



From the Literature ... Reporting Results?

by Liz Wager

Have you heard the definition of a medical statistician? It's somebody who won't accept that Columbus discovered America because he set out to discover a different country. Joking aside, medical writers need to understand at least some basic statistics and a couple of recent articles prove that an interesting statistics article isn't necessarily an oxymoron. The *BMJ* published a survey of the use of intent-to-treat analysis in papers published in four major journals (*BMJ* 1999; 319:670-4). Having had many battles with statisticians about how to report patients who accidentally received the wrong treatment, I found it full of refreshing advice. The authors suggest that "intent-to-treat analysis is most suitable for pragmatic trials of effectiveness rather than for explanatory investigations of efficacy". Another nice feature of this paper is that the authors (Sally Hollis & Fiona Campbell) represent a collaboration between academia and the pharmaceutical industry (coming from Lancaster University and AstraZeneca respectively). A response to the paper (*BMJ* 2000; 320:1007-1008) also cheered me by pointing out that, although reporting of intent-to-treat analyses is generally poor, studies funded by the pharmaceutical industry were more likely to include this.

Still on statistics, a recent paper in *The Lancet* (2000; 355:1064-9) reports a similar survey of clinical trials published in the *BMJ*, *JAMA*, *Lancet* and *NEJM* during 1997 looking at their use of subgroup analyses. This highlights deficiencies in trial reporting, especially the over-use and over-interpretation of subgroup analyses, and provides some useful recommendations, for example that significance testing is inappropriate for baseline characteristics. An editorial accompanies the article (*Lancet* 2000; 355:1033-4) and exhorts authors to follow the CONSORT guidelines to improve this aspect of trial reporting.

For those of you still awake despite these serious column-inches about statistics, my last offering is statistics-free. Neville Goodman (the author of one of my favourite books on medical writing¹) has surveyed the titles of papers reporting clinical trials between 1970 and 1997. He reports that "assertive sentence titles" (i.e. those that describe the research results instead of just the nature of the study) are on the increase but warns that they may be "improper and imprudent and too often plain wrong" He suggests that journals should insist on indicative titles. In a short commentary, Richard Smith notes that the *BMJ* currently avoids declarative titles for original studies but suggests that they are tempted to use them and comments that "The trend is undoubtedly for journals to become more like newspapers and for newspapers to become more tabloid. It's about readability and trying to grab people's attention in an ever more crowded world". My next installment will therefore be entitled "Sexy medical writing: hot tips from the boffins".

Reference

The Write Stuff

1 Goodman NW, Edwards MB. *Medical Writing. A Prescription for Clarity* 2nd edition, 1997. Cambridge University Press, 1991.