Industry sponsorship leads to bias in reported findings of clinical trials

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Studies reporting the results of industry sponsored clinical trials present a more favourable picture of the effects of drugs and medical devices than those reporting on non-industry sponsored trials, according to a new Cochrane systematic review. The researchers call for a rethink of the way that industry bias is handled in medical guidelines and reviews.

The outcomes of clinical trials influence the recommendations that doctors make about drugs and other medical interventions. Therefore, it is important that trials are designed, carried out and reported on without bias towards particular products. The fact that trials are increasingly sponsored by industry makes it difficult to ensure that this is always the case. An industry sponsor can influence results and how they are reported to present their company and products in a better light, for example, by selectively reporting positive results. Previous reviews showed that industry sponsored drug trials produce more favourable results, but the researchers wanted to expand the evidence base to medical devices and find out if new requirements for clinical trial registration had made any difference.

The researchers carried out a systematic review of 48 studies on drugs and medical devices. The drugs and devices being studied were prescribed for a wide range of different diseases and conditions, from heart disease to psychiatric conditions, and were compared to placebos or other treatments. Studies sponsored by industry reported greater benefits and fewer harmful side effects compared to studies that were not sponsored by industry. Papers describing industry sponsored studies presented more favourable overall conclusions, and results and conclusions sections in these papers were less likely to agree.

"Our results suggest that industry sponsored drug and medical device studies are more often favourable to the sponsor’s products than non-

industry sponsored studies," said lead researcher Andreas Lundh of the Nordic Cochrane Centre, Rigshospitalet in Copenhagen, Denmark. "These findings resonate with current calls for better access to information about how trials are carried out, and raw data."

The possible influence of study sponsorship is not always taken into account in medical guidelines and assessments of the efficacy of drugs and medical devices. The researchers suggest that guidelines and reviews, including Cochrane systematic reviews, could improve transparency by disclosing sponsorship when results from industry sponsored studies are reported and by regarding industry sponsorship as a factor that increases the risk of bias.

"Industry sponsorship should be reported in original published studies, but it must also be taken into account when results are reported on elsewhere," said senior author Lisa Bero of the Department of Clinical Pharmacy and Institute for Health Policy Studies at the University of California San Francisco in San Francisco, US. "If we agree that industry sponsorship is an important source of bias then we need to think about developing better methods for reporting, assessing and handling industry bias in systematic reviews that evaluate the effects of drugs and devices."


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