

Drugs and Calculations

Assuming Cattle is 500kg

Drug class	Drug name	Recommended dosage and route	Volume of drug to be used
Local anesthesia	2% Lidocaine HCl	Dosage: 5mg/kg Conc: 20mg/ml	Peterson Block: 5-10 ml at each site. (used for surgery) 4 Point Nerve Block: 5-10 ml at each site. (used for surgery) Retrobulbar Nerve Block: 20 ml at site (used for surgery) Ring Nerve Block: 5- 10 ml subcutaneously 2.5 mm away from eyelid (used for surgery) Auriculopalpebral Block: 3-5 ml at site. (used to examine the eye)
Analgesia	Flunixin Megalumine	1.1mg/kg IV or IM once daily up to 5 days Conc: 50mg/ml	11 ml
Sedative	Xylazine HCl + Ketamine	Dose: 0.05 mg/kg IM Conc: 20mg/ml Dose: 1 mg/ kg IM Conc: 100 mg/ml	1.25 ml 5 ml
Prophylactic drug	Tetanus toxoid and antitoxin	1mL IM	

Antibiotic	Penstrep	Dose: 1ml per 20 kg in cattle Dose: 20,000 IU Conc: 200000 IU	25 ml
Emergency drug	Yohimbine	0.05-0.2 mg/kg Administered IM or slowly IV Conc: 10mg/ml	2.5 ml -10 ml
Emergency drug	Tolazine	Dose: 0.2 mg/kg IV Slowly Conc: 100 mg/ml	1 ml
Emergency drug	Atropine	Dose: 0.04 mg/kg Conc: 15 mg/ml	1.3 ml
Anaphylactic	Epinephrine	Dose: 0.02 mg/kg IM Conc: 10 mg/ml	1 ml
Antiparasitic	Ivermectin	Dosage: 0.2 mg/kg SC Conc: 10mg/ml	10 ml

$$\text{Volume of drug used} = \text{Dose} \left(\frac{\text{mg}}{\text{kg}} \right) \times \text{Weight}(\text{kg}) \div \text{Concentration} \left(\frac{\text{mg}}{\text{ml}} \right)$$