

# Multiple Minor Species Dose Guide

Reptiles, Amphibian & Fish

|                                                                                                         | Common Name                | ALFAXAN MULTIDOSE IDX<br>Dose & Route                                                                                                        | Concomitant Drug(s)<br>Dose & Route                                                                                   | Outcome / Comments                                                                                                                                                                                                                               | Precautions/<br>Adverse Reactions                          | Ref* |
|---------------------------------------------------------------------------------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------|
|  Lizards               | Blotched Bluetongue Lizard | 9 mg/kg; IV                                                                                                                                  | None                                                                                                                  | Ventral coccygeal vein;<br>anesthesia not achieved in all cases                                                                                                                                                                                  |                                                            | 1    |
|                                                                                                         | Eastern Bluetongue Lizard  |                                                                                                                                              |                                                                                                                       | Ventral coccygeal vein over 10 sec; anesthesia                                                                                                                                                                                                   |                                                            | 1    |
|                                                                                                         | Coastal Bearded Dragon     |                                                                                                                                              |                                                                                                                       |                                                                                                                                                                                                                                                  |                                                            | 1    |
|                                                                                                         | Inland Bearded Dragon      |                                                                                                                                              |                                                                                                                       |                                                                                                                                                                                                                                                  |                                                            | 1    |
|                                                                                                         | Gippsland Water Dragon     |                                                                                                                                              |                                                                                                                       |                                                                                                                                                                                                                                                  |                                                            | 1    |
|                                                                                                         | Green Iguana               | 20 mg/kg; IM                                                                                                                                 | None                                                                                                                  | Anesthesia                                                                                                                                                                                                                                       |                                                            | 2    |
|                                                                                                         |                            | 5 mg/kg; IV                                                                                                                                  | None                                                                                                                  | Anesthesia                                                                                                                                                                                                                                       |                                                            | 3    |
|                                                                                                         | Veiled Chameleon           | 3 mg/kg; IV                                                                                                                                  | None                                                                                                                  | Ventral coccygeal vein; anesthesia                                                                                                                                                                                                               |                                                            | 4    |
|                                                                                                         | Leopard Gecko              | 15 mg/kg; SC                                                                                                                                 | Midazolam 1 mg/kg; SC                                                                                                 | Deep sedation                                                                                                                                                                                                                                    |                                                            | 5    |
|                                                                                                         |                            | 5 mg/kg; IV                                                                                                                                  | None                                                                                                                  | Anesthesia                                                                                                                                                                                                                                       |                                                            | 6    |
|  Snakes                | Perentie Monitor           | 5 mg/kg; IV                                                                                                                                  | None                                                                                                                  | Anesthesia                                                                                                                                                                                                                                       |                                                            | 7    |
|                                                                                                         | Bearded Dragon             | 5 mg/kg; IV                                                                                                                                  | Meloxicam 1 mg/kg + Butorphanol 2 mg/kg; IM<br>or Tramadol 10 mg/kg; IM                                               | Anesthesia                                                                                                                                                                                                                                       |                                                            | 8    |
|                                                                                                         |                            | 12 mg/kg; IV                                                                                                                                 | None                                                                                                                  | Anesthesia                                                                                                                                                                                                                                       |                                                            | 9    |
|                                                                                                         | Red-bellied Black          | 9 mg/kg; IV                                                                                                                                  | None                                                                                                                  | Ventral coccygeal vein;<br>anesthesia                                                                                                                                                                                                            |                                                            | 1    |
|                                                                                                         | Lowland Copperhead         |                                                                                                                                              |                                                                                                                       |                                                                                                                                                                                                                                                  |                                                            | 1    |
|                                                                                                         | Eastern Tiger              |                                                                                                                                              |                                                                                                                       |                                                                                                                                                                                                                                                  |                                                            | 1    |
|                                                                                                         | Coastal Carpet Python      |                                                                                                                                              |                                                                                                                       |                                                                                                                                                                                                                                                  |                                                            | 1    |
|  Turtles and Tortoises | Black Headed Python        | 20 mg/kg; IM                                                                                                                                 | None                                                                                                                  | Anesthesia (cranial injection site required)                                                                                                                                                                                                     |                                                            | 10   |
|                                                                                                         | Ball Python                |                                                                                                                                              |                                                                                                                       |                                                                                                                                                                                                                                                  |                                                            | 10   |
|                                                                                                         | Garter Snake               | 30 mg/kg; Intracoelomic                                                                                                                      | None                                                                                                                  | Loss of righting reflex                                                                                                                                                                                                                          |                                                            | 11   |
