**ANAESTHESIA CALCULATIONS**

**Weight of sheep = 32.5 kg**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Drug** | **Concentration** | **Dose Rate** | **CALCULATIONS** | **Withdrawal** | **Indication for use** |
| Xylazine  (Pre-Anaesthetic  Induction) | 20 mg/ml | 0.05mg/kg | V=(0.05x32.5)/20 = 0.08ml  Make up to 2 mls with saline | 4 days meat  24 hrs milk | 1/10 the equine dose  +/- 45 min of anaesthesia |
| Xylazine  (Anaesthetic)  CRI | 20 mg/ml | 0.66  mcg/kg/min | *M = DWV*  *16.67R*  0.66 x 32.5 x 1000  16.67 x 162.5  = 8mg …… 8/20 = 0.4 ml | 4 days meat  24 hrs milk | Continuous analgesia for the 2 hrs of surgery |
| Ketamine  (Anaesthetic - Induction) | 100mg/ml | 6mg/kg | V = (6 x 32.5)/100 =  2 mls (IV) | 3 days meat  24 hrs milk | *Balanced anaesthesia* with xylazine |
| Ketamine  (CRI) | 100mg/ml | 66mcg/kg/min | *M = DWV*  *16.67R*  66 x 32.5 x 1000  16.67 x 162.5  = 792mg ….792/100 = 8ml | 3 days meat  24 hrs milk | Continuous analgesia for the 2 hrs of surgery |
| Flunixin  (analgesic) | 50mg/ml | 2.2mg/kg | V = (2.2 x 32.5)/50 =  1.4 mls (IV )- Slow Iv admin - 1 ml/second | Meat 4 days | Pre-emptive analgesia & post-op for three days. |
| Lidocaine  (Anaesthetic - Induction) | 20mg/ml | 1.0 mg/kg | V = (1.0 x 32.5)/20 =  1.6 mls (IV) | 1 day meat  24 hrs milk | Toxic dose 10 mg/kg |
| Lidocaine  (CRI) | 20mg/ml | 20 mcg/kg/  min | *M = DWV*  *16.67R*  20 x 32.5 x 1000  16.67 x 162.5  = 240mg ….240/20 = 12mls | 1 day meat  24 hrs milk | Toxic dose 10 mg/kg  =16.25 ml |
| Intra-op Fluids  0.9%Saline (use 1L bag) | Calculated of Drip Rate in drops per sec - (ml/min x drip factor)/60×60 = drops/sec  162.5 x 20 = 0.90= 1.0 drops/sec  60×60 | | | | |
| Tolazoline  (Xylazine reversal) | 100mg/ml | 2X Xylazine dose i.e.  2(0.05) = 0.1mg/kg | V = (0.1x32.5)/100 = 0.03mls | 30 days meat  None -milk | Xylazine reversal |
| Atropine | 0.54 mg/ml  <55bpm bradycardia  >140bpmtachycardia | 0.04 mg/kg | V = (0.04 mg/kg)(32.5 kg) / 0.54 mg/ml  V = 2.4 ml | 14 days meat  3 days milk | Use if bradycardia < 30 bpm |
| Epinephrine | 1mg/ml | 0.02  mg/kg | V = (0.02 mg/kg)(32.5 kg) / 1 mg/ml  V = 0.65 ml | No WDT | Anaphylactic 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