

<b>Question 1</b>	<p>Obesity is a major health problem across the world in the elderly population. It is associated with an increased risk of various cardiovascular and metabolic diseases. This is because when the fat in the body increases then it contributes to the heart disease through the enlargement of the atria, atherosclerosis and ventricular enlargement (Lassale, et al., 2018). The increase in body fat also increases the heart disease risk indirectly through the promotion of sleep apnoea, worsening of metabolic diseases and thromboembolic diseases. These are major risk factors for the cardiovascular disease and it is inclusive of high blood pressure, metabolic syndrome, dyslipidaemia, and type 2 diabetes (Csige, et al., 2018).</p> <p>Obesity is also related to the coronary heart disease. The coronary atherosclerosis results in coronary artery disease. The atherosclerotic vascular lesions of the patients having elevated body mass index values are more prevalent.</p>
<b>Question 2 (a)</b>	<p>Glyceryl trinitrate, is a type of pharmaceutical formula which is called a nitrate (Butler, 2021). It is used in the treatment of chest pain or angina. It is a vasodilating agent. The mechanism of action of this medicine is mainly on the vascular smooth muscle which are relaxed. It produces dilation of the venous and arterial beds.</p> <p>The dilation of post capillary-beds leads to peripheral pooling of blood and this in turn decreases the venous return to the heart. This reduces the left ventricular pressure and the end diastolic pressure. Hence, it relieves the pain due to the high pressure on the heart.</p>
<b>Question 2(b)</b>	<p>Two side effects of administering this medication on the angina patient are headache, and fainting or dizziness (Challoumas, et al., 2019).</p>

<p><b>Question 2 (c)</b></p>	<p>Nurses have to take proper interventions in order to ensure safe administration of this medication. This is helpful in the reduction of the side effects of the medication which is manifested after taking it.</p> <p>Headaches-</p> <p>Headaches is noted in patients who are administered with this medication (Wee, Burns, &amp; Bett, 2015). The nurses have to be aware that this medication can cause headache and they have to give simple analgesics for relieving it.</p> <p>Fainting -</p> <p>The medication can also lead to fainting in the patient and this is owing to the fact that the blood pressure changes when this medication is taken. Therefore, the nurses have to make the patients sit comfortably so that they do not get hurt after taking the medication.</p>
<p><b>Question 3</b></p>	<p>Two of the abnormal symptoms of the presenting condition of the patient are as follows:</p> <p>Diaphoresis- it is the excessive sweating of the body. This occurs as a result of the activation of the defence mechanism of the body which is known as the sympathetic nervous system. This is a kind of flight or fight response. It can occur with or without pain in the chest along with the other symptoms of heart attack like arm pain, shortness of breath etc.</p> <p>Shortness of breath- the patient suffering from acute chest pain may also complain of shortness of breath. This is caused as a result of the decreased ability of the heart to empty and fill itself with blood (van Riet, et al., 2014). It results in the elevated pressures in the blood vessels which are surrounding the lungs. The shortness of breath occurs as the muscles of the heart cannot function due to heart attack and angina. Hence, the patient's lungs remain incapable of getting the required blood</p>

	<p>supply and this results in receiving less oxygen and the patient feels of not getting enough breath.</p>
<p><b>Question 4</b></p>	<p>There has been a popular intervention of giving supplemental oxygen to the patient suffering from heart attack and angina. This is because there is often a symptom of shortness of breath which is relieved by giving additional oxygen therapy (Hofmann, et al., 2017). This is used in the treatment of the acute coronary syndromes. This has been the cornerstone in the treatment of the patients with chest pain. However, there are evidences which suggest that it is not necessary and can have harmful effects. In a randomized controlled trial study, it was noted that this therapy has no positive or negative impacts on the cardiovascular functionality of the individual, the mortality or morbidity incidences and the pain in the patients who are suspected with the myocardial infarction and patients with angina (Khoshnood, 2018). Literature therefore, suggests that this therapy must be omitted as it is not having any benefits for the patients.</p>
<p><b>Question 5</b></p>	<p>The nursing interventions have to be conducted for treating the condition of Mrs Hovey. The two priority areas of nursing intervention are discussed as below:</p> <p>Treatment of angina- the foremost nursing responsibility is to relieve the patient from the acute chest pain. The first priority of the nurses is to make the patient stop all the activities and rest or sit immediately on a bed preferably in a semi-fowler's position. The second action in this priority intervention is to give the Glyceryl trinitrate so as to relieve the chest pain immediately (Azmi, et al., 2019).</p> <p>Reducing the demand for oxygen- the nurses have to take care in reducing the body demand for oxygen as the heart is not fit enough to support heavy body activity like exercises. The nurses</p>

