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## My Horse has a Cough. Now What?

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As a horse owner, it is often a clear decision as to whether your horse needs veterinary care. Examples include lameness, colic, choke, etc. But what do you do when your horse shows signs that are more vague, like a cough. It could be a mild irritation, or it could be indicative of an underlying condition that needs treatment. How do you decide? In this article, cough, some of the causes of cough, and treatment will be discussed. Hopefully this article will allow you as a horse owner to be able to make a more educated decision as to when a cough requires veterinary care, help you be prepared for some of the questions your veterinarian will ask you, and allow you to better understand why certain questions are being asked and why some tests are necessary to perform.

There are dozens of reasons why your horse could be coughing. So the best place to start is by determining whether or not your horse has a fever. Take your horse's temperature once or twice a day for several days. If the temperature is higher than 101.5 F your veterinarian should be contacted. A cough with a fever is often indicative of an infectious or neoplastic condition and warrants veterinary care immediately.

If your horse is not febrile, take notice of your horse's environment, times that he coughs, and whether he shows any other clinical signs. This will allow your veterinarian to have more insight as to what may be going on. Does your horse cough more in one season than the others? Does your horse cough when he is in his stall or outside in turnout? Does he cough when he is eating? During/after he has been exercised? Does he have nasal discharge? If so is it coming from one or both nostrils? Is the discharge clear, yellowish, bloody, etc?

The first thing your veterinarian will do to assess the cough, is a thorough physical exam. If an arrhythmia is ausculted (heard through a stethoscope), a cardiac ultrasound may be warranted. This is because if the heart is not able to adequately pump blood forward as a result of a heart condition, fluid can accumulate in the lungs, causing a cough. If respiratory noises can be ausculted in the lungs of your horse, a transtracheal wash (TTW) or a bronchoalveolar lavage (BAL) are warranted. These tests are different, and depending on what your veterinarian suspects is the problem, will decide which test is appropriate. A TTW is very useful for identifying infection such as a bacterial or viral pneumonia. A BAL is very useful if an infection is less likely and a condition such as Inflammatory Airway Disease (IAD), Recurrent Airway Obstruction (RAO) or pleural

effusion is suspected. Both of these tests allow a sample of fluid to be collected. By analyzing the cells in the sample, your horse's condition can likely be diagnosed.

Ultrasound is a great modality to allow us to gather more information about the lungs. Even if no abnormal lung sounds can be ausculted, it is possible diseased lung is still present, it has just not progressed far enough for abnormal lung sounds to be detected. Thoracic ultrasound allows us to visualize the lungs and determine whether there is consolidation (deflated lung that is no longer able to participate in oxygen exchange), fluid in the lungs, pleuritis, pleuropneumonia, etc. Also, if there is fluid in the chest (pleural effusion), ultrasound allows us to choose the most accurate location for thoracocentesis (collection of lung fluid for analysis), which will in turn provide more information.

In working up and evaluating a horse with a cough, an endoscopy is warranted. During an endoscopy, a camera is used to visualize the trachea, upper airways and the guttural pouches. The endoscopy allows us to diagnose many conditions of the upper airway that can cause a cough. Examples include anatomic defects that result in the airway not being appropriately protected from debris, resulting in a cough, such as dorsal displacement of the soft palate, rostral placement of the palatopharyngeal arch, arytenoepiglottic fold entrapment, and subepiglottic cysts. Other conditions that can cause a cough, such as tracheal collapse, partial obstruction of the trachea, either by a foreign body or a mass can be visualized on endoscopy. Finally, the guttural pouches can also be inspected for conditions such as empyema (pus in the guttural pouches), chondroids, and guttural pouch mycosis (fungal infection in the guttural pouches).

Other clinical signs can help your veterinarian localize the problem, resulting in less tests and a quicker diagnosis. If nasal discharge is present with a cough, skull radiographs may be warranted because an infected sinus could cause discharge from the nose but also some of the discharge may travel down the throat causing a cough. If the cough only occurs during/after exercise, it is possible your horse has exercise induced pulmonary hemorrhage. In some cases, the blood runs down the throat and causes a cough. If the cough only occurs when your horse eats, conditions such as a cleft palate, dorsal displacement of the soft palate, and soft palate paresis should be ruled out.

Two of the more common causes of cough that owners often confuse are Recurrent Airway Obstruction (RAO), better known as heaves, and Inflammatory Airway Disease (IAD). RAO is a condition that generally affects older horses. These horses show increased respiratory effort at rest, exercise intolerance and a cough. It is frequently caused by an allergy, most often mold or dust. IAD is a condition that generally affects younger horses. Signs also include exercise intolerance and a cough, but IAD horses do not have increased respiratory effort at rest. IAD is also believed to have an allergic component. Treatment for both of these conditions consists of medical therapy and environmental changes. Initially the horse must be treated medically with anti-inflammatory medications and bronchodilators to allow the horse to breathe easier. But the environment of these horses must also be altered so that the inciting factor does not cause a recurrence of the condition. Environmental changes consist of removing the irritants from the horse's environment. This can include giving the horse a stall with a window or by the door to ensure good ventilation and fresh air, turning the horse out to

reduce exposure to times when the barn has debris in the air, such as when the stalls are being mucked or when the aisle is being swept, not keeping hay stored above the horse's stall, using shavings that are not dusty, wetting the hay, keeping arena footing well watered to minimize dust, etc. All of these are ways to manage the horse's environment so the condition will not reoccur.

A horse with a cough is a very vague complaint that many horse owner's have. It is also a frustrating condition for owner's because there are many possible causes so in turn, many tests may need to be performed by your veterinarian. By paying more attention to when and where the cough occurs, what your horse is doing at the time of the cough, and additional clinical signs that your horse may have, your veterinarian will be better equipped to find the cause and help your horse.