

Bye bye by-line, hello contributors

Medical research usually involves lots of people. That's a good thing, as few individuals possess all the skills, let alone the time, to design, perform, analyse and report a substantial trial by themselves. But it poses problems when research is reported. The list of authors (or by-line) serves several functions: it tells readers and editors who did the work and allows authors to take credit if the work is good and responsibility if it is flawed.

The most widely cited guidelines on authorship come from the International Committee of Medical Journal Editors (ICMJE).¹ The 1988 version stated that only those who had played a part in the conception and design or analysis and interpretation of a study could qualify as authors, but in 2000 'acquisition of data' was added as a qualifying activity.² Authors must also take part in drafting or revising the article and should approve the final version. But, as noted on the *BMJ* Instructions to Authors, this definition 'has some serious flaws'.³ For example, in a multi-centre study involving a large number of centres, each of which recruits a similar (but relatively small) number of patients, who decides which investigators will also be involved in developing a manuscript? What's more, a survey of 66 British researchers in 1997 showed that only 24% had heard of the ICMJE authorship criteria, 11–15% disagreed with at least one of the criteria and 62% disagreed that authors should meet all three criteria (study involvement, writing the paper and approval).⁴

The ICMJE guidelines also say nothing helpful about the order of authors (simply that this should be 'a joint decision'). Yet academic appointments often depend on the length of the candidate's publication list, on the assumption that individuals are listed in order of their contribution and that all deserving authors have been listed. But the value of different contributions to a research project is highly subjective. How should one rank one person who designed a trial but recruited no patients, against a second who recruited most of the patients but played no part in the design, against a third who analysed the data? And what if the study report on which the paper was based was prepared by a writer working for the sponsor—should that person be an author?

The traditional system of author listing gives readers and editors (and reviewers, if the journal uses open review) no detail about who did what or how the order was decided. Some journals permit authors to explain the order (e.g. if it is alphabetical). Bearing the name Wager, I will leave readers to guess what I think of alphabetical ordering—and whether Dr Abbasi agrees!

Because authorship matters to people, and because researchers are human and therefore do not always behave ethically, abuse of authorship will always be a problem. Of the 212 cases considered by the Committee on Publication Ethics over a six-year period, authorship issues were the second most common category, accounting for 12% of the cases.⁵ This is probably a gross underestimate of the true extent of the problem, since with traditional author by-lines, editors are usually blissfully unaware of the abuses they conceal. The commentary to one particularly egregious case featured in the 2003 COPE report noted 'all too often claims for authorship are still based on power and influence and not necessarily contributions'.⁶

The two most common problems are gift authorship, when the undeserving swell the list, and ghost authorship, when deserving authors do not appear.⁷ The motivation for such misconduct is varied but probably includes colleagues playing the game of mutual CV enhancement ('I'll put your name on my paper if you add my name to yours'); ancient but dishonourable traditions of including the professor's name on every paper; researchers adding a 'big name' onto the list to increase respectability or the chances of acceptance; and the usual power politics and rivalry that bedevil any human organization.

If readers and editors do not know who did what, they are unlikely to detect most cases of authorship abuse. Listing individuals' contributions should reduce many of the problems of ghosts and gifts and follows the spirit of transparency that underlies many other aspects of responsible research reporting. Ghosts can be brought back to life by editors asking who analysed the data or wrote the first draft, if these roles are missing. Ghosts will be revealed as such (and editors can choose whether they challenge them discreetly before publication or let them be listed for everyone to see). The order of authors and rigid inclusion criteria become less important—if you want to know how many studies a person has designed, or whether they are an energetic recruiter, you can look and see rather than try to guess from the order of listing. Perhaps more importantly for most readers, contributorship encourages transparency about the role of the sponsor in every aspect of the project—something that has often been misrepresented in the past.^{8,9}

Are there any disadvantages? I suppose the list of contributions takes up a small amount of precious journal space, but in the internet age this seems an irrelevance. Authors/contributors will need to be educated and cajoled (early initiatives with voluntary contributor lists were surprisingly poorly adopted).¹⁰ Editors also need to pay attention to the way in which contributions are elicited, since Marusic *et al.* have shown that ticking boxes produces more apparently 'compliant'—but not necessarily truthful—responses (i.e. with a higher proportion of listed

contributors meeting ICMJE criteria) than allowing authors to state contributions in free text.¹¹

Some editors have expressed concern that identifying contributions will split responsibility, so that if an aspect of a study is later found to be incorrect or fraudulent, contributors will pass blame onto each other.⁷ The ICMJE has debated whether authors should be expected to take public responsibility for an entire project or just their respective portions of it.² Some journals therefore ask at least one contributor to guarantee the integrity of the research,⁷ but this is probably of little concern to most readers.

Contributorship is not a panacea. Research groups may adopt bizarre criteria for selecting authors (as they probably always have done, whatever editors tell them) but at least this will be transparent. Determined guests and ghost-creators can give false information and put their names to untrue statements, but pleading ignorance will no longer be an excuse. Readers and honest authors (sorry, contributors) should therefore welcome the *JRSM's* new policy.

Competing interests None declared.

Elizabeth Wager

Sideview, Station Road, Princes Risborough HP27 9DE, UK
E-mail: liz@sideview.demon.co.uk

REFERENCES

- 1 International Committee of Medical Journal Editors. *Uniform Requirements for Manuscripts Submitted to Biomedical Journals*. Available at <http://www.icmje.org>
- 2 Huth EJ, Case K. The URM: twenty-five years old. *Science Editor* 2004;**27**:17–21
- 3 BMJ Instructions to Authors. Available at http://bmj.bmjournals.com/advice/article_submission.shtml#author
- 4 Bhopal R, Rankin J, McColl E, *et al.* The vexed question of authorship: views of researchers in a British medical faculty. *BMJ* 1997;**314**:1009–12
- 5 Kleinert S. *Common Ethical and Editorial Dilemmas of Author Misconduct*. Committee on Publication Ethics Report, 2005. Available at <http://www.publicationethics.org.uk/reports/2005/editorialdilemmas/>
- 6 *A question of authorship*. Committee on Publication Ethics Report 2003. Available at <http://www.publicationethics.org.uk/reports/2003/14cc.pdf>
- 7 Rennie D, Yank V, Emanuel L. When authorship fails. A proposal to make contributors accountable. *JAMA* 1997;**278**:579–85
- 8 Wager E. Redefining authorship. Drug industry is increasingly allowing employees to be named as authors. *BMJ* 1996;**312**:1423
- 9 Wager E, Field EA, Grossman L. Good publication practice for pharmaceutical companies. *Curr Med Res Opin* 2003;**19**:149–54
- 10 Rennie D, Flanagan A, Yank V. The contributions of authors. *JAMA* 2000;**284**:89–91
- 11 Marusic A, Bates T, Anic A, *et al.* How the structure of contribution disclosure statements affects validity of authorship: a randomized study in a general medical journal. *Curr Med Res Opin* 2006;**22**:1035–44