	<p>are to set priority in allowing the patients balance their activity and rest so that risk of sudden death due to heart attack is decreased (Szot, et al., 2016). This has to be made part of the education plan for the patients and their family.</p>
<p><b>Question 6</b></p>	<p>For the first priority nursing intervention, the SMART goal is as follows:          The nurses have to eliminate pain in 15 minutes by giving medication and instructing the patient to come in a resting position.          For the second priority nursing intervention, the SMART goal is as follows:          The nurses have to educate the patient and the family in one week to balance the rest and the activity so as to reduce the stress on the heart.</p>
<p><b>Question 7</b></p>	<p>Two evaluation criteria for the above identified intervention are as follows:          The reported pain is relieved after the given intervention. This</p> <ul style="list-style-type: none"> <li>• Canadian Cardiovascular Society (CCS) angina classification scale can be used as the evaluating criteria for this nursing intervention (Owlia, et al., 2019). This is used for assessing and grading the physical-activity symptoms on the four levels. The class one indicates angina with strenuous exertion, class two indicates angina in walking on flat surfaces or climbing or in cold or emotional situations and class four angina is indicated while at rest and without any physical activity.</li> <li>• Another evaluation criteria is the awareness level of the patients and the families regarding the management of</li> </ul>

	<p>this health condition. This can be evaluated by the quality of patient's life before and after the educational intervention.</p>
<p><b>Question 8</b></p>	<p>The two psychosocial issues relating to Mrs Hovey's current stage of disease and her life situation are as follows:</p> <p>Loneliness- she is living a lonely life as none of the family members are living with her. This is a major psychosocial issue as she cannot interact with any one who could sympathize and care for her.</p> <p>Depression – she is also suffering from depression due to her health condition and her socioeconomic condition. She is receiving pension and is living on a rented property. She is not supported by her friends and neighbours. This also makes her to suffer from the psychosocial issues.</p> <p>Therefore, it is held that these psychosocial issues have aggravated her health condition as she needs to be cared.</p>

## References

- Azmi, N. L., Azmi, A. A., Lian, C. W., Seman, S. M., & Sukri, I. M. (2019). Knowledge and Use of Sublingual Glyceryl Trinitrate: A Single Centre Experience. *Age (years old)*, *49*, 50-69.
- Butler, A. (2021). The history of glyceryl trinitrate as a prescription drug. *Pharmaceutical Historian*, *51*(1), 6-11.
- Challoumas, D., Kirwan, P. D., Borysov, D., Clifford, C., McLean, M., & Millar, N. L. (2019). Topical glyceryl trinitrate for the treatment of tendinopathies: a systematic review. *British journal of sports medicine*, *53*(4), 251-262.
- Csige, I., Ujvárosy, D., Szabó, Z., Lőrincz, I., Paragh, G., Harangi, M., & Somodi, S. (2018). The impact of obesity on the cardiovascular system. *Journal of diabetes research*, 2018.
- Hofmann, R., James, S. K., Jernberg, T., Lindahl, B., Erlinge, D., Witt, N., ... & Svensson, L. (2017). Oxygen therapy in suspected acute myocardial infarction. *New England Journal of Medicine*, *377*(13), 1240-1249.
- Khoshnood, A. (2018). High time to omit oxygen therapy in ST elevation myocardial infarction.
- Lassale, C., Tzoulaki, I., Moons, K. G., Sweeting, M., Boer, J., Johnson, L., ... & Butterworth, A. S. (2018). Separate and combined associations of obesity and metabolic health with coronary heart disease: a pan-European case-cohort analysis. *European heart journal*, *39*(5), 397-406.
- Owlia, M., Dodson, J. A., King, J. B., Derington, C. G., Herrick, J. S., Sedlis, S. P., ... & Bress, A. P. (2019). Angina severity, mortality, and healthcare utilization among veterans with stable angina. *Journal of the American Heart Association*, *8*(15), e012811.
- Szot, W., Zając, J., Kubinyi, A., & Kostkiewicz, M. (2016). The effects of cardiac rehabilitation on overall physical capacity and myocardial perfusion in women

with microvascular angina. *Kardiologia Polska (Polish Heart Journal)*, 74(5), 431-438.

van Riet, E. E., Hoes, A. W., Limburg, A., Landman, M. A., van der Hoeven, H., & Rutten, F. H. (2014). Prevalence of unrecognized heart failure in older persons with shortness of breath on exertion. *European journal of heart failure*, 16(7), 772-777.

Wee, Y., Burns, K., & Bett, N. (2015). Medical management of chronic stable angina. *Australian prescriber*, 38(4), 131.