ANAESTHESIA IN LABORATORY BIRDS/AVIAN

ANAESTHETIC	DOSAGE	ROUTE	NOTES
KETAMINE	20-50 mg/kg	SC, IM, IV	-Sedative, not anaesthetic, when used alone -Duration : Dose-related
KETAMINE/XYLAZINE	10-30 mg/kg + 2-6 mg/kg	IM	-Light to medium surgical anaesthesia Duration of anaesthesia : 10-30 mins
KETAMINE/DIAZEPAM	20-40 mg/kg + 1-1.5 mg/kg	IM	-Produce light to medium surgical anaesthesia in birds -Duration of anaesthesia : 20-30 mins
KETAMINE/MIDAZOLAM	20-40 mg/kg + 4 mg/kg	IM	-Produce medium surgical anaesthesia -Duration of anaesthesia : 20-30 mins.
ISOFLURANE	4-5%	MASK, INTUBATION	-Provides smooth and rapid induction of anaesthesia (4-5%), and maintained with concentrations of 2-3%. -The depth of anaesthesia can be changed very rapidly by changing the inspired concentration, allowing birds to be maintained at an anaesthetic plane appropriate to the degree of surgical stimulus. -Frequency : Constant -Duration : Short recovery
TILETAMINE/ZOLAZEPAM	5-10 mg/kg	IM	-Good immobilization
PROPOFOL	1.33-14 mg/kg	IV	-Duration : 2-7 mins, constant

ANAESTHESIA IN REPTILES

ANAESTHETIC	DOSAGE	ROUTE	NOTES
KETAMINE	(a) Snakes : 50-80 mg/kg	IM	-Produce light to moderate anaesthesia -The effects may persist for 1-2 days
	(b) Chelonians : 60 mg/kg	IM	-Produce light anaesthesia -Recovery can take up to 24 hours
	(c) Lizards : 25-50 mg/kg	IM	-Produce light anaesthesia -Recovery may take up to 6 hours
KETAMINE/MEDETOMIDINE	5-20 mg/kg + 0.05-0.1 mg/kg	IM	-
KETAMINE/MIDAZOLAM	20-40 mg/kg + 1.5-2.0 mg/kg	IM	-
ISOFLURANE	4-5% for induction, reduced to 2% after 3-5 mins	INHALATION	-
PROPOFOL	(a) Chelonians : 14 mg/kg	IV	-
	(b) Other reptiles : 10 mg/kg	IV	-

ANAESTHESIA IN AMPHIBIANS

ANAESTHETIC	DOSAGE	ROUTE	NOTES
BENZOCAINE	0.2-0.3% (1 % alcohol)	IMMERSION	-Duration : 60 mins -Frequency : Bath until righting reflex lost -Powder must be dissolved into ethanol to create stock solution.
TRICAINE METHANE SULFONATE (MS222)	100-400 mg/kg	INTRA-COELOMIC INJECTION	-
	500 mg – 2 g/l	IMMERSION	-Buffer with sodium bicarbonate to pH 7 (suggest 420-1050 mg/l) or 1 g ms222 in 1 l water plus 25 ml 0.5 m na2hpo4 to yield a 0.1 % solution. -Duration : 5-20 mins -Frequency : Bath until righting reflex lost -Maintain anaesthesia by wrapping the animal in a cloth soaked in the anaesthetic solution. -Recovery time can be reduced by washing the animal in water to remove surplus anaesthetic.

ANAESTHESIA IN FISHES

ANAESTHETIC	DOSAGE	ROUTE	NOTES
BENZOCAINE	25-100 mg/l	IMMERSION	-May need to buffer with naco3 to maintain neutral pH -After induction of anaesthesia, the fish can be removed from the anaesthetic solution, wrapped in moist gauze to prevent dessication.
TRICAINE METHANE SULFONATE (MS222)	25-300 mg/l	IMMERSION	-Most small to medium-sized fish (e.g. goldfish, trout) require 100 mg/l for surgical anaesthesia. -Anaesthesia is induced in around 2 minutes and recovery occurs about 5 minutes after removal from the anaesthetic solution.
KETAMINE	66-88 mg/kg	IM	-Chemical restraint
KETAMINE/MEDETOMIDINE	1-2 mg/kg + 0.05-0.1 mg/kg	IM	-Chemical restraint
PROPOFOL	1.5-2.5 mg/kg	IV	-

References :

Research Animal Resources Cemter https://www.rarc.wisc.edu/animal_health/husbandry.html

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