Analgesia of rodents for collection of tissue for genotyping

Disclaimer: Norecopa (www.norecopa.no) offers this list of drugs and doses as a service to the animal research community, but takes no responsibility for the accuracy of the information or the efficacy of the treatment, which can be expected to vary between species, strain, age group and individuals, as well as the way in which the procedure is performed. In many cases, little research has been carried out into the optimal doses and their ability to cause pain relief. The final decisions on choice of drug, dose, frequency and route of administration should always be made by the responsible veterinarian in cooperation with the caretakers.

Norecopa welcomes feedback on the contents of this page (to post@norecopa.no) and will adjust the information accordingly as new knowledge becomes available.

Basic principles of analgesia

Administration of analgesics in drinking water is generally not recommended because animals in pain may be less inclined to move and may therefore drink less. Some preparations may also be unpalatable when given orally (e.g. carprofen), although suspensions marketed specifically for oral use (e.g. meloxicam) may be well accepted.

Procedures that are moderately or severely painful will require more analgesia, probably as an injection, in addition to or instead of oral medication.

Injectables should be given subcutaneously if possible, as this injection route is probably less painful than the intramuscular route and avoids the risks of accidental injection in an organ when giving an intraperitoneal injection.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose, Administration</th>
<th>Frequency, Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buprenorphine</td>
<td>0.05-0.1 mg/kg s.c. every 6-8 hours</td>
<td>Mice, 6-8 hours</td>
</tr>
<tr>
<td>Meloxicam</td>
<td>2.5-10 mg/kg s.c. every 12 hours</td>
<td>Rats, 12 hours</td>
</tr>
<tr>
<td>Carprofen</td>
<td>5 mg/kg s.c. or orally every 24 hours</td>
<td>Mice, Rats, 24 hours</td>
</tr>
<tr>
<td>Ketoprofen</td>
<td>5 mg/kg s.c. or orally every 24 hours</td>
<td>Mice, Rats, 24 hours</td>
</tr>
</tbody>
</table>

References


Curtin LI, Grakowsky JA, Suarez M, Thompson AC, DiPirro JM, Martin LBE & Kristal MB


**Websites**

Guidelines for the recognition and assessment of pain in animals. [http://www.link.vet.ed.ac.uk/animalpain](http://www.link.vet.ed.ac.uk/animalpain)

Pain Assessment in the Rat. Digital resources for veterinary trainers, produced by Newcastle University, UK. [http://www.digires.co.uk](http://www.digires.co.uk)