332 W8 Synchronous Reflection Option B

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Author Note

W8. Synchronous Reflection Session Option B

# Emphysema and Dyspnea

Dyspnea is a common respiratory symptom which is characterized by a perception or feeling of breathlessness. Reports of Dyspnea are often influenced by the emotional state of the patient and may at times refer to a wide range of subjective perceptions by the patient. It is due to the various overlapping clinical presentations involved in dyspnea alongside other comorbid diseases, such as Chronic obstructive pulmonary disease (COPD), that makes a clinical diagnostic assessment dyspnea difficult (Berliner, Schneider, Welte, & Bauersachs, 2016). Moreover, dyspnea is attributed to a range of pulmonary and cardiac diseases alongside other psychological and physiological causes that produce similar symptoms. In particular, emphysema and chronic bronchitis are common conditions that lead to shortness of breath and require a careful consideration when a patient is assessed for dyspnea.

Emphysema also produces a feeling of breathlessness in the patient. It mainly results from the patient inhaling various irritants to the lungs, such as tobacco smoke, affecting the air sacs within the lungs. The condition leads to the walls which separate these tiny sacs to be damaged or in causing the air sacs to lose their stretching ability. Consequently, patients with emphysema experience chronic cough and shortness of breath. Symptoms usually take a number of years to develop and lead to high mucus production, frequent lung infections, sleep loss, weight loss, fatigue, and wheezing. The subtle aspects in which these clinical symptoms are similar with dyspnea indicates that evaluating patient outcomes in emphysema requires careful measures of dyspnea (Kaplan & Ries, 2008). Other possible causes, including psychological ones, must be carefully evaluated before confirming the diagnosis of emphysema. In turn, complementing other measures of shortness of breath with emphysema assessments would lead to a more accurate diagnosis of the condition.

# Pulmonary Edema

Heart failure, today, is one of the most common causes of premature death in individuals as well as a reason for poor quality of life. A deeper understanding of the effect of pulmonary venous conditions on lung function is important to determine whether the symptoms being experienced by the patient are a result of a lung or heart related disease. Pulmonary edema is a common comorbidity which occurs with heart failure, however, it is not always associated with symptoms linked to heart failure.

Various conditions can lead to the weakening of the heart’s left ventricle and eventually cause it to fail. These can include hypertension, coronary artery disease, heart valve problems, or myocardial infarction. The failure of the left ventricle severely decreases the heart’s ability to pump blood and any blood that travels into the left ventricle from the left atrium is unable to flow into the aorta. The cardiac output is reduced as a result and as the left ventricle gets further damaged, the blood continues to build up in the system (Gehlbach & Geppert, 2004). Pulmonary edema results when the buildup of blood increases pressure in the left atrium and eventually in the capillaries and veins. As a result, fluid is pushed up against the walls of these capillaries. The high pressure often causes his fluid to leak out and fall into the space between the alveoli and the capillaries, effectively reducing the exchange of oxygen and carbon dioxide gases. The lymph system attempts to pull the leaked fluid back to lymphatic or vascular space until the flow of the fluid starts to increase the removal capacity of the lymph system. The increased flow of fluid in the alveoli and the interstitial space causes a significant increase in pulmonary edema. It is therefore important to manage the fluid overload by improving cardiac output. A deeper understanding of the pathophysiology of the left ventricle’s failure and pulmonary edema indicates how the two conditions are closely linked.

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