

of the value of many of the other tables in this chapter (14 tables in total). A particular criticism is that Byrne has not taken sufficient account of differences between UK and US English in all of his suggestions.

The final section (Revising) is very short. Chapter 32 covers proofreading and layout: the advice is all good and the tables and figures are informative, but there is overlap with the writing section. Chapter 33 gives advice on writing a persuasive cover letter – once again, Byrne includes feedback from journal editors to add weight to his guidance. He also reiterates advice from journal editors to make a presubmission enquiry to ascertain the journal's interest in publishing a particular paper. Chapter 34 contains useful advice on responding to reviewers' comments as well as insight about the peer review process and how the decision to publish is made.

The book includes two further appendices (Appendix C provides a sample data collection form and Appendix D is a copy of the World Medical Association Declaration of Helsinki – Ethical Principles for Medical Research Involving Human Subjects), a bibliography, and an index.

This book covers a vast amount of material in relatively few pages, although (as I mentioned earlier) some detail could be removed from some chapters. I would also question the idea of having more than 250 principles in a book designed to help people through an extended and complex process: Readers can't possibly hold all of these in their heads to prompt their next action, and I would suggest using numbered subsections instead.

The book is not intended for professional medical writers and editors, and, in my opinion, it is not a book that this group needs to read from front to back. Nevertheless, the Planning and Observing sections may be of interest to people without a background in clinical trials, and the Writing, Editing, and Revising sections could provide a gentle introduction for new medical writers and editors. For these reasons, medical writing departments in pharmaceutical companies and contract research organisations, as well as medical communications companies, may benefit from keeping a copy on their bookshelves.

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Journal Watch

Journal Watch is based on the French-language blog *Rédaction Médicale et Scientifique* by Hervé Maisonneuve available at www.redactionmedicale.fr.

SECTION EDITOR



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“The highest (but also greatest) variability in the prevalence of spin was present in trials.”

“In the scientific literature, spin refers to reporting practices that distort the interpretation of results and mislead readers so that results are viewed in a more favourable light.” The above title and first sentence are from a systematic review that aimed to study the nature and prevalence of spin in the medical literature. Thirty-five reports, which investigated spin in clinical trials, observational studies, diagnostic accuracy studies, systematic reviews, and meta-analyses, were included. This systematic review was well conducted by a known Australian team.

Spin was classified in four categories: (1) reporting practices that distort the interpretation of results and create misleading conclusions, suggesting a more favourable result; (2) discordance between results and their interpretation, with the interpretation being more favourable than the results; (3) attribution of causality when study design does not allow for it; and (4) overinterpretation or inappropriate extrapolation of results.

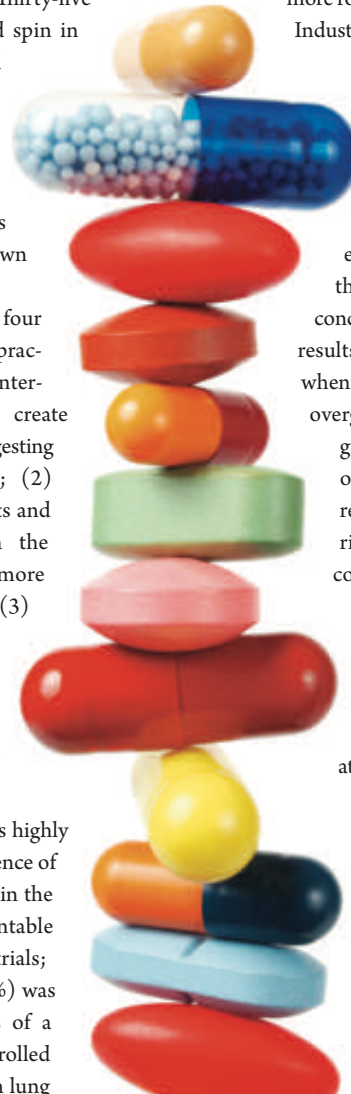
The prevalence of spin is highly variable. The highest prevalence of spin (100%) was observed in the main text of 10 implantable cardioverter defibrillator trials; the lowest prevalence (9.7%) was measured in the abstracts of a sample of randomized controlled trials of systemic therapy in lung

cancer. Nineteen of the 35 reports investigated the practices that researchers used to spin results. Four categories of spin practices were identified: inappropriate interpretation given study design; inappropriate extrapolations or recommendations for clinical practice; selective reporting; more robust or favourable data presentation. Industry sponsorship was not significantly associated with spin.

