

Anesthetics, Sedatives, Analgesic & Euthanasia

Drug	Use	Animal	Route of Administration	Dosage	Warning	Withdrawal Period
Bomazine 2% & 10%	<p>Used as a localized anesthetics.</p> <p>Use to induce anaesthesia or preoperative sedation as well as it can be used as a muscle relaxant and for analgesia in horses.</p>	Horse Cattle Sheep goat	Intramuscular Intravenous	<p>Horses: 1.1 mg/kg IV 2.2 mg/kg IM.</p> <p>Cattle: 0.02- 0.05 mg/kg IV.</p> <p>Sheep and Goat: 0.01 mg/kg. IM.</p>	<p>It should generally not be used in the last trimester of pregnancy because it may induce premature parturition.</p> <p>Avoid intra-arterial injection; may cause severe seizures and collapse.</p>	<p>Milk should not be consumed until 7 days after treatment.</p> <p>Meat should not be consumed until 28 to 30 days after treatment</p>
Bupivacaine	Used as a local or regional anaesthesia and analgesia for surgery. It can also used as an epidural analgesia/anesthesia	Horse Cattle	Intramuscular epidural	<p>Single dose: 175 mg/3hr</p> <p>Max dose: 400 mg/24 hr</p> <p>1-2 mg/kg</p>	0.75% concentration of bupivacaine is not recommended for obstetrical anesthesia, it has been linked to cardiac arrest with difficult resuscitation or death.	

Ketamine Hcl 20%	Ketamine is a rapid acting general anesthetic that has significant analgesic activity and a lack of cardiopulmonary depressant effects.	Horse Swine Cattle Sheep	Intramuscular Intravenous	<p>2 mg/kg IV.</p> <p>CRI: Loading dose of 0.6 mg/kg IV, followed by CRI of 0.4-0.8 mg/kg/hr.</p> <p>10 mg/kg IM. Often used in combination with other agents, such as xylazine.</p> <p>Foals, treatment of seizures: 0.02 mg/kg/min CRI.</p>	<p>Use in patients with significant hypertension, heart failure, and arterial aneurysms could be hazardous.</p> <p>Ketamine can cause increases in CSF pressure and it should not be used in cases with elevated pressures or when head trauma has occurred.</p>	3 days for meat and 48 hours for milk.
Lidocaine injection BP 2%	<p>Use as a local and topical anesthetic agent.</p> <p>It is also used to treat ventricular arrhythmias, principally ventricular tachycardia and ventricular premature</p>	Horse Cattle	Intravenous Epidural	<p>Horse: Antiarrhythmic- 0.25 – 0.5 mg/kg IV (slowly) every 5 – 10 minutes up to a total dose of 1.5 mg/kg.</p> <p>EPIDURAL: Cattle and Horses: 5 to 15 mL.</p> <p>NERVE BLOCK: Cattle and Horses: 5 to 20 mL.</p>	Lidocaine should be used with caution in patients with liver disease, congestive heart failure, shock, hypovolemia, severe respiratory depression, or marked hypoxia.	24 to 36 hours withdrawal period for meat and milk.

	<p>complexes in all species.</p> <p>In horses, lidocaine may be useful to prevent postoperative ileus and reperfusion injury</p>			<p>INFILTRATION: Dilute to 0.5% concentration.</p>	<p>When preparing lidocaine for intravenous injection, be certain of the concentration and do not use products containing epinephrine.</p>	
Thiopental 1g	<p>Used primarily for induction of anesthesia or for short duration of anesthesia for very short procedures. It induces a rapid, smooth, and generally excitement-free induction.</p>	<p>Horse Swine Ruminants (Cattle, Goat and Sheep)</p>	<p>Intravenous Intramuscular</p>	<p>Cattle: no more than 6.6 mg/kg IV for deep surgical Anesthesia. Calves under 2 weeks of age: 15 – 22 mg/kg IV slowly until complete muscular relaxation.</p> <p>Horse: With preanesthetic tranquilization: 6 – 12 mg/kg IV (an average of 8.25 mg/kg is recommended); Without preanesthetic</p>	<p>Too rapid IV administration can cause significant vascular dilatation & hypoglycemia.</p> <p>Avoid: Extravasation, intra-carotid or intra-arterial injections. Severe CNS toxicity & tissue damage has occurred in horses receiving intra-carotid injections</p>	<p>Cattle: 24 to 36 hours withdrawal period for meat and milk. Swine: 1 day withdrawal period.</p>

				<p>tranquilization: 8.8 – 15.4 mg/kg IV.</p> <p>Swine: 5.5 – 11 mg/kg IV.</p> <p>Goat: 20 – 22 mg/kg IV after atropine</p> <p>Sheep: 9.9 – 15 mg/kg IV depending on depth of anesthesia required</p>		
<p>Euthanasia Fort Solution [Sodium Pentobarbitone BP 400mg in stabilizing solution]</p>	<p>Usually used as intravenous anesthetic. It also is used to control severe seizures in animals for treatment during status epilepticus.</p> <p>In some instances, Pentobarbital is included in mixtures used to induce euthanasia in animals.</p>	<p>Horses swine Cattle Goat Sheep</p>	<p>Intravenous</p>	<p>Euthanasia- Cattle: Overdose of 60-80 mg/kg sodium pentobarbital IV.</p> <p>Horses: xylazine to sedate animal to prevent any excitatory trauma before overdosing animal with 60ml of sodium pentobarbital IV.</p>	<p>An overdose of pentobarbital produces rapid unconsciousness and anesthesia followed by respiratory depression, hypoxia, and cardiac arrest.</p> <p>The carcass of animals ethanized by sodium pentobarbital is</p>	

				<p>Therapeutic/ anesthetic effect- Horse: 15 – 18 mg/kg IV for light anesthesia.</p> <p>Swine: 15 – 30 mg/kg IV for anesthesia.</p> <p>Cattle: 15 – 30 mg/kg IV for anesthesia.</p> <p>Sheep and goat: 20 – 30 mg/kg IV</p>	<p>considered unfit for human consumption.</p>	
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