For tuberculosis, I learned that it is actually an infection in the lungs that is caused by a bacterium called mycobacterium tuberculosis. This infection is contagious and that starts in the lungs and can easily pass on to any other organ in the body. Individuals must be cautious around those who test positive since it is spread through air droplets. This can be passed on by sneezing, causing, laughing, and other forced respiratory acts. Tuberculosis is actually one the leading causes of infection and death in adults. It is also one of the oldest diseases among the human race according to the video. Symptoms of active TB are productive cough for 3 weeks or more, chest pain while breathing and coughing, coughing up blood, fatigue, and drenching sweat at night. Even though there are antibiotics available for people who have TB, there have been findings that there are new forms of the bacteria which are resistant to the antibiotics.

For COPD, I learned it is two different chronic lung diseases, which becomes severe with time because lung airflow is limited. It is important that early screening is done to help prevent major loss of lung function occurs. Individuals are sometimes unaware they have COPD, which is why it's important for the early screening. COPD is actually the fourth leading cause of death in the United States according to the video. Changes that can be seen when someone has COPD are clogging of air passages due to mucus, inflammation or thickening of the walls of air passages, and alveoli and air passages losing their stretching ability. There are actually two types of COPD, which are emphysema and chronic bronchitis. With emphysema, the most damage happens in the alveolar walls. With chronic bronchitis, the lining of air passages is clogged with mucous due to the inflammation.

For sleep apnea, I learned that this happens because there is an obstruction in the back of the throat. The tissues in that part of the throat can get really big because of the fat storage which causes the obstruction. Being in supine position and REM sleep can actually worsen the obstruction that is already there. Risk factors include men because they tend to store more fat in the neck, obesity, race, nasal obstruction, and genetic factors. A polysomnography, which is a sleep study done for two nights can be done for treatment. Use of a CPAP will then be decided by the physician to see if the patient requires it.

For pneumonia, I learned that it is when the alveoli are filled with pus and fluid making it difficult to breathe. Pneumonia can be classified as aspiration pneumonia, lobar pneumonia, and community acquired pneumonia. Groups that are sensitive to this infection are newborns and children under the age of two, elderly people, regular smokers, and those who have a weakened immune system. Signs and symptoms are different for every patient depending on the infection and the patient's state of health. However, common symptoms are coughing with sputum, sweating, fever and chills, shortness of breath, muscle pain and fatigue, and chest pain that gets worse by deep breathing and coughing. When using a stethoscope to listen to lung sounds, you might hear a diminished, crackling, or wheezing sound. You can also use a sputum test or blood test to find out which organism is causing the infection. Doing these tests will allow for the patient to receive the antibiotic that is best for them.

For chest tubes, I learned that the purpose of a chest tube is it is inserted into the pleural space to help remove air or fluid to help re-expand the lung. There is also a tube that is inserted in the mediastinum space, which is under the sternum to drain fluid from around the heart after cardiac surgery. There are two types of chest tube drainage systems and they are wet suction and dry suction. Wet suction is regulated by the height of water in the suction control chamber when connected to wall suction. With dry suction, there is no water column. It uses a suction monitor bellow that balances the wall suction. The nurse's role is to monitor the collection chamber, the

water seal chamber, and the suction control chamber on the system. The nurse also wants to make sure the systems are below the patient’s chest.