

Increasing the trust in scientific authorship[†]

MAX LAGNADO

The system of scientific authorship is based on trust. Journal editors, reviewers and readers expect that a paper's content reflects the opinions of the authors and all the available data. Recently, there has been concern that this trust may be undermined by the involvement of industry-paid writers in the preparation of publications (Bodenheimer, 2000). These professional writers are either employed directly by pharmaceutical companies or work for medical communications agencies; their contribution to a paper varies, but may include writing the first draft of a manuscript for the authors to revise or editing a paper written by the authors (Lagnado, 2003). Despite much discussion about the merits of industry-funded writing assistance, there has been little research into its effects on the biomedical literature.

THE EFFECT OF PROFESSIONAL WRITERS ON AUTHORSHIP

Healy & Cattell (2003, this issue) set out to assess the effects of a US-based medical communications agency on authorship practices and the therapeutics literature. They used Medline and EMBASE to search for articles about the therapeutic effects of sertraline for the period 1998 to 2000. Then they compared sertraline publications coordinated by the agency with publications that had no agency involvement. They found that 55 published papers had been coordinated by the agency, compared with 41 that had not. The agency-coordinated papers were, on average, cited more frequently in the literature, published in journals with a higher impact factor and authored by academics with more Medline-listed publications.

The study has several important weaknesses that make it difficult to assess the effect of the agency on authorship. First, publications on only one drug were assessed over a short period, limiting the generalisability of the results. Second, Healy & Cattell's work lacks information about publications in journals not listed on Medline or EMBASE. Although such journals may be inferior in terms of methodological and reporting quality, they may be more readable and relevant to clinical practice than are peer-reviewed journals (Rochon *et al*, 2002). Third, and most importantly, for both series of papers we do not know the extent of the authors' contributions to the analysis and interpretation of data and the final version of the manuscript.

Nevertheless, Healy & Cattell's work will fuel the debate about the involvement of industry-paid writers in the reporting of research. To date, this debate has been based almost exclusively on anecdote and opinion. Critics of industry-funded writing assistance argue that it might undermine accountability and bias the paper's content (Bodenheimer, 2000). Others claim that it can expedite publication and increase the quality of papers (Lagnado, 2003).

Healy & Cattell's study raises the possibility that industry-funded agencies can improve the impact of a paper on the literature, but we should treat this idea with caution. Although the agency-coordinated papers were cited more frequently, citation rates are an imperfect method for assessing the positive impact of a paper on the literature because some citations may refute or criticise a paper rather than support its content. Furthermore, citation rates can be influenced by a number of factors intrinsic to the paper, such as its newsworthiness and the quality of the research (Callahan *et al*, 2002). Although Healy & Cattell's study lacks a formal qualitative assessment of the two series of papers, they note that the agency-coordinated papers contained a

much higher proportion of randomised controlled trials, conventionally seen as the highest-quality research. This may, at least in part, account for the difference in impact between the two sets of papers. Other factors that could contribute to the higher citation rate among agency-coordinated papers are greater awareness of these papers through reprints and higher self-citation by the authors, who on average had published more extensively than the authors of the non-agency-coordinated papers.

CENSORSHIP OR TRANSPARENCY?

Given the uncertainty about the effects of industry-funded writing assistance, how should it be handled? There are two prevailing views. Some commentators recommend banning such assistance, insisting that authors write every word of a paper (DeBakey & DeBakey, 1995). In an ideal world, industry-funded writing assistance would be unnecessary. All researchers who wanted to publish in high-impact international journals would be fluent in English, be able to prepare manuscripts in a timely manner and have good writing skills. Ideals and reality do not always coincide (Albert, 1998; Weeks & Wallace, 2002). Moreover, attempts to prohibit industry-paid writing assistance would simply drive it underground (Lagnado, 2002). Therefore, others recommend a more pragmatic approach, arguing that rather than banning writing assistance we should encourage good practice, whereby authors determine and retain responsibility for the paper's content and the professional writer's contribution, if significant, is disclosed (Flanagin & Rennie, 1995).

Greater transparency seems to be the preferable route. However, Healy & Cattell found that only two of the 55 papers coordinated by the writing agency acknowledged writing support. Several reasons may account for this low rate of disclosure. The authors may have judged that the agency contribution was not sufficiently important to merit an acknowledgment. Alternatively, authors may have been unaware that significant writing assistance should have been disclosed. Also, authors may have been concerned that disclosing such assistance would reduce the chances of their papers being accepted by journals (Lagnado, 2002). This latter explanation

[†]See pp. 22-27, this issue.

could be remedied by journal editors giving an assurance that papers will be judged on their scientific content rather than whether they were developed with the assistance of a professional writer.

WHAT NEXT?

