

# Practical Management of Gastric Ulcers

Race horses, competition horses, endurance horses and long distance riding horses are more at risk for the incidence of gastric ulcers due to their increased training, concentrated feeds, transport and often being housed in small paddocks or yards.

Gastric ulceration occurs in over 95% of these horses.

Less than 10% of gastric ulcers will heal spontaneously. Therefore, medical therapy is an important management strategy for horses with gastric ulcers.

The ideal diagnostic procedure is gastroscopy performed on a fasted horse. This allows the treatment to be tailored to the individual, as some horses can be more prone than others and prolonged treatment with different medications is often required for glandular or pyloric ulcers.

## Medical Management of gastric ulceration

### Omeprazole

The main medication used to treat and prevent gastric ulceration is omeprazole. Omeprazole blocks the "proton pump" in the stomach and decreases the amount of acid produced in the stomach. There are two main forms of omeprazole available for treatment; "enteric coated" and "buffered pastes". Enteric coated pastes include Gastrozol, Gastropell and Gastropell Forte. Buffered pastes include Ulcershield, Omogaurd and others. Each paste can be administered as either a treatment dosage or as a preventative dosage. The main differences are the concentrations and dose rate required. Most studies show similar effectiveness between the different formulations. Omeprazole should be given on a relatively empty stomach at least 20 minutes (ideally 60 minutes) prior to feeding. Omeprazole is a once a day treatment. Omeprazole is a prescription medication, so discuss the best available management with your veterinarian. Theories regarding omeprazole and calcium absorption have been disproved, therefore there is no increased risk with the administration of omeprazole pastes and fractures in horses. Omeprazole is a permitted medication for endurance rides and does not require any medication forms to be filled in.

### Ranitidine

Ranitidine is another medication which decreases the acid production by the stomach. It does this by blocking the histamine receptor. This does not block the acid pathway as much as omeprazole does, therefore omeprazole is more effective. Ranitidine also has the added hassle of requiring administration 2-3 times per day, which can be difficult to manage with the rest of the commitment required when training endurance horses. Ranitidine is a prescription medication, so discuss the best available management with your veterinarian. Ranitidine is a permitted medication for endurance rides and does not require any medication forms to be filled in.

## Sucralfate

Sucralfate comes as a tablet or powder, both of which can be made into a paste. Sucralfate works by creating a coating “band-aid” over the ulcer within the stomach. This helps to protect the ulcer from the acid splash and allows the ulcer to heal. Sucralfate is particularly useful for pyloric and glandular ulceration within the stomach and should be used in conjunction with omeprazole to treat these ulcers. Sucralfate should be administered 3-4 times per day, on an empty stomach, and after administration of omeprazole or ranitidine (if these are being administered). Sucralfate is a non-prescription, non-swabable medications

## Daily Management

Feeding a high roughage feed (approximately 2 litres/1,5kg) about 30 minutes prior to exercise can help to prevent “acid splash” within the stomach, it will also help to absorb acid within the stomach (“sponge effect”) and decrease the risk of gastric ulceration occurring.

Wherever possible horses should be given free access to hay or pasture throughout the day. This is where feeding lower quality hay (meadow or grassy hay) can be of benefit, as the horse can graze on this all day (compared to higher energy hay such as Lucerne). Turn out/pasture time will reduce the prevalence of gastric ulcers.

Horses with some physical contact with other horses (in addition to visually) are less likely to develop ulcers. Therefore yards which allow physical contact between horses, or running in a herd is ideal (although often not practical, especially with fit horses which may be prone to mischief).

Horses that are worked more than 4 times a week are more likely to develop gastric ulcers, therefore endurance horses are high risk candidates. Also the harder and longer a horse is worked, will increase the risk of development of gastric ulcers. Again an impossibility for endurance horses, who often require many days work during the week, especially those prone to “tie-up”.

Lucerne hay is high in protein and calcium, both of which provide extra gastric acid neutralising (buffering) effects.

Nutraceuticals, herbal extracts and compounded medications for the treatment of gastric ulcers seldom meet their label claims.

The administration of electrolytes to horses can also increase the risk of gastric ulceration, or can antagonise existing ulcers. Therefore administration of electrolyte pastes on a full stomach is ideal (towards the end of the hold period during a ride). Also some electrolyte pastes contain a buffer to aid with the prevention of gastric ulcers (Endura-Max paste contains aluminium salts “Neigh Lox”).

## Take home messages

All endurance and long distance horses benefit from the administration of omeprazole paste during travel, and during long rides, which are high risk periods for the development of gastric ulcers.

Ideally perform gastroscopy, as this will identify horses which are high risk candidates, and identify those with pyloric or glandular ulceration, which require prolonged treatment.

Adjust your feeding and housing strategies to decrease the risk for the development of gastric ulcers. Feed a small roughage meal 30 minutes prior to exercise.

Less than 10% of gastric ulcers will heal spontaneously. Therefore it is better to prevent the development in the first place, by the use of management strategies and the use of prophylactic omeprazole pastes.

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