

## SWINE FORMULARY

Note that all of these doses are approximations and must be titrated to the animal's strain, age, sex and individual responses. Significant departures from these doses should be discussed with a veterinarian. Doses will also vary depending on what other drugs are being administered concurrently.

All doses are listed as milligrams per kilogram (mg/kg) unless otherwise noted.

DRUG NAME	DOSE (mg/kg) & ROUTE	FREQUENCY	NOTES
<b>Inhalation anesthetics</b>			
<b>Recommended:</b> Isoflurane or Halothane or Sevoflurane	1-3% inhalant to effect (up to 5% for induction). Up to 8% for Sevoflurane	Whenever general anesthesia is required	Concurrent preemptive analgesia is recommended for survival surgery Must use precision vaporizer. Mask induction is possible with very small pigs.
<b>Dissociative (Ketamine and/or Telazol®) combinations</b>			
Ketamine alone	11 – 33 IM	Any time sedation is required	Not typically used as sole agent in swine
<b>Recommended:</b> Ketamine-Xylazine	15 - 20 + 1.1 – 2.2 IM (in same syringe)	Prior to general anesthesia	Can result in large volumes – consider using Telazol® or Telazol® combination as alternative
<b>Recommended:</b> Telazol® alone (a combination of tiletamine and zolazepam – when reconstituted with 5 ml sterile water, a vial contains 50 mg/ml of each drug. Dose listed is based on 100mg/ml of combined active ingredients)	6 – 8 IM ( = .06 - .08 ml/kg)	For sedation or pre-anesthesia	Note that Telazol® must be stored refrigerated once reconstituted.
Telazol®-Ketamine-Xylazine (TKX)	~ 0.025 ml of cocktail per kg IM	For sedation or pre-anesthesia	Note that Telazol® must be stored refrigerated once reconstituted. To mix: reconstitute Telazol® with 'large animal xylazine (100mg/ml) instead of water; add 5 ml ketamine (concentration of 100mg/ml)
Xylazine – Telazol®	2.2 – 8.8 + 2 – 8.8	For sedation or pre-anesthesia	Note that Telazol® must be stored refrigerated once reconstituted. To mix: reconstitute Telazol® with 5 ml. of 'large animal xylazine (100mg/ml) instead of water.
Ketamine-Diazepam continuous infusion	~ 0.2 + ~ 0.0005 mg/kg/hr	Sedation for imaging or other prolonged procedure – not adequate anesthesia for surgical procedures.	Not adequate anesthesia for surgical procedures.
<b>Reversal agents</b>			
Atipamezole	~ 1.0 subcutaneous or IM	Any time medetomidine or	More specific for medetomidine than for

		xylazine has been used	xylazine (as a general rule, Atipamezole is dosed at the same <i>volume</i> as Medetomidine, though they are manufactured at different concentrations).
<b>Other injectable anesthetics and tranquilizers</b>			
Sodium pentobarbital (Nembutal)	20 - 60 IV single or intermittent bolus, or 2-20 mg/kg/hr IV continuous infusion	Recommended for terminal/acute procedures only, with booster doses as needed.	Consider supplemental analgesia (opioid or NSAID) for invasive procedures.
Propofol	16 - 22 IV	As induction agent, prior to general anesthesia with pentobarbital or inhalant	Respiratory depression upon induction is possible.
Acepromazine	0.08 – 0.2 IM or SC	May be used whenever ketamine combinations are used	Usually only used in conjunction with anesthetics such as ketamine. Acepromazine is a tranquilizer and does not confer analgesia.
<b>Opioid analgesia</b>			
<b>Recommended:</b> Buprenorphine	0.5 - 0.1 SC, IM usually use .05 – 0.1 for major surgery)	Used pre-operatively for preemptive analgesia and post-operatively every 8-12 hours	For major procedures, require more frequent dosing than 12 hour intervals. Consider multi-modal analgesia with a NSAID
Butorphanol	0.1 – 0.5 SC	Used pre-operatively for preemptive analgesia and post-operatively every 4-6 hour	For major procedures, require more frequent dosing than 12 hour intervals. Consider multi-modal analgesia with a NSAID
Fentanyl patch	50 µg/hr	Place patch 24 hours in advance of surgery and maintain for up to 3 days	When severe post-surgical pain is anticipated.
<b>Non-steroidal anti-inflammatory analgesia (NSAID) -- Note that prolonged use may cause renal, gastrointestinal, or other problems</b>			
<b>Recommended:</b> Carprofen	2 - 4 SC PO, IV	Used pre-operatively for preemptive analgesia and post-operatively every 24 hour for up to 4 days.	Depending on the procedure, may be used as sole analgesic, or as multi-modal analgesia with buprenorphine.
Ketoprofen	~ 1.0 – 3.0 SC, IM	Used pre-operatively for preemptive analgesia and post-operatively every 24 hour for up to 4 days	Depending on the procedure, may be used as sole analgesic, or as multi-modal analgesia with buprenorphine.
Aspirin	10 mg/kg PO	Every 4 hours	
Flunixin	1.0-2.2 mg/kg IM 1.1 mg/kg PO	Every 24 hours	Consult with the Veterinary staff regarding repeated administration
<b>Local anesthetic/analgesics (lidocaine and bupivacaine may be combined in one syringe for rapid</b>			

**onset and long duration analgesia)**

Lidocaine hydrochloride	May dilute to 0.5 - 1% (=10mg/ml). May be mixed in same syringe with bupivacaine. SC or intra-incisional	Use locally before making surgical incision	Faster onset than bupivacaine but short (<1 hour) duration of action
Bupivacaine	May dilute to 0.25 – 0.5%, May be mixed in same syringe with lidocaine. SC or intra-incisional	Use locally before making surgical incision	Slower onset than lidocaine but longer (~ 4-8 hour) duration of action