

SOP #: 606.01Title: SOP - Buprenex (Buprenorphine) / 0.9% NaCl Analgesic Mix Preparation

Approvals:

Attending Veterinarian

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Date:

10/11/12

Assistant Director LAR

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Date:

10/11/12

## 1. Purpose

1.1 To detail the preparation of Buprenex (Buprenorphine) / 0.9% NaCl analgesic solution and to ensure that the preparation of the analgesic solution is performed consistently, accurately, and aseptically.

## 2. Responsibility

2.1 Veterinary Care Staff and Principal Investigators

## 3. Definitions

3.1 Buprenorphine is a semi-synthetic opioid that is used to control moderate acute and chronic pain.

## 4. Guidelines

4.1 The following mixture contains Buprenex (Buprenorphine) 0.324 mg/ml in 1 ml and 0.9% NaCl as a diluent. Type of container generally used is a 30ml sterile container with rubber injection port.

4.2 Preparation (Rodents): Mix 1 ml vial Buprenex (Buprenorphine) and 19 ml 0.9% NaCl (to create a Buprenex (Buprenorphine) concentration of 0.016 mg/ml). This mixture can be administered subcutaneously, intramuscularly, or intra-peritoneal.

### 4.3 Dosage:

4.3.1 Mice: Administer at a dosage range of 0.06-0.13 ml for an average 20 g mouse.

- 4.3.2 Rats: Administer at a dosage range of 0.3-0.5 mL/100 g of body weight for rats.
- 4.4 To minimize the risk of respiratory depression and the delay to analgesic effect, the initial dose should be given 20 min before the initiation of anesthesia.
- 4.5 Additional doses may be given every 8-12 hours for up to 3 days if the procedure is expected result in prolonged pain (e.g. orthopedic procedures) at the Principal Investigator and/ or Veterinarian's direction.
- 4.6 When a specific mixture of Buprenex is prepared, it will be logged in the controlled substances logbook on form 903.frm, (current revision). All pertinent information will not only be on the log form, but also on the bottle of the mixture including:
- 4.6.1 Bottle number.
- 4.6.2 Lot number only. Expiration dates of components can be traced if needed.
- 4.6.3 The date mixture is prepared.
- 4.6.4 What specifically the mixture was prepared for species, study number(s), practice.
- 4.7 All mixtures will expire 1 month after preparation.
- 4.8 Disposal of expired, unused or questionable solution review Document No.:01004.sop (current revision)
- 4.9 The qualified person preparing the mixture will use aseptic technique at all times. A small sterile container will be used to hold the mixture. A clean needle & syringe will be used for each drug to prevent cross contamination. The rubber injection stoppers of all containers will be wiped with alcohol prior to insertion of a needle.
- 4.10 Contingencies:
- 4.10.1 All Mixture expires 1 month after preparation.
- 4.10.2 Solution should be clear and free of particulates.
- 4.10.3 Any questionable solution should not be used. Contact supervisor to determine appropriate action.
- 4.10.4 Protect from light.

## 5. References

- 5.1 University of Minnesota-Veterinary Formulary  
(<http://www.ahc.umn.edu/rar/umnuser/formulary.html>)