

Guinea Pig Anaesthesia, Analgesia, and Premedication

****These are guidelines only. Please consult an ACVS veterinarian or veterinary technician before starting any new anesthetic regime****

How an anaesthetic acts in a given animal depends on a number of variables (age, sex, strain, body fat, surgical procedure, and other drugs.) Prior to use in an experimental setting the regime should be tried on a representative group of animals. Dosages may need to be adjusted. Never dilute or mix anaesthetics in a syringe. The volume of drug in the hub can result in smaller animals being severely overdosed.

Veterinary consultations are available at no charge to the investigator. Contact the main office at 86768.

Anaesthesia¹

<u>Injectable</u>	<u>Dosage</u>	<u>Comments</u>
Ketamine AND	40 mg/kg IP	Does not provide surgical anaesthesia if used alone. Combine as indicated.
Xylazine OR	5 mg/kg IP	Provides good analgesia but has a negative effect on the heart causing bradycardia. Use only in healthy animals.
Medetomidine	0.5 mg/kg IP	Also causes some bradycardia, but has the benefit of being reversible with an IM dose of Antisedan (atipamazole) at the same volume as the dose of Domitor (medetomidine).
<u>Inhalation</u>	<u>Conc.</u>	<u>Comments</u>
Isoflurane – Induction	5%	Requires the use of a precision vapourizer and an appropriate scavenging system to prevent personnel exposure to anesthetic. Induction requires 'masking' or an induction chamber.
Isoflurane – Maintenance	3 – 4%	Intubation is strongly recommended for longer procedures. The concentration required will depend on whether the animal was intubated, if a sedative was given prior to induction, the level of invasiveness of the procedure, and the effectiveness of the animal's ventilation.

Analgesia²

<u>Injectable</u>	<u>Dosage</u>	<u>Comments</u>
Buprenorphine	0.05 mg/kg SC	Give every 8-12 hours as needed.
Morphine Sulphate	2-5 mg/kg SC	Give every 4 hours as needed.

Premedication³

<u>Injectable</u>	<u>Dosage</u>	<u>Injectable</u>	<u>Dosage</u>
Atropine	50 ug/kg SC / IM	Diazepam	2.5 mg/kg IM or IP
Acepromazine	2.5 mg/kg IM	Midazolam	5 mg/kg IM or IP
Xylazine	3-5 mg/kg IP *Referenced from multiple sources*		

1. Injectable anaesthetic regimes taken from Handbook of Laboratory Animal Science; Second Edition; Volume 1 Edited by Jann Hau and Gerald L. VanHoosier, Jr. ©CRC Press LLC 2003.
2. ©2002 The University of Iowa. All rights reserved. Contact information: michael-parker@uiowa.edu
3. Premedication regimes taken from Handbook of Laboratory Animal Science; Second Edition; Volume 1 Edited by Jann Hau and Gerald L. VanHoosier, Jr.