



Schedule 2: Humane Endpoints for Distress, Disease and Pain

1.0 Describe all procedures, experimental alterations or disease conditions causing distress and/or pain. (e.g. surgery, procedures which produce fear, altered gait, anorexia, weight loss (10-20% in < 7 days), etc.)

2.0 For each procedure, alteration or disease condition listed above, provide the associated expected abnormal signs which could be exhibited. When approximately will they first show up? How long will they last?

3.0 Describe the degree of discomfort for each procedure, alteration or disease condition above. This can be estimated by providing published information or personal experience for this or similar procedures, or by comparison to the effect of a similar procedure/ disease on humans

4.0 Which of these signs or symptoms will be treated with pain relief or other medical interventions. (e.g. vocalization treated with analgesics, inappetence treated with sub cutaneous fluids) If applicable, provide details on how pain will be alleviated? [For example, by analgesics (provide drug, dosage and route).]
For procedures that are known to cause pain, analgesics should be administered before and/or during the procedure. Do not wait to see if an animal needs an analgesic. Give it the benefit of the doubt.



5.0 Which of these signs or symptoms above will be addressed by removing the animal from the study with or without subsequent euthanasia (e.g. weight loss more than 15%). If applicable, describe the method of euthanasia.

6.0 If the scientific endpoint requires a condition or duration where unrelieved distress or death is likely to be encountered, provide justification explaining why the endpoint cannot be refined to be less severe. If your study is likely to elicit pain yet requires that analgesics cannot be given, you must provide a **scientific justification** for withholding analgesics.

7.0 During the study's critical periods where pain, disease or distress is likely to be encountered, who will be responsible for monitoring?

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7.1 Describe the monitoring person's experience with the model, species and signs likely to be encountered at these critical points.



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8.0 If you will be using shock as a negative reinforcement, please provide details and a justification. Include duration, intensity and frequency of shocks and describe how these parameters were determined to be the lowest level that would provide experimental results.

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