|                                                                                                         | Red Eared Slider Turtle    | 5 mg/kg; IV                                                                                                                                  | None                                                                                                                  | Anesthesia                                                                                                                                                                                                                                       |                                                            | 12   |
|                                                                                                         |                            | 10-20 mg/kg; IM                                                                                                                              | None                                                                                                                  | Lower environmental temperatures and or<br>body temperature prolonged anesthesia                                                                                                                                                                 |                                                            | 13   |
|                                                                                                         | Loggerhead Sea Turtle      | 3, 5 and 10 mg/kg; IV                                                                                                                        | None                                                                                                                  | Anesthesia                                                                                                                                                                                                                                       | 10 mg/kg dose produced apnea                               | 14   |
|                                                                                                         | Hartmann's Tortoise        | 5 mg/kg; IV                                                                                                                                  | Meloxicam 1 mg/kg; IM and<br>Butorphanol 2 mg/kg; IM                                                                  | Anesthesia                                                                                                                                                                                                                                       |                                                            | 12   |
|                                                                                                         | Spur-Thighed Tortoise      |                                                                                                                                              |                                                                                                                       |                                                                                                                                                                                                                                                  |                                                            | 12   |
|                                                                                                         | Marginated Tortoise        |                                                                                                                                              |                                                                                                                       |                                                                                                                                                                                                                                                  |                                                            | 12   |
|                                                                                                         | Russian Tortoise           | 5 mg/kg; IV                                                                                                                                  | Meloxicam 1 mg/kg; IM and<br>Butorphanol 2 mg/kg; IM                                                                  | Anesthesia                                                                                                                                                                                                                                       | Bradycardia was observed with<br>this combination of drugs | 12   |
|                                                                                                         |                            | 10 mg/kg; IM                                                                                                                                 | Medetomidine 0.05 mg/kg; IM                                                                                           | Moderate/deep sedation; minimal analgesia                                                                                                                                                                                                        |                                                            | 15   |
|                                                                                                         |                            | 20 mg/kg; IM                                                                                                                                 | Medetomidine 0.1 mg/kg; IM                                                                                            | Deep sedation/anesthesia; variable analgesia                                                                                                                                                                                                     |                                                            |      |
|  Amphibians          | Red Footed Tortoise        | 10 mg/kg; IM                                                                                                                                 | Midazolam 1 mg/kg and<br>Hydromorphone 0.5 mg/kg; IM (front legs)                                                     | Anesthesia                                                                                                                                                                                                                                       |                                                            | 16   |
|                                                                                                         | Pond Sliders               | 10 mg/kg; IV                                                                                                                                 | None                                                                                                                  | Via subcarapacial vein; Anesthesia                                                                                                                                                                                                               |                                                            | 17   |
|                                                                                                         | Spur-Thighed Tortoise      | 10 mg/kg; IV                                                                                                                                 | Morphine 1.5 mg/kg and<br>Meloxicam 0.2 mg/kg; SC                                                                     | Via jugular vein; Anesthesia                                                                                                                                                                                                                     |                                                            | 18   |
|                                                                                                         | Oriental Fire Bellied Toad | 30 mg/L H <sub>2</sub> O*; immersion                                                                                                         | Butorphanol 25 mg/L H <sub>2</sub> O*; immersion<br>(butorphanol combined with ALFAXAN<br>MULTIDOSE IDX in same bath) | Surgical anesthesia was observed in<br>both treatment groups.<br><br>The baths were adjusted to pH 7±0.2 with sodium bicarbonate, 8.4%.<br>One third of the toad's surface area was immersed to avoid drowning.                                  |                                                            | 19   |
|                                                                                                         |                            | 30 mg/L H <sub>2</sub> O*; immersion                                                                                                         | Morphine 50 mg/L H <sub>2</sub> O*; immersion<br>(morphine combined with<br>ALFAXAN MULTIDOSE IDX in same bath)       |                                                                                                                                                                                                                                                  |                                                            |      |
|  Fish                | Australian Frog            | 20-30 mg/kg; IM                                                                                                                              | None                                                                                                                  | Anesthesia                                                                                                                                                                                                                                       |                                                            | 20   |
|                                                                                                         | Axolotl                    | 5 mg/L H <sub>2</sub> O*; first immersion then<br>continuous irrigation of the gills and skin after<br>the axolotl was removed from the bath | None                                                                                                                  | The anesthetic bath was prepared to pH 6.5. Additional 30 µL drops of<br>stock ALFAXAN MULTIDOSE IDX were applied to gills when required. Mild<br>sedation was produced with initial immersion and anesthesia produced with<br>subsequent drops. |                                                            | 21   |
|                                                                                                         | Goldfish                   | 0.5, 2, 5 & 7.5 mg/L H <sub>2</sub> O*; immersion                                                                                            | None                                                                                                                  | Sedation at 0.5 and 2 mg/L.<br>Anesthesia at 5 and 7.5 mg/L                                                                                                                                                                                      |                                                            | 22   |
|                                                                                                         |                            | 5 mg/L H <sub>2</sub> O; immersion followed by<br>continuous gill irrigation with<br>5 mg/L H <sub>2</sub> O                                 | None                                                                                                                  | Anesthesia                                                                                                                                                                                                                                       |                                                            | 23   |
|                                                                                                         | Koi                        | 10 mg/L H <sub>2</sub> O*; immersion followed by continuous gill<br>irrigation with 1 or 2.5 mg/L H <sub>2</sub> O                           | None                                                                                                                  | All fish anesthetized.<br>Opercular movement observed in<br>4 of 6 fish at 2.5 mg/L H <sub>2</sub> O                                                                                                                                             |                                                            | 24   |
|                                                                                                         | Oscar Fish                 | 5 mg/L H <sub>2</sub> O*; immersion                                                                                                          | None                                                                                                                  | Anesthesia                                                                                                                                                                                                                                       |                                                            | 25   |
|                                                                                                         | Zebrafish                  | 10 mg/L H <sub>2</sub> O*; immersion                                                                                                         | None                                                                                                                  | Anesthesia                                                                                                                                                                                                                                       |                                                            | 26   |