Further research is needed to better identify and classify spin; we don't know the impact of spin on decision-making. Peer reviewers and journal editors should check to make sure that abstract and manuscript conclusions are consistent with the study results, that causal language is used only when appropriate, and that results are not overgeneralised. Clinical practice guidelines should be developed based on systematic reviews to ensure that recommendations are founded on rigorous data and not misleading conclusions. Structural reforms within academia are needed to change research incentives and reward structures that emphasise “positive” conclusions, including the pressure to publish and media attention.

Reference:

Chiu K, Grundy Q, Bero L. ‘Spin’ in published biomedical literature: A methodological systematic review. *PLoS Biol.* 15(9):e2002173.



Professional medical writing support was not associated with increased overall adherence to CONSORT for abstracts



A research note published in *F1000Research* analysed 463 abstracts from randomised controlled trials published between 2011 and 2014 in five journals (*New England Journal of Medicine*, *Annals of Internal Medicine*, *The*

Lancet, *The BMJ*, and *JAMA*). Acknowledged professional medical writing was observed in 66 articles (14.3%). The mean proportion of adherence to CONSORT for abstracts items reported in articles with (n = 66) and without (n

= 397) professional medical writing support was 64.3% versus 66.5%. Professional medical writing was associated with lower adherence to reporting study setting and higher adherence to disclosing harms/side effects and funding source. These data may not be generalisable to the biomedical literature as a whole. Although GPP3 (Good Publication Practice guideline) encourages transparency of medical writing support, it remains possible that it was not consistently acknowledged in the studied dataset.

Reference:

Mills I, Sheard C, Hays M, Douglas K, Winchester CC, Gattrell WT. Professional medical writing support and the reporting quality of randomized controlled trial abstracts among high-impact general medical journals [version 2; referees: 2 approved]. *F1000Research*. 2017;6:1489. doi: 10.12688/f1000research.12268.2.

The number of authors per article and the proportion of authors who contributed equally increased over time

A poster presented at the 8th International Congress on Peer Review and Scientific Publication (Chicago, September 2017) by two *JAMA* editors analysed papers published in 2005, 2010, and 2015 in *JAMA*, *Lancet*, and *New England Journal of Medicine*. The increase over time in the number of authors per paper has been steady (Table 1). The proportion of articles with group authorship increased significantly over time for *JAMA*, but not for *Lancet* or *NEJM*.

Although limited to three journals and to 10 years, these findings are consistent with previous studies focused on earlier periods and specialty



Table 1. Number of authors per paper in prominent medical journals

	2005	2010	2015	P Value for trend
Authors per article, median (interquartile range)				
<i>JAMA</i>	8 (5-11)	8 (6-12)	11 (7-18)	< 0.01
<i>Lancet</i>	9 (7-13)	12 (8-18)	15 (10-21)	< 0.01
<i>NEJM</i>	11 (7-15)	13 (9-20)	18 (12-26)	< 0.01
Articles with authors who contributed equally, number/total (%)				
<i>JAMA</i>	7/230 (3.0)	13/188 (6.9)	17/159 (10.7)	0.02
<i>Lancet</i>	9/172 (5.2)	16/165 (9.7)	31/178 (17.4)	< 0.01
<i>NEJM</i>	22/223 (9.9)	25/222 (11.3)	64/235 (27.2)	< 0.01

journals. Do major medical journals reflect the trend to increase collaboration between research teams?

