

STANDARD OPERATING PROCEDURE

TITLE: RODENT ANAESTHESIA – INTRAOPERATIVE CARE
SOP NO.: 345-01
REVISION:
EFF. DATE: February 2010
SUPERSEDES: NA

APPROVALS

Prepared by (print name): ___S. Fussell _____ Dept.: _____ACVS _____

Signature: _____ Date: _____

Reviewed by (print name): _____ Dept.: _____

Signature: _____ Date: _____

Approved by (print name): _____ Dept.: _____

Signature: _____ Date: _____

1.0 PURPOSE

1.1 To outline minimal standards for intra-operative care, monitoring and record keeping in rodents.

2.0 SCOPE

2.1 This SOP does not detail the procedure(s) for anaesthetizing the animal.

3.0 RESPONSIBILITIES

3.1 Any person anaesthetizing rodents must have received basic training in this procedure and must have also received additional mentoring within their research group.

3.2 Only anaesthetic agents as outlined in the approved AUP can be used. Alterations in anaesthetic regimes must be added to the AUP by the means of a [Protocol Modification Form](#).

3.3 The duration and depth of anaesthetic regimes should be assessed for suitability prior to the start of an actual study – imaging or surgery. Required changes can be made as indicated above.

3.4 Anaesthetic deaths or complications are to be reported to the ACVS. The severity of the occurrence will determine if the incident(s) are reported on the yearly renewal or at the time of occurrence.

4.0 PROCEDURES

4.1 Prior to Induction

4.1.1 Ensure that [SOP 310 'Holding Period Post-Admission'](#) is followed unless an alternate holding period has been approved on the approved AUP

4.1.2 Ensure that a system is available to provide supplemental heat.

4.1.3 Ensure that all necessary supplies are assembled so that the animal is not left unattended during anaesthesia.

4.1.4 If the animal is not individually identified and has cage mates, mark the animal (permanent marker on the tail) so that monitoring and record keeping are simplified.

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- 4.1.5 If using injectable anaesthetic provide a cage that is warm and dark and that has had all bedding removed once the injection has been given. This cage can also be used during recovery.
 - 4.2 During Induction
 - 4.2.1 Monitor respiratory rate, muscle relaxation, reflexes, pain response and mucous membrane colour at induction.
 - 4.2.2 Adjust anaesthesia as required based on the procedure being performed and according to AUP.
 - 4.3 During Anaesthesia
 - 4.3.1 Instill ophthalmic lubricant once the animal is asleep, for long procedures this can be repeated every couple of hours.
 - 4.3.2 If working alone and performing surgery
 - 4.3.2.1 It is imperative that the anaesthetic regime has been assessed to determine the length of anaesthesia provided.
 - 4.3.2.2 During surgery observe colour, respiratory rate and response to procedural intervention as an indication of depth.
 - 4.3.2.3 Provide 'top up' doses as determined by anaesthetic regime assessment or if there is any indication that the animal is becoming 'light.' **Do not return to any painful interventions until animal is assessed at a suitable plane of anaesthetic.**
 - 4.3.3 Otherwise
 - 4.3.3.1 Monitor respiratory rate, muscle relaxation, reflexes, pain response and colour every 15 minutes.
 - 4.3.3.2 Provide 'top up' doses as determined by anaesthetic regime assessment or if there is any indication that the animal is becoming 'light.' **Do not return to any painful interventions until animal is assessed at a suitable plane of anaesthetic.**
 - 4.3.3.3 Monitor core temperature.
 - 4.3.3.4 For longer surgeries (> 1hr) provide warmed, sterile, balanced electrolytes (without glucose) by the subcutaneous route at the rate of 10ml/kg/hour.
 - 4.3.3.5 **Gently** express bladder as required.
 - 4.4 Post – Anaesthesia
 - 4.4.1 Follow SOP 330 [‘Post-operative / Post-anaesthetic Care Rodent.’](#)
 - 4.4.2 If working alone
 - 4.4.2.1 And anaesthetic has lasted longer than 1 hour provide warmed, sterile, balanced electrolytes (without glucose) by the subcutaneous route at the rate of 10ml/kg/hour of surgery.
 - 4.4.2.2 Monitor temperature and provide supplemental heat as required.
 - 4.5 Record keeping
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4.5.1 Follow SOP 304 '[Animal Care and Use Records.](#)' Check on the [SOP Webpage](#) for examples of records, they are in the General Clinical Procedures section.

5.0 SUMMARY

5.1 The intent of this document is to provide minimum standards of care. Where more comprehensive monitoring is outlined in the AUP those requirements must be followed.

6.0 REVISION HISTORY

| Revision | Reason(s) for Revision | Initiated by |
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7.0 REFERENCES / ASSOCIATED MATERIALS

7.1 None

8.0 ATTACHMENTS

8.1 None