**TABLE 6.2** Anaesthetic Dose Rates in the Rat.

| Drug | Dose rate | Effect | Duration of anaesthesia (minutes) | Sleep time (minutes) |
|---|---|---|---|---|
| **Alphaxalone** | 2-5 mg/kg iv | Surgical anaesthesia | 5 | 10 |
| **Alphaxalone/dexmedetomidine** | 30mg/kg + 0.05mg/kg ip | Surgical anaesthesia | 45-60 | 50-70 |
| **Chloral hydrate** | 400 mg/kg ip | Light/surgical anaesthesia | 60–120 | 120–180 |
| **Alpha-chloralose** | 55–65 mg/kg ip | Light anaesthesia | 480–600 | Non-recovery only |
| **Etorphine/methotrimeprazine (Immobilon) + midazolam** | 0.5 ml/kg sc* | Surgical anaesthesia | 60–70 | 120–240 |
| **Fentanyl/fluanisone + diazepam** | 0.6 ml/kg ip + 2.5 mg/kg ip | Surgical anaesthesia | 20–40 | 120–240 |
| **Fentanyl/fluanisone/ midazolam** | 2.7 ml/kg ip† | Surgical anaesthesia | 30–40 | 120–240 |
| **Fentanyl + medetomidine** | 300 ug/kg + 300 ug/kg ip | Surgical anaesthesia | 60–70 | 240–360 |
| **Inactin (thiobutobarbital)** | 80 mg/kg ip | Surgical anaesthesia | 60–240 | 120–300 |
| **Ketamine + acepromazine** | 75 mg/kg + 2.5 mg/kg ip | Light anaesthesia | 20–30 | 120 |
| **Ketamine + dexmedetomidine** | 75 mg/kg + 0.25 mg/kg ip | Surgical anaesthesia | 20–30 | 120–240 |
| **Ketamine + diazepam** | 75 mg/kg + 5 mg/kg ip | Light anaesthesia | 20–30 | 120 |
| **Ketamine + medetomidine** | 75 mg/kg + 0.5 mg/kg ip | Surgical anaesthesia | 20–30 | 120–240 |
| **Ketamine + midazolam** | 75 mg/kg + 5 mg/kg ip | Light anaesthesia | 20–30 | 120 |
| **Ketamine + xylazine** | 75–100 mg/kg + 10 mg/kg ip | Surgical anaesthesia | 20–30 | 120–240 |
| **Ketamine + xylazine + acepromazine** | 40–50 mg/kg 1 2.5 mg/kg + 0.75 mg/kg im | Surgical anaesthesia | 60-70min | 120-160 |
| **Medetomidine + midazolam + butorphanol** | 0.15mg/kg + 2.0mg/kg +2.5mg/kg sc | Surgical anaesthesia | 40-60 | 50-70* |
| **Medetomidine + Midazolam + Fentanyl** | 0.15mg/kg+2mg/kg+5ug/kg sc | Surgical anaesthesia | 25-30 | 10-15* |
| **Pentobarbital** | 40–50 mg/kg ip | Light anaesthesia | 15–60 | 120–240 |
| **Propofol** | 10 mg/kg iv | Surgical anaesthesia | 5 | 10 |
| **Propofol/medetomidine/fentanyl** | 100mg/kg + 0.1mg/kg + 100ug/kg | Surgical anaesthesia | 30 | 30* |
| **Thiopental** | 30 mg/kg iv | Surgical anaesthesia | 10 | 15 |
| **Tiletamine/zolezepam** | 40 mg/kg ip | Light anaesthesia | 15–25 | 60–120 |
| **Urethane** | 1000 mg/kg ip | Surgical anaesthesia | 360–480 | Non-recovery only |

*Duration of anaesthesia and sleep time (loss of righting reflex) are provided only as a general guide, since considerable between-animal variation occurs. For recommended techniques, see text.*

*Dose in millilitres per kilogram of a mixture of one part 'Immobilon', one part midazolam (5 mg/ml initial concentration) and two parts water for injection.*

*†Dose in millilitres per kilogram of a mixture of one part 'Hypnorm' plus two parts water for injection, and one part midazolam (5 mg/ml initial concentration).*

**After reversal see text.*

*Doses of combinations using medetomidine or dexmedetomidine are provided using the agent used in the relevant publication (see text).*