Reference:

Muth CC, Golub RM. Trends in authorship and team science in major medical journals, 2005–2015. International Congress on Peer Review and Scientific Publication. Chicago, September 2017. <http://peerreviewcongress.org/prc17-0167>.

The relationship between physicians and the pharmaceutical industry: A heated debate for many decades

This well-conducted systematic review aimed to explore interactions between physicians and the pharmaceutical industry. Databases were searched and studies published between 1992 and August 2016 were obtained; 49 studies were included after authors screened 2170 articles; 2 reviewers independently extracted the data; 27 of the 49 studies were from the USA. The authors observed that pharmaceutical industry and pharmaceutical sales representative (PSR) interactions influence physicians' attitudes and their prescribing behaviour and increase the number of formulary addition requests for the company's drug.

The study results were classified in nine domains:

1. *Extent of interactions between physicians and the pharmaceutical industry.*
Such interactions are regular feature in the daily lives of physicians across the world.
2. *Perspectives of physicians towards PSR interactions.*
Physicians have a positive attitude towards PSR; information provided by PSRs, industry-sponsored conferences are important instruments to enhance the scientific knowledge.

3. *Gifts.*
Most physicians considered themselves immune to the influence of gifts.
4. *Drug samples.*
Accepting drugs led to higher branded drug prescription rather than generic prescribing.
5. *Pharmaceutical representative speakers.*
6. *Honoraria and research funding.*
7. *Conference travel.*
8. *Industry-paid lunches.*
Clerks, interns, and junior residents attended more company-sponsored lunches than

senior residents.

9. *Continuing medical education sponsorships.*

Further studies are needed to evaluate the impact of these interactions with physicians over time and the benefits of various programmes on the clinical and ethical behaviour of the physicians.

Reference:

Fickweiler F, Fickweiler W, Urbach E. Interactions between physicians and the pharmaceutical industry generally and sales representatives specifically and their association with physicians' attitudes and prescribing habits: a systematic review. *BMJ Open*. 2017;7:e016408. doi: 10.1136/bmjopen-2017-016408.



Lack of time was the main barrier to publication for Paris-based health care researchers

A survey aimed to assess the difficulties experienced by researchers in the AP-HP (Assistance Publique – Hôpitaux de Paris, France), the largest public health institution in Europe, with more than 9,000 articles per year in PubMed-referenced journals. A 39-item electronic questionnaire based on qualitative interviews was sent by email to 7,766 researchers between May 28 and June 15, 2015.

The questionnaire was anonymously completed by 1,191 researchers (<45 years of age: 63%; women: 55%; physician: 81%; with PhD: 45%); 94% of respondents had published at least one article in the previous 2 years; 76% of respondents felt they were not publishing enough, mainly because of lack of time to write (79%) or

submit (27%), limited skills in English (40%) or in writing (32%), and difficulty in starting to write (35%); 87% of respondents would accept technical support, especially in English editing (79%), critical editing (63%), formatting (52%), and/or writing (41%), to save time (92%) and increase submissions to high

impact factor journals and acceptance (75%); 79% of respondents would appreciate funding support for their future publications, for English editing (56%), medical writing (21%), or publication fees (38%). They considered that this funding support could be covered by AP-HP (73%) and/or by the added financial value obtained by their department from previous publications (56%).

It appeared that there was

a lack of knowledge of the job of medical writers and a confusion between the jobs of translator and medical writers. Indeed, English editing, critical editing, formatting/submitting, and writing were the main tasks for which support was needed, and medical writers fulfil all these functions. A lack of funding and a poor writing culture could explain this situation. French universities and/or research centres should have an academic/ scientific writing centre.

Reference:

Duracinsky M, Lalanne C, Rous L, Dara AF, Baudoin L, Pellet C et al. Barriers to publishing in biomedical journals perceived by a sample of French researchers: results of the DIAzePAM study. *BMC Med Res Methodol*. 2017;17:96. doi: 10.1186/s12874-017-0371-z.

