SECTION K

# NON-SURGICAL PROCEDURES

**NOTE:** Repeat items 1 through 13 for each species that will have non-surgical procedures.

The following items 1 - 13 apply to (identify species): Click here to enter text.

## 1. Narrative of Non-Surgical Procedures

Species: Click here to enter text.

Description of non-surgical procedures:

Click here to enter text.

## 2. Pre-procedure Animal Support (not anesthesia)

Will special pre-procedural care be provided?

[ ] NO. The procedures do not require special pre-procedural care.

[ ] YES. Specify pre-procedural actions that will be taken to prepare animals for the procedure(s) (select all that apply):

[ ]  Physical exam

[ ]  Clipping of fur

[ ]  Ophthalmic ointment to eyes

[ ]  Overnight food withdrawal

[ ]  Body temperature support

[ ]  Iodine (or Chlorhexidine) + alcohol skin scrub, 3 alternating cycles

[ ]  Chemistry profile

(define blood sampling method): Click here to enter text.

[ ]  CBC

(define blood sampling method): Click here to enter text.

[ ]  Drugs (other than anesthetics and sedatives) or fluids (list agents below):

### Table 2.A. Drug Agents

To add additional agents, click on the **+** at the end of each box.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AGENT | DOSE | ROUTE OF ADMINISTRATION | FREQUENCY OF ADMINISTRATION | DURATION OF TREATMENT |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

## 3. Pre-Procedure Anesthesia/Sedation/Tranquilization

Will pre-procedure anesthesia, sedation or tranquilization be provided to the animals?

[ ] NO. Drugs will not be administered to the animals prior to the procedure(s)

[ ] YES. Pre-procedure drugs will be used to calm the animals. (List below)

### Table 3.A. Pre-procedure Drug

To add additional drug, click on the **+** at the end of each box.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| DRUG | DOSE | ROUTE OF ADMINISTRATION | FREQUENCY OF ADMINISTRATION | DURATION OF TREATMENT |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

## 4. Intra-Procedure Animal Support (not anesthesia)

Will special intra-procedure care be provided?

[ ] NO. The procedures do not require special intra-procedural care.

[ ] YES. Specify intra-procedure care that will be provided to animals during the procedure(s) (select all that apply):

[ ]  Intravenous fluids

[ ]  Ophthalmic ointment to eyes

[ ]  Heat to prevent hypothermia

[ ]  Cooling to prevent hyperthermia

[ ]  Other (specify): Click here to enter text.

[ ]  Other (specify): Click here to enter text.

[ ]  Drugs (other than anesthetics and sedatives) or fluids (list agents below):

### Table M4.a. Drugs

To add additional drug, click on the **+** at the end of each box.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AGENT | DOSE | ROUTE OF ADMINISTRATION | FREQUENCY OF ADMINISTRATION | DURATION OF TREATEMENT |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

## 5. Intra-Procedure Anesthesia or Chemical Restraint

Will intra-procedure anesthesia or chemical restraint be provided?

[ ] NO. The procedures do not require intra-procedural anesthesia or chemical restraint.

[ ] YES. The procedure requires chemical restraint as described in Section J or anesthesia as described below:

### Table 5.A. Intra-Procedure Anesthesia or Chemical Restraint

To add additional anesthetic agents, click on the **+** at the end of each box.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ANESTHETIC AGENT | DOSE | ROUTE OF ADMINISTRATION | FREQUENCY OF ADMINISRATION | DURATION OF TREATMENT |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

## 6. Neuromuscular Blocking Agents (Paralytics)

Will neuromuscular blocking agents (paralytics) be used at any time during the procedure?

[ ] NO. Neuromuscular blocking agents will not be used for the procedure.

[ ] YES. Neuromuscular blocking agents will be used. (Provide details below)

### Table 6.A. Paralytics

To add additional paralytic agents, click on the **+** at the end of each box.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| PARALYTIC AGENTS | DOSE | ROUTE OF ADMINISTRATION | FREQUENCY OF ADMINISTRATION | DURATION OF TREATMENT | REVERSAL AGENT (if appropriate) |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

Please state why the use of paralytic agents during the procedure is necessary.

Click here to enter text.

Please describe how adequate anesthesia will be ensured during the time the animal is undergoing neuromuscular blockade:

Click here to enter text.

## 7. Monitoring Depth of Anesthesia During Procedures

Indicate below the indices that will be used for monitoring animal condition and depth of anesthesia.

[ ]  Respiratory rate / effort

[ ]  Mucous membrane color Blood pressure

[ ]  Heart rate

[ ]  Body temperature

[ ]  Oxygen saturation

[ ]  Capillary refill time

[ ]  EKG

[ ]  Reflex (specify): Click here to enter text.

[ ]  Other (specify): Click here to enter text.

[ ]  Other (specify): Click here to enter text.

Specify the frequency at which the above indices will be recorded:

Click here to enter text.

