

Non-Steroidal Anti-Inflammatory Drugs

Non-steroidal anti-inflammatory drugs (NSAIDs) are probably some of the most widely used drugs used in both human and equine medicine. They act to reduce pain by inhibiting the inflammatory pathways after injury. Common NSAIDs used in human medicine include aspirin, paracetamol and ibuprofen. NSAIDs used in equine medicine include phenylbutazone (bute), meloxicam, suxibuzone and flunixin.

NSAIDs may be administered by injection, orally (as a powder, granules or paste given in feed or by mouth) or in a cream, ointment, gel or lotion to apply to the surface of inflamed tissues such as the skin.



NSAIDs are a benefit to the welfare of the equine population through the control of pain and inflammation.

The term 'non-steroidal' is used to distinguish these drugs from steroid anti-inflammatories (cortisone). They act by inhibiting a class of enzymes called cyclooxygenase (COX). COX enzymes are involved in the inflammatory process which is responsible for inflammation, pain and fever.

Pain can be very distressing but it is nature's way of informing the individual that something is wrong. Inhibiting pain whilst not fully understanding the cause can be extremely dangerous. For example, administration to a lame horse that might have a hair-line fracture could potentially be disastrous. This is why authorities such as the FEI and the British Horseracing Authority are strict in not allowing horses to compete whilst under NSAID treatment.

The COX enzyme type 1 also performs important roles within the gut and the kidney so high doses or prolonged use can lead to side effects.

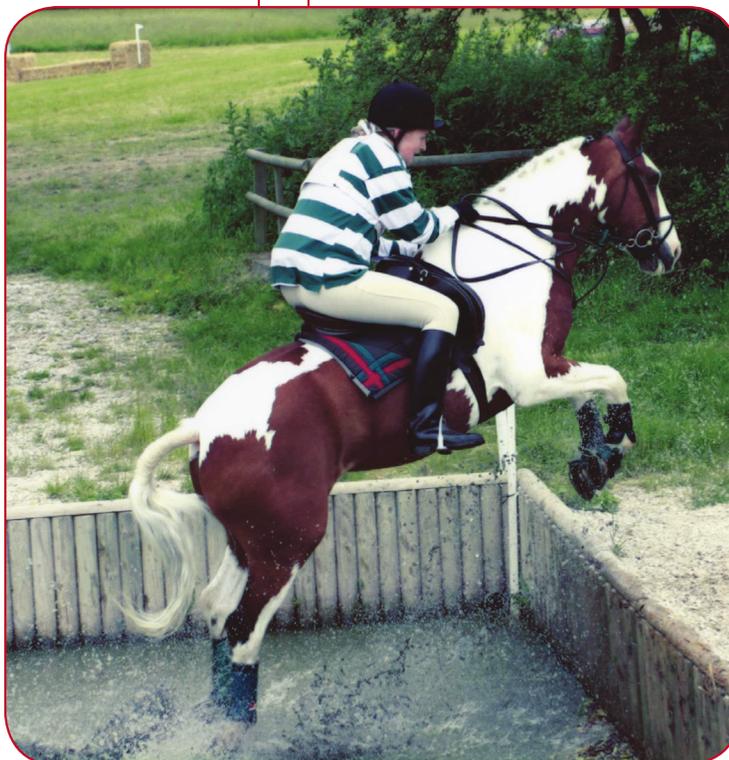


KEY POINTS:

- administer NSAIDs at the correct dose and frequency, as directed by your vet;
- ensure that all of the medication is consumed/administered;
- do not allow other animals to have access to medicated feed;
- if the condition recurs, seek veterinary advice before recommencing NSAID treatment unless otherwise directed by your vet;
- immediately stop treatment and consult your vet if the patient deteriorates in any way.

Contra-indications and warnings

- Do not use phenylbutazone or suxibuzone in horses intended for human consumption. Treated horses should never be slaughtered for human consumption. The horse must have been declared as not intended for human consumption under national horse passport legislation.
- Do not administer to animals with kidney, liver or heart disorders, unless specifically directed to do so by your vet. Be careful where there is the possibility of stomach/intestinal ulceration or bleeding, or hypersensitivity to the product.
- Do not give to foals unless under veterinary supervision, especially in very young foals (less than 12 weeks old). Ensure accurate assessment of body weight and closely monitor response to treatment.
- A blood sample may be required to check liver and kidney function before, during and after treatment.
- Avoid use in dehydrated animals as there is an increased risk of kidney failure. Older animals are at greater risk.
- After continuous use, or when used at high doses, regular monitoring of the horse including blood testing for any adverse effects is recommended.



Types of NSAID by active ingredient

Phenylbutazone (bute): available as an injection, paste or powder. It is used principally to treat/manage lameness and injuries. It is effective and inexpensive.

Suxibuzone: granules that are converted to bute by the liver; has a special palatable sugar coating and which may reduce the side effect risk of stomach ulcers.

Flunixin: available as injection, paste or

granules. It is a powerful pain-killer and is also used in the treatment of toxæmia.

Meloxicam: is available as an injection or syrup for the treatment of lameness and colic pain. The syrup is palatable and has a short withdrawal time before competition.

Carprofen: injection and granules for the treatment of lameness/injury. It is useful for treating pain in donkeys as it is not broken down and excreted as rapidly as other NSAIDs.

Ketoprofen: injection for the relief of pain in injuries and colic.

Firocoxib: injection and paste for the treatment of arthritis and lameness.

Vedaprofen: oral gel for the treatment of soft tissue and surgical trauma and inflammation.



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