



Editorial comment

From clear reporting to better research models

Vesa K. Kontinen*

Section of Anaesthesia and Intensive Care, Unit of Surgery, Helsinki University Central Hospital, Helsinki, Finland

In clinical research, today guidelines such as the CONSORT for reporting individual randomised controlled trials and the PRISMA statement on conducting systematic reviews have become elementary tools to improve reporting quality. In experimental animal research, we have been too slow to accept that similar sources of bias are present. However, it has been shown that also in the animal laboratory methodological shortcomings can have significant effects on the findings [1–3]. Some of these methodological problems can be eliminated by adopting simple research practices, such as the routine of properly randomising the subjects to the study groups, or blinding the observer to the treatment when any even relatively subjective endpoints are used. The reporting can also be made significantly more transparent by, e.g. clearly stating how many repetitions were actually performed, and if there were any dropouts. These are issues, which have been important for this Journal already from the very beginning [4].

To further commit to this development, editorial board of *Scandinavian Journal of Pain* has decided to ask authors of experimental animals studies submitted to the journal to adhere to the ARRIVE guidelines (<http://www.nc3rs.org.uk/page.asp?id=1357>). We are the first pain journal to do this, among good company, such as the *Nature* and the *PLoS* journal families and *Journal of Physiology*. The major funding bodies of biomedical research especially in the United Kingdom are also endorsing the guideline. The special hybrid journal format of *Scandinavian Journal of Pain* makes it feasible to include all the necessary details of the experimental conditions without problems with space in the print journal or including additional web resources to an original article.

It is important to realise that the ARRIVE guideline does not limit the scientific freedom of researchers, nor force to use any given practice. The only thing that is required is to clearly and honestly report what has been done. A checklist of twenty items helps authors, editors and readers to get an unobstructed view of what are the methodological strengths and weak points of research paper. In future, it will also be possible to compare experimental

conditions of different studies in more detail, and possibly draw better overall conclusions on several experiments on the same target.

In the topical review of professor Andrew Rice and his co-workers in this issue of *Scandinavian Journal of Pain* [5] an important step further is highlighted: we need to develop and choose experimental research models that are most valid for the human pain conditions studied. This is crucial scientifically (for more valid findings), financially (for better return on investment) and ethically (to get maximal amount of new knowledge from every animal used). This is a much more challenging goal and requires significantly more topical knowledge [6–8] than just getting our act together on the basic methodological issues described in ARRIVE. However, honing the models is not any reason to forget the simple, but important methodological matters.

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DOI of refers to article: <http://dx.doi.org/10.1016/j.sjpain.2013.02.002>.

* Corresponding author.

E-mail address: vesa.kontinen@helsinki.fi