**Animal Care Services – Pharmaceuticals for Use in Laboratory Animals**

**NOTES:**

1. **Where appropriate, dilute all medications to an appropriate “workable” volume based on species.**
2. **Refer to a published formulary to confirm doses where a wide dose range or multiple dosing routes are listed.**
3. **Where published, doses listed are based upon Carpenter’s Exotic Animal Formulary, 5th Edition, 2018 (Elsevier, Saunders) and the Veterinary Information Network Formulary for Exotic Animals**
4. **Definitions: IM = Intramuscularly; IP = Intraperitoneally; IV = intravenously; PO = orally; SC = subcutaneously, IT = Intratracheally, PRN = as needed, q=every**
5. **“C” denotes a controlled substance, for which a Section 56 Exemption License must be obtained from Health Canada prior to use.**

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| Analgesics | Dosage/Frequency/Duration/Route | Maximum  Volume/Animal/Site |
| Buprenorphine  (“Buprenex”)  C | Mice:  0.05-0.1mg/kg q12hrs SC  Rats:  0.01-0.05mg/kg q8-12hrs SC,IV  0.1-0.4mg/kg q8-12hrs PO  Rabbits:  0.01-0.06mg/kg q6-12hrs SC,IV,IM  0.02-0.1mg/kg SC,IV,IM  0.012 mg/kg epidural | Mice: 100ul  Rats: 300ul  Rabbits: 500ul  For epidural volume should not exceed 0.33ml/kg |
| Sustained Release Buprenorphine  C \*Not available through Health Canada – only available through veterinarian\* | Mice:  0.6 – 2.2mg/kg q24-72hrs SC  Rats:  0.3-1.2mg/kg q48-96hrs SC  Rabbits:  0.12mg/kg SC |  |
| Butorphanol  (“Torbugesic”)  C | Mice/Rats:  0.2-5mg/kg q2-4hrs SC  Rabbits:  0.1–1mg/kg q2-6hrs SC, IM, IV | Mice/Rats: 100ul  Rabbits: 500ul |

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| Lidocaine  (2% injectable)  Lidocaine (2% injectable) cont’d | Mice/Rats:  1mg/kg SC PRN  Rabbits:  1-3 mg/kg SC | Mice: 200ul  Rats/Rabbits:  0.5-3ml |
| Bupivacaine (0.5%)  (local anesthetic infusion) | Rats:  1-2mg/kg Local  1.6 mg/kg epidural  2.3 mg/kg epidural  Rabbits: 1-2 mg/kg Local or epidural | 0.33ml/kg  0.33 ml/kg |
| Meloxicam  (“Metacam”) | Mice:  1-5 mg/kg q24hrs PO, SC  Rats:  1-2 mg/kg q12-24hrs PO, SC  Rabbits:  0.2-0.5 mg/kg q24hrs SC, IM  0.3 mg/kg – 1.5 mg/kg q24hrs x 5 days PO | Mice: 100ul  Rats: 500ul  Rabbits: 1ml |
| Proparacaine 0.5%  (“Alcaine”) | Mice:  0.01 ml each eye  Rats/Rabbits:  1 drop each eye | Mice: 30ul each eye  Rats/Rabbits:  1 drops each eye |

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| Antibiotics/  Antimycotics | Dosage/Frequency/Duration | Max Volume/A/S |
| Ampicillin | Mice:  50-200 mg/kg q12hrs PO  25 mg/kg q12hrs SC, IM  Rats:  20-250 mg/kg q12hrs PO  25 mg/kg q12hrs SC, IM | Mice: 150ul/dose  Rats: 200ul/dose |
| Enrofloxacin  (“Baytril”) | Mice/Rats:  5-20 mg/kg q12-24hrs up to 14 days PO, SC, IM  0.25 mg/ml x 14 days in drinking water  Rabbits:  5 mg/kg q12-24hrs PO, IV, IM, SC  5-20 mg/kg q12 hrs PO, IM  200 mg/L x 14 days in drinking water | Mice: 100ul/dose  Rats: 300ul/dose  N/A  Rabbits: 500ul/dose  N/A |
| Gentamicin Sulfate  (“Gentocin”) | Mice:  2 – 24 mg/kg q12-24hrs SC, IM  Rats:  20 mg/kg q24hrs SC  Rabbits:  5-8 mg/kg q8-24hrs SC, IM, IV | Mice: 150ul/dose  Rats: 200ul/dose  Rabbits: 1ml/dose |
| Gentamicin/  Betamethasone (“Topagen” spray) | Mice/Rats/Rabbits:  1 pump per site q12-24hrs, 3-14 days topical | 2 pumps per site per day |
| Fucidic acid (Isathal ophthalmic gel) | Mice/Rats/Rabbits:  1 drop/eye q12-24hrs, 3-14 days topical | 2 drops per eye per day |

