

Respiratory conditions in horses on the rise

By the time a horse crosses the finish line in a five-furlong race, has completed a Grand Prix show jumping round, or gone one sixth of the way around a 3 star cross country course, he will have passed approximately 1,800 litres of air in and out of his lungs. Roughly this equates to moving two five gallon buckets of air into and out of the lungs every second.

These examples underline the importance of the respiratory system. The harder a horse works, the more oxygen it needs and, the more air it must move into and out of the lungs. In fact, these processes are so tightly coupled, that if a horse doubles its speed, it will need to move twice the amount of air moved into and out of the lungs.

Problems with the respiratory system are the second most common cause of depleted performance in competition and leisure horses, second only to lameness. It clearly deserves our attention and, the advancements being made in treating respiratory issues in horses. For most veterinarians, the treatment of respiratory conditions is becoming a more and more frequent occurrence, due to a combination of increased owner awareness and, environmental factors. The importance of moving with the times and, advancements in nebulisation technology to help horses with IAD and COPD live happy healthy and competitive lives, is becoming even more crucial.

Owner knowledge and awareness in relation to respiratory ailments has significantly increased, and respiratory health has become an imperative part of equine management. The days of turning a horse out 24/7 are those of the past. With a significant number of oral respiratory supplements on the market, what most owners are missing, is the opportunity to treat and medicate their horses, with veterinary guidance and, prescribed medication if appropriate, with an FDA approved veterinary medical device. A medical device, which has the ability to deliver medication directly to the lungs of their horse, without other major organs required to break it down.

Nortev, an innovative veterinary medical device company based in the West of Ireland, have been designing, developing and manufacturing Flexineb since 2008. In conjunction with numerous vets and trainers, and, realising that respiratory problems are quite often the cause to depleted performance in sporting and competing horses, Flexineb was developed. Using Vibrating Mesh Technology to aerosolise the chosen medication treatment.

Flexineb 2 is a fully integrated, completely silent and fully portable equine nebuliser device. There are no loud compressors, or hoses and cables for the drug to be 'lost' prior to inhalation, of equine nebulisers of the past.

Table 1

Test Solution	*Dv50 (µm)	% 5µm
0.9% Saline	4.303	66
0.9% Saline	4.14	67
Liposomal Antibiotic	3.105	71
*Dv (µm) means 50% of droplets are below this value and 50% are above this value.		
Nortev droplet size testing is carried out by independent laboratory @ Malebourne Scientific UK.		



Flexineb 2 is ideal for treating horses with conditions such as:

- COPD,
- Allergies,
- Heaves
- Recurrent Airway Obstruction (RAO)
- EIPH
- Excessive Mucous Production (viral/bacterial or environmental in cause)

On average, dosage is usually 20% of the IV dose of medication, reducing the necessary breakdown by other major organs in the body. Not only is this kinder on the animal's system, if corticosteroids are required, there is a significant reduction in the possible onset of laminitis because the drug is not administered orally or IV, but delivered directly to the site of the problem.

Flexineb can also be used to deliver a range of antibiotics for respiratory infections, mucolytics to reduce and disperse mucous and, of course, corticosteroids for those that perhaps suffer from chronic conditions, which need the support of steroid delivery eg COPD, or Exercise Induced Pulmonary Haemorrhage.

Flexineb uses Vibrating Mesh Technology to aerosolise medication for the horse to inhale, delivering it directly to the site of the issue – the lungs. Independent scintigraphy studies demonstrate that Flexineb delivers 71% of the nebulised particles to the lower respiratory tract, with the remaining 29% being delivered to the upper respiratory tract and trachea. This effective deposition of aerosol, demonstrates that effective and superior drug delivery is achieved. 71% of the particles are below 5 microns, ensuring successful deposition and absorption of medication to patients.

Breatheazy, distributors in the UK for Flexineb 2 Equine nebuliser, understand the importance & prevalence of respiratory issues in equines & have been a part of the Flexineb global success story for a number of years now. Jon Slattery MRCVS, MD of Breatheazy, is confident in the benefits of nebulisation therapy, the benefits to the animal & also the reduced drug costs to the owner. "The Flexineb equine nebuliser has revolutionised the treatment of respiratory disease in our equine patients. Compact, portable, silent and easy to use, it has proved tremendously popular with horse owners and veterinarians alike."

Available in a full range of sizes directly from Breatheazy in the UK, for Foals, Ponies, Adult Horse & Large Warmbloods, Flexineb has patients of all shapes & sizes covered, ensuring your clients have access to Flexineb & the significant health benefits of nebulisation for the treatment of respiratory conditions.

- Visit www.breatheazy.co.uk for further information.