

~~Pre-operative~~ Castration

Weight of male calf= 130kg

Volume of drug to be administered = (weight of animal × dose of drug) ÷ concentration of drug

1) PenStrep (intramuscular) = $(130\text{kg} \times 20,000 \text{ IU/kg}) \div 200,000 \text{ IU/ml}$
= 13mls

2) Xylazine (intramuscular sedative) = $(130\text{kg} \times 0.025 \text{ mg/kg}) \div 20\text{mg/ml}$
= 0.1625mls

3) Flunixin meglumine (intravascular for pain and inflammation) = $(130\text{kg} \times 1.1 \text{ mg/kg}) \div 50 \text{ mg/ml}$
= 2.86mls

4) Lidocaine (intratesticular/ in the spermatic cord as a local anaesthetic) = $(130\text{kg} \times 0.8\text{mg/kg}) \div 20 \text{ mg/ml}$
= 5mls

5) Toxic dose of lidocaine= $(130\text{kg} \times 5 \text{ mg/kg}) \div 20 \text{ mg/ml}$
= 32.5mls

Standby:

6) Tolazoline (intravascular to reverse the effects of xylazine) = $(130\text{kg} \times 0.05 \text{ mg/kg}) \div 100 \text{ mg/ml}$
= 0.065mls

7) Epinephrine (for any adverse drug reactions) = $(130\text{kg} \times 0.02 \text{ mg/kg}) \div 1 \text{ mg/ml}$
= 2.6mls