Guidelines and Recommended Best Practices for the Use of Oral Analgesia in Research Animals

For analgesic drugs that are administered orally:

Oral dosing as the only post-surgical analgesic must be justified in the IACUC approved protocol.

The IACUC will conduct an in-depth review of any submitted protocol that requests the use of an oral analgesic. The IACUC will review:

- Labeling of cage and/or water bottle that contains analgesic.
- Appropriate monitoring and record keeping of analgesic consumption.
- What your doses will be for analgesic administration as well as your plan for measuring water/analgesic consumption (i.e. use of analgesic record keeping cage card for water bottle weights).
- Addressing emergency and after hours refill of water bottle analgesic (location of analgesic).

When administering analgesics via the drinking water, the drug must be placed in the drinking water starting a minimum of 2 days prior to the surgery/painful procedure in order for the animal to be “exposed”, and, presumably, adapted to the altered taste of the water at the time of the surgery/procedure. This preparatory step is necessary to overcome ‘neophobia,’ a behavioral adaptation of rodents (especially rats) whereby they may not consume adequate quantities of fluids when a new taste sensation is recognized. Placing a flavored analgesic in the water post procedure may allow for association of the ‘pain’ with the new flavor and thereby rejection of the flavored water resulting in inadequate analgesia.

For purposes of administering a drug via the drinking water:

<table>
<thead>
<tr>
<th>Normal Daily Water Consumption*</th>
<th>MOUSE</th>
<th>RAT</th>
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<tbody>
<tr>
<td>15 ml/100 g body weight/day</td>
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<td>10-12 ml/100 g body weight/day</td>
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*Animals that have been subjected to a painful procedure/surgery will not drink the “normal” amount of water for a minimum of 24 hours post-surgery/post-procedure. It is estimated that normal water consumption will be reduced by at least 50%. **If animals do not drink the appropriate consumption amount then an injectable or eatable Carprofen analgesic must be used.**
Guidelines & Procedures for the use of oral analgesics:

Eatable Carprofen MediGel®CPF for pain management.

**Recommended Usage:** 1-2 oz cup up to 5 mice/2 rats given no less than 24 hours before surgery. Provide 1 additional cup after surgery. Add additional cups as needed for post-op recovery. IACUC requires that analgesics be used for a minimum of 48 hours post-surgery.

BioServ's Rodent MD’s Rimadyl – one 5g tablet equivalent to 5mg/kg Carprofen tablet. This table is given no less than 24 hours before surgery and one tablet per/day after surgery. IACUC requires that analgesics be used for a minimum of 48 hours post-surgery.

**Special requirements:**
1. Identification cage card must be added to cage stating “PI responsible for Analgesic”. Cage cards can be obtained and printed from the ARC office.
2. The cage will need to be labeled with the appropriate Dissolve-It® dissolvable label for monitoring and record keeping of analgesic consumption. The dissolvable labels can be obtained from the ARC office.
3. PI or PIs staff initials on animal surgical log or surgical log cage card indicating when analgesic was placed inside the cage and when additional analgesic was provided.

**NSAID (Water Dosing)**

**Recommended Usage:** Continuously in the water bottle according to the IACUC Guidelines for Rodent Anesthesia and Analgesia. IACUC requires that analgesics be used and prepared 2 days before surgical/painful procedure and for a minimum of 48 hours post-surgery.

**Special requirements:**
1. Identification cage card must be added to cage stating “PI responsible for Analgesic”. Cage cards can be obtained and printed from the ARC office.
2. The water bottle will need to be labeled with the appropriate Dissolve-It® dissolvable label for monitoring and record keeping of analgesic consumption. The dissolvable labels can be obtained from the ARC office.
3. PI or PIs staff initials must be recorded on the animal room work chart to indicate that the analgesic was made and placed in the water bottle and when additional analgesic was added to the bottle.
4. PI or PIs staff initials on animal surgical log or surgical log cage card indicating when analgesic was placed inside the water bottle and when additional analgesic was provided in the bottle.

**NOTE:** If ARC staff see empty bottles while animals are under analgesic monitoring and no lab staff are reachable, the ARC will administer water into the drinking bottles and will provide the animals with Carprofen MediGel® and will notify the PI/staff immediately.