to urgency of his health condition and need immediate intervention by the medical expert to stop any worsening situation and future complications.

What medications do you anticipate the provider ordering for Mr. Jones? Why?

Based on history and clinical presentation in Mr. Jones' case, prescription of medication may go as individual entity or combination of few medicines. These may include furosemide (Diuretics), Beta-Blockers, nitroglycerin (Vasodilators), amiodarone (Antiarrhythmics), ACE Inhibitors or ARBs and Anticoagulants or Antiplatelet Agents. Besides that, the oxygen therapy should be applied for supplying oxygen to alleviate respiratory discomfort. These medication approaches may lower the fluid retention in alliance with managing heart and lung functioning.

What nursing interventions should you perform right away for MR. Jones?

Provided with the deteriorated and miserable conditions of Mr. Jones, multiple nursing interventions help for stabilizing the patient condition. These may include oxygen administration for supplementary grants of oxygen along with managing the saturation level in the long run. Similarly, elevation of bed-head enables to alleviate jugular venous swelling and may reduce pressure on chest. In addition, cardiac monitoring for heart beat rhythm and its regularity, administration of Diuretics for low urine outcomes and administration of Morphine for controlling the body pain, especially the abdominal pain are the worth interventions in this regard. Finally, notifying to senior medical expert about the critical condition of the patient is also a significant intervention.

Describe what is happening to Mr. Jones physiologically.

The given condition of Mr. Jones becomes worse and it may be termed as ADHF (acute decompensated heart failure). The pale, cool skin, abdominal pain and respiratory symptoms along with weight gain lead to fluid retention. Physiologically, such drastic condition may lead to heart failure along with respiratory symptoms of pulmonary edema. Tachycardia, irregularity in heart rhythm and high blood pressure compels heart to ineffective action of pumping and abnormal fluid balance.

What medications should be given to decrease Mr. Jones preload? Improve his contractility? Decrease his afterload?

For proper addressing the current condition of Mr. Jones, administration of medication is very critical step. Furosemide (a loop diuretic) can reduce the fluid retention by increasing urine outcomes on frequent basis. On the same hand, inotropic agents like dobutamine may regulate contraction of cardiac output. Similarly, for decreased afterload, Vasodilators like nitroglycerin or nitroprusside can reduce vascular resistance to increase the pumping efficiency. Meanwhile, the oxygen administration along with medication administration can enhance the desired results manifold.

What is the expected outcome of administration of furosemide? Digoxin?

The administration of Furosemide has expectation to minimize the fluid retention by the body, lowering CVP (Central Venous Pressure) and improve respiratory functioning. It has primary purpose to negate the symptoms of cardiac output and respiratory congestion by lowering preload. Similarly, Digoxin (0.5 mg IV) improves the contraction of cardiac cycle and enhances the cardiac output. However, minimal side effect of toxicity should be monitored actively for reducing any further complications. (American Nurses Association, 2015) (Centers for Disease Control and Prevention, n.d.) (Writing Committee Members, 2023)

References

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