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|  University of Zurich Institute of Laboratory Animal Sciences | Standard Operating Procedure SOP | Page 1 of 3 |
| Date: 28.07.2022 | Buprenorphine analgesia on EAE animals (Formerly Buprenorphine analgesia after stereotactic injection on EAE animals) | LTK-TRT-51-A-EN Version: A |
| This SOP replaces: None | | |
| Reason for Change: None | | |
| Related SOPs: SOP-LTK-TRT-11-EN sc injection SOP-LTK-TRT-50-EN Post-surgery analgesia after stereotactic injections on EAE animals SOP-LTK-RES-1-EN EAE Scoring SOP-LTK-RES-86-EN Stereotactic Injection on EAE animals | | |
| Indication of Use: Pain management of animals that do not respond to Carprofen analgesia | | |
| Aim of SOP: This procedure describes how to administer Buprenorphine as analgesic via subcutaneous injection (day) and via drinking water (night) | | |
| Distribution: 1. Server 2. Animal facility 3. Group Thorsten Buch | | |
| Generated at: 27.07.2022 | Checked and approved at: 28.07.2022 | |
| by: Antonis Katsoulas | by: Thorsten Buch | |

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Responsible Persons: Any person with Module 1 and registered on a particular animal permit that this method is applicable.

Reagents:

Via s.c. injection

Working solution. 0.33 ml Buprenorphinum (Temgesic®, = 0.3 mg/ml)
+ 4.67 ml saline solution

Store stock solution at 4°C until expiry date and working dilution for up to 1 week at 4°C or up to one year at -20°C.


Note concentration, compound name and your initials and date of first opening (stock) and date of dilution (working solution) on vial/tube

Safety:

1. Temgesic falls under the controlled substances legislation and is therefore stored with restricted access. Persons working with this protocol have to report to Thorsten Buch or Johannes vom Berg to obtain the substance, and to get instructions on use and reporting.
2. General rules for working with sharp tools (scalpels, syringes, scissors) have to be followed.
3. Follow the rules for the animal house

Method Description:

1. Indication and schedule according to *SOP-LTK-RES-1-EN EAE Scoring, attachment B*.
2. Apply working solution with 0,1 ml 20g BW as subcutaneous injection (= 0.1 mg/kg BW, see SOP-LTK-TRT-11-EN s.c. injection)
3. Record in SOP-LTK-RES-1-EN EAE Scoring, Attachment B - Intervention

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Documentation:
Lab book, SOP-LTK-RES-1-EN EAE Scoring Attachment B

Problem management:
In case of different observations divergent from normal physiology, contact the group leader or a vet immediately

Literature:

- Langford, D. J. *et al.* Coding of facial expressions of pain in the laboratory mouse. *Nat* "Buprenorphine via drinking water and combined oral-injection protocols for pain relief in mice", Mareike Sauer, Thea Fleischmann, Miriam Lipiski, Margarete Arrasa, Paulin Jirkof, Applied Animal Behaviour Science, Volume 185, December 2016, Pages 103-112
- Merkblatt 03/2015 Analgesie Buprenorphin Maus“, Tierschutz UZH
https://www.tierschutz.uzh.ch/dam/jcr:fffff-f-a9e4-863e-00000000341f85c6/Merkblatt_Dosierungsempfehlung_BuP_Maus_27_April_2015_Englisch.pdf