\* Anesthetic baths were prepared using dechlorinated mineral water at room temperature  
^ Water tanks at temperature (72-77°F); pH (6.8-7.2); osmolality (38-45 mOsm/L)  
# Dechlorinated water at temperature (63-65°F); pH (6.9-7.6), total ammonia (0.0-0.25 mg/L); nitrate (0.0-5.0 mg/L)  
@ Dechlorinated water at temperature 77°F  
\$ Water tank at temperature 80°F; pH 7.5

**IMPORTANT SAFETY INFORMATION:** Alfaxan Multidose (for cats and dogs) and Alfaxan Multidose IDX (for minor species) is not for human use. Exercise caution to avoid accidental self-injection. Overdose is likely to cause cardiorespiratory depression (such as hypotension, bradycardia and/or apnea). Avoid contact of this product with skin, eyes, and clothes. Contains alfaxalone, a neurosteroid anesthetic and a class IV controlled substance, which has an abuse potential similar to other Schedule IV sedatives. Alfaxan Multidose is contraindicated in cats, dogs and minor species with a known sensitivity to Alfaxan Multidose or its components, or when general anesthesia and/or sedation are contraindicated. Do not use in any minor species animal that may become eligible for consumption by humans or food-producing animals. Patients should be continuously monitored, and facilities for the maintenance of a patent airway, artificial ventilation, and oxygen supplementation must be immediately available. Rapid bolus administration or anesthetic overdose may cause cardiorespiratory depression, including hypotension, apnea, hypoxia, or death. Arrhythmias may occur secondary to apnea and hypoxia. In cases of anesthetic overdose, stop Alfaxan Multidose administration and administer treatment as indicated by the patient's clinical signs. Careful monitoring of the patient is necessary due to possibility of rapid arousal. Alfaxan Multidose has not been evaluated in pregnant, lactating, and breeding cats or in cats less than 4 weeks of age, dogs less than 10 weeks of age, or in debilitated patients. See full Prescribing Information for [Alfaxan Multidose](#) and [Alfaxan Multidose IDX](#).

