Rodent Humane Endpoint Template

**Health conditions that require veterinary care may necessitate the removal of the animal from the study or teaching use. A similar statement should be included in the IACUC protocol.**

NOTE: THE LIST OF OBSERVATIONS IS NOT COMPLETE. OTHER OBSERVATIONS CAN APPEAR. **A TOTAL SCORE OF 4 IS HUMANE ENDPOINT CRITERIA.** Any changes to template must be in **bold** font.

| **Assessment parameter** | **Score** | **EXAMPLES of observations** |
| --- | --- | --- |
|  | 0 | Alert, reacts to the surroundings |
| General condition | 1 | Less active, less reactive to the surroundings |
|  | 4 | Very limited or no voluntary movement even if stimulated, may be cold upon touch |
|  | 0 | Clear, clean and open eyes, no secretion |
| Eyes | 1 | Discharge around eyes, cloudy eyes, wounds, no or mild signs of discomfort |
|  | 4 | Swelling in or around eyes, marked discharge, squinting, (not responding to treatment), enlarged globe impairing blinking |
|  | 0 | Normal movements, body posture and body form |
| Movements, body posture and body form | 1 | Mild incoordination, limping or muscle weakness, slightly hunched, mild head tilt |
|  | 4 | Marked incoordination, severe head tilt, circling, severe limping, paralysis, seizures, markedly swollen abdomen |
|  | 0 | Shiny, smooth and well groomed fur |
| Fur and porphyrin (red secrete from the eye) | 1 | Mild piloerection, unkempt fur or porphyrin stained fur |
|  | 4 | Marked piloerection or sticky fur or extensive porphyrin discoloration on head, body and/or legs and paws |

| **Assessment parameter** | **Score** | **EXAMPLES of observations** |
| --- | --- | --- |
|  | 0 | Skin covered with fur and without signs of injuries |
| Skin | 1 | Mild to moderate wounds, scabs or similar, without signs of infection. Sutures that are loose and can be replaced |
|  | 4 | Severe wounds, wounds with signs of infection (purulent or oozing wound, red or dead skin) or necrosis, wounds that do not heal with treatment, severe scratching |
|  | 0 | Well-conditioned or over-conditioned (BCS 3-4),\* weight loss < 5 % compared to weight prior to procedure, controls, or normal growth curve |
| Body condition score (BCS)\* and bodyweight | 1 | Underconditioned or obese (BCS 2 or 5), weight loss 5-20 % compared to weight prior to procedure, controls, or normal growth curve |
|  | 4 | Severely underconditioned (BCS 1), weight loss > 20 % compared to weight prior to procedure, controls, or normal growth curve |
|  | 0 | Supple, elastic skin |
| Level of dehydration | 1 | When pinching the skin, elasticity is mildly reduced (slow return to normal) |
|  | 4 | When pinching the skin, it tents (skin fold remains), sunken eyes, not resolved with supplemental fluids for 12hr |
|  | 0 | Normal intestinal and urinary functions |
| Intestinal and urinary function | 1 | Faeces dry, or sticky. Excess urination. Rectal prolapse <3mm, penile prolapse without injury, preputial abscess |
|  | 4 | Fluid, bloody or absent faeces, rectal prolapse 3mm or more, vaginal/uterine prolapse, penile prolapse with injury, signs of incapability to urinate and markedly distended urinary bladder, foul smell, cloudy or bloody discharge |
| **Assessment parameter** | **Score** | **EXAMPLES of observations** |
|  | 0 | Normal breathing |
| Breathing | 1 | Increased respiratory frequency at rest without affecting other parameters |
|  | 4 | Open mouth breathing, abdominal breathing, panting, wheezing or rales, blue skin or mucous membranes |
|  | 0 | None present |
| Tumors | 1 | Tumors under 2cm/4cm diameter (mouse/rat), intact or with superficial ulceration, multiple tumors totalling <3cm/5cm diameter (mouse/rat) |
|  | 4 | Tumors exceeding 2cm/4cm diameter (mouse/rat), necrotic (cavitation occurring) or infected tumors, multiple tumors totalling 3cm/5cm diameter (mouse/rat) or more, tumors that interfere with normal functions (eating, ambulating, eliminating) |
|  | 0 |  |
| Other study-specific parameters (describe and add more boxes as needed) | 1 |  |
|  | 4 |  |

\*Ullman-Culleré & Foltz., Body Condition Scoring: A Rapid and Accurate Method for Assessing Health Status in Mice Lab. Animal Science; Vol 49 (3) 319-323, 199