

COMMON DRUGS USED IN HORSES

(also see FDA Center for Veterinary Medicine website for other brandnames @ www.fda.gov/cvm/index/consumer/horse.htm)

- Prom-Ace brand: generic acepromazine maleate (note generic = active ingredient)
 - Injectable
 - Prescription only
 - One of the most commonly used tranquilizers for horses
 - Because Ace also lowers blood pressure by dilating small blood vessels, it is sometimes used in early treatment of laminitis to diminish vaso-spasm & improve circulation in the hoof
 - It is also used as a preventative and as a part of the treatment for exertional rhabdomyolysis (azoturia) due to its vasodilatory properties
 - Draft horses are particularly sensitive
 - Side effects: will cause lowered blood pressure, decreased respiratory rate, and abnormally slow heart rate. Avoid using in very old animals or animals dehydrated, in shock or anemic. In horses can decrease hematocrit (red blood cell count) as much as 50% for 12 hours or more. Penile paralysis is a rare but recognized adverse side effect & should be avoided in breeding stallions.

Rompum brand: generic xylazine HCl

- Injectable
- Prescription only
- alpha2-adrenergic agonist (sedative)
- Xylazine HCl Injection should be used in horses when it is desirable to produce a state of sedation. It has been successfully used when conducting various diagnostic, orthopedic and dental procedures and for minor surgical procedures of short duration. It may also be used as a preanesthetic to local or general anesthesia.
- Can result in lowered heart rate
- Banamine brand: generic flunixin meglumine
 - Oral granules or paste
 - Prescription only
 - Nonsteroidal anti-inflammatory drug (NSAID)
 - The approved indications for its use in the horse are for the alleviation of inflammation and pain associated with musculoskeletal disorders and alleviation of visceral pain associated with colic in the horse.
 - Flunixin meglumine is commonly used for pain relief in the treatment of colic. It is used for protection from septic/endotoxic shock due to any gastro-intestinal (GI) insult either post-surgical or medical such as in cases of peritonitis or diarrhea. Flunixin is commonly used as an anti-inflammatory in the treatment of painful conditions of the eye including corneal ulcers, uveitis, conjunctivitis, and before and after eye surgery. It may be used to reduce or control fevers due to viral or bacterial infections. Although flunixin can be used for the treatment of arthritis, there are other NSAIDs that are more commonly prescribed for this purpose.

- The only contraindication the manufacturer lists for flunixin's use in horses is for patients with a history of hypersensitivity reactions to it. It is suggested, however, that flunixin be used cautiously in animals with preexisting GI ulcers, renal, hepatic or hematologic diseases. When using to treat colic, flunixin may mask the behavioral and cardiopulmonary signs associated with endotoxemia or intestinal devitalization and must be used with caution.
- The most common side effects include GI tract ulceration, especially of the stomach & large intestine
- Azium brand: generic dexamethasone
 - Oral bolus, solution, or powder
 - Prescription only
 - A corticosteroid with strong anti-inflammatory properties
 - Indicated for the treatment of acute & chronic inflammatory conditions of the joints
 - Corticosteroids have a wide variety of side effects associated with their use. Corticosteroids greatly suppress immune responses, both body-wide and in local areas where they are injected (e.g., joints). For this reason, any contamination carried in by use of improper injection techniques has a greater than normal chance of resulting in an infection. Corticosteroids may also cause low grade or inactive infections to flare up and become serious. Horses receiving corticosteroids may also be more susceptible to new infections; e.g., viral respiratory illness. Other possible side effects include: weakness & loss of muscle mass (long term use), depressed calcium & potassium levels, possibility of laminitis with very high doses. Repeated joint injections may cause permanent joint damage by disrupting cartilage cell metabolism. Increased hunger, thirst, & urination are common. Can lead to birth defects in pregnant mares.
- Butazolidin brand: generic phenylbutazone
 - Oral gel, granules, bolus, or paste
 - Prescription only
 - Nonsteroidal anti-inflammatory drug (NSAID)
 - Phenylbutazone is an inexpensive generally well-tolerated drug. It is frequently the first choice for pain control of many musculoskeletal problems although other NSAIDs, such as flunixin, are more commonly used for gastro-intestinal pain or colic. Recent research into NSAID toxicity and equine gastric ulcer disease may have given phenylbutazone a bad reputation for safety. However, when used at the appropriate dose and according to directions, phenylbutazone is generally a safe and effective drug. Additional care should be shown with special populations such as foals, ponies, older horses, and debilitated or dehydrated horses. These populations are more likely to have adverse side effects.
 - The most common side effects include ulceration of the mouth and GI tract. Less common side effects include renal damage, bleeding disorders, and protein loss.

