

DRUGS USED OR KEPT ON STANDBY FOR POSSIBLE USE DURING EYE Surgery LAB

Drug Used	Concentration	Dosage	Maximum Volume that can be administered (w*d/c)	Reason for utilizing drug	Withdrawal Period of Drug	Comments
Xylazine	20mg/ml or 2%	0.025mg/kg	0.5ml IM	To achieve standing sedation	14 days from meat	Drug is an alpha-2 agonist which causes respiratory depression so care must be taken when administering.
Flunixin Meglumine	50mg/ml or 5%	1.1mg/kg	8.8ml IV	Utilized for its analgesic properties	4 days from meat	
Lidocaine	20mg/ml or 2%	5mg/ml	100ml. Considering a single eye is likely being operated on, the volumes utilized for local blocking would be including within the nerve block section.	To achieve local anaesthesia at the site of the procedure.	24hrs from meat.	This volume refers to the total volume the animal can handle before hitting toxic therapeutic levels. For local blocks of the eye, this volume would not be needed, a much smaller volume can be administered.
Penn strep - Procaine benzylpenicillin + Dihydrostreptomycin sulphate.	200 000 IU/ml	20 000 IU/kg	40ml	Antibiotic drug therapy	30 days from meat.	Used as a prophylactic to prevent infection after the procedure.
Tolazoline	100mg/ml	0.05mg/ml	0.2ml	Reversal agent for alpha-2 agonists		In the case a large dose of Alpha-2-Agonist must be used, tolazoline can be used to antagonise the

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						agonist resulting in alleviated respiratory depression.
Atropine	150mg/ml	6mg/kg	16ml	Kept on standby if the heart needs assistance in returning to a normal manner of beating.	-	-
Epinephrine	10mg/ml	0.02mg/kg	0.8ml	Kept on standby in the occurrence of an anaphylactic reaction.	-	-

Consider the following sample calculation for finding volume of drug administered for a 550kg animal.

Using Xylazine @ a concentration of 20mg/ml and dosage of 0.05mg/kg:

$$\text{Volume of Xylazine Needed} = \frac{(\text{Weight of the animal} * \text{Dose of Xylazine Needed})}{\text{Concentration of Xylazine}}$$

$$\text{Volume of Xylazine Needed} = \frac{(400 \text{ kg} * 0.025\text{mg/kg})}{20\text{mg/ml}}$$

$$\text{Volume of Xylazine Needed} = 0.5\text{ml of } 20\text{mg/ml Xylazine}$$