

Analgesia administration practices to support minimal handling

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Introduction/background

The pain or distress that an animal experiences during scientific procedures should be minimised as much as possible. There are now a wide range of analgesia methods that can be used following on from a surgical procedure. Administering oral analgesics can cause stress to the animals. So how can this be provided to the animal with minimal handling and no inconvenience to the user?

An adequate analgesic strategy is important to improve the postoperative recovery and welfare of laboratory animals. It is desirable that the method for administering the drug is non-invasive and stress-free. Below are a few methods that we use to minimise restraining animals after any surgery.

Working together with animal care staff, the named veterinary surgeon and the animal users, we came up with new ideas to promote Animal Welfare.

Metacam jelly – Mice

At the SWC we use flavoured jelly (Hartleys™ strawberry flavour) mixed with Metacam as an alternative to injectable Metacam for the mice and rats after they have surgery.

The jelly is low cost and easy to order. We first discussed with our NVS on how this may work and the correct dosages needed, and then once we rolled it out, we emailed the potential users and got the message around.

We first acclimatise the animals by using plain jelly (Figure 1).



Figure 1. Plain jelly syringe.

This is because mice are neophobic and this helps them get used to the new substance. We do this by putting plain jelly onto the floor of their home cage a few days before their scheduled surgery. After the surgery the mice are given Metacam jelly to help with any pain they may feel (Figure 2).

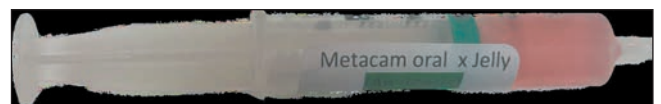


Figure 2. Metacam jelly syringe.

Currently this can only be done for animals that are singly housed as they need the correct dose of pain relief.

Bacon flavoured Meloxicam tablets – Rats

We also use bacon flavoured tablets that contain Meloxicam (RatMD's™). Similar with the jelly a placebo tablet is given a few days before so the animal will get used to the tablet texture and taste. This tablet is placed on the cage floor for the rats to consume.



Figure 3. Meloxicam tablets – average dose is 1 x 5gm tablet per rat.

Acknowledgements

SWC NRF Team (Aaron Donaldson, Amy Lynch, Amy Veness, Chris Power, Eleni Amaniti, Matilda McClenaghan, Niamh Barlow, Sian Murphy, Sandra Stojkowska, Tina O'Mahony, Luke O'Hara). Research groups at the SWC (Branco lab, Margrie lab, Stephenson-Jones lab, Duan lab, Erlich lab, Akrami lab, O'keefe lab, Burgess lab, Hofer lab, Mrcsic Fogel lab).

Burrito hold

The burrito hold is used as a handling practice to avoid using the scruffing restraint. We use this method to provide mice with an oral administration of a drug, the mice are wrapped in a clean cloth with their heads coming out of the top. This is often used if animals are group housed so we can make sure the mice have the correct dosage each. The mice feel secure in the cloth and it allows the user to have a good restraint (Figure 4).



Figure 4. Burrito hold on a mouse.