

Drugs and Calculations

Assuming Cow is 500 kg

Drug class	Drug name	Recommended dosage and route	Volume of drug to be used
Local anesthesia	2% Lidocaine HCl	Dosage: 5mg/kg IV Conc: 20mg/ml	125 ml (procedure would require less of this volume practically but this value is used as a guide to the max amount that should be used)
Analgesia	Flunixin megalumine	1.1mg/kg IV or IM once daily up to 5 days Conc: 50mg/ml	11 ml
Sedative	Xylazine HCl	0.05 mg/kg IM Conc: 20mg/ml	1.25 ml (use if animal is aggressive)
Prophylactic drug	Tetanus toxoid and antitoxin	1mL IM	
Antibiotic	Procaine Penicillin	22,000-44,000 units/kg IM every 12 hours (30,000 units used) Conc: 1,000,000units	15 ml
Emergency drug	Yohimbine	0.05-0.2 mg/kg Administered IM or slowly IV Conc: 10mg/ml	2.5 ml -10 ml
Antiparasitic	Ivermectin	Dosage: 0.2 mg/kg SC Conc.- 10mg/ml	10 ml

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

kg

ml