## January 2025 Newsletter ANTIBIOTIC USE

## Happy New Year!



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Antibiotics are the class of drugs used to treat bacterial infections. They fall into two categories, those that stop bacteria multiplying "bacteriostatic" and those that kill them, "bactericidal" In equine medicine there are three main groups penicillins, tetracyclines and potentiated sulphonamides.

Antibiotics can be given intramuscularly, intravenously or orally.

The first antibiotic discovered was penicillin, by Alexander Fleming back in 1929. It was a compound produced by a mould that was found to kill bacteria. Since then, several different types of drugs have been developed and scientists continue to try and find new antibiotics, but it takes many years to get them licenced and in use in the medical profession.

In recent times there has been a growing concern that bacteria are becoming resistant to several antibiotics in both human and equine medicine. For this reason, it is essential we use these drugs appropriately and responsibly. They can only legally be prescribed by vets after a physical examination, when we feel a bacterial infection is present or in some cases, they are used preventatively such as surgery where it is impossible to maintain sterility; for example colt castration.

In acute cases, such as a deep wound where there is no time to wait for a swab result, we will opt to use a broad-spectrum drug most likely to be effective. Sometimes problems such as heat and swelling can look like infection but be caused by other things. In this situation antibiotics may seem necessary but are not appropriate. We can take a blood sample from your horse and test it the same day to identify if your horse has a bacterial infection. This is called an SAA test, SAA is an acute phase protein that acts a biomarker for infection.

In chronic conditions e.g. skin infections where bacteria are likely to be the cause we will take a swab for culture and sensitivity. This is where the bacteria in grown in the lab and checked to see which antibiotics are appropriate to treat that infection. This reduces the chance of using a drug that is no longer effective.

By mouth is often the easiest route for owners to administer a course for a few days or several weeks. It is very important that the correct dose is given at the correct intervals to ensure the drug is most effective.

We also need to be mindful that antibiotics can upset the microbiome (natural digestive bacteria) within the horse's gut which is essential for effective digestion. This can potentially cause serious diarrhoea/Another reason to use them judicially.

Antibiotic resistance needs to be taken very seriously, there are already multi resistant bacteria out there causing infections with devastating results. We all need to play our part in safeguarding these drugs for the future of human and animal health.



Don't forget to follow us on Facebook and Instagram. We regularly share cases and veterinary related information. We also have a YouTube page.



## **Practice News**

Emelie, one of our registered veterinary nurses has been trained to perform equine dentistry and is an Equine Dental Technician.

If you have a routine dental with no other veterinary concerns Emelie can visit. Emelie is able sedate, is fully equipped and her visit fee is £30.00 (not including cost of work performed).

She can identify and issues or concerns in the horse's mouth and refer to Stuart for advanced dental procedure if necessary.

Emelie can clicker train needle shy horses and is able to take bloods or sedate for clipping/farrier at the same time.

On large yards Emelie will also be working alongside our equine vets to ensure an efficient service.



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