- Onset of action for Xylazine occurs 10-15 minutes post injection and duration of analgesia is approximately 15-30 minutes
- Onset of action for Ketamine occurs 3-4 minutes post injection and duration of analgesia is approximately 12-25 minutes
- FARAD (*Food Animal Residue Avoidance Databank*) recommends that a 24-hour milk and meat withdrawal interval (WDI) be followed when lidocaine (+/- epinephrine) is used for local anesthesia in food animals
- * Extra label suggested withdrawal time for Ketamine in meat is 3 days and milk is 48 hours
- Observation of Adverse Effects of:
 - Xylazine
 - In Cattle, adverse effects may include profuse salivation, ruminal atony, bloat, regurgitation, hypothermia, diarrhoea, bradycardia, polyuria, premature parturition. Acute toxicity may cause cardiac arrhythmias, hypotension, profound CNS depression, profound respiratory depression, seizures.
 - *Ketamine*
 - In Cattle, adverse effects may include pain at the injection site. Hypersalivation and other autonomic signs. Hypotension. Increased cardiac output. Tachycardia. Mild respiratory depression: increased tidal rate does not compensate for the decreased tidal volume. Rise in arterial blood pressure (hypertension).
- Farmer Information
 - In the case of bloat maintain the Cow in sternal recumbency to avoid tympany. Access to water ad libitum to assist with diarrhoea and prevent dehydration. Contact the Veterinary who conducted the procedure if the above listed adverse effects are persistent.
- Corrective Action
 - Pre-treatment with atropine may be used to alleviate hypersalivation, autonomic signs and bradycardia. Xylazine reversal with Tolazoline at two-four time the concentration rate of Xylazine has been suggested. Mechanical respiratory support with respiratory stimulants is indicated for treatment of respiratory depression.

https://www.drugs.com/vet/xylazine-hcl-injection.html

http://www.farad.org/publications/digests/112003WithholdingRecommendations.pdf

https://www.cvmbs.colostate.edu/aphi/web/outreach/Veterinary%20Drug%20Formulary2014%20English.pdf

http://wildpro.twycrosszoo.org/S/00Chem/ChComplex/xylazine.htm

http://wildpro.twycrosszoo.org/S/00Chem/ChComplex/ketamine.htm