Assessing the Search for Information on Three Rs Methods, and their Subsequent Implementation: A National Survey among Scientists in The Netherlands

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Introduction

Dutch legislation requires that available Replacement, Reduction and Refinement (Three Rs; 1) alternatives must be used (2). Before starting a new animal study, researchers are obliged to obtain approval from an Animal Ethics Committee (AEC). In the AEC application, researchers must state whether or not Three Rs methods exist for that particular study, what evidence they have found for this, and whether the available Three Rs methods will be applied. There are currently no criteria for determining how this evidence should be presented, nor strict guidelines on how this evidence should be searched for and evaluated. Therefore, it is not known how scientists conduct their searches for Three Rs methods, what type of information sources they use, whether the search leads to useful information, and whether the Three Rs are successfully implemented in the study design.

In 2009, Leenaars et al. published a survey among scientists of the Radboud University Medical Centre (3). The results of this survey showed that there was room for improvement in making searching for Three Rs methods more effective. For instance, the findings showed that searching for Three Rs methods was not a structural part of the research process, and that Three Rs search skills and knowledge of Three Rs databases are limited. Rather than using a literature search, many researchers obtain information on these methods through personal communication, which means that published information on possible Three Rs methods often remains unfound and unused. A solution might be to move beyond the direct search for information on Three Rs methods and choose another approach. One approach that seems rather appropriate is that of systematic review. This provides insight into the necessity for any new animal studies, as well as optimal implementation of available data and the prevention of unnecessary animal use in the future.

Key words: scientists, survey, systematic reviews, Three Rs methods search.

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