- Torbugesic brand: generic butorphanol tartrate
 - Injectable
 - Prescription only
 - Used for relief of pain resulting from colic in adult or yearling horses. It is structurally related to morphine but much more potent as an analgesic
 - Can cause slightly lowered blood pressure and heart rate
 - Adverse effects seen in horses (at usual doses) may include a transient ataxia (uncoordinated muscle movement) and sedation. Although reported to have minimal effects, butorphanol has the potential to decrease intestinal motility. Horses may exhibit CNS excitement (tossing and jerking of head, increased ambulation, augmented avoidance response to auditory stimuli) if given high doses (0.2 mg/kg) IV rapidly. Very high doses IV (1 - 2 mg/kg) may lead to the development of nystagmus (involuntary movement of eyeball), salivation, seizures, hyperthermia and decreased GI motility. These effects are considered to be transitory in nature
- Ketofen brand: generic ketoprofen
 - Injectable
 - Prescription only
 - Nonsteroidal anti-inflammatory (NSAID)
 - Ketoprofen is most commonly prescribed for musculoskeletal pain from soft tissue injury, osteoarthritis or other bone and joint problems. It may be used to reduce or control fevers due to viral or bacterial infections.
 - Most common side effects include ulceration of the GI tract & a drop in red blood cell count due to GI bleeding. Is less likely to cause side effects in the horse than either flunixin or phenylbutazone.
 - Pony breeds are particularly susceptible to side effects so should be used with caution & at lowest dose in ponies
- Dormosedan brand: generic detomidine HCl
 - Injectable
 - Prescription only
 - Detomidine, like xylazine is an alpha₂-adrenergic agonist that produces a dose-dependent sedative and analgesic effect, but also has cardiac and respiratory effects.
 - Detomidine is contraindicated in horses with preexisting AV or SA heart block, severe coronary insufficiency, cerebrovascular disease, respiratory disease or chronic renal failure. It should be used with caution in animals with endotoxic or traumatic shock or approaching shock, and advanced liver or kidney disease. Horses who are stressed due to temperature extremes, fatigue, or high altitude should also receive the drug with caution.
 - Although animals may appear to be deeply sedated, some may respond to external stimuli; use appropriate caution. The manufacturer recommends allowing the horse to stand quietly for 5 minutes prior to injection and for 10-15 minutes after injection to improve the effect of the drug. After administering detomidine, protect the animal from temperature extremes.

- Adverse Effects/Warnings - Detomidine can cause an initial rise in blood pressure which is then followed by bradycardia (slow heart rate) and heart block. Also, piloerection, sweating, salivation, slight muscle tremors, and penile prolapse may all be noted after injection.
- Dipyron brand: generic metamizole
 - Injectable
 - Prescription only (due to off label usage it has been “unapproved” for veterinary use but FDA allows “regulated” sales)
 - Nonsteroidal anti-inflammatory
 - Rapid intravenous injection or over dosage can result in seizures. Caution is recommended when using in aged or debilitated horses or horses with cardiac (heart) disease. Prolonged use may result in depression of some types of white blood cells. Regular monitoring of blood counts is recommended when prolonged use is indicated.
 - Dipyron is used to control fevers (e.g., during a viral illness). Dipyron is also helpful in some cases of colic, at the same dosage as listed above, when pain is mild to moderate. It is interesting to note that dipyron was relatively ineffective in relieving experimentally induced colic pain in animals who had balloons inflated inside their intestinal tract, to simulate the pressure/pain caused by a section of intestine that is greatly distended with gas or fluids. It is well known that many cases of colic do respond to dipyron. It is unclear whether the horses that respond do so because their pain was not as intense as in the experimental model, or because their pain has its origin in some other cause.
- Aspirin (acetylsalicylic acid)
 - Nonsteroidal anti-inflammatory
 - An analgesic to treat mild aches & pain or reduce fever
 - Over the counter (nonprescription)
 - Oral tablet, bolus, or powder
 - Main side effect is ulceration of the GI tract