

Predicted lifetime experiences (not including procedures, which are addressed in sheet 2)

Project licence number	7076/54
Protocol number	1

Factor	Experience of the animal	Welfare issues	Ways of mitigating these
Sourcing	<i>Mice are bred in-house. Supply and demand are carefully matched and animals provided with litter, nest boxes and nesting material. Cages are cleaned weekly.</i>	<i>Distress due to separation of dam and pups at weaning.</i>	<i>Ensure removal from dam is appropriately timed and keep litters together wherever possible. Review frequency of cage change (e.g. fortnightly?) to ensure cage is sufficiently clean but with minimal disturbance.</i>
Transport	<i>Once, between rooms within the same building before procedures begin.</i>	<i>Stress and anxiety due to movement.</i>	<i>Move in home cages, minimise distance, think about timing, ensure sufficient time to recover before any other interventions or procedures.</i>
Marking for identification	<i>Animals are identified using microchips, which involves capture and restraint for insertion.</i>	<i>Distress due to restraint, short term pain of chip insertion.</i>	<i>Trial less aversive capture techniques (see below). Research pros and cons of sedating or anaesthetising mice. Ensure adequate checks in case of longer term discomfort.</i>

Biopsy for genotyping	N/A		
Housing and environment	<i>Mice are housed in groups of 3 in standard mouse cages with litter, refuges, nesting material and chew blocks.</i>	<i>Space restrictions in standard size caging.</i>	<i>House mice in (empty!) rat cages to provide more space.</i>
Husbandry and care	<i>Cages are cleaned weekly.</i>	<i>Some fighting observed, especially in males, after cage cleaning.</i>	<i>Trial transferring some litter (not nesting material) from the soiled to the clean cage. Supply males with extra nesting material and remove refuges. Review cage cleaning intervals.</i>
Capture, handling and restraint	<i>Mice are caught and restrained by the tail.</i>	<i>Research indicates that this is distressing and causes anxiety.</i>	<i>Catch mice in cupped hands or tunnel – see NC3RS resource.</i>
Humane killing	<i>Moved within home cage to chamber where they are exposed to a rising concentration of carbon dioxide.</i>	<i>Stress of being moved to chamber. Distress due to 'air hunger' as concentration increases.</i>	<i>Move to anaesthetising with minimally invasive gaseous agent before switching to CO2. Research possibility of introducing CO2 into home cages if housed in IVC.</i>

Note: This sheet should be edited and tailored to the species and different factors that may apply under different circumstances. Factors may need to be added, edited or deleted.