



<b>University Animal Care Committee Standard Operating Procedure</b>		
<b>Document No:</b> 10.4	<b>Subject:</b> Rodent Post-operative Care (Rat)	
<b>Date Issued:</b> July 23 <sup>rd</sup> , 2015	<b>Revision:</b> 3	<b>Page No:</b> 2

Nutra-gel or moist chow  
Weight scale  
Surgical sheets/forms, cage cards

## 2. Procedures:

Weigh and record the animal's weight on the day of surgery. Record the surgical procedure, all injections and any other standard procedure on the cage card. This information must also be included in the surgical sheets/forms (if used). Calculate the animal's 15% BW loss and record this on their animal cage card for quick access later on.

Pre-operative warming has shown to reduce perioperative hypothermia in surgical patients, (see link in references for full article).

Provide surgical analgesics as indicated in the protocol (typically for 72 hours post-surgery). It is recommended the initial dose is given shortly before surgery, for pre-emptive analgesia. Surgical patients can develop a heightened sensitivity to pain if it is left untreated. Neuropathways communicate pain sensations from the surgical site to the brain. Once that pathway is well worn, post-surgical pain can become more challenging to alleviate. Pre-emptive pain management helps patients avoid this scenario.

Once the surgical procedure is complete and anesthesia has been discontinued (if recovery surgery), administer 30ml/kg of room temperature Lactated Ringer's solution or 0.9% sodium chloride SC. Place the animal on a paper towel or gauze in a clean, dry cage free from other animals. The paper towel will prevent the animal from inhaling bedding during recovery.

Place half the cage on top of a heat source to facilitate maintenance of average normal body temperature (normal temperature is between 37.5-37.8 degrees celsius); alternatively, suspend a heat lamp above half of the recovery cage.

Observe the following every 5 minutes until the animal regains its righting reflex. Do not leave the animal unattended.

- o Respiration: ensure that the animal continues breathing and does not show signs of respiratory distress such as increased (laboured) respiratory rate or rapid shallow breaths. If this occurs, place the animal in the induction chamber with just the oxygen flowing until normal rate and depth of breathing occurs.
- o Coloration of eyes for albinos (the eye colour should remain red – opaque

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or blue-tinged indicate distress).

- o Color and moisture of the mucous membranes – these should be pink and moist with a capillary refill time of < 2 sec.
- o Temperature: palpate the extremities (feet or tail) and/or take a rectal temperature to ensure that temperature does not go outside of physiologic parameters.

Until the blinking reflex has returned, ensure eye lubricant is instilled.

If recovery is >5 minutes turn animal every 5 minutes. This stimulates the animal and also alternates the side of the chest (and lung) which the animal is laying on, thereby facilitating respiration.

Put a measured amount of food or Nutra-gel at the bottom of the cage.

Alternatively, moist chow can be provided during the post-operative period to encourage appetite and facilitate hydration. Nutra-gel must be changed daily.

*\*Moist chow*

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Examine the surgical site daily for signs (such as redness, swelling or discharge) of inflammation, infection, and/or dehiscence for at least 5 days. Apply antibiotic

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**SX LOG: STUDENT AND LAB NAME:** \_\_\_\_\_ **CONTACT #:** \_\_\_\_\_ **PROTOCOL #:** \_\_\_\_\_

Student Name	Lab Name	Contact #	Protocol #	Procedure	Day 1 POST	Day 2 POST	Day 3 POST
				0-4 food pellets in cage	SUBJECT		
					DAY 1 POST		
					Day 2 POST		
					DAY 3 POST		
				0-4 food pellets in cage	SUBJECT		
					DAY 1 POST		
					Day 2 POST		
					DAY 3 POST		
				0-4 food pellets in cage	SUBJECT		
					DAY 1 POST		
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					DAY 3 POST		