# Multiple Minor Species Dose Guide

Birds, Non-Human Primates, Rodents, Ferrets, Marsupials & Ungulates

|                                                                                                              | Common Name             | ALFAXAN MULTIDOSE IDX<br>Dose & Route                     | Concomitant Drug(s)<br>Dose & Route                                                                  | Outcome / Comments                                                                                                                                       | Precautions/<br>Adverse Reactions                                                                                                                                                   | Ref                       |
|--------------------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
|  Birds                    | Budgerigar              | 10 mg/kg; IM                                              | None                                                                                                 | Sedation                                                                                                                                                 |                                                                                                                                                                                     | 27                        |
|                                                                                                              |                         | 15 mg/kg; IM                                              | None                                                                                                 | Sedation                                                                                                                                                 |                                                                                                                                                                                     | 28                        |
|                                                                                                              | Bengalese Finch         | 10, 30 & 50 mg/kg; SC                                     | Midazolam 0.7 mg/kg or<br>Butorphanol 1 mg/kg SC combined with<br>30 mg/kg ALFAXAN MULTIDOSE IDX; SC | Dose dependent response in duration of recumbency.<br>Addition of midazolam or butorphanol produced a further increase<br>in the duration of anesthesia. |                                                                                                                                                                                     | 29                        |
|                                                                                                              | Flamingo                | 2 mg/kg; IV                                               | Isoflurane used for maintenance of anesthesia                                                        | Induction of anesthesia                                                                                                                                  |                                                                                                                                                                                     | 30                        |
|                                                                                                              | Mute Swan               | 10 mg/kg; IV                                              | Isoflurane used for maintenance of anesthesia                                                        | Induction of anesthesia                                                                                                                                  | Induction apnea (<1 breath/30 sec)<br>was observed in 12/27 swans or 44%                                                                                                            | 31                        |
|  Non-Human Primates       | Ring Tailed Lemur       | Initially<br>0.5 mg/kg; IV                                | Dexmedetomidine 0.015 mg/kg, Butorphanol<br>0.2 mg/kg, Midazolam 0.2 mg/kg; all IM                   | Bolused to effect until endotracheal intubation completed                                                                                                |                                                                                                                                                                                     | 32                        |
|                                                                                                              | Macaque                 | 10 mg/kg; IM                                              | Diazepam 3 mg/kg and<br>Atropine 0.2 mg/kg IM                                                        | Supplemental doses of 5 mg/kg Alfaxan Multidose IDX administered IV<br>to maintain anesthesia                                                            |                                                                                                                                                                                     | 33                        |
|                                                                                                              | Common Marmoset         | 12 mg/kg; IM                                              | None                                                                                                 | Sedation                                                                                                                                                 |                                                                                                                                                                                     | 34                        |
|                                                                                                              |                         | 15 mg/kg; IM                                              | None                                                                                                 | Anesthesia                                                                                                                                               |                                                                                                                                                                                     | 35                        |
|                                                                                                              |                         | 12-18 mg/kg; IM                                           | Diazepam 0.25 mg/kg; IM                                                                              | Anesthesia                                                                                                                                               |                                                                                                                                                                                     | 36                        |
|                                                                                                              |                         | 18.5 mg/kg; IM                                            | None                                                                                                 | Anesthesia                                                                                                                                               |                                                                                                                                                                                     | 37                        |
|                                                                                                              |                         | 10.6 ± 1.6 mg/kg; IM                                      | None                                                                                                 | 3.2±1.2 mg/kg administered IV after the IM dose                                                                                                          |                                                                                                                                                                                     | 38                        |
|  Rodents                  | Mice                    | 15-20 mg/kg; IV                                           | None                                                                                                 | Anesthesia maintained with<br>0.25-0.75 mg/kg/min; IV                                                                                                    |                                                                                                                                                                                     | 39                        |
|                                                                                                              |                         | 80 mg/kg; IP                                              | Xylazine 10 mg/kg; IP                                                                                | Longer sleep times observed in female vs. male mice with<br>ALFAXAN MULTIDOSE IDX ± xylazine IP                                                          | Mild seizure-like activity appeared<br>in some mice                                                                                                                                 | 40                        |
|                                                                                                              | Mice                    | 60 mg/kg; SC                                              | Medetomidine 0.3 mg/kg and<br>Butorphanol 5 mg/kg; SC                                                | Anesthesia                                                                                                                                               | <sup>39</sup> Medetomidine should be<br>used with caution in male mice<br>(obstructive uropathy)                                                                                    | 41                        |
|                                                                                                              | Rats                    | 10-12 mg/kg; IV                                           | None                                                                                                 | Anesthesia maintained with<br>0.25-0.75 mg/kg/min; IV                                                                                                    |                                                                                                                                                                                     | 39                        |
|                                                                                                              |                         | 2-5 mg/kg; IV                                             | None                                                                                                 | Anesthesia produced IV                                                                                                                                   | A 30% failure rate for anesthesia<br>observed IP.                                                                                                                                   | 42                        |
