



# A 'road map' towards ending severe suffering



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## Abstract

Revision of the EU Directive controlling experiments on animals has focussed attention on the **need to reduce animal suffering** in scientific procedures. Classification of levels of suffering into mild, moderate and severe and the need to **report actual levels of severity** has provided added impetus to the drive to refine the most severe models and procedures, as has greater recognition that high levels of suffering impact on an animal's physiological responses, increasing variability of experimental data. So **ending severe suffering is a desirable goal** for scientific, ethical and legal reasons.

This is therefore an excellent time to look at the **sources and nature of suffering** within the research context (to perform a 'severity audit'), to **evaluate the effectiveness of current refinement** practices and to seek more effective ways of avoiding or minimising all unnecessary pain and psychological distress experienced by animals. Central to the success of such an initiative is a **receptive institutional culture** and a robust and **challenging ethical review process**.

This poster will outline the **key questions and practical considerations** that establishments need to address in order to reduce suffering for all animals and to **work towards ending severe suffering**.

## Analysis

Perform an in-house 'severity audit' of all protocols, procedures and 'models'. Establish where there is the **potential for severe suffering (prospective assessment)** and then what **actual severity** is experienced by individual animals (**retrospective assessment**).

## Evaluation

For procedures where severe suffering occurs, ask:

1. **Why** the procedure is used and **what** factors contribute to it being severe?
2. Is severe suffering really **necessary** to achieve the scientific objective?
3. What **proportion** of animals in each protocol, procedure or 'model' experienced severe suffering?
4. What refinements are already in place, how **effective** these are and whether there is **potential** for further application of the 3Rs?

## Define Obstacles

What are the **scientific obstacles** to ending severe suffering? Set these out clearly and assess the **genuine** impact of stopping severe protocols, procedures or 'models'.

## The Road Map Process

Every establishment should ensure there is a process to achieve the following for severe 'models' or procedures:

1. **Culture**  
*Establish and maintain a progressive, open minded and caring research culture*
2. **Analysis**  
*Establish to what extent severe suffering occurs*
3. **Evaluation**  
*Look at why severe suffering occurs and what current approaches are used to avoid it*
4. **Define obstacles**  
*Establish what the impact of ending severe suffering would be*
5. **Overcome obstacles**  
*Set out a plan to overcome issues and to end severe suffering*

An institutional 'culture of care' an essential prerequisite of effective implementation of the 'Road Map'. Components of such a culture include:

1. A **collective responsibility** and accountability for the welfare of animals, shared by all staff.
2. Demonstrable **commitment to high standards of housing, care and welfare above the legal minimum** from senior management.
3. Internal openness including the ability to **raise, share and resolve concerns**.
4. Support for '**Named Persons**' (such as Animal Care and Welfare Officers, Veterinary Surgeons, Information and Training and Competency Officers).
5. A robust framework for **training, assessment of competence and continued professional development** of all staff.
6. Effective and **well-supported institutional ethical review** of scientific work.
7. An **effective ethics or animal care and use committee**, e.g. the Animal Welfare and Ethical Review Body (AWERB) in the UK.

"what would happen if severe suffering was banned tomorrow?"

## Overcome Obstacles

**Take an alternative approach** e.g.:  
Use a non-severe model  
Re-frame the research question to avoid a severe model  
Use a mechanism-based approach rather than a disease-model approach

**Apply Refinement** e.g.:  
Refine every element of the lifetime experience of the animal  
Establish, validate and implement humane endpoints

