## **British Equine Veterinary Association**

## Client Information Leaflet ANTIBIOTICS

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- Keep this leaflet safe, as you may need to refer to it again.
- Please ask your vet if you have any further questions.

What are antibiotics? Antibiotics are drugs that kill bacteria by disrupting their normal biology. They either directly kill bacteria or stop them from growing. Either way, an adult horse or pony will mount its own immune attack on the bacteria helping remove to from the body.

Why does my horse need antibiotics? Not all infections caused by bacteria require antibiotic treatment. Your horse's own immune system is effective in controlling the growth of many infections, without the need for antibiotics. If your vet has dispensed antibiotics, it means that they have determined that your horse has a serious enough infection that requires treatment.

Are all bacteria harmful? No. Most bacteria live in harmony with your horse. They exist on every surface of their body, both inside and out. Many of these 'good' bacteria help us by limiting the growth of potentially harmful bacteria. If we inadvertently destroy these good bacteria, we could make a horse more susceptible to life threatening infections.

If my horse is better what should I do with the remaining medicine? It is important that the full course of antibiotics is completed and given at the stated frequency. Stopping early may leave some bacteria present at the site of infection that will regrow, leading to recurrence of disease that may be less susceptible (resistant) to this or other antibiotics.

If my horse is not improving what should I do? Contact your veterinary surgeon who will review whether this is the correct drug for your horse. They may need to use different type of medication or obtain samples to determine the most effective antibiotic protocol to use in future.

What should I do if my veterinary surgeon refuses to dispense antibiotics? Antibiotics are not always harmless and can sometimes cause more problems than they solve. These effects may extend beyond your own horse due to antibiotic resistance. If your horse has a disease and your vet does not dispense antibiotics this is usually because:

- a) It is not caused by a bacterial infection.
  Viruses (like the common cold in people)
  and equine asthma are examples of
  conditions that mimic the signs of
  bacterial disease, but where bacteria
  play no role.
- b) It is a self limiting infection that does not require treatment. Bacterial diseases, including strangles are often effectively controlled by the animals own immune system without the need for antibiotics.
- c) The horse's immune system has already controlled the infection. In some diseases (eg Strangles / foot abscess) the body mounts an effective immune response that controls an infection through the formation of an abscess. Once an abscess has burst, the animal has already effectively controlled that infection and antibiotics will have no real benefit in most cases.

## Can antibiotics cause side effects?

Antibiotics are relatively safe; the mechanism in which they destroy bacteria has no direct effect on your horse, although side effects can arise either due to killing of 'good bacteria' or unexpected consequences of the medicine.

The most severe side effects include allergic reactions, skin reactions or diarrhoea. Diarrhoea is the greatest cause for concern and happens when the antibiotic destroys the 'good bacteria' that enable adult horses to

digest plant material within their large intestine. If your horse passes a single soft (cow pat like) dropping this is not usually a cause for concern. If it passes persistent watery diarrhoea it can rapidly become life threatening and you should consult with your veterinary surgeon.

Antibiotic resistance Another potential side effect is the development of antibiotic resistance, which may not affect your own horse, but may limit their future effectiveness in all horses

Antibiotic resistance occurs when bacteria change their biology so that they are no longer susceptible to a particular antibiotic or group of antibiotics. Once exposed to antibiotics, the susceptible bacteria die, and the resistant ones live and multiply.

Resistant bacteria are not more harmful or damaging to your horse; they just cannot be treated effectively with that type of antibiotic. Eventually some bacteria may become resistant to all antibiotics. Resistant bacteria can be transmitted between animals or to people, further exacerbating this issue.

What else can I do to limit the development of antibiotic resistance? Limiting antimicrobial resistance is a collective responsibility. It is important to respect the decision of your veterinary surgeon if they do not believe your horse needs antibiotics for a particular condition.

Good hygiene standards are important when treating horses with infections to prevent transmission to other horses and when managing horses with wounds to prevent contamination arising from other horses. Good hand washing with soap and water can go a long way to reducing disease spread.

