|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Drug** | **Species** | **Indications** | **Therapeutic Dose** | **Lethal Dose/ Toxicity** | **Contraindications** | **Pharmacology** | **Adverse Effects** |
| Natrium Pentobarbital 20%  E:\Dr. Diptee Introduction and Lab 1\las\Drugs\IMG_20180904_144403.jpg | Cattle, Horses | Classified as a short acting barbiturate that acts to depress the central nervous system. Pentobarbital is used in large animals at low doses and as a humane method of euthanasia.  Also used in cattle for standing sedation. | For injection containing 65mg/mL for general anesthesia.  For injection containing 200, 240, 340, 390, and 540mg/mL for euthanasia. | In dogs, the reported oral LD50 is 85 mg/kg and IV LD50 is 40–60 mg/kg. | Known hypersensitivity, severe liver disease, nephritis, or severe respiratory depression (large doses). Caution: Hypovolemia, anemia, borderline hypo-adrenal function, or  cardiac or respiratory disease. Use with caution in cats (sensitive to respiratory depression).  Animals intended for human or  animal consumption | Suppresses sensitivity of the motor endplate of skeletal muscle to acetylcholine but does not fully relax the abdominal muscles. Ruminants, particularly sheep and goats, metabolize pentobarbital from the plasma at a high rate, which may explain the need for supplemental increments of pentobarbital in anesthesia every 15 to 30 minutes. However, pentobarbital metabolism in sheep cannot be accelerated beyond its already high rate. Barbiturates are potent depressants of cerebral oxygen consumption and depress respiratory centers, particularly when given by IV injection. | Alone for IV anesthesia in the horse or cow. Some horses may rear and fall backward, injuring the poll. Additionally, the animal may injure itself during the prolonged period of recovery while attempting to stand.  Barbiturate anesthesia in the horse should not be prolonged for longer than 1 hour and no more than 5 g of any barbiturate should be given, even to draft breeds. Because pentobarbital is metabolized by the liver, it should not be administered to animals with hepatic disease. |