

Telazol-Torbugesic-Dexdomitor (TTDex) Injectable Chart

TTDex = Combine 2.5mL Dexmedetomidine (500 mcg/mL) and 2.5mL Butorphanol (10 mg/mL) with
1 bottle (500 mg) of Telazol powder.

Lbs	Kg	Mild Sedation	Moderate Sedation	Profound Sedation	Surgical Anesthesia	Profound Surgical Anesthesia
		0.005ml/kg	0.01ml/kg	0.02ml/kg	0.035ml/kg	0.04ml/kg
2-4	1-2	0.005 ml	0.01 ml	0.02 ml	0.035 mL	0.04 ml
4-7	2-3	0.013 ml	0.025 ml	0.05 ml	0.09 ml	0.12 ml
7-9	3-4	0.018 ml	0.035 ml	0.07 ml	0.12 ml	0.15 ml
9-11	4-5	0.023 ml	0.045 ml	0.09 ml	0.16 ml	0.19 ml
11-22	5-10	0.038 ml	0.075 ml	0.15 ml	0.26 ml	0.37 ml
22-29	10-13	0.06 ml	0.12 ml	0.24 ml	0.40 ml	0.48 ml
29-33	13-15	0.07 ml	0.14 ml	0.28 ml	0.49 ml	0.58 ml
33-44	15-20	0.09 ml	0.18 ml	0.36 ml	0.61 ml	0.78 ml
44-55	20-25	0.12 ml	0.23 ml	0.46 ml	0.79 ml	0.98 ml
55-66	25-30	0.14 ml	0.28 ml	0.56 ml	0.96 ml	1.25 ml
66-73	30-33	0.16 ml	0.32 ml	0.64 ml	1.1 ml	1.3 ml
73-81	33-37	0.18 ml	0.35 ml	0.7 ml	1.2 ml	1.45 ml
81-99	37-45	0.21 ml	0.41 ml	0.82 ml	1.44 ml	1.7 ml
99-110	45-50	0.24 ml	0.48 ml	0.96 ml	1.66 ml	1.95 ml
110-121	50-55	0.26 ml	0.53 ml	1.1ml	1.84 ml	2.2 ml
121-132	55-60	0.29 ml	0.58 ml	1.2 ml	2.0 ml	2.3 ml
132-143	60-65	0.32 ml	0.63 ml	1.3 ml	2.18 ml	2.5 ml
143-154	65-70	0.34 ml	0.68 ml	1.4 ml	2.36 ml	2.7 ml
154-176	70-80	0.38 ml	0.75 ml	1.5 ml	2.63 ml	3.0 ml
>176	>80	0.4 ml	0.8 ml	1.6 ml	2.8 ml	3.2 ml

General Rules for Using TTDex (by Dr. Jeff Ko)

The above dosing chart is based on IM injections for dogs and cats. For a briefer chart, use the following:

- A) 0.005 mL/kg IM for sick patients (pediatric and geriatric) and high risk patients. Propofol and isoflurane are needed for endotracheal intubation and anesthesia maintenance.
- B) 0.01 mL/kg IM for mild sedation (non-invasive procedures i.e. ultrasound, grooming and for healthy pediatrics/geriatrics as a premedication (prior to propofol induction).
- C) 0.02 mL/kg IM for moderate to profound sedation (i.e. hip radiographs, bandage changes).
- D) 0.03 mL/kg IM for a surgical plane of anesthesia lasting 30-35 minutes.
- E) 0.035 mL/kg IM for rapid immobilization and surgical plane of anesthesia.
- F) 0.04 mL/kg IM for surgical duration up to 50 minutes. Short duration of apnea may occur.

****Do not use high dose rate (greater than 0.02 mL/kg) for high risk patients.**

Important Facts when using TTDex

- 1) Rapid drug onset occurs within 3-8 minutes after a single IM administration.
- 2) Always provide supplemental oxygen (via facemask or ETT).
- 3) About 75% of dogs and cats can be intubated with dosages of 0.02 ml/kg IM or greater.
- 4) TTDex may cause respiratory depression; anesthetist should ventilate patient when this occurs (apnea usually subsides with surgical manipulation).
- 5) If surgery will be longer than 30 minutes, the patient should be placed on isoflurane supplementation PRN (lower concentration at start (0.25%) and slowly increase isoflurane concentration to 1.5% by 45 minutes).
- 6) The dexmedetomidine within the TTDex can be reversed with Antisedan (give 1/2 volume of the TTDex dose IM). In dogs, wait atleast one hour before reversing (to prevent dissociative 'hangover'. Cats may be reversed at anytime.
- 7) If stronger analgesia is needed, buprenorphine, hydromorphone or morphine may be given 30 minutes (or later) after TTDex administration. (Butorphanol concentration will be decreased and will have minimal impact (antagonism) on subsequent opioid administration).
- 8) Store the TTDex at room temperature (59-86F) for up to 3 months. DO NOT store this mixture in the refrigerator.
- 9) Sudden awakening may occur if painful procedures continue after 30 minutes of TTDex administration. Pre-emptive actions should be taken by administering opioids, or adjusting % of inhalant.
- 10) For a rough recovery (either due to delirium or pain) use a micro-dose of dexmedetomidine (to induce immediate sedation).

Micro-dose of Dexmedetomidine Formulation

- Take 0.1 ml of dexmedetomidine (500 mcg/mL) and dilute with 0.9 ml of saline (or sterile water) to form dexmedetomidine at 50 mcg/mL concentration.
- Administer 0.1 mL /10 lbs IV of this diluted mixture.
- If no IV access, give 0.3 mL/10 lbs IM.
- Duration of micro-dose is approximately 5-8 minutes.
- To differentiate delirium from painful recovery:
 - If the patient returns to vocalization 3-5 minutes *after* micro-dose of dexmedetomidine is given, the patient is most likely painful.
 - If the patient was exhibiting delirium, it will most likely remain calm and quiet after micro-dose dexmedetomidine.