Case Study

[Name of the Writer]

[Name of the Institution]

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**Question 1-** The basic function of the musculoskeletal system is to provide support to the entire body of both animals and human beings. The musculoskeletal system comprises of the skeletal system, joints, the muscular system and cartilage. The most important functions of this system are that it stabilises the body, provides a proper shape and also helps in the movement of the body. For example, bones help to protect the internal organs of the body, supports the skeletal weight system helps to deposit calcium and phosphorus and muscles help to keep the bones at their place and also helps in movement by contracting and extending them further (da Silva & Woolf, 2010).

**Question 2-** Osteoarthritis is a condition that occurs in any joint of the body. Some of the most common signs of osteoarthritis are the pain in the joints before and after movement. Noticeable stiffness in the joint mostly after a certain period of inactivity right after waking up in the morning. The flexibility of the bones are lost, and the individual might not be able to move the joint with its full range of motion. This particular disease is a disease of joint not just the cartilage therefore in this particular case study, the patient has a long history of joint pain in her knees which shows that Daisy has this disease due to the continuous joint pain in her knees (Hunter & Felson, 2006).

**Question 3-** GORD which stands for gastro-oesophagal reflux disease is a commonly occurring disease which occurs when the acid from the stomach is leaked into the oesophagus or the gullet. The most common and prominent signs of GORD are heartburn and acid reflux. In case of heartburn there is an irritating and uncomfortable burning sensation in the chest of the individuals usually in the majority of the people, this takes place below the breastbone, but in some cases, it can go up to the throat. The irritation of discomforting situation becomes worse after eating something or when laying down or bending over something. Acid reflux is normally when other stomach components along with acid are brought back into the individual's throat and sometimes in the mouth. At the back of the mouth, one can feel the sour and unpleasant taste. Other symptoms of GORD that are commonly present are bad breath, feeling sick, pain while swallowing something, bloating and blenching and these symptoms are further accompanied with tooth decay and continuous cough and wheezing which becomes worse at night time (Fox & Forgacs, 2006).

**Question 4-** There are different types of NSIDS including both aspirins and ibuprofen that are used for osteoarthritis. Although these medications manage to relief the pain but gastrooesphogal and gastrointestinal side effects from these medications are quite common. NSIDS like ibuprofen are known to cause indigestion, heartburns abdominal pain and other such side effects by causing irritation and damage to the linings of oesophagus and stomach irritation from these medications can be so dangerous that sometimes they cause peptic ulcer by completely damaging the lining of the stomach. It is recommended that patients with a history of peptic ulcer and GORD must use these after their physician's recommendation. Most people report severe abdominal pain and blood in their stool so in that case it is recommended to contact the physician and use them accordingly (Ruszniewski, Soufflet, & Barthélémy, 2008).

**Question 5-** The three healthcare professionals who can play a significant role in the case of Daisy can be Surgeons, Dieticians and General Physicians. Because in case of Daisy she needs treatments for three main disorders. The complexity of GORD in her case is not fully known, if it is complicated and severe; then at that time, she needs surgery so a surgeon can play a significant role here. Dietician can also play an important role because she needs to focus on her diet there are some foods like chocolate and meat that can make the situation worse so a dietician can provide help regarding her diet. A general physician can first examine her and by observing her symptoms and complexity of her condition the physician will decide the further proceedings related to her condition.

**Question 6-** The cardiovascular system is also called as the circulatory system of the body which plays a vital role in the proper functioning of the body. The most important structures of the cardiovascular system are the Heart and circulatory loop. The heart’s function is to transport the blood to the entire body. It uses a series of arteries and veins to transport the blood from and to the heart. Veins are the blood vessels that carry the blood towards the heart while arteries carry the blood away from the heart. In the human body, there are two basic circulatory loops. The first one is the pulmonary circulation loop and also the systematic circulation loop. The function of the pulmonary circulation loop is to carry the deoxygenated blood from the heart’s right side to the lungs where it becomes oxygenated. Systematic circulation loop has the responsibility to carry the blood from the heart to all parts of the body including the tissues and other major organs. It removes wastes from the body and returns with deoxygenated blood to the right side of the body (“Cardiovascular System - Human Veins, Arteries, Heart,” n.d.).