|                                                                                                              |                         | 20 mg/kg; IP                                              | None                                                                                                 |                                                                                                                                                          |                                                                                                                                                                                     | 43                        |
|                                                                                                              |                         | 30 mg/kg/hr; IV                                           | None                                                                                                 | Maintenance of anesthesia                                                                                                                                |                                                                                                                                                                                     | 43                        |
|                                                                                                              |                         | 25 mg/kg; IP (females)                                    | Dexmedetomidine 0.05 mg/kg; IP or<br>Dexmedetomidine 0.05 mg/kg +<br>Fentanyl 0.1 mg/kg; IP          | Anesthesia.<br>Males rats appeared to require more ALFAXAN MULTIDOSE IDX than<br>female rats to produce a similar duration of anesthesia                 |                                                                                                                                                                                     | 44                        |
|                                                                                                              |                         | 75 mg/kg; IP (males)                                      |                                                                                                      |                                                                                                                                                          |                                                                                                                                                                                     | 45                        |
|                                                                                                              | Guinea Pig              | 1.7 mg/kg/min for 2.5 min IV<br>(induction of anesthesia) | None                                                                                                 | Anesthesia maintained at 0.75 mg/kg/min; IV                                                                                                              |                                                                                                                                                                                     | 45                        |
|                                                                                                              |                         | 5 mg/kg; IM                                               | None                                                                                                 | Sedation                                                                                                                                                 |                                                                                                                                                                                     | 46                        |
|  Ferrets                | Ferret                  | 20 mg/kg; SC                                              | +/- Dexmedetomidine 0.25 mg/kg; SC<br>and Buprenorphine 0.05 mg/kg; SC                               | Sedation                                                                                                                                                 |                                                                                                                                                                                     | 47                        |
|                                                                                                              |                         | 6 mg/kg; IM                                               | Butorphanol 0.1 mg/kg and<br>midazolam 1 mg/kg; IM as premedication                                  | Anesthesia maintained with 3 – 15 mg/kg/hr ALFAXAN MULTIDOSE IDX                                                                                         |                                                                                                                                                                                     | 48                        |
|                                                                                                              |                         | 5 mg/kg; IV                                               | Dexmedetomidine 0.05 mg/kg; SC<br>as premedication                                                   | Anesthesia                                                                                                                                               |                                                                                                                                                                                     | 49                        |
|                                                                                                              |                         | 5 mg/kg; IV                                               | None                                                                                                 | Anesthesia                                                                                                                                               |                                                                                                                                                                                     | 50                        |
|  Marsupials             | Koala                   | 3 mg/kg; IM                                               | None                                                                                                 | Anesthesia maintained<br>with isoflurane in oxygen                                                                                                       |                                                                                                                                                                                     | 51, 52, 53,<br>54, 55, 56 |
|                                                                                                              |                         | 2 mg/kg; IM                                               | None                                                                                                 | Anesthesia maintained<br>with isoflurane in oxygen                                                                                                       |                                                                                                                                                                                     | 57                        |
|                                                                                                              |                         | 1.5 mg/kg; IV                                             | None                                                                                                 | Anesthesia                                                                                                                                               |                                                                                                                                                                                     | 51                        |
|                                                                                                              | Wallaby                 | 5 mg/kg; IM                                               | Medetomidine 0.1 mg/kg; IM                                                                           | Anesthesia.<br>Drugs administered together in a dart.                                                                                                    |                                                                                                                                                                                     | 58                        |
|                                                                                                              | Kangaroos and Wallabies | 5-8 mg/kg; IM<br>1.5-3 mg/kg; IV                          | None                                                                                                 | Anesthesia                                                                                                                                               |                                                                                                                                                                                     | 51                        |
|                                                                                                              | Possums and Gliders     | 5-8 mg/kg; IM<br>5 mg/kg; IV                              | None                                                                                                 | Rapid and short duration of anesthesia produced.                                                                                                         |                                                                                                                                                                                     | 51                        |
|                                                                                                              | Wombats                 | 3-5 mg/kg; IM                                             | None                                                                                                 | Anesthesia                                                                                                                                               |                                                                                                                                                                                     | 51                        |
|  MINOR SPECIES UNGUATES | Alpaca                  | 2.1 mg/kg; IV                                             | None                                                                                                 | Anesthesia achieved but poor quality of recovery observed.                                                                                               | Premedication is indicated<br>prior to induction of anesthesia.<br>Premedication will aid in induction<br>of anesthesia and improve the quality<br>of recovery in short procedures. | 59                        |

% Wells S, et al. Urethral obstruction by seminal coagulum is associated with medetomidine-ketamine anesthesia in male mice on C57BL/6J and mixed genetic backgrounds. Am Assoc Lab Anim Sci 2009;48(3):296-299.



Alfaxan® Multidose  
IDX  
(alfaxalone) 10 mg/mL

