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| Drug name | Category | Use | MOA | Dose | Method of administration | Side Effects | Withdrawal times | Precautions |
| Xylazine 2% | Alpha 2 adrenergic agonist | Dose dependant sedation and analgesiaWith muscle relaxant properties | Acts through central mediated pathwayseffects mediated via stimulation of central α2-receptors. decreases release of norepinephrine and dopamine in the (CNS) resulting in sedation, muscle relaxation, and decreased perception of painful stimuli. | **Cattle:** 0.05-0.15mg/kg IV; 0.10-0.33 mg/kg IM**Horses:**1.1mg/kg IV;2.2mg/kg IM**Sheep and goats:**0.05-0.1mg/kg IV0.1-0.22mg/kg IM | IV/IM | Muscle tremors, bradycardia with partial AV block, reduced respiratory rateIn cattle see salivation, ruminal atony, hypothermia, regurgitation, bradycardia, diarrhea, premature parturition, ataxia | Zero hours withdrawal for milk, meat and offal | Cattle extremely sensitive to xylazine’s adverse effects Pretreatment with atropine can decrease bradycardia and hypersalivationUse xylazine with extreme caution in sheep and goatsReversal- Yohimbine, atipamezole, tolazine |