**Calculation used Sheep R34 of weight 43.8kg.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **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 IM8ml were given to the animal as a precaution | 30 DAYS | Antibiotics5mls q3d x 2 |
| XylazinePre-Anaesthetic)Induction | 20 mg/ml | 0.05mg/kg IM=5mg | V=(0.05x43.8)/20 = 0.1ml IV Make up to 2 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 250= 6.9mg …… 6.9/20 = 0.35ml0.4ml were placed in CRI | 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 3ml were given | 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 250= 693.65mg ….693.65/100 = 6.9ml8ml were given in the lab | 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 250= 210.2mg ….210/20 = 10.5mls12 mls were given in lab | 1 day meat24 hrs milk | Toxic dose 10 mg/kg=25mls |
| Intra-op Fluids0.9%Saline (use 1L bag) | Calculated of Drip Rate in drops per sec - (ml/min x drip factor)/60 = drops/sec250 x 20 = 167 / 60 = 2.78 = 1.5 drops/sec 60 |
| Tolazoline(xylaxine reversal) | 100mg/ml | 4 x xylazine dose i.e.0.1 mg/kg | V = (0.2x43.8)/100 = 0.087mlIf needed 0.09ml would have been given | None for food animals | Xylaxine reversal |
| Atropine | 0.54 mg/ml<55bpm bradycardia>140bpmtachycardia | 0.04 mg/kg | V = (0.04 mg/kg)(43.8 kg) / 0.54 mg/mlV = 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)(43.8 kg) / 1 mg/mlV = 0.88 ml0.9ml would have been given if it were needed | No WDT | Anaphylaxic reactions |

**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