

# STANDARD OPERATING PROCEDURE #102 RABBIT ANALGESIA

#### 1. PURPOSE

The intent of this Standard Operating Procedure (SOP) is to describe methods of assessing pain in rabbits and mitigating pain by administration of analgesic medications.

### 2. RESPONSIBILITY

Principal investigator (PI) and their research staff, veterinary care staff.

## 3. GENERAL CONSIDERATIONS

- 3.1. A procedure which would be expected to be painful if it were done on humans must be considered painful to the animal.
- 3.2. When there is a question of whether or not a procedure is painful, the animal should receive the benefit of analgesia.
- 3.3. Analgesia should be provided at an appropriate dose and frequency to control pain.
- 3.4. Any deviation from this procedure must be justified by the investigator and approved by the appropriate Facility Animal Care Committee (FACC).

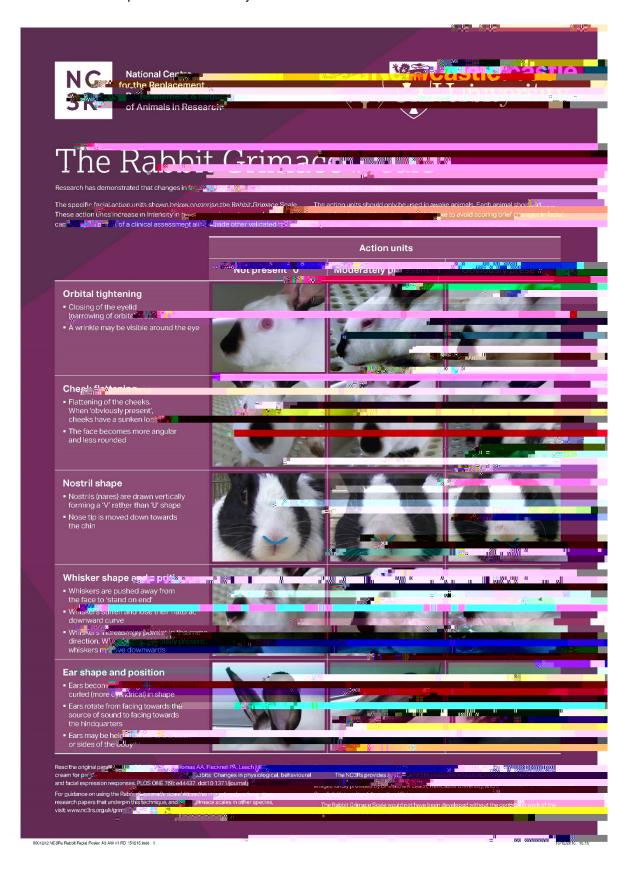
### 4. PAIN RECOGNITION AND ASSESSMENT

4.1. Adapt the frequenc3.1a 0.001 Tw ef1.001 0 T.8 99for01 0 T1157 Tobseonnc3.1a 001 0 T 0.277 0 JJ(th)-11.3 e

SOP 102.02 – Rabbit Analgesia Page 1 of 6

### 4.5. Rabbit Grimace Scale (Keating et al. 2012)

The rabbit grimace scale is a standardized behavioral coding system that demonstrates facial expressions which can be used to assess pain in the laboratory rabbit.



SOP 102.02 – Rabbit Analgesia Page 2 of 6

SOP 102.02 – Rabbit Analgesia Page 3 of 6

### 8. REFERENCES

- **8.1.** DiVincenti L Jr, Meirelles LA, Westcott RA. (2016). Safety and clinical effectiveness of a compounded sustained-release formulation of buprenorphine for postoperative analgesia in New Zealand White rabbits. *J Am Vet Med Assoc.* 2016 Apr 1;248(7):795-801.
- 8.2. Keating SCJ, Thomas AA, Flecknell PA, Leach MC (2012) Evaluation of EMLA Cream for Preventing Pain during Tattooing of Rabbits: Changes in Physiological, Behavioural and Facial Expression Responses. PLoS ONE7(9): e44437. https://doi.org/10.1371/journal.pone.0044437
- 8.3. Plumb, DC. (2005). Plumb's veterinary drug handbook. Stockholm, Wis. : Ames, Iowa :PhrmaVet ; Distributed by Blackwell Pub.
- 8.4. Delk KW, Carpenter JW, KuKanich B, Nietfeld JC, Kohles M. Pharmacokinetics of meloxicam administered orally to rabbits (Oryctolagus cuniculus) for 29 days. Am J Vet Res. 2014 Feb;75(2):195-9. doi: 10.2460/ajvr.75.2.195. PMID: 24471756.

### SOP REVISION HISTORY

DATE	NEW VERSION
2015.04.22	6.1 Use lidocaine HCI 2% (20mg/ml) injectable solution.
2015.04.22	6.1 Use bupivacaine HCl 0.50% (5mg/ml) injectable solution.
2015.04.22	6.1 Lidocaine-bupivacaine mixture: Discard mixture after 3 months.
2016.09.02	7. Carprofen, ketoprofen and meloxicam: Ensure good water intake and monitor hydration status. Suspend water restriction prior to administration.
2016.09.06	7. Buprenorphine route of administration: SC-Preferred: IM, IV, sublingual, gingival Other: SC

7.1. Administration of non-steroidal anti-inflammatory drugs (NSAIDs):

7.1.1. NSAIDs include carprofen, ketoprofen and meloxicam.

2017.01.27 **7.1.2**.