

Acepromazine:

SCHEDULING STATUS: S5

CURRENTLY COMPOUNDED FORMULATIONS:

| Active ingredient(s) | Injectable | Oral equine paste | Oral carnivore paste | Orals for exotics | Oral solution/suspension | Topical treatment | Shampoo | Capsules/Tablets | Oral powder |
|----------------------|------------|-------------------|----------------------|-------------------|--------------------------|-------------------|---------|------------------|-------------|
| Acepromazine maleate | ✓ | ✓ | ✓ | | ✓ | | | ✓ | |

REGISTERED PRODUCT/ TRADE NAME: Neurotranq® injection (discontinued)

PHARMACOLOGICAL CLASSIFICATION: Phenothiazine neuroleptic agent

PHARMACOLOGICAL ACTION: The primary desired effect for the use of acepromazine in veterinary medicine is its tranquilizing action. Additional pharmacologic actions include antiemetic, antispasmodic, and hypothermic actions.^[1]

INDICATIONS: Acepromazine is approved for use in dogs, cats and horses. Labeled indications for dogs and cats include: “. . . as an aid in controlling intractable animals . . . alleviate itching as a result of skin irritation; as an antiemetic to control vomiting associated with motion sickness” and as a preanesthetic agent. The use of acepromazine as a sedative/tranquilizer in the treatment of adverse behaviors in dogs or cats has largely been supplanted by newer, effective agents that have fewer adverse effects.

In horses, acepromazine is labeled “. . . as an aid in controlling fractious animals,” and in conjunction with local anesthesia for various procedures and treatments. It is also commonly used in horses as a pre-anesthetic agent at very small doses to help control behavior.

Although not approved, it is used as a tranquilizer (see doses) in other species such as swine, cattle, rabbits, sheep and goats. Acepromazine has also been shown to reduce the incidence of halothane-induced malignant hyperthermia in susceptible pigs.^[1]

DOSAGE AND DIRECTIONS FOR USE:

Note: The dose of 0.5 – 2.2 mg/kg for dogs and cats is considered by many clinicians to be 10 times greater than is necessary for the most indications. Give IV doses slowly; allow at least 15 minutes for onset of action.^[1]

DOGS:

- Premedication: 0.03-0.05 mg/kg IM or 1-3 mg/kg PO at least one hour prior to surgery. (not as reliable) (Hall and Clarke 1983)^[1]
- Restraint/Sedation: 0.025-0.2 mg/kg IV or 0.1-0.25 mg/kg IM
Preanesthetic: 0.1-0.2 mg/kg IV or IM; maximum of 3 mg; 0.05 – 1 mg/kg IV, IM or SC (Morgan 1988)^[1]
- To reduce anxiety in the painful patient (not a substitute for analgesia): 0.05 mg/kg IM, IV or SC; do not exceed 1 mg total dose (Carroll 1999)^[1]
- 0.55 – 2.2 mg/kg PO or 0.55 – 1.1 mg/kg IV, IM or SC^[1]
- As a premedicant with morphine: acepromazine 0.05 mg/kg IM; morphine 0.5 mg/kg IM (Pablo 2003b)^[1]

CATS:

- Restraint/Sedation: 0.05-0.1 mg/kg IV, maximum of 1 mg dose (Morgan 1988)^[1]
- To reduce anxiety in the painful patient: 0.05 mg/kg IM, IV or SC do not exceed 1 mg total dose (Carroll 1999)^[1]
- 1.1-2.2 mg/kg PO, IV, IM or SC^[1]
- 0.11 mg/kg with atropine (0.045 – 0.067 mg/kg) 15-20 min prior to ketamine (22 mg/kg IM). (Booth 1988a)^[1]

HORSES:

- For mild sedation: 0.01-0.05 mg/kg IV or IM. Onset of action is about 15 min for IV and 30 min for IM (Taylor 1999)^[1]
- 0.044-0.088 mg/kg IV, IM or SC^[1]
- Preanesthetic: 0.02-0.05 mg/kg IM or IV (Booth 1988a)^[1]
- Neuroleptanalgesia: 0.02 mg/kg given with buprenorphine (0.004 mg/kg IV) or xylazine (0.6 mg/kg IV) (Thurmon and Benson 1987)^[1]
- For adjunctive treatment of laminitis (developmental phase): 0.066-0.1 mg/kg 4-6 times per day (Brumbaugh, Lopez et al. 1999)^[1]

RABBITS/ RODENTS/ SMALL MAMMALS:

- Rabbits, as a tranquilizer: 1 mg/kg IM effect should begin in 10 min and last 1-2 hours (Booth 1988a)^[1]
- Rabbits, as a premedication: 0.1-0.5 mg/kg SC; 0.25-2 mg/kg IV, IM, SC 15 minutes prior to induction. No analgesia; may cause hypotension/ hypothermia. (Ivey and Morrissey 2000)^[2]
- Mice, rats, hamsters, guinea pigs, chinchillas: 0.5 mg/kg IM. Do not use in gerbils. (Adamcak and Otten 2000)^[1]

CATTLE:

- Sedation: 0.01-0.02 mg/kg IV or 0.03-0.1 mg/kg IM (Booth 1988a)^[1]
- 0.05-0.1 mg/kg IV, IM or SC (Howard 1986)^[1]
- Sedative one hour prior to local anesthesia: 0.1 mg/kg IM (Hall and Clarke 1983)^[1]

SWINE:

- 0.1-0.2 mg/kg IV, IM or SC (Howard 1986)^[1]
- 0.03-0.1 mg/kg (Hall and Clarke 1983)^[1]
- For brief periods of immobilization: acepromazine: 0.5 mg/kg IM followed in 30 minutes by ketamine 15 mg/kg IM. Atropine (0.044 mg/kg IM) will reduce salivation and bronchial secretions. (Lumb and Jones 1984)^[1]

SHEEP/ GOATS:

0.05-0.1 mg/kg IM (Hall and Clarke 1983)^[1]

WARNINGS/ PRECAUTIONS/ CONTRA-INDICATIONS:

- Pregnant animals, lactating mares, epileptics, animals in shock/post trauma or with existing emotional excitation; concurrent hypotensive drugs, procaine hydrochloride, or organophosphorus compounds in horses; horses should not be ridden within 36 hours of treatment; equine colic; hypovolaemia.
- Animals may require lower dosages of general anesthetics following acepromazine. Use cautiously and in smaller doses in animals with hepatic dysfunction, cardiac disease, or general debilitation. Because of its hypotensive effects, acepromazine is relatively contraindicated in patients with hypovolemia or shock.^[1]
- Intravenous injections should be made slowly. Do not administer intra-arterially in horses since it may cause severe CNS excitement/depression, seizures and death. Because of its effects on thermoregulation, use cautiously in very young or debilitated animals.^[1]
- In male large animals acepromazine may cause protrusion of the penis; in horses, this effect may last 2 hours. Stallions should be given acepromazine with caution as injury to the penis can occur with resultant swelling and permanent paralysis of the penis retractor muscle. Other clinical signs that have been reported in horses include excitement, restlessness, sweating, trembling, tachypnea, tachycardia and, rarely, seizures and recumbency.^[1]
- Do not administer to racing animals within 4 days of a race.^[1]

REFERENCES:

1. Plumb's Veterinary Drug Handbook, Fifth edition by Donald C. Plumb