**Drug Calculations**

Calf IDs: 174 & 173

Estimated weight: 120kg (for both)

Formula: VOLUME (mL)=

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Drug** | **Concentration** | **Dose Rate and Route** | **Calculations and amount given** | **Indications** | **Contra Indications** | **Withdrawal time** |
| **Sedatives** | | | | | | |
| Xylazine 2% | 20mg/ml | 0.025mg/kg Intravenous |  | Sedative | Do not use in later stages of pregnancy, cases with oesophageal obstruction or stomach torsion, hepatic failure, renal failure, cardiac abnormalities, urethral obstruction calves younger than 2 weeks. | **Meat:** 48 hours  **Milk:** 14 days |
| **Local Anaesthetics** | | | | | | |
| Lidocaine 2% | 20mg/ml | 0.2mg/kg  Intramuscular | A total of 10 mL per site was used for the Corneal Nerve Block | Local anaesthetic | Do not use in animals with known hypersensitivity | **Meat**: 1 day  **Milk:** 1 day |
| **Non-Steroidal Anti-Inflammatories (NSAIDs)** | | | | | | |
| Banamine (Flunixin Meglumine) | 50mg/ml | 1.1mg/kg  Intravenous |  | NSAID- analgesia | Do not give to animals with gastrointestinal disorders or ulcers. Also do not administer to animals with bleeding disorders such as coagulation issues and platelet function disorders | **Meat:** 4 days  **Milk:** 72 hours |
| **Antibiotics** | | | | | | |
| Penicillin-Streptomycin (PenStrep) | 200,000 IU | 20,000 IU  intramuscular |  | Antibiotic  Prevention of shipping fever, bronchopneumonia, *Corynebacterium renale, Clostridium* spp., tetanus among other pathogens and also post operative infections | Do not use intravenously! Do not use in cases where there may be hypersensitivity to any of the components. Also, do not give to animals with renal insufficiency. | Meat-23days |
| **Emergency Drugs** | | | | | | |
| Tolazoline | 100mg/ml | 0.05  mg/kg  Intravenous |  | Used when the effects of xylazine need to be reversed. | Do not give to animals showing signs of stress, cardiac disease, shock, hypovolemia | **Meat:** 30  days  **Milk:** 0 days |
| Epinephrine | 1 mg/ml | 0.02 mg/kg  Intramuscular |  | Used in treatment of anaphylactic shock. Also used for cardiac resuscitation | Do not use in cases with glaucoma, shock due to non-anaphylactic causes, during parturition etc. |  |
| Atropine | 0.54 mg/ml | 0.04mg/kg  Give quarter of the dose IV and the rest IM |  | Used in cases of bradycardia to raise heart rate. | Do not use in cases of glaucoma, tachycardia, ileus, urinary obstruction | **Meat:** 14 days  **Milk:** 3 days |

**Toxic Dose of Lidocaine (10mg/kg):**