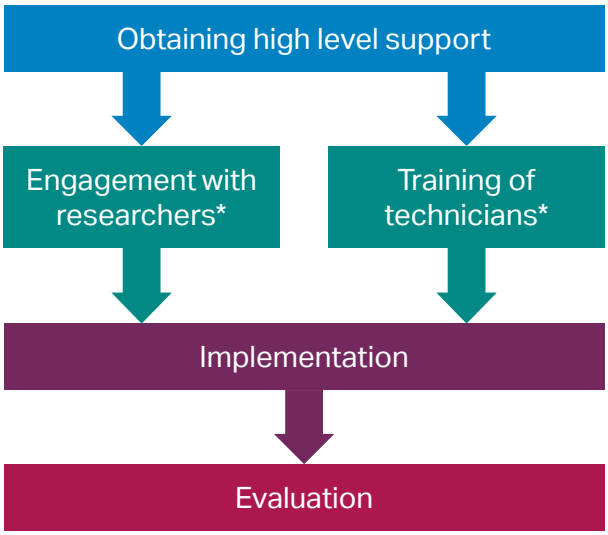
Refined mouse handling methods: example implementation strategy

National Centre for the Replacement Refinement & Reduction of Animals in Research

The following is an example strategy for roll-out of the refined mouse handling techniques (see www.nc3rs.org.uk/mousehandling). Each establishment will require a tailored approach; however, we hope you will find this step-by-step guide useful.

We have identified some of the challenges you may encounter in seeking to achieve change within your establishment and suggested solutions to help you succeed.

The information provided is based upon discussions at the 2017 NC3Rs workshop on mouse handling methods and the experiences of our Regional Programme Managers.



** To be completed in parallel. Requires good communication between researchers and animal care staff.*

Obtaining high level support

The first step is to obtain high level support for changing mouse handling methods at your establishment. Sharing the evidence base for the refined methods will help to generate support for change.

Speak to your line manager and identify key individuals who should be approached; for example, the director of the animal facility and senior academic leads for animal research.

Discuss the proposal to implement the refined handling methods with the AWERB or the relevant sub-committee. You can request for it to be included as an agenda item at the next meeting, and seek support from the members.

As a starting point, the refined handling methods could be introduced on a trial basis, with scheduled dates to review implementation of the new methods and to gather feedback.

Engagement with researchers

Engage with a few project licence holders to begin with. Explain the proposal, the reasons for it, and the high-level support. Once the project licence holder is in agreement, work with him/her to identify members of the scientific team who will require training.

Identify appropriate animals with which to start to use the refined handling methods. Ensure a smooth transition by agreeing a time to start with the project licence holder that does not interfere with ongoing experiments.

If there are concerns about new handling methods impacting on variability of experimental data, agree to monitor this over a trial period.

Expand engagement with other project licence holders over time. Ultimately, once the establishment has switched to the refined methods, scientific justification can be required for any animals to be picked up by the tail, with sign-off by the NACWO and NVS.

Training of technicians

A period of training will be necessary. Identify technicians who will develop the skills required and support roll-out of the refined handling methods on the ground. An initial workshop may be useful to discuss the changes with the team before providing tailored one-on-one practical training. Follow-up training surgeries may be beneficial.

Use the material available on the NC3Rs mouse handling hub (e.g. training videos, posters, FAQs) to support the training.

Expect handling to be a little slower whilst new members of staff are trained in the new handling methods. To start with, a subset of animals should be used for initial training, with the remainder switched over once staff have become competent in the new techniques. At this point, the workflow will return to the previous rate.

You may find it useful to appoint a handling champion who is visible and committed, to provide a point of contact, help with the training and ensure standardisation in larger facilities. This step could include the development of a standard operating procedure.

Once established, teach the refined handling methods during induction and training of new staff, so that they become routine in your facility.

Implementation

Once staff members are trained, use a staggered approach, switching over to the refined handling methods a few selected cages, racks or rooms at a time. You could develop a timeline for implementation to help to manage the change process.

An initial financial investment may be required at this stage, for example, for purchase of plastic tunnels. If there are financial constraints, cardboard tunnels already provided as enrichment can be used for handling or the cupping method used instead.

Be sure to consult with the relevant project licence holders. Maintain communication and a team approach to ensure the refined handling methods are successfully implemented. Work together with all members of staff who need to handle mice to ensure the same handling method is used consistently.

Evaluation

Monitor how introduction of the new handling methods is working in practice, to understand the impact of the change and to address any problems. For example, cage-side observations can be recorded and used as a basis for discussion and feedback with staff. A questionnaire can be used to provide more focused feedback.

Encourage peer sharing of the experience of implementing the refined handling methods to provide a source of motivation to encourage others (both internally and externally) to change current practice. For example, share your experiences with the NC3Rs, on online forums and at meetings.