
Downloaded from: http://researchonline.lshtm.ac.uk/12659/

DOI:

Usage Guidelines:

Please refer to usage guidelines at http://researchonline.lshtm.ac.uk/policies.html or alternatively contact researchonline@lshtm.ac.uk.

Available under license: Creative Commons Attribution Non-commercial http://creativecommons.org/licenses/by-nc/3.0/
Supportive evidence is lacking for report on animal studies

BMJ 2002; 325 doi: http://dx.doi.org/10.1136/bmj.325.7371.1038/a (Published 02 November 2002) Cite this as: BMJ 2002;325:1038

Pandora Pound, research fellow, Shah Ebrahim, professor in epidemiology of ageing
Department of Social Medicine, University of Bristol, Bristol BS8 2PR

EDITOR—As Dobson notes, the House of Lords Select Committee on Animals in Scientific Procedures concluded that animal experiments were necessary but that more needs to be done to develop and promote alternative methods.1

Although it is clear that the committee sought the views and opinions of a wide range of experts, we were struck throughout by the lack of published, peer reviewed evidence to support one of its important conclusions: “On balance, we are convinced that experiments on animals have contributed greatly to scientific advances, both for human medicine and for animal health. Animal experimentation is a valuable research method which has proved itself over time” (page 22, para 4.8).2

We are not suggesting that the Lords did not seek out such evidence (it is clear from the transcripts published on the internet that on many occasions they asked witnesses to supply them with peer reviewed references and reviews to support their claims about the efficacy of animal experiments).3 Rather, we wish to draw attention to the poverty and paucity of this evidence. Hardly any systematic reviews, meta-analyses, or retrospective, historical evaluations either support or refute the practice of using animals as models of human disease. The Lords’ assertion of the value of animal experimentation rests on the increase in effective human treatments that have arisen at the same time as the expansion of animal experimentation. This correlation does not mean that animals were necessary for the development of these treatments.

The move in medicine to become more evidence based needs to be replicated in research. If uncertainty persists about a particular paradigm or method—in this case the efficacy of using animals as models of human disease—evidence needs to be gathered so that claims about its efficacy can be supported or refuted. If no evidence supports the use of a particular method and only custom and practice sustain it, then that method should be discarded. Currently animal tests are used as the gold standard by which so called alternatives are judged, yet virtually no evidence supports the use of the animal tests themselves. In the few cases where systematic reviews of animal experiments have been conducted, serious doubts have been raised about the methods used.4

Evaluating the practice of using animals as models of human disease is fairly straightforward and practicable when established animal models of diseases exist.5 The models should be evaluated
retrospectively, the key criterion being the productivity of the animal model in terms of producing treatments for humans.

References


