**Baytril Administration**

Last Review Date: December 14, 2023

  **I. Purpose**

The purpose of this standard operating procedure (SOP) is to outline the dosing and administration of antibiotic Baytril™ (enrofloxacin). The administration of ANY treatments must be performed in consultation with the Attending Veterinarian. All medications delivered in food or water must be clearly identified with the treatment that is being administered. All drugs used in animals must be in date.

**II. Policy**

It is LAR policy to meet or exceed all federal, state, and local regulations and guidelines and to comply with all institutional policies and procedures as they apply to the use of animals in research.  Personnel must attend any applicable training in animal care and use, occupational health and safety, equipment operation, and SOPs prior to performing activities outlined in this SOP or work under the direct supervision of trained personnel.

**III. Procedure**

**Rats:**

**A. SQ Injection.** Signalment: 5-10 mg/kg SQ every 12 hours for 10 days (unless otherwise
     directed by the AV)

1. Dilution
	1. Concentration: 1:10 dilution = 2.27 mg/ml (undiluted = 22.7 mg/kg)
	2. Obtain an empty, sterile vial
	3. Check that the parent vial of Baytril™ (22.7mg/ml) is not expired and solution has not changed appearance.
	4. Clean port of vial with alcohol prior to each withdrawal.
	5. Withdraw 1 cc of Baytril™ and instill into the empty, sterile vial.
	6. Withdraw 9 cc of sterile saline (utilizing aseptic technique as described above).
	7. Instill the sterile saline into vial with the 1 cc of Baytril
	8. Label the vial with the drug name, concentration and date mixed
2. Administration
	1. Administer the Baytril™ as per the chart below

|  |  |  |
| --- | --- | --- |
| **Body Weight (grams)** | **5.0 mg/kg Dose Injection Volume (ml) SQ** | **10.0 mg/kg Dose Injection Volume (ml) SQ** |
| 150 g | 0.33 ml | 0.66 ml |
| 200 g | 0.44 ml | 0.88 ml |
| 250 g | 0.55 ml | 1.10 ml |
| 300 g | 0.70 ml | 1.30 ml |
| 350 g | 0.80 ml | 1.50 ml |
| 400 g | 0.88 ml | 1.80 ml |
| 450 g | 1.00 ml | 2.00 ml |
| 500 g | 1.10 ml | 2.20 ml |
| 550 g | 1.20 ml | 2.40 ml |

**B. Drinking Water**

1. Preparation: Add 1.9 ml of 22.7 mg/ml Baytril™ to 250 ml of drinking water (8 oz.
bottle) or 3.7 ml to a 500 ml bottle of drinking water (16 oz. bottle).
	1. Baytril™ may be administered via drinking water
	2. Water must not be chlorinated or acidified (inactivates the drug)
	3. Baytril™ has a bitter taste. This bitter taste in combination with an ill animal may decrease the volume of water consumed and prevent therapeutic blood levels of the antibiotic from being reached
	4. Fruit juice (5-10 ml) or a packet of Splenda may be added to the water bottle to improve palatability
	5. Medicated drinking water must be changed weekly or if it gets cloudy

**C.** **Oral Administration**

1. BioServ Baytril tablets contain 2 mg/tablet and are bacon flavored for palatability.
	1. Give one baytril tablet per day
2. BioServ Baytril + Rimadyl contains 2 mg of each drug and are bacon flavored for
palatability.
	1. Give one tablet per day

**Degus:**

**A.** Dose as per the rats (above) for injection or oral administration in drinking water

**Mice:**

**A. SQ Injection.** Signalment: 5 mg/kg SQ every 12 hours for 10 days (unless otherwise
      directed by the AV.

1. Dilution
	1. 1:10 dilution = 2.27 mg/ml (undiluted = 22.7 mg/kg)
	2. Obtain an empty, sterile vial
	3. Check that the parent vial of Baytril™ (22.7mg/ml) is not expired and solution has not changed appearance.
	4. Clean port of vial with alcohol prior to each withdrawal.
	5. Withdraw 1 cc of Baytril™ and instill into the empty, sterile vial.
	6. Withdraw 9 cc of sterile saline (utilizing aseptic technique as described above).
	7. Instill the sterile saline into vial with the 1cc of Baytril
	8. Label the vial with the drug name, concentration and date mixed
2. Administer
	1. Administer the Baytril™ as per the chart below

|  |  |
| --- | --- |
| **Body Weight (grams)** | **5.0 mg/kg Dose Injection Volume (ml) SQ** |
| 15 g | 0.03 ml |
| 20 g | 0.04 ml |
| 25 g | 0.06 ml |
| 30 g | 0.07 ml |
| 35 g | 0.08 ml |
| 40 g | 0.09 ml |
| 45 g | 0.10 ml |

**B.  Drinking Water**

1. Preparation: Add 1.9 ml of 22.7 mg/ml Baytril™ to 250 ml of drinking water (8 oz. bottle) or 3.7 ml to a 500 ml bottle of drinking water (16 oz. bottle)
2. Administration
	1. Baytril™ may be administered via drinking water
	2. Water must not be chlorinated or acidified (inactivates the drug)
	3. Baytril™ has a bitter taste.  This bitter taste in combination with an ill animal
	may decrease the volume of water consumed and prevent therapeutic
	blood levels of the antibiotic from being reached
	4. Fruit juice (5-10 ml) or a packet of Splenda may be added to the water bottle
	to improve palatability
	5. Medicated drinking water must be changed weekly or if it gets cloudy

Reference: Antibiotic Administration in the Drinking Water of Mice

**C.  Oral Administration**

1. BioServ Baytril tablets contain 0.5 mg/tablet and are bacon flavored for palatability.
	1. Give one Baytril tablet per day
	2. If utilizing rat Baytril (2 mg/tablet) give 1/4 tablet per day

**Snowshoe Hares and Rabbits:**

**A.  Drinking Water**

1. Administration
	1. Signalment: 10 mg/kg in water for 10 days
	2. Check that the parent vial of Baytril™ (100 mg/ml) is not expired and the solution has not changed appearance
	3. Clean the port of the parent vial of Baytril™ with alcohol prior to withdrawal
	4. Withdraw 2.0 cc of 100 mg/ml Baytril™ and place in a 1-liter water bottle
	5. Water must not be chlorinated or acidified (inactivates the drug)
	6. Baytril™ has a bitter taste causing an ill animal to decrease the volume of water consumed and prevent therapeutic blood levels of the antibiotic from being reached.
	7. Fruit juice (5-10 ml) or a packet of Splenda may be added to the water bottle to improve palatability.
	8. Medicated drinking water must be changed weekly or if it gets cloudy

**B.  SQ Injection**

1. Injection
	1. Signalment: 15 mg/kg subcutaneously twice a day for 10 days
	2. Check that the parent vial of Baytril™ (100 mg/ml) is not expired and the solution has not changed appearance
	3. Clean the port of the parent vial of Baytril™ with alcohol prior to withdrawal
	4. Withdraw the calculated dose from the Baytril™ vial
	5. Administer subcutaneously