

From watching the YouTube videos, I learned that Tuberculosis is caused by microbacteria and can be spread throughout the body affecting other organs like the kidneys, bones, and brain by means of the blood and lymph nodes. It is one of the oldest diseases known and the leading cause of death by infection in adults. I did not know TB could be present without any symptoms or contagion. This disease is antibiotic resistant. It can also become active and grow with onset of other diseases such as cancer. Some of the signs and symptoms are a productive cough lasting more than 3 weeks with green or yellow sputum, coughing up blood, poor appetite, weight loss, etc. There are several ways to test for TB such as chest x-ray, sputum culture, IGRA test, and skin test. There are different ways to treat TB depending on the form (Latent or Active) but 2 of the drugs that work on both are Rifampin and Pyrazinamide however these two drugs cannot be given together. The TB patient is contagious for up to 2 weeks after treatment has started. Skipping or stopping treatment medications in the middle can make the remaining bacteria resistant to the medications.

From the COPD video I learned about the two types of disease that make up COPD which are emphysema & chronic bronchitis. It is the 4th leading cause of death in the US affecting 24 million people. It hinders the flow for breathing by a build up of mucus in the bronchi and the swelling of alveoli walls. The main cause for this is smoking. Advanced stage signs and symptoms include fever & headache, cyanosis, barrel chest, etc. It can be diagnosed through Arterial blood gas testing. Main treatment would be to quit smoking otherwise use of short & long acting bronchodilators, inhaled steroids, combination inhalers etc. can help.

Sleep apnea is an obstruction in the back of the airway from relaxed airway muscles and tongue muscles meeting. It will cause an O₂ drop and an arousal of the brain. Being in a supine position can make sleep apnea worse as well as being in the REM sleep stage. Men have a higher chance of developing sleep apnea than women until they reach menopause then it is equal risk. Also, obesity, race, nasal obstructions, genetic factors, and age can be risk factors.

Pneumonia happens when the alveoli are filled with fluid instead of air. People under 2 and over 65 are at higher risk of getting it. There are different types of pneumonia such as bronchial, lobar, hospital acquired, community acquired, ventilator acquired, opportunistic, aspiration, bacterial, mycoplasma and fungus pneumonia. It can be diagnosed through blood & sputum tests, chest x-ray, CT scan, and bronchoscopy. It is treatable with antibiotic or antivirals depending on the type. It can also cause lung abscess or bacteremia.

Chest tubes help to re-expand the lungs. When a patient has a chest tube placed the nurse must monitor respiratory status closely and continue to monitor and assess the suction system. The system must be kept below the chest for it to work properly. Excessive bubbling in the wet system could mean an air leak in the patient's lung or chest wall. When removing a chest tube ask the patient to perform Valsalva maneuver. An x-ray should be done after removal to assess lung expansion.