

# Beware of “spin” in clinical trials

“Spin doctors” are not doctors in the medical sense, but rather public relations specialists whose job it is to enhance the image of an entity or individual. “Spin” however, in the sense of massaged facts, exists in medicine, where it obstructs the reliable evaluation of new drugs (1).

**“Spin” in the reporting of psychiatric trials.** A French team that published several studies on spin in the reporting of clinical trials defines it as “*specific reporting strategies, whatever their motive, to highlight that the experimental treatment is beneficial, despite a statistically nonsignificant difference for the primary outcome*” (2).

A US team set out to quantify the prevalence of spin in clinical trial abstracts published in six major psychiatry or psychology journals between 2012 and 2017 (3). The authors searched for randomised clinical trials in which the difference for the primary endpoint was not statistically significant. Next, they searched the abstract of each article for spin that appeared to hide the absence of significant difference. Over half (56%) of the 116 eligible abstracts contained spin: 2 in the title, 21% in the abstract results section, 49% in the abstract conclusion section, and 15% in both the results and conclusion sections (3).

**A widespread practice.** “Spin”, defined more broadly as misleading reporting of results to make them appear more favourable than they actually are, is widespread in medicine, well beyond the field of psychiatry (4). It takes various forms: selective reporting of outcomes, inappropriate application of statistical measures, manipulation of figures or graphs, and so on (3). The reasons for using spin are varied: lack of understanding of methodological principles, unconscious behaviour, or actual intention to mislead. But it always seems to slant in the direction of the authors’ interests. Spin is encouraged by the competitive research environment, the greater importance generally given to positive results, and the lack of guidelines aimed at discouraging this practice (1).

Healthcare quality suffers when trial results are misinterpreted due to distortion of the facts: studies have shown that doctors and patients are fooled by the spin in study abstracts (5,6).

It is essential to realise just how frequently clinical trial abstracts contain spin; if you read no further than the abstract, you can easily draw the wrong conclusions. Educators of future doctors and pharmacists have a key role to play in highlighting and discouraging spin. Journals that publish trial results also have an important role, by refusing to give a platform to spin doctors.

©Prescrire

► Translated from *Rev Prescrire* April 2020  
Volume 40 N° 438 • Page 293

## Selected references from Prescrire's literature search

- 1- Boutron I and Ravaud P “Misrepresentation and distortion of research in biomedical literature” 2018; **115** (11): 2613-2619.
- 2- Boutron I et al. “Reporting and interpretation of randomized controlled trials with statistically nonsignificant results for primary outcomes” 2010; **303** (20): 2058-2064.
- 3- Jellison S et al. “Evaluation of spin in abstracts of papers in psychiatry and psychology journals” : 10.1136/bmjebm-2019-111176: 4 pages.
- 4- Chiu K et al. ““Spin” in published biomedical literature: a methodological systematic review” 2017: doi.org/10.1371/journal.pbio.2002173: 16 pages.
- 5- Boutron I et al. “Impact of spin in the abstracts of articles reporting results of randomized controlled trials in the field of cancer: the SPIIN randomized controlled trial” 2014; **32** (36): 4120-4126.
- 6- Boutron I et al. “Three randomized controlled trials evaluating the impact of “spin” in health news stories reporting studies of pharmacologic treatments on patients’/caregivers’ interpretation of treatment benefit” 2019; **17** (105): 10 pages.

## COMING SOON...

### NEW PRODUCTS

- Oral semaglutide
- Givosiran in acute hepatic porphyria

### ADVERSE EFFECTS

- Excessive iodine intake during pregnancy

### REVIEWS

- Pre-exposure prophylaxis for HIV

### OUTLOOK

- The finances of Association Mieux Prescrire