

## **UBC ACC Guideline on Ulcerative Dermatitis in Rodents (Last Revised 2012)**

**Introduction:** Ulcerative dermatitis is a commonly recognized condition in rodents, especially in C57BL/6 mice and related strains. The cause is typically unknown, although this condition can be secondary to breaks in the skin (ie. fight wounds, surgical wounds, excoriations from furmites). It can lead to partial or full thickness lesions in the skin with secondary infection, alopecia, crusting/exudation and self-mutilation. This condition is generally difficult to treat and often causes intense pruritis, progressive ulceration and pain. This document should be used as a guideline when dealing with this condition.

**Policy: Animal care staff and research staff are obliged to detect, manage and when necessary euthanize animals suffering from this condition. As soon as ulcerative dermatitis lesions are detected, treatment must be initiated or the animal must be euthanized within 24 hours. Animals must be monitored for their condition at least once daily and records must be kept. Animals whose lesions have progressed beyond acceptable size (see below) regardless of treatment should be euthanized within 24 hours.**

### **Lesions and complications**

Lesions occur typically on the dorsum, in the cervical region or in the axillary or facial areas. Lesions may involve the ears, muzzle or eyes. Partially thickness lesions may rapidly progress to ulceration and excoriation. As open wounds are present, animals are prone to secondary infection and other systemic effects such as hypoalbuminemia, lymphadenopathy and leukocytosis.

### **Treatment options**

Although there is no known definitive treatment for this condition, there are several treatment options listed here that may be effective. Treatment should always be in consultation with a veterinarian.

1. Trimming the hind toe nails every 10-14 days. This appears to be one of the most effective treatments in helping to resolve or delay this condition. Toe nails should be trimmed with small scissors only by personnel with adequate training to avoid the blood vessels within the nails.
2. Topical antibiotic cream or ointment. This can be used in conjunction with toenail trimming. This should be applied to the affected areas at least once a day avoiding the eyes/mouth.
3. Skin disinfectant such as Chlorhexidine solution. This can be applied once daily to the affected areas if they are not involving the face. Contact veterinarians for treatment advice.
4. Records should be kept at room level for all treatments.

### **Acceptable lesion size**

**Mice:** Euthanasia should result if any of the following apply:

1. There is a single lesion or multiple lesions totaling more than 10mm in diameter
2. There are lesion(s) of the head or face exceeding 3mm in diameter around the eyes, whiskers, ears or mouth or there are lesions of the genitalia/anus exceeding 3 mm in diameter
3. There is a progression of the condition (increase in size, depth, pruritis) despite treatment
4. The ulceration is full-thickness exposing the muscle layer.

**Rats:** Euthanasia should result if any of the following apply:

1. There is a single lesion or multiple lesions totaling more than 30mm in diameter
2. There are lesion(s) of the head or face exceeding 10mm in diameter around the eyes, whiskers, ears or mouth or there are lesions of the genitalia/anus exceeding 10 mm in diameter
3. There is a progression of the condition (increase in size, depth, pruritis) despite treatment
4. The ulceration is full-thickness exposing the muscle layer.

Mouse showing maximum 10 mm lesion on body and 3 mm lesion on face.