**Question 7-** Angina Pectoris is majorly caused by myocardial ischaemia which causes to produce a mismatch between the supply of blood flow and the overall oxygen demand. In a healthy heart, there is normal blood flow in the epicardial vessels. The restriction in the myocardial blood flow results from the narrowing of the arteries via abnormal vasoconstriction and also vasodilatation which results in the impairment of the epithelial cells. In the case of angina, the heart rate is the basic and most important determinant of the disease through the high myocardial oxygen demand and decreased diastolic profusion (Br J Cardiol, n.d.).

**Question 8-** The symptoms of angina includes discomfort in the chest which is often described as squeezing, fullness and also burning, pain in the neck, jaw and back which is further accompanied by chest pain, sweat or dizziness. Mr John was also presented in the emergency department with chest pain that was also radiated to his left arm. So these are some of the prominent symptoms of angina that are in full alignment with John's condition that shows that John also has angina.

**Question 9-** The respiratory system provides oxygen to the body while carbon dioxide and other wastes are removed from the body. There are three main parts of the respiratory system including the airways that include the mouth, pharynx, nose and larynx, the lungs and also the muscles of respiration. The airways provide space for the gases to pass oxygen is inhaled, and carbon dioxide is exhaled from the body through these airways. The lungs function is to exchange gases. They take oxygen from the environment and mix them with the bloodstream. In case of the muscles of respiration, the diaphragm plays an important role. When diaphragm contracts then the internal height of the thoratic cavity increases which allows the inhalation of air while relaxation of the diaphragm causes expiration of Carbon dioxide (“Respiratory System | Interactive Anatomy Guide,” n.d.).

**Question 10-** The three healthcare providers that can play an essential role in case of John are a cardiologist because John has pain in his chest including a severe pain in his left arm that shows that he has a heart problem so cardiologist will help him in his disease. A dietician because John is not careful regarding his diet a poor diet can make the situation worse so he needs the assistance of a dietician who can tell him and provide him with a diet plan and thirdly he wants a psychologist who can assist his mental state. Due to the death of his father, it is possible that he is suffering from mental issues and stressing over his father's death have some negative effects on his health. Stress can make his heart problems worse so a psychologist can help him to stabilise his mental condition.

**Question 11-** The four main components of blood are white blood cells, red blood cells, plasma and platelets (“Components of Blood - Blood Disorders,” n.d.).

**Question 12-** Acute leukemia is normally defined as the rapidly progressing cancer that mainly begins at the tissues which are mainly responsible for making blood such as the bone marrow and as a result large amount of white blood cells are produced and then they enter the bloodstream (“What Is Acute Lymphocytic Leukemia (ALL)? | Acute Lymphocytic Leukemia (ALL),” n.d.).

**Question13-** When an individual cuts down the meat and other animal products from the diet then that means that he/she is increasing the chances of anemia. By giving up on iron, cheese and meat the risk of anaemia increases because all these are rich sources of iron. And once iron is deficient, then that means that the body will also not make oxygen-bearing red blood cells. So for vegetarians, anemia can be due to the deficiency of iron. This aspect is clearly related to Sita because she is also a strict vegetarian who has cut down meat from her diet which results in loss of haemoglobin in the blood. Due to iron deficiency, her gums are also bleeding while brushing and also the deficiency of oxygen-rich blood results in tooth loss and decay (“Anemia Risk for Vegans and Vegetarians,” n.d.).

**Question 14-** Poor oral health has been linked with cardiovascular diseases and cancer too. So it is the responsibility of nurses to take care of the patients and intervene in such a way that the patient’s oral health will improve. In this, the nurse intervention is important because the patient is not only suffering from oral health issue but also leukemia and anemia. The nurse can maintain the oral health by using inter-dental care like flossing, and inter-dental brushes, the type of toothpaste that is used is also monitored like high in flourine and also sensitivity. Also, the use of dry mouth products and medication can be of great help in the case of Sita (Coker, Ploeg, Kaasalainen, & Carter, 2017).

**Question 15-** As Sita case is a completely different case because here she is suffering from many types of disorders. So healthcare professionals from different disciplines can play a vital role in this case. First, she is suffering from acute leukemia so in order to treat this particular type of disease, oncologist must intervene because the type of treatment that she needs can only be described well by an oncologist. Secondly dentists are also important in this case because she has some oral health issues too so only a dentist will be able to explain the complications of her oral health and thirdly a nutritionist is very important because she is a strict vegan due to which she has iron deficiency which further leads to anemia so a nutritionist can design a diet plan with all the important ingredients that will compensate for the iron deficiency.

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