## 8. Post-Procedure Animal Support

Will special post-procedure care be provided?

[ ] NO. The procedures do not require special post-procedural care.

[ ] YES. Specify post-procedure care that will be provided to animals after the procedure(s) (select all that apply):

[ ]  Heat to prevent hypothermia

[ ]  Cooling to prevent hyperthermia

[ ]  Intravenous fluids

[ ]  Ophthalmic ointment to eyes

[ ]  Other (specify): Click here to enter text.

[ ]  Other (specify): Click here to enter text.

## 9. Monitoring During Recovery from Anesthesia (if used)

Indicate below the indices that will be used for post-procedure monitoring of animal condition during recovery from anesthesia (i.e., until sternal recumbancy is regained and maintained):

[ ]  Respiratory rate

[ ]  Mucous membrane color Blood pressure

[ ]  Heart rate

[ ]  Body temperature

[ ]  Oxygen saturation

[ ]  Capillary Refill Time

[ ]  EKG

[ ]  Reflex (specify): Click here to enter text.

[ ]  Other (specify): Click here to enter text.

[ ]  Other (specify): Click here to enter text.

Specify the frequency at which the above indices will be recorded:

Click here to enter text.

## 10. Pain Management Intra- or Post-Procedure

**NOTE**: The IACUC encourages the use of pre-emptive analgesia for pain management. Analgesia should be provided as early as possible in the procedure if it is expected to be painful or result in residual pain, ideally before the procedure begins.

Is the procedure expected to cause pain or result in residual pain?

##### [ ]  Yes [ ]  No

If pain is expected, will analgesia be provided for pain relief?

[ ]  NO. Analgesia will not be provided. (justify the omission of analgesia below)

[ ]  YES. Analgesia will be provided. (specify details below)

 If pain is expected and analgesia will not be provided, please explain why pain relief will be withheld:

 Click here to enter text.

If analgesia will be provided for pain relief, please list analgesics and dosing regimens below:

### Table 10.A. Analgesics

To add additional analgesics, click on the **+** at the end of each box.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ANALGESIC | TIMING OF ADMINISTRATION | DOSE | ROUTE OF ADMINISTRATION | FREQUENCY OF ADMINISTRATION | DURATION OF TREATMENT |
| Click here to enter text. | [ ] pre-procedure[ ] intra-procedure[ ] post-procedure | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | [ ] pre-procedure[ ] intra-procedure[ ] post-procedure | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | [ ] pre-procedure[ ] intra-procedure[ ] post-procedure | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

## 11. Specimen Collection from Live Animals

Will specimens be collected from living animals during or after the procedure(s)?

[ ] NO. Specimens will not be collected from living animals.

[ ] YES. Define the specimen type and collection details below.

[ ]  Fluids (e.g., blood, lymph, ascites, CSF, GI fluids, etc.)

 Fluid type (specify): Click here to enter text.

 Collection method: Click here to enter text.

Volume (mls) per collection: Click here to enter text.

Frequency of collection: Click here to enter text.

Method of disposal: Click here to enter text.

[ ]  Solid Tissues

Tissue type (specify): Click here to enter text.

Collection method: Click here to enter text.

Volume (mm3) per collection: Click here to enter text.

Frequency of collection: Click here to enter text.

Method of disposal: Click here to enter text.

## 12. Humane Endpoints That Will Prompt Intervention to Prevent Continued Pain or Distress

According to The Guide, information that is critical to the IACUC's assessment of appropriate endpoint consideration within a protocol includes precisely defining the humane endpoint (including assessment criteria); the frequency of animal observation; training of personnel responsible for assessment and recognition of the humane endpoint; and the response required upon reaching the humane endpoint. The IACUC has determined that the list below defines the commonly accepted clinical milestones which should be regarded as humane endpoints for most terrestrial animal studies. Choose all of those which are appropriate for the species being used. For each milestone, indicate the action that will be taken. Add other milestones (in the row marked 'other') if applicable for defining the humane endpoints for the proposed study.

