

Update 87

Are Medical Journals an Extension of the Marketing Arm of Pharmaceutical Companies?

What follows are a number of excerpts from a recently published paper by Richard Smith, a former editor and chief executive of the BMJ Publishing Group.

“Journals have devolved into information laundering operations for the pharmaceutical industry”, wrote Richard Horton, editor of the *Lancet*, in March 2004. In the same year, Marcia Angell, former editor of the *New England Journal of Medicine*, lambasted the industry for becoming “primarily a marketing machine” and co-opting “every institution that might stand in its way”.

Jerry Kassirer, another former editor of the *New England Journal of Medicine*, argues that the industry has deflected the moral compasses of many physicians, and the editors of *PLoS Medicine* have declared that they will not become “part of the cycle of dependency... between journals and the pharmaceutical industry”.

Something is clearly up

The most conspicuous example of medical journals' dependence on the pharmaceutical industry is the substantial income from advertising, but this is, I suggest, the least corrupting form of dependence.

The much bigger problem lies with the original studies, particularly the clinical trials, published by journals. Far from discounting these, readers see randomised controlled trials as one of the highest forms of evidence. A large trial published in a major journal has the journal's stamp of approval (unlike the advertising), will be distributed around the world, and may well receive global media coverage, particularly if promoted simultaneously by press releases from both the journal and the expensive public-relations firm hired by the pharmaceutical company that sponsored the trial. For a drug company, a favourable trial is worth thousands of pages of advertising, which is why a company will sometimes spend upwards of a million dollars on reprints of the trial for worldwide distribution.

Fortunately from the point of view of the companies funding these trials—but unfortunately for the credibility of the journals who publish them—these trials rarely produce results that are unfavourable to the companies' products.

By 2003 it was possible to do a systematic review of 30 studies comparing the outcomes of studies funded by the pharmaceutical industry with those of studies funded from other sources. Overall, studies funded by a company were four times more likely to have results favourable to the company than studies funded from other sources.

The evidence is strong that companies are getting the results they want, and this is especially worrisome because between two-thirds and three-quarters of the trials published in the major journals—*Annals of Internal Medicine*, *JAMA*, *Lancet*, and *New England Journal of Medicine*—are funded by the industry.

Why are pharmaceutical companies getting the results they want?

The companies seem to get the results they want not by fiddling the results, which would be far too crude and possibly detectable by peer review, but rather by asking the “right” questions—and there are many ways to do this. Some of the methods for achieving favourable results are listed below, but there are many ways to hugely increase the chance of producing favourable results,

and there are many hired guns who will think up new ways and stay one jump ahead of peer reviewers.

Journal editors are becoming increasingly aware of how they are being manipulated and are fighting back, but I must confess that it took me almost a quarter of a century editing for the *BMJ* to wake up to what was happening.

How might we prevent journals from being an extension of the marketing arm of pharmaceutical companies in publishing trials that favour their products? Editors can review protocols, insist on trials being registered, demand that the role of sponsors be made transparent, and decline to publish trials unless researchers control the decision to publish. I doubt, however, that these steps will make much difference.

Methods for Pharmaceutical Companies to Get the Results They Want from Clinical Trials

Conduct a trial of your drug against a treatment known to be inferior. Trial your drugs against too low a dose of a competitor drug.

Conduct a trial of your drug against too high a dose of a competitor drug (making your drug seem less toxic).

Conduct trials that are too small to show differences from competitor drugs.

Use multiple endpoints in the trial and select for publication those that give favourable results. Do multi-centre trials and select for publication results from centres that are favourable. Conduct subgroup analyses and select for publication those that are favourable.

Reference:

Smith R. Medical journals are an extension of the marketing arm of pharmaceutical companies. *PLoS Med.* 2005; 2:e138. Epub 2005 May 17.

<http://medicine.plosjournals.org/perlserv/?request=get-document&doi=10.1371/journal.pmed.0020138>