

Does industry involvement influence study characteristics at time of trial registration?

Seidler AL¹, Hunter KE¹, Askie LM¹

NHMRC Clinical Trials Centre, University of Sydney, Sydney, Australia

Background

Industry funding appears to influence results and conclusions of published studies. It is currently unclear whether there are differences between trials with and without industry involvement at trial registration. Examining trial characteristics at design stage may give important insight to origins of industry bias.

Objectives

To determine whether industry involvement influences study characteristics at trial registration.

Method

All interventional studies registered on the Australian New Zealand Clinical Trials Registry (ANZCTR) in 2017 were included, and classified by whether there was any industry involvement (funding, collaboration, sponsorship). We analysed whether there were differences in study characteristics (including type of control, sample size, randomisation, prospective registration, and purpose of study) between trials with and without industry involvement.

Results

Of the 1,433 included trials, 21% reported industry involvement. Study characteristics varied between trials with and without industry involvement (Figure). Industry-supported trials were less likely to use active controls (OR=0.49, 95%CI=0.38-0.63), had smaller sample sizes (Median(IQR)_{industry}=45(76), Median(IQR)_{noindustry}=70(125)). They were more likely to be prospectively registered (OR=2.0, 95%CI=1.5- 2.8), and were a lot more likely to be aimed at treatment, instead of prevention, education or diagnosis (OR=3.02, 95%CI=2.17-4.32). There was no difference in randomisation (OR=0.88, 95%CI=0.67-1.2).

Conclusions

The current study gives insight to differences in trial characteristics by industry involvement at design stage. The reduced use of active controls in trials with industry involvement may increase effect sizes and thus produce results that are more favourable. Non-industry funders and sponsors are crucial to ensure research addresses not only treatment, but also prevention and education questions.

Figure. Trial characteristics by industry involvement

