**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.**

|  |  |  |
| --- | --- | --- |
| Analgesics | Dosage/Frequency/Duration/Route | MaximumVolume/Animal/Site |
| Buprenorphine(“Buprenex”)C | Mice: 0.05-0.1mg/kg q12hrs SCRats: 0.01-0.05mg/kg q8-12hrs SC,IV0.1-0.4mg/kg q8-12hrs PORabbits: 0.01-0.06mg/kg q6-12hrs SC,IV,IM0.02-0.1mg/kg SC,IV,IM0.012 mg/kg epidural | Mice: 100ulRats: 300ulRabbits: 500ul For epidural volume should not exceed 0.33ml/kg |
| Sustained Release BuprenorphineC \*Not available through Health Canada – only available through veterinarian\* | Mice:0.6 – 2.2mg/kg q24-72hrs SCRats:0.3-1.2mg/kg q48-96hrs SCRabbits:0.12mg/kg SC |  |
| Butorphanol(“Torbugesic”)C  | Mice/Rats: 0.2-5mg/kg q2-4hrs SCRabbits: 0.1–1mg/kg q2-6hrs SC, IM, IV | Mice/Rats: 100ulRabbits: 500ul |

|  |  |  |
| --- | --- | --- |
| Lidocaine(2% injectable)Lidocaine (2% injectable) cont’d | Mice/Rats:1mg/kg SC PRNRabbits:1-3 mg/kg SC | Mice: 200ul Rats/Rabbits: 0.5-3ml  |
| Bupivacaine (0.5%) (local anesthetic infusion) | Rats: 1-2mg/kg Local1.6 mg/kg epidural  2.3 mg/kg epiduralRabbits: 1-2 mg/kg Local or epidural | 0.33ml/kg0.33 ml/kg  |
| Meloxicam(“Metacam”) | Mice:1-5 mg/kg q24hrs PO, SCRats: 1-2 mg/kg q12-24hrs PO, SCRabbits: 0.2-0.5 mg/kg q24hrs SC, IM0.3 mg/kg – 1.5 mg/kg q24hrs x 5 days PO | Mice: 100ulRats: 500ulRabbits: 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  |

|  |  |  |
| --- | --- | --- |
| Antibiotics/Antimycotics | Dosage/Frequency/Duration | Max Volume/A/S |
| Ampicillin | Mice: 50-200 mg/kg q12hrs PO25 mg/kg q12hrs SC, IMRats: 20-250 mg/kg q12hrs PO25 mg/kg q12hrs SC, IM | Mice: 150ul/doseRats: 200ul/dose  |
| Enrofloxacin(“Baytril”) | Mice/Rats: 5-20 mg/kg q12-24hrs up to 14 days PO, SC, IM0.25 mg/ml x 14 days in drinking waterRabbits: 5 mg/kg q12-24hrs PO, IV, IM, SC5-20 mg/kg q12 hrs PO, IM200 mg/L x 14 days in drinking water | Mice: 100ul/doseRats: 300ul/doseN/ARabbits: 500ul/doseN/A |
| Gentamicin Sulfate(“Gentocin”) | Mice: 2 – 24 mg/kg q12-24hrs SC, IMRats:20 mg/kg q24hrs SCRabbits: 5-8 mg/kg q8-24hrs SC, IM, IV | Mice: 150ul/doseRats: 200ul/doseRabbits: 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 |

|  |  |  |
| --- | --- | --- |
| 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 topicalRabbits: 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, SCRats: 15-30 mg/kg q12-24hrs PO, SC, IM0.8 mg/ml in drinking waterRabbits:15-30 mg/kg PO q12-24hrs30-48 mg/kg SC q12hrs | Mice: 150ul/doseRats: 200ul/dose Rabbits: 500ul/dose |
| Tylosin | Mice10 mg/kg q12hrs PO, SCRats:10 mg/kg q24hrs x 5 days POMice, Rats:0.5 mg/ml in drinking water Rabbits: 10 mg/kg q12-24hrs, PO, SC, IM | Mice: 100ul/dose Rats: 300ul/doseN/ARabbits: 500ul/dose |

|  |  |  |
| --- | --- | --- |
| Anesthetics/Sedatives | Dosage/Frequency/Duration | Max Volume/A/S |
| Acepromazine (“Atravet”) | Mice: 0.5-5 mg/kg once IM, SC, PORats:0.5-2.5 mg/kg once IM, SC, PORabbits: 0.25-5 mg/kg once IM, SC | Mice: 100ulRats: 300ulRabbits: 500ul |
| Atipamezole (“Antisedan”) | Mice/Rats/Rabbits:Same volume as agent reversing | Mice: 100ulRats: 300ulRabbits: 1ml |
| Dexmedetomidine(“Dexdomitor”) | Mice/Rats: 0.5 mg/kg + 75 mg/kg ketamine IPRabbits: 0.005 mg/kg IM0.035-0.05 mg/kg IM | Mice: 100ulRats: 300ulRabbits: 1ml |
| Diazepam (“Valium”)C | Mice/Rats: 2.5 - 5 mg/kg IMRabbits:0.5-2 mg/kg IM, IV1-5 mg/kg IM, IV | Mice: 100ulRats: 300ulRabbits: 1ml |
| Isofluorane (“Isoflo”) | Mice/Rats/Rabbits:1-5% delivered with oxygen, inhalant | To effect |

|  |  |  |
| --- | --- | --- |
| Ketamine (“Vetalar”, “Ketalean”)C | Mice/Rats: 22 mg/kg for light sedation IMMice:44 mg/kg for heavy sedation IMRats:25-40 mg/kg for heavy sedation IMRabbits:15-20 mg/kg IV1-50 mg/kg IM | Mice: 100ulRats: 300ulRabbits: 1ml |
| Midazolam (“Versed”)C | Mice/Rats: 2-3 mg/kg IMRabbits:0.5-2 mg/kg IM, IV, IP0.25-0.5 mg/kg IM | Mice: 100ulRats: 300ulRabbits: 1ml |
| Xylazine (“Rompun”) | Mice/Rats: 5-10 mg/kg SC, IM, IPRabbits: 1-5 mg/kg IM, SC | Mice: 100ulRats: 300ulRabbits: 1ml |

|  |  |  |
| --- | --- | --- |
| 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/24hrsRats: 5ml/24hrsRabbits: 15ml/24hrs |
| Atropine | Mice/Rats: 0.05-0.5 mg/kg SC IM 0.05-0.1 mg/kg SCRabbits: 0.1-1 mg/kg IM0.1-3 mg/kg SC | Mice: 100ulRats: 300ulRabbits: 1ml |
| Epinephrine | Mice/Rats:0.01-0.1 mg/kg IV prnRabbits: 0.2-0.4 mg/kg IM, IV, IT | Mice/Rats: 100ulRabbits: 0.5-5ml |
| Fenbendazole (antiparasitic)(“Panacur”)Fenbendazole (antiparasitic)(“Panacur”) cont’d | Rats/mice:20-50 mg/kg q24hrs x 5days PORabbits:5-20 mg/kg q24h for 5 days PO, repeat in 14days | Mice, Rats, Rabbits: deliver as medicated feedMice, Rats, Rabbits: deliver as medicated feed |
| Furosemide(“Lasix”) | Mice/ Rats: 5-10 mg/kg q12 hrs SC, IMRabbits: 1-5 mg/kg q12hrs prn PO, SC, IM, IV | Mice: 100ulRats: 300ulRabbits: 1ml |
| Heparin | 5 mg/kg every 12 hrs IV | Mice: 100ulRats: 300ulRabbits: 1ml |