## **Respiratory system**



The respiratory system of the horse starts at the nostrils and extends to the larynx where the guttural pouches can be found either side, down the trachea to the lungs which are made up of bronchus, bronchioles and alveoli (see above).

Just like with humans the function is to supply the body with oxygen and release carbon dioxide. As horses are often competition animals maintaining this system to function at maximum capacity is very important. The respiratory system can be compromised by many challenges, and not just infections! There can be a physical collapse of the airway such as seen in race horses with laryngeal hemiplegia and some require surgery often known as "tie forwards" or "tie backs". Most airway disease encountered day to day is often due to infection or inflammation.

## **Infections**

Infections can be viral or bacterial, and on the rare occasion both! Clinical signs often include high temperature, nasal discharge, enlarged lymph nodes, weight loss and coughing.

## Non-infectious respiratory disease:

Horses can also get inflammatory airway disease which is characterised by airway inflammation and poor performance in horses. The underlying cause is sometimes unclear but many factors contribute to it such as viral disease, allergies and environmental factors.

## Diagnosis

Respiratory disease is very common in horses but the respiratory system is one of the most accessible to diagnose out of the body systems. Endoscopic (small medical camera) examination allows for direct visualisation and is often used in a combination with bloods and swabs taken from the horses nose. We can also perform a tracheal wash and bronchoalveolar wash where fluid samples are taken from the upper and lower portions of the respiratory tract allowing the precise identification of cells, bacteria or fungus allowing for targeted treatment.

Regardless of the type of respiratory disease, environmental factors and supportive care are important to aid recovery. A dust, ammonia-free stable environment with good ventilation is necessary to prevent further damage. Overweight horses will also often have an increased respiratory effort so correct diet is also part of treatment.

If you have any concerns about your horse or don't feel like they are performing to their maximum capacity please feel free to contact the office and ask to talk to a vet.