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| Tobramycin .3% ophthalmic drops  (Tobrex) | Mice/Rats/Rabbits:  1 drop/eye q6-24hrs, 3-14 days topical | 2 drops per eye per day |
| Ketoconazole | Mice/Rats/Rabbits:  10-40 mg/kg q24hrs x 14 days PO | N/A |
| Miconazole/ Polymyxin/ Prednisolone (“SUROLAN”) | Mice/Rats/Rabbits:  1-3 drops per site q24hrs, 14-28 days topical | 1-3 drops/dose/site |
| Polymyxin B/ Gramicidin  (“Polysporin cream”) | Mice/Rats:  1mm strip per 1cm lesion, q12-24hrs, 3 – 14 days topical  Rabbits:  1mm strip per 1cm lesion, q 6-24hrs, 3 - 14 days, topical | 2mm strip per 1cm lesion |
| Trimethoprim/  Sulfamethoxazole | Mice:  50-100 mg/kg q24hrs PO, SC  Rats:  15-30 mg/kg q12-24hrs PO, SC, IM  0.8 mg/ml in drinking water  Rabbits:  15-30 mg/kg PO q12-24hrs  30-48 mg/kg SC q12hrs | Mice: 150ul/dose  Rats: 200ul/dose  Rabbits: 500ul/dose |
| Tylosin | Mice  10 mg/kg q12hrs PO, SC  Rats:  10 mg/kg q24hrs x 5 days PO  Mice, Rats:  0.5 mg/ml in drinking water  Rabbits:  10 mg/kg q12-24hrs, PO, SC, IM | Mice: 100ul/dose  Rats: 300ul/dose  N/A  Rabbits: 500ul/dose |

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| Anesthetics/  Sedatives | Dosage/Frequency/Duration | Max Volume/A/S |
| Acepromazine (“Atravet”) | Mice:  0.5-5 mg/kg once IM, SC, PO  Rats:  0.5-2.5 mg/kg once IM, SC, PO  Rabbits: 0.25-5 mg/kg once IM, SC | Mice: 100ul  Rats: 300ul  Rabbits: 500ul |
| Atipamezole (“Antisedan”) | Mice/Rats/Rabbits:  Same volume as agent reversing | Mice: 100ul  Rats: 300ul  Rabbits: 1ml |
| Dexmedetomidine  (“Dexdomitor”) | Mice/Rats:  0.5 mg/kg + 75 mg/kg ketamine IP  Rabbits:  0.005 mg/kg IM  0.035-0.05 mg/kg IM | Mice: 100ul  Rats: 300ul  Rabbits: 1ml |
| Diazepam (“Valium”)  C | Mice/Rats:  2.5 - 5 mg/kg IM  Rabbits:  0.5-2 mg/kg IM, IV  1-5 mg/kg IM, IV | Mice: 100ul  Rats: 300ul  Rabbits: 1ml |
| Isofluorane (“Isoflo”) | Mice/Rats/Rabbits:  1-5% delivered with oxygen, inhalant | To effect |

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| Ketamine (“Vetalar”, “Ketalean”)  C | Mice/Rats:  22 mg/kg for light sedation IM  Mice:  44 mg/kg for heavy sedation IM  Rats:  25-40 mg/kg for heavy sedation IM  Rabbits:  15-20 mg/kg IV  1-50 mg/kg IM | Mice: 100ul  Rats: 300ul  Rabbits: 1ml |
| Midazolam (“Versed”)  C | Mice/Rats:  2-3 mg/kg IM  Rabbits:  0.5-2 mg/kg IM, IV, IP  0.25-0.5 mg/kg IM | Mice: 100ul  Rats: 300ul  Rabbits: 1ml |
| Xylazine (“Rompun”) | Mice/Rats:  5-10 mg/kg SC, IM, IP  Rabbits:  1-5 mg/kg IM, SC | Mice: 100ul  Rats: 300ul  Rabbits: 1ml |

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| Other Medications | Dosage/Frequency/Duration | Max Volume/A/S |
| 50% dextrose | 0.25 ml/kg diluted 1:1 with isotonic saline, q2-3h as needed PO, IP | Mice: 500ul/24hrs  Rats: 5ml/24hrs  Rabbits: 15ml/24hrs |
| Atropine | Mice/Rats:  0.05-0.5 mg/kg SC IM  0.05-0.1 mg/kg SC  Rabbits:  0.1-1 mg/kg IM  0.1-3 mg/kg SC | Mice: 100ul  Rats: 300ul  Rabbits: 1ml |
| Epinephrine | Mice/Rats:  0.01-0.1 mg/kg IV prn  Rabbits:  0.2-0.4 mg/kg IM, IV, IT | Mice/Rats: 100ul  Rabbits: 0.5-5ml |
| Fenbendazole (antiparasitic)  (“Panacur”)  Fenbendazole (antiparasitic)  (“Panacur”) cont’d | Rats/mice:  20-50 mg/kg q24hrs x 5days PO  Rabbits:  5-20 mg/kg q24h for 5 days PO, repeat in 14days | Mice, Rats, Rabbits:  deliver as medicated feed  Mice, Rats, Rabbits:  deliver as medicated feed |
| Furosemide  (“Lasix”) | Mice/ Rats:  5-10 mg/kg q12 hrs SC, IM  Rabbits:  1-5 mg/kg q12hrs prn PO, SC, IM, IV | Mice: 100ul  Rats: 300ul  Rabbits: 1ml |
| Heparin | 5 mg/kg every 12 hrs IV | Mice: 100ul  Rats: 300ul  Rabbits: 1ml |