

Common Emergency Anesthesia Protocols

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Anesthetic Emergency	Premedication	Induction	Maintenance	Postoperative
GDV Dog	■ An opioid: methadone (0.3–0.5 mg/kg), fentanyl (3–5 µg/kg), buprenorphine (0.01 mg/kg) IM or IV; hydromorphone (0.1 mg/kg); or oxymorphone (0.1 mg/kg) IV	■ Ketamine (0.5 mg/kg) with diazepam <i>or</i> midazolam (0.28 mg/kg) IV	■ An inhalant: isoflurane <i>or</i> sevoflurane ■ Fentanyl CRI (0.1–0.5 µg/kg/min) IV ■ Lidocaine CRI (50 µg/kg/min; dogs only) IV ■ Ketamine CRI (0.6 mg/kg/hr) IV ■ Dopamine CRI (3–12 µg/kg/min) as needed	Continue preoperative mu-agonist opioid intermittently <i>or</i> fentanyl CRI (1–4 µg/kg/hr) IV
	None	Recumbent and debilitated ■ Fentanyl (3 µg/kg) IV ■ Ketamine (2 mg/kg) IV ■ Midazolam (0.1 mg/kg) IV		
UO Cat	■ Ketamine (2–4 mg/kg) and midazolam <i>or</i> diazepam (0.1–0.2 mg/kg) IV to effect	None	Mask with inhalant (isoflurane <i>or</i> sevoflurane), if needed	■ Buprenorphine (0.01 mg/kg) IV ■ Meloxicam (0.1 mg/kg) SC once <i>or</i> robenacoxib (1 mg/kg) PO for 3 days
	■ Oxymorphone (0.1 mg/kg) <i>or</i> hydromorphone (0.1 mg/kg) ■ Midazolam <i>or</i> diazepam (0.1–0.2 mg/kg) IV	Propofol (4 mg/kg) IV to effect	Mask with inhalant (isoflurane <i>or</i> sevoflurane), if needed, but stressful in cats and adds the risk of waste anesthetic gas exposure	
UO Dog	Hydromorphone** (0.1 mg/kg) IM or IV	Propofol (4 mg/kg) IV to effect	Isoflurane <i>or</i> sevoflurane with supportive IPPV	Carprofen (2.2 mg/kg) SC or PO
Dystocia Cat & dog	None	Propofol (4 mg/kg) IV to effect	■ Isoflurane <i>or</i> sevoflurane ■ Linea block with lidocaine (1 mg/kg) and bupivacaine (1 mg/kg) ■ Buprenorphine (0.01 mg/kg) IV after delivery	Cat Meloxicam (0.1 mg/kg) SC once Dog Carprofen (2.2 mg/kg) once <i>or</i> meloxicam (0.1 mg/kg) SC
Proptosis Cat & Dog	■ An opioid: methadone (0.3–0.5 mg/kg), fentanyl (3–5 µg/kg), buprenorphine (0.01 mg/kg) IM or IV; hydromorphone (0.1 mg/kg); <i>or</i> oxymorphone (0.1 mg/kg) IV ■ Diazepam <i>or</i> midazolam (0.1–0.2 mg/kg) IM or IV ■ An anticholinergic: glycopyrrolate (0.01 mg/kg) <i>or</i> atropine (0.02 mg/kg) IM or IV	Propofol (4 mg/kg) IV to effect	■ Isoflurane <i>or</i> sevoflurane ■ Lidocaine CRI (50 µg/kg/min, dogs only) ■ Ketamine CRI (0.6 mg/kg/hr)	Cat ■ Buprenorphine (0.01 mg/kg) IV ■ Meloxicam (0.1 mg/kg) SC once Dog ■ Buprenorphine (0.01 mg/kg) IV ■ Carprofen (2.2 mg/kg) SC or PO ■ Meloxicam (0.1 mg/kg) SC
Hemoabdomen Cat & Dog	Hydromorphone <i>or</i> oxymorphone (0.1 mg/kg) <i>or</i> fentanyl (3–5 µg/kg) IM or IV alone or in combination with diazepam <i>or</i> midazolam (0.1 mg/kg) IM or IV	■ Ketamine (5.5 mg/kg) with diazepam <i>or</i> midazolam (0.28 mg/kg) IV	■ Isoflurane <i>or</i> sevoflurane + fentanyl CRI (0.1–0.5 µg/kg/min) IV ■ Lidocaine CRI (50 µg/kg/min, dogs only) ■ Ketamine CRI (0.6 mg/kg/hr) ■ Dopamine CRI (3–12 µg/kg/min)	■ Continue pure mu-agonist opioid intermittently <i>or</i> fentanyl CRI (1–4 µg/kg/hr) IV along with inotropic support IV if needed
	None	Recumbent and debilitated ■ Fentanyl (3 µg/kg) IV ■ Ketamine (2 mg/kg) IV ■ Midazolam (0.1 mg/kg) IV		

IPPV = intermittent positive pressure ventilation

*Doses reflect those commonly used at Tuft Cummings School of Veterinary Medicine.

**Can substitute available pure mu-agonist opioid