**DRUG CALCULATIONS**

**(R34 – 43.8kg)**

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| **DRUG** | **CONCENTRATION** | **DOSE RATE** | **CALCULATIONS** | **WITHDRAWAL** | **INDICATION FOR USE** |
| **Penstrep****(antibiotic)** | 200,000 IU/ml | 40,000 IU/kg | V= 43.8kg x 20,000 IU/kg  200,000 IU/ml = 4.38 mls IM(Given the lack of sterility in the operating room 8ml was used) | 30 DAYS | Antibiotics5mls q3d x 2 |
| **Xylazine****Pre-Anaesthetic)****Induction** | 20 mg/ml | 0.05mg/kg IM=5mg | V=(0.05x43.8) 20  = 0.12mls IV Make up to 1 mls with saline | 14 days meat48 hrs milk  | 1/10 the equine dose+/- 45 min of anaesthesia |
| **Xylazine****(Anaesthetic)****CRI** | 20 mg/ml | 0.04 mg/kg/hr OR0.66 mcg/kg/min | *M = DWV**16.67R*0.66 x 43.8 x 1000 16.67 x 219= 6.936mg …… 6.936/20 = 0.346 ml | 14 days meat48 hrs milk | Continuous analgesia for the 2 hrs of surgery |
| **Ketamine****(Anaesthetic - Induction)** | 100mg/ml | 6mg/kg | V = (6 x 43.8) 100 = 2.63 mls IV  | 3 days meat24 hrs milk | *Balanced anaesthesia* with xylazine |
| **Ketamine****(CRI)** | 100mg/ml | 4mg/kg/hrOR66mcg/kg/min | *M = DWV**16.67R*66 x 43.8 x 100016.67 x 219= 693.653mg ….693.653/100 = 6.94ml | 3 days meat24 hrs milk | Continuous analgesia for the 2 hrs of surgery |
| **Flunixin****(analgesic)** | 50mg/ml | 2.2mg/kg | V = (2.2 x 43.8) 50 = 1.9 mls IV - Slow Iv admin - 1 ml/second | Meat 4 days | Preemptive analgesia & post-op for three days. |
| **Lidocaine** **L6-S1epidural** | 20mg/ml |  | 5mls | 1 day meat24 hrs milk | Toxic dose 10 mg/kg |
| **Lidocaine****(Anaesthetic - Induction)** | 20mg/ml | 1.0 mg/kg | V = (1.0 x 43.8) 20 = 2.2 mls IV | 1 day meat24 hrs milk | Toxic dose 10 mg/kg |
| **Lidocaine****(CRI)** | 20mg/ml | 20 mcg/kg/min | *M = DWV**16.67R*20 x 43.8 x 100016.67 x 219= 210.19mg ….210.19/20 = 10.5mls | 1 day meat24 hrs milk | Toxic dose 10 mg/kg=25mls |
| **Intra-op Fluids****0.9%Saline (use 1L bag)** | Calculated of Drip Rate in drops per sec - (ml/min x drip factor)/60 = drops/sec219 x 20 = 167 / 60 = 1.22 = 1 drops/sec 601drop/sec |
| **Tolazoline****(xylaxine reversal)** | 100mg/ml | 4 x xylazine dose i.e.0.1 mg/kg | V = (0.2x43.8) 100  = 0.09mls | None for food animals | Xylaxine reversal |
| **Atropine** | 0.54 mg/ml<55bpm bradycardia>140bpmtachycardia | 0.04 mg/kg | V = (0.04 mg/kg) x (43.8 kg) 0.54 mg/ml = 3.2 ml | 14 days meat3 days milk | Use if bradycardia < 30 bpm |
| **Epinephrine** | 1mg/ml(1:1000) | 0.02mg/kg | V = (0.02 mg/kg) x (43.8 kg) 1 mg/ml = 0.9 ml | No WDT | Anaphylaxic reactions |
| **Tetanus****Antitoxin** | 1500IU |  | 1.5ml SQ | 21 days  | Prevention of tetanus  |

**Ketamine + Diazepam for breakthrough – mix 1:1 and use 2 mls as a bolus PRN**



Rate of Fluid delivery = 5 ml/kg/hr

Drop factor = 20 drops/ml