| CLINICAL OBSERVATION/MILESTONE | APPLICABLE TO MY PROPOSAL | FREQUENCY OF OBSERVATION (e.g., 4 hrs., 12 hrs., weekly) | PROTOCOL PERSONNEL ARE TRAINED TO RECOGNIZE | RESPONSE REQUIRED UPON REACHING THE HUMANE ENDPOINT | PROVIDE DURATION (DAYS, WEEKS, ETC.) OF MONITORING OR A SCIENTIFIC JUSTIFICATION FOR NOT USING THE MILESTONES LISTED. |
| --- | --- | --- | --- | --- | --- |
| Infection unrelated to the protocol. | [ ] yes [ ]  no | Click here to enter text. | [ ] yes [ ]  no | [ ] Consult Vet[ ] Euthanize | Click here to enter text. |
| Not eating or drinking(will require individual housing to effectively assess) | [ ] yes [ ]  no | Click here to enter text. | [ ] yes [ ]  no | [ ] Consult Vet[ ] Euthanize | Click here to enter text. |
| Decreased fecal and urine output(will require individual housing to effectively assess) | [ ] yes [ ]  no | Click here to enter text. | [ ] yes [ ]  no | [ ] Consult Vet[ ] Euthanize | Click here to enter text. |
| Delayed wound healing(requires checking at least daily until suture removal) | [ ] yes [ ]  no | Click here to enter text. | [ ] yes [ ]  no | [ ] Consult Vet[ ] Euthanize | Click here to enter text. |
| Sudden behavioral change(Ex: aggression, guarding, hiding) | [ ] yes [ ]  no | Click here to enter text. | [ ] yes [ ]  no | [ ] Consult Vet[ ] Euthanize | Click here to enter text. |
| Licking, biting, scratching of the operative / injection site(requires checking at least daily until suture removal) | [ ] yes [ ]  no | Click here to enter text. | [ ] yes [ ]  no | [ ] Consult Vet[ ] Euthanize | Click here to enter text. |
| Poor posture or ambulating difficulty(Ex: tense, tucked-up, stiff gait) | [ ] yes [ ]  no | Click here to enter text. | [ ] yes [ ]  no | [ ] Consult Vet[ ] Euthanize | Click here to enter text. |
| Lost hair coat condition(Ex: ruffled fur, lack of grooming, piloerection) | [ ] yes [ ]  no | Click here to enter text. | [ ] yes [ ]  no | [ ] Consult Vet[ ] Euthanize | Click here to enter text. |
| Sudden activity level change(Ex: restlessness, pacing, reluctance to move) | [ ] yes [ ]  no | Click here to enter text. | [ ] yes [ ]  no | [ ] Consult Vet[ ] Euthanize | Click here to enter text. |
| Unexpected sweating or salivation(Ex: stressed rodents salivate excessively when stressed) | [ ] yes [ ]  no | Click here to enter text. | [ ] yes [ ]  no | [ ] Consult Vet[ ] Euthanize | Click here to enter text. |
| 'Painful' facial expression(Ex: grimace, eyes dull, pupils dilated, pinning of ears) | [ ] yes [ ]  no | Click here to enter text. | [ ] yes [ ]  no | [ ] Consult Vet[ ] Euthanize | Click here to enter text. |
| Oculonasal discharge(Ex: rats shed porphyrin pigment when stressed) | [ ] yes [ ]  no | Click here to enter text. | [ ] yes [ ]  no | [ ] Consult Vet[ ] Euthanize | Click here to enter text. |
| Teeth grinding | [ ] yes [ ]  no | Click here to enter text. | [ ] yes [ ]  no | [ ] Consult Vet[ ] Euthanize | Click here to enter text. |
| Signs of moderate to severe pain or distress that was notanticipated by the study plan. | [ ] yes [ ]  no | Click here to enter text. | [ ] yes [ ]  no | [ ] Consult Vet[ ] Euthanize | Click here to enter text. |
| Body weight loss exceeding 15% of free-feeding bodyweight relative to an age-matched reference.(Ex: Requires regular <q 48 hours> weighing) | [ ] yes [ ]  no | Click here to enter text. | [ ] yes [ ]  no | [ ] Consult Vet[ ] Euthanize | Click here to enter text. |
| Self mutilation(requires checking at least daily until suture removal) | [ ] yes [ ]  no | Click here to enter text. | [ ] yes [ ]  no | [ ] Consult Vet[ ] Euthanize | Click here to enter text. |
| Neurological disorders (e.g., seizures, blindness, ataxia) thatwere not anticipated by the study plan. | [ ] yes [ ]  no | Click here to enter text. | [ ] yes [ ]  no | [ ] Consult Vet[ ] Euthanize | Click here to enter text. |
| Cardiopulmonary disorders (e.g. sudden weakness, vascularcollapse, coma) that were not anticipated by the study plan. | [ ] yes [ ]  no | Click here to enter text. | [ ] yes [ ]  no | [ ] Consult Vet[ ] Euthanize | Click here to enter text. |
| Abnormal feeding or defecation for 48 hours (e.g.,decreased feed or water intake and/or decreased fecalproduction that is unrelated to the study plan). | [ ] yes [ ]  no | Click here to enter text. | [ ] yes [ ]  no | [ ] Consult Vet[ ] Euthanize | Click here to enter text. |
| Non-weight bearing for 72 hours (e.g., difficulty walking,inability to maintain upright posture) | [ ] yes [ ]  no | Choose an item. | [ ] yes [ ]  no | [ ] Consult Vet[ ] Euthanize | Click here to enter text. |
| Other humane endpoints which will be employed in this project. | Click here to enter text. |
| Other humane endpoints which will be employed in this project. | Click here to enter text. |