Lund Diseases and Treatments

## Chronic Bronchitis

Chronic bronchitis is a form of chronic obstructive pulmonary disease (COPD), a group of diseases which causes difficulty breathing and the blockage of air to the lungs. The leading cause of chronic bronchitis is heavy smoking. More 90% of people who have the disease used to smoke. It can also be caused by other factors such as dust, certain fumes, air pollution and fire smoke.

**Symptoms**

Chronic bronchitis fills up the lungs with a thick layer of mucus. Due to this, common symptoms of chronic bronchitis includes:

* Persistent cough
* Coughing mucus that is white, green or yellow in colour
* Wheezing
* Discomfort in chest

After a longer time period. The amount of mucus in the lungs gradually increases which build up in the bronchial tubes, resulting in more severe symptoms such as:

* Wheezing and crackling sounds when breathing
* Frequent and severe respiratory infections
* Fatigue

**Diagnosis**

Doctors diagnose chronic bronchitis using several pulmonary function tests, which measure the lung’s ability to move air in and out. Some other tests that doctors can perform are:

* Arterial blood gas: measures the amount of oxygen and carbon dioxide in lungs
* CT Scan: shows detailed images of organs, in this case, the lungs

**Treatments**

Since chronic bronchitis cannot be cured, treatment for the disease is aimed at treating the symptoms and causes. Doctors suggest quitting smoking will greatly mitigate the severity of the symptoms as quitting removes the main cause. A bronchodilator is a type of medication that opens the airways, making it easier to breathe, this type of medication is usually breathed in through an inhaler. Another form of treatment is pulmonary rehabilitation, which aims to improve breathing. It consists of exercise, nutritional counselling and breathing strategies.

**Prevention**

To reduce the risk of chronic bronchitis, the best prevention strategy is to stop smoking. This makes the lungs begin to heal and reduces the risk of developing other respiratory diseases such as lung cancer. If working with lung irritants such as toxic fumes, paint and dust, a form of prevention for chronic bronchitis is wearing a mask to prevent irritants into your respiratory system.

## Tuberculosis

Tuberculosis is a disease that affects the lungs, kidney or spine. Tuberculosis is a contagious disease transmitted through contact with the TB bacteria. Tuberculosis has two forms; latent tuberculosis and active tuberculosis. Active tuberculosis is when the patient is positive for tuberculosis and shows active symptoms, latent tuberculosis sis when the patent is positive but does not show any symptoms. Tuberculosis is a bacterial infection caused by Mycobacterium Tuberculosis.

**Symptoms**

Most people diagnosed with tuberculosis do not have any symptoms due to the tuberculosis being latent. When patients have active TB, some symptoms include:

* Cough (sometimes blood tinged)
* Weight loss
* Fever
* Pain while breathing
* Pain in the chest

**Diagnosis**

Two common diagnostic tests are taken to detect the presence of the disease. These are skin tests and blood tests. The blood test method is taken by getting a sample of the patient’s blood. The skin test method is more common and is taken by administering a chemical known as tuberculin below the skin. The chemical causes a reaction which forms a lump in the area administered. This lump can then by identified by doctors and other medical professionals.

**Treatments**

There a two common forms of treatment for tuberculosis depending on the type of TB the patient has. Latent tuberculosis usually requires only one or two types of antibiotics/drugs. Active tuberculosis may require several at once. The most common drugs and antibiotics used in treatment are isoniazid, rifampin, ethambutol and pyrazinamide.

Drug resistant forms of TB require a combination of antibiotics called fluoroquinolones and medication like amikacin and capreomycin which is administered for an entire 20 to 30 months.

**Prevention**

Infants in countries where TB is more common, vaccines are administered to help prevent the chance of getting the disease later in life. This vaccine is not commonly used for adults as it is not very effective in preventing the disease in adults. If diagnosed with active TB, quarantining prevents other people on getting infected. If diagnosed with latent TB, taking the prescribed medication and antibiotics reduces the risk of the TB developing into the more contagious active variant.