Recently, journal editors, academics and industry have proposed several initiatives with the aim of improving authorship practices. Rennie *et al* (2000) have championed the concept of contributorship. This requires that authors, as well as those acknowledged but not listed in the byline, describe their specific contributions to the research and the manuscript. Healy & Cattell call for the raw data or primary data tables from industry-funded therapeutic trials to be made available to authors, a view echoed in the revised International Committee of Medical Journal Editors' requirements on publication ethics (Davidoff *et al*, 2001) and, in June 2002, the Pharmaceutical Research and Manufacturers of America published guidelines, *Principles on Conduct of Clinical Trials and Communication of Clinical Trial Results*. Although this document falls short of recommending that investigators have automatic access to all the raw data, it makes several key statements about authorship. First, sponsors should not interfere with investigators' independence, ensuring 'an objective and balanced interpretation of trial results'. Second, to qualify for authorship, investigators must make a substantial contribution to the research as well as participate in the writing or revising of the manuscript. Third, the role of individuals employed by sponsors to assist with manuscripts should be disclosed. These principles became effective on 1 October 2002.

However, a fundamental shift in authorship practices cannot be achieved by focusing exclusively on industry. Bhopal *et al* (1997) discovered that many

MAX LAGNADO, MRCP, Medmax Consulting Ltd, 29 Highview Gardens, Edgware, Middlesex HA8 9UE, UK. Tel/Fax: +44 (0)20 8238 2509; e-mail: medmax@btconnect.com

(First received 7 February 2003, accepted 10 February 2003)

academics and researchers at a university faculty were unaware of authorship guidelines, disagreed with them or ignored them. Perhaps most troublesome was the finding that interviewees thought it common practice for individuals who had contributed little or nothing to the research or the manuscript to be listed as authors – a practice called gift authorship. Support for this perception has come from a recent study (Mowatt *et al*, 2002), which showed that 39% of Cochrane reviews had evidence of gift authorship. In addition, Mowatt *et al* (2002) found that more than one in five authors had not participated in the drafting or revising of the review. The message from these studies is clear: to improve the trust in scientific authorship, academic medicine will also have to look at its behaviour.

DECLARATION OF INTEREST

Max Lagnado has been an employee of Pharmacia and in recent years has been a consultant and professional writer for the pharmaceutical industry, assisting investigators to publish industry-funded research. He has never worked for Pfizer, the manufacturer of sertraline.

ACKNOWLEDGEMENT

Tim Albert provided invaluable comments on earlier drafts.

REFERENCES

Albert, T. (1998) Failed publications: the medical model. *BMJ*, **317**, 420.

Bhopal, R., Rankin, J., McColl, E., *et al* (1997) The vexed question of authorship: views of researchers in a British medical faculty. *BMJ*, **314**, 1009–1012.

Bodenheimer, T. (2000) Uneasy alliance – clinical investigators and the pharmaceutical industry. *New England Journal of Medicine*, **342**, 1539–1544.

Callaham, M., Wears, R. L. & Weber, E. (2002) Journal prestige, publication bias, and other characteristics associated with citation of published studies in peer-reviewed journals. *Journal of the American Medical Association*, **287**, 2847–2850.

Davidoff, F., DeAngelis, C. D., Drazen, J. M., *et al* (2001) Sponsorship, authorship, and accountability. *New England Journal of Medicine*, **345**, 825–827.

DeBakey, L. & DeBakey, S. (1995) Ghostwriters: not always what they appear. *Journal of the American Medical Association*, **274**, 870.

Flanagin, A. & Rennie, D. (1995) Ghostwriters: not always what they appear. *Journal of the American Medical Association*, **274**, 870–871.

Healy, D. & Cattell, D. (2003) Interface between authorship, industry and science in the domain of therapeutics. *British Journal of Psychiatry*, **183**, 22–27.

Lagnado, M. (2002) Haunted papers. *Lancet*, **359**, 902.

— (2003) Professional writing assistance: effects on biomedical publishing. *Learned Publishing*, **16**, 21–27.

Mowatt, G., Shirran, L., Grimshaw, J. M., *et al* (2002) Prevalence of honorary and ghost authorship in Cochrane reviews. *Journal of the American Medical Association*, **287**, 2769–2771.

Pharmaceutical Research and Manufacturers of America (PhRMA) (2002) *Principles on Conduct of Clinical Trials and Communication of Clinical Trial Results*. Washington, DC: PhRMA. <http://www.phrma.org/publications/policy/2002-06-24.430.pdf>

Rennie, D., Flanagin, A. & Yank, V. (2000) The contributions of authors. *Journal of the American Medical Association*, **284**, 89–91.

Rochon, P. A., Bero, L. A. & Bay, A. M. (2002) Comparison of review articles published in peer-reviewed and throwaway journals. *Journal of the American Medical Association*, **287**, 2853–2856.

Weeks, W. B. & Wallace, A. E. (2002) Readability of British and American medical prose at the start of the 21st century. *BMJ*, **325**, 1451–1452.