**DRUGS UTILIZED WITH UMBILICAL HERNIA SURGERY:**

WEIGHT OF ANIMAL: 13.4 kg

VOLUME (ML) = $\frac{WEIGHT OF ANIMAL \left(KG\right)x DOSAGE OF DRUG (\frac{MG}{KG})}{CONCENTRATION OF DRUG (\frac{MG}{ML})}$

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| **Drug** | **Concentration** | **Dose Rate and Route** | **Calculations & Amt Given** | **Indications** |
| Banamine (FlunixinMeglumine) | 50mg/ml | 1.1mg/kg (IV) | $$\frac{13.4x1.1}{50}=0.29ml $$Amount given: 0.29ml | NSAID - analgesia |
| Combikel 40 (Penicillin/ Streptomycin | 200,000 IU/ml | 22,000 IU/ml (SC) | $$\frac{13.4x22,000}{200,000}=1.47ml$$Amount given: 1.47ml | Prophylactic Antibiotics |
| Stresnil (azaperone) | 40mg/ml | 1mg/kg  | $$\frac{13.4x1.0}{40}=0.34ml$$Amount given: 0.34ml | Mild sedative to relieve the stress of transport. After the initial injection, wait 10 minutes for the drug to take effect |
| Thiopental 5% |  | 10mg/kg (IV) | Thiopental 10% powder formTo be broken down into 5%1g = 1000mg = 20ml salineTherefore 1ml = $\frac{1000}{20}=50mg$10 mg/kg to induce = $$\frac{13.4x10}{50}=2.68ml$$Amount given: 2.7ml | Induction anaesthetic |
| Xylazine 10%/Ketamine 10% | - | 1ml/45kg (multimodal analgesic) (IV) | $$45kg=1ml$$$$13.4kg= \frac{1}{45}x 13.4=0.3ml $$Amount given: Xylazine 10% = 0.15mlKetamine 10% = 0.15ml | Sedative, Administered only after the Stresnil (azaperone) only if the animal starts to squeal |
| Valium / Ketamine 10% | - | 0.25 ml Diazepam: 1ml Ketamine(1/4:1) | Amount given to “top up” 1.25ml approximately every 40mins | In order to maintain anaesthesia, when physical signs indicated that the animal was feeling pain or was conscious, 1.25ml Diazepam/Ketamine was administered IV |
| **EMERGENCY DRUG**Atropine sulphate | 0.54mg/ml | 0.05mg/kg | $$\frac{13.4x0.05}{0.54}=1.24ml$$Amount used: 0ml | This is required if the animal starts to have unstable signs for example bradycardia. |

**Calculation of IV Fluid drip rate:**

Drig bag: 20drops = 1 ml

Using a surgical drip rate of 10mg/kg/hour

13.4kg x 10mg/kg = 134ml/hour

Per minute = $\frac{134}{60}=$ 2.23ml/min

Per sec = $\frac{2.23}{60}=$ 0.04ml/sec

1ml = 20 drops

0.04ml/sec = 0.04ml x 20 drops = 0.8drops/sec = 1 drop/sec