

Change to single use of hypodermic needles as a refinement for animal welfare

Since the NC3Rs first posted on a blog about needle re-use, there has been much interest, discussion and investigation across the sector about an evidence base to support the idea of using needles only once. In 2019 the UK Home Office adopted this idea and it was used as part of a themed inspection area.

After the first blog post many institutions started looking at their needles; some reported needles don't dull, whilst others have seen that they do and there are many reasons why these reports could be different. However, there is always the risk that the needle will be dull after the first use and in the absence of certainty means it is sensible to give the animal the benefit of the doubt.

Fundamentally, every animal deserves a clean, sharp needle. There is the risk of both cross contamination and dulling of the needle through re-use. The best way to avoid both scenarios is to use one needle per animal.

This is best practise given that one of the underlying principles of the 3Rs, (Reduction, Replacement, Refinement), is that procedures applied to animals must be refined to reduce to the minimum any possible pain, suffering, distress or lasting harm.

Single needle use is now the LSSU's default position.



NC 3R^s National Centre for the Replacement Refinement & Reduction of Animals In Research

Why use needles only once?

Single-use needles are designed to be used once. If used again, there is a risk that the needle will dull and cause the animals pain.

You should avoid reusing them and single use should be your standard practice.



Electron micrograph images of 27G needles (1000x magnification) after injection into mice demonstrating the potential for dulling of the needle and contamination when reused.

Source: AstraZeneca