

**The UNIVERSITY of WESTERN ONTARIO**  
ANIMAL CARE AND VETERINARY SERVICES

**Rat Anaesthesia**

**These are guidelines only**

How an anaesthetic acts in a given animal depends on a number of variables (age, sex, strain, body fat, other drugs.) Prior to use in an experimental setting the regime should be tried on a representative group of animals. 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.

| <u><b>Injectable</b></u>   | <u><b>Dosage</b></u>              | <u><b>Comments</b></u>  |
|--|-----------------------------------|---|
| Ketamine   | 40-80 mg/kg IM<br>or IP           | Does not provide surgical anaesthesia if used alone. Combine as indicated below.  |
| with   |                                   |   |
| Diazepam <b>OR</b>   | 5 mg/kg IP                        | Diazepam does not provide analgesia. Not suitable for highly invasive procedures.   |
| Midazolam <b>OR</b>  | 4 mg/kg IP                        | As for Diazepam   |
| Xylazine   | 5 mg/kg IM or IP                  | Provides good analgesia but has a negative affect on heart. Use only in healthy animals.  |
| Ketamine 100mg/ml – 2ml<br>Xylazine 20 mg/ml – 1 ml  | 0.1 ml/100gm IM<br>or IP.         | Use sterile technique, mix in vacutainer, <b>not in syringe</b> , label. Can keep 2 weeks in fridge.                                |
| Ketamine 100mg/ml – 0.8 ml<br>Meditomidine 1 mg/ml – 0.2 ml  | 0.1ml/100gm IP                    | Use sterile technique, mix in vacutainer, <b>not in syringe</b> , label. Can keep 2 weeks in fridge.                                |
| <p><b>A major advantage of this mixture is that the <u>meditomidine can be reversed using Antisedan (antipamazole.)</u> This means you get to go home sooner.<br/>For the mixture above reverse with 20% of the anaesthetic volume of Antesedan IP</b></p> |                                   |   |
| Pentobarbital <b>AND</b>   | 40 mg/kg                          | The use of pentobarbital as a sole anaesthetic is strongly discouraged. It has a low therapeutic index and provides poor analgesia. |
| Diazepam <b>OR</b>   | 5 mg/kg IP                        | Diazepam does not provide analgesia. Not suitable for highly invasive procedures.   |
| Xylazine   |                                   |   |
| Propofol   | 7.5-10 mg/kg IV<br>44-55 mg/kg/hr | Can be used to provide long term intravenous anaesthesia.   |