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| DRUG | CONCENT-RATION | DOSE RATE | CALCULATIONS  (Weight of sheep 400 kg) | WITH-DRAWAL | INDICATION FOR USE | CONTRAINDICATIONS |
| Antibiotic |  |  |  |  |  |  |
| Pencillin/Streptomycin  GIVEN IM  (trapezius ms.) | 200,000 IU/ml | 20,000 IU/kg | V=Dose x Weight/ Conc. Of drug  V=(400kg x20 000 IU/kg) /200,000 IU/ml = 40 ml  Giving IM | 30 days | Antibiotics 5mls q3d\*2  used for preventing and treating infections caused by penicillin and dihydrostreptomycin (dhs) susceptible microorganisms  **Onset of action (O.A.)=30 minutes**  **Duration of Action:**  **(D.o.A.)=8-24 hrs** | Do not use in animals known to be hypersensitive to the components of the product or if they have renal failure.  Should not be given IV |
| SEDATION |  |  |  |  |  |  |
| Ketamine shun  -Ketamine  -xylazine  -butorphenol  GIVEN IM  Gluteus muscle | 100mg/ml  20mg/ml  20mg/ml | 0.1mg/kg  0.05 mg/kg  0.02mg/kg | V=Dose x Weight/ Conc. Of drug  (K) V = (0.1 x400)/100 = 0.4 ml  (X) V = 1ml  (B) V = 0.4 ml  They are combined in a 3ml syringe and given IM | 48 hrs milk | Ketamine is a rapid acting general anesthetic that has significant analgesic activity and a lack of cardiopulmonary depressant effects.  This combination of drugs aids in the management of fractious patients. Also combining these drugs reduces the dose rate of each and so the potential for toxicity.  **(O.A.) = 3-5 minutes**  **(D.o.A.)=10-30 minutes** | When using ketamine in combination with an alpha-two agonist, one should always let at least 20 minutes pass before reversing the alpha-two drug to ensure that the ketamine has been metabolized and that no ketamine effect is left. |
| Anti-inflammatory and analgesia agent |  |  |  |  |  |  |
| Analgesic-  Flunixin | 50mg/ml | 1.1mg/kg | V= (1.1 x 400)/50  =8.8 ml | 4 days meat | Used to treat pain and inflammation  Postoperative period (3 days) and used as a preemptive analgesia to reduce pain associated with surgical procedures.  **(O.A.): 2 hours**  **(D.o.A.) : 30 hours** | Should not be used in animals with known hypersensitivity or allergy to the drug  Should be avoided in animals with liver, kidney, heart, or blood abnormalities. |
| Nerve block drug |  |  |  |  |  |  |
| \*Lidocaine | 20mg/ml | 1.0mg/kg | V=Dose x Weight/ Conc. Of drug  K) V = (1.0x400)/20 = 20 ml | 1 day meat & 24 hrs milk | **(O.A.): 5 minutes**  **(D.o.A.) : 10-45 minutes** |  |
| Splash block  Saline + Lidocaine | (L) 20mg/ml  (S) 0.9% | 10 ml + 10 ml  Lidocaine and Saline | | 1 day meat & 24 hrs milk | Used as a  Local anesthetic with quick onset and short duration of action – 1-2 hrs during the surgery when the animal exhibits signs of pain |  |
| LIDOCAINE Toxicity | 20mg/ml | 10mg/kg | (400\* 10) / 20 = 200mls  ½ of 200 = 100mls |  |  |  |
| Reversal Drugs |  |  |  |  |  |  |
| Tolazoline  (Xylazine reversal drug) | 100mg/ml | 4 x xylazine dose  i.e 0.2 mg/kg | V=(0.2 \* 400 ) /100  = 0.8ml  To be given IV when needed. | None for food animals | Xylazine reversal |  |
| Atropine | 0.54mg/ml | 0.04mg/kg | V= (0.04 \* 400) / 0.54  = 29.6 ml  Can be given IV or IM when needed | 28 days meat & 6 days milk | Use if bradycardia is less than 30 beats per minute  **(O.A.): 2- 3 mins after IV**  **(D.o.A.) :** |  |
| Epinephrine | 1mg/ml (1:1000) | 0.02mg/kg | V= (0.02 \* 400) / 1  =8ml  Can be given IV when needed | NO WDT | Anaphylaxic reactions  **(O.A.):immediately**  **(D.o.A.) :** |  |