

Causes and effects of heart failure



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Assessment 2

Definition of Heart Failure: This is usually a progressive condition that reflects weakening of the heart by coronary atherosclerosis meaning the coronary vessels is build up with fatty clogging (Marieb 2012 p369)

The body systems affected are: Kidney, Heart, Lungs, and Digestive System.

Kidney's function: is to eliminate nitrogen -containing e wastes, toxins, and drug from the body. Kidney also produce an enzyme "renin" which help regulate blood pressure, and their hormone erythropoietin which stimulate red blood cell production in bone marrow (Marieb 2012 p. 512)

Heart's function: Is a muscular organ that pumps blood to all the tissues in the body through blood vessels, ' weight less than a pound with the size of a person's fist and a shape like cone-shaped' (p 357).''The right side pumps blood through the lungs where oxygen is picks up and carbon dioxide is unloaded. The left side of the heart receives blood containing oxygen and pump it to the rest of the body'' (Marieb 2012 p 360).

Lungs Function: Human body contain two lungs. ' Lungs are large organs that occupy thoracic cavity except the heart in the central area. The left lung has two lobes and the right lung has three lobes' (Marieb 2012 p. 441). The lungs bring in oxygen to the body which is the air that we breathed for energy and remove carbon dioxide from the body which is the gas that comes out as waste products (American Thoracic Society 2014). .

Digestive System: Digestive system starts from the mouth and ends up in the anus. The function of digestive system is to break down foods in to a simplest form for the absorption of the body as nourishment for cells and energy for the body usage (Marieb 2012 p. 464).

Signs and Symptoms

- Shortness of breath (dyspnoea)
- Fatigue and weakness
- Swelling (oedema) in your legs, ankles and feet
- Rapid or irregular heartbeat
- Reduced ability to exercise
- Persistent cough or wheezing
- (Nocturia) increased need to urinate at night
- Heart Pumps Faster
- Swelling of your abdomen (ascites)
- Sudden weight gain
- Lack of appetite and nausea
- Difficulty concentrating or decreased alertness
- Heart Grows Larger
- Elevated blood pressure
- Chest pain, if your heart failure is caused by a heart attack (Mayo Clinic 2014)

Shortness of Breath : meaning there is not enough air getting into the body system why because of lack of oxygen as the heart is not able to pump enough blood (Mayo Clinic 2014)

Fatigue and weakness : As the heart failed or become weak other parts of the body are affected including legs and arms making difficult do walk or climb the stairs because there is not sufficient blood getting to the legs and arms (University of California San Francisco 2014)

Swelling: For kidney to function very well it needs its normal blood supply. Renin restores normal blood pressure and increase filtration of water and salt for filtration process to be normal (Marieb 2012 p. 512). But when blood flow to the kidney is limited then renin will also retain salt and water which will leads to fluid build-up in the body (feet, ankles and legs), (University of California San Francisco 2014)

Rapid or irregular heartbeat : meaning fast or abnormal heartbeat. This happen because blood supply is insufficient, therefore, the heart will work harder to meet the body requirement (University of California San Francisco 2014)

Reduced ability to exercise : Because the body feels tired especially the legs and arms as a result of less blood supply to these areas which mean oxygen level in the body is low, you will be less likely to complete the daily activates normally (University of California San Francisco 2014)

Persistent cough or wheezing : Is a noisy sound particularly when you breathe in air and out of the lungs (inhalation and exhalation) as a result of fluid build-up in the lugs (Dr. James Krider 2005).

Nocturia : Is increased need to urinate at night, as a result of infection of the bladder, kidney or diabetes. In the case of Mr Alby Wright, he is type two

diabetes meaning bladder's ability to hold urine has decrease which leads to more urination at night (Better Medicine 20140)

Heart Pumps Faster: Our body needs blood to function very. Due to this, the heart will work harder than normal to circulate blood throughout the body in order to meet the body requirement (University of California San Francisco 2014)

Swelling of your abdomen : Swelling of the abdomen occurs as a result of the fluid build-up in the lungs and organs. Due to the weakness of the heart which means the heart is unable to pump blood very well (Sterns 20140).

Sudden weight gain : Swelling or puffiness of the skin will make it look stretched and shiny as a result of unwanted fluid in the tissues and organs (Sterns 20140).

Lack of appetite and nausea : When you don't have the desire to eat food as a result of the liver and digestive system become blocked because there is less blood supply to these organs you will feel full (University of California San Francisco 2014)

Difficulty concentrating or decreased alertness : meaning you may start to forget things or confuse because of less circulation to the brain. Without enough blood, the brain cannot function well (British Columbia 2012)

Heart Grows Larger: The muscles of the heart become more and more larger due to the force in order to pump blood. The four chambers of the heart also enlarge to be able to hold large volume of blood (University of California San Francisco 2014).

Elevated blood pressure: Is the meaning or word use to describe hypertension: thus the heart has to work harder to pump blood around the body. This happened as the result of cardiac enlargement or heart failure (Tabbner's 5e p 273)

Chest Pain: Meaning the heart is deprives from getting enough blood. This occurs due to “ blockage or constricted coronary blood vessel” (Tabbner's 5e p 669)

Information taking on his admission:

Pulse 124

SaO₂: 87% on room air

Respiration 32

Blood Pressure 90/40

(Q5) Yes: There is too much glucose (sugar) in his blood which is not getting into the cells of the body. Diabetes lead to nerve damage and poor circulation, looking at his admission form his blood pressure is low, oxygen saturation is also low as a result of asthma and hypotensive and congestive cardiac failure which means blood is not circulating well through the body system. This indication of slow wound healing to extend where his toe was amputated.

(Q6) : What is the action of laxis: This drug is (Diuretic) use to treat acute pulmonary oedema (Kluwer, Williams & Wilkins 2008, p. 647)

Which body system is affected? Kidney: because the medicine draws water from the blood as urine. Also affect the heart as the fluid is draw out of the blood the pressure also decreases (Netdoctor 2013)

Why he is taking this medication : To clear excessive accumulation of fluid in his body and help he urinates.

Three conditions :

- Glaucoma
- Arthritis
- Type 2 Diabetes

Question 8: Factors that will impact on Mr Wright's safety:

Hospital: allergy, glaucoma risk for fall, leg ulcer for risk infection,

Home: Diabetes careful for blood glucose level, low blood pressure, Leg ulcer risk for infection, confusion forget to take his medication, frail skin easy to get skin tear and mobility is not good because he is walking with stick, mental stage he could wounder around and forget where he is.

Question 9: Other health professional: Podiatrist will be able to look at his amputated toes to provide him with best treatment including his arthritis.

Dieticians: will provide information to Mr Wright's regarding nutrition on what is good and what is bad for his health.

Mental health professional: will help provide support for Mr Wright to reduce his level of anxiety.

Diabetes Educator: To educate him on diabetes and how well he should eat.

Physiologist: Will help him with exercise program to treat any pain that he might have including arthritis, and difficulty walking (Better Health Channel 2014)

Question 10:

- Neurovascular Assessment
- Medication Chart
- Diabetes Assessment
- Fluid Balance Chart
- Bowel Chart
- Care Plan
- Skin Assessment
- Wound Care Plane
- Patient Positioning Chart
- Dressing Regime (Wound) (TAFE SA Flow Charts Book)

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