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| **Drug** | **Active Ingredient**  | **Uses**  | **Contraindications**  | **Adverse** **Effects**  | **WDT** | **Conc & Dose**  | **Volume** |
| Xylazine  | Xylazine Hydrochloride  | Used for sedation, muscle relaxation and analgesia -allows for standing sedationIndications : Shot term sedation | This drug should not be used in: - animals with cardiac and respiratory distress. -animals with renal or hepatic- cows in the last trimester of pregnancyWhen given the animal should remain in sternal recumbency to avoid bloat.  | Ruminal TympanyHypersalivationHypothermiaRegurgitation | Meat:1 daysMilk: 0 days | Conc 20mg/mlDose : 0.025mg/kg | V = [550kg x 0.025 mg/kg]/20mg/ml= 0.6875 mls |
| Banamine | Flunixin Meglumine | This is an NSAID that for is used for the treatment of fever and inflammation associated with bovine respiratory disease and acute mastitis | Should not used in cows with:\Hypersensitivity reactions. IM route should only be used when IV route is not available since using IM can cause tissue reactions/ irritations.  | Can cause:-anaphylactic reaction gastrointestinal irritation- ulceration - vomiting. | Meat – 5-14 days Milk – 12-48 hours  | Conc : 50mg/mlDose: 2.2mg/ml (24hours)  | V = [550kg x 2.2mg/ml] / 50mg/ml= 24.2mls |
| Lidocaine  | Lidocaine Hydrochloride  | This drug : -Can block the conduction of nerve fibres resulting in muscle paralysis and loss of sensation- used for topical, infiltration, intravenous, regional and conduction anesthesia.- used in extradural and spinal injections | If it is being used in conjunction with Epinephrine,Do not use in:-Intra-articular administration -Epidural administration- Intradigital administration-Intravenous administration  | Overdose-Convulsions followed by CNS depression | Meat - 28daysMilk - 15days | Conc: 20mg/mlDose: 1.0mg/mlToxic Dose10mk.kg | V = [550 kg x 5mg/ml] / 20mg/ml= 27.5mlsToxic volume275 mls |
| Pen-Strep | Penicillin Streptomycin  | This is an antibiotic that combats gram positive and gram negative bacteria | In animals with shock, septicemia, the absorption of the antibiotic can be diminished therefore it should not be used on these animals. | Hypersensitivity and CNS effects | Meat – 30 days  | Conc: 200 000 IU/ml Dose: 20 000 IU/kg  | V = [550kg x 20 000 IU/kg] / 200 000 IU/ml= 55mls |
| Tolazoline | Tolazoline Hydrochloride  | This drug is a sedative antagonist, it is an Alpha-adrenoceptor blocking drug, it reverses the effects of xylazine. | Do not use in animals showing signs of stress, Debilitation, cardiac disease, hypovolemia or shock | Causes gastrointestinal disturbances, tachycardia and mild hypertension |  | Concentration : 100mg/mlDose: 0.05mg/kg | V = [550kg x 0.05mg/kg] / 100mg/ml= 0.275 mls Increasing the dose for such a large animal :2x = 0.55mls4x = 1.1mls |
| Atropine  | Atropine Sulfate  | This drug can act as a pre-anaesthetic to either reduce or prevent secretions from the respiratory tract. (Treat the effects of Xylazine)Also treats sinus bradycardia | DO NOT USE: in patients with glaucoma, myocardia ischemia, has a hypersensitivity to anticholinergic drugs, severe ulcerative colitis, obstructive uropathy | Adverse effects include: -dry mouth-dysphagia-constipation-urinary retention-drowsiness-ataxia-respiratory depression-seizures | Meat - 14 days Milk - None | Concentration - 0.54mg/mlDose: 0.04mg/kg | V = [550kg x 0.04mg/kg] / 0.54mg/ml= 40.74 mls |
| Epinephrine  |  | Treat anaphylactic reactions | Hypersensitivity to epinephrine, narrow closed glaucoma, during general anesthesia with halothane | Anxiety, tremor, excitability, arrythmias, vomiting |  | Dose: 0.02mg/kgConcentration: 10 mg/ml |  V = [ 550kg x 0.02mg/kg] / 10mg/ml = 1.1mls |