

Emergency Formulary for Operational K9s

Drug	Dosage	Dose for 25 kg (55 lb) K-9
ALS DRUGS		
Epinephrine	0.01 mg/kg (1:1000) IV/IO, IM, IT q 3-5 min	0.25 mg
Vasopressin	0.8 U/kg IV/IO, IT q 3-5 min	20 Units
Atropine	0.04 mg/kg IV/IO, IM, IT q 3-5 min	1 mg
Lidocaine	2 mg/kg IV/IO, IT (slow IV/IO push over 1-2 min)	50 mg
NOTE: For IT administration increase IV dose 2-10x and dilute with 0.9 % saline or sterile water		
ANESTHETICS / CHEMICAL RESTRAINT		
Ketamine	2 - 4 mg/kg IV or IM (used with benzodiazepine)	50 - 100 mg
Etomidate	1 mg/kg (Administer a benzodiazepine prior to Etomidate)	25 mg
BENZODIAZEPINES		
Diazepam (Valium®)	0.2 - 0.4 mg/kg IV/IO/IM or per rectum	5 - 10 mg
Midazolam (Versed®)	0.2 - 0.5 mg/kg IV/IO/IM	5 - 10 mg
Lorazepam (Ativan®)	0.2 mg/kg IV/IO/IM or intranasal once	5 mg
(NOTE: Do not use Benzodiazepines alone for restraint, may cause paradoxical excitement)		
OPIOIDS		
Fentanyl	Bolus or Loading Dose: 2-5 mcg/kg IV/IO/IM q 30 min Infusion: 3 - 6 mcg/kg/h	50 - 125 mcg 75 - 150 mcg/h
Hydromorphone (Dilaudid®)	Bolus or Loading Dose: 0.1 mg/kg IV/IO/ IM q 2 - 4 h Infusion: 0.01 - 0.05 mg/kg/h	2.5 mg 0.25 - 1.25 mg/h
Morphine	Bolus or Loading Dose: 0.2-0.5 mg/kg IV/IO/IM q 1-4h **Administer IV/IO Slowly over 3 - 5 min** Infusion: 0.1 - 0.3mg/kg/h (2.5 - 7.5 mg / h)	5 - 10 mg 2.5- 7.5 mg/h
*NOTE: a) Oral opioids are not effective in K9's; b) Always start low and titrate to effect; c) monitor for respiratory depression and hypotension; d) have naloxone on hand for opioid reversal if needed; e) administer an antiemetic prior to the opioid		
DRUG REVERSALS		
Flumazenil (Romazicon®)	0.02mg/kg IV/IO; repeat every 30 - 60 min as needed	0.5 mg
Nalaxone (Narcan®)	0.04 -0.1 mg/kg IV/IO/IM/IT; repeat as necessary	1.0 - 2.5 mg
GASTROPROTECTANTS (Antacids)		
Famotidine (Pepcid®)	0.5 - 1.0 mg/kg IV or PO, q 12 h	10 -25 mg
Ranitidine (Zantac®)	2mg/kg IM or slow IV/IO q8-12h	50 mg
ANTI-EMETICS (Antinausea)		
Ondansetron (Zofran®)	0.2 - 0.5 mg/kg PO or IV (slowly over 2-15 minutes) q 8 h	5 - 10 mg
Promethazine (Phenergan®)	0.2 - 0.5 mg/kg PO q 6-8 h *low oral bioavailability in K9s	5 - 10 mg
PARALYTICS		
Generally not required in field nor for RSI. Intubation readily achieved with with light anesthesia		
Succinyl Choline	AVOID in K9s	
Rocuronium	Load dose: 0.5mg/kg IV; then CI 0.2mg/kg/hr	Load: 10 mg CI: 5 mg/h
MISCELLANEOUS		
Mannitol 25% (250 mg/mL)	0.5 - 1.4 g/kg IV/IO over 20 - 30 min	12.5 - 35 g
Diphenhydramine (Benadryl®)	2 - 4 mg/kg q 8 - 12 hour IM or PO <i>Oral: 0.02 - 0.05 mg/kg PO q8-12h</i>	50 - 100 mg 0.5 - 1.25 mg
Albuterol	<i>Inhaler: 2-4 puffs q 20 min until resolution of clinical signs</i>	<i>*Requires spacing chamber and mask</i>
*AVOID NON-STEROIDAL ANTI-INFLAMMATORY medications (e.g. aspirin, ibuprofen, naproxen, ketorolac, etc.) in the trauma patients		