

**PEARLS** Practical Evidence About Real Life Situations

## Clinical trials subject to publication bias

Clinical question	Is publication of clinical trials influenced by the statistical significance, perceived importance or direction of their results?
Bottom line	Trials with positive findings are published more often, and more quickly, than trials with negative findings. The authors of the review predicted, if 41% of negative trials were published, they would expect 73% of positive trials to be published. The size of the trial and the source of funding, academic rank, and sex of the principal investigator did not appear to influence whether a trial was published. The prospective registration of all clinical trials at inception and before their results become available would enable review authors to know when relevant trials have been conducted, so that they could ask the responsible investigators for the relevant study data.
Caveat	Those conducting systematic reviews should ensure they assess the potential problems of publication bias in their review, and consider methods for addressing this issue by ensuring a comprehensive search for both published and unpublished trials.
Context	The tendency for authors to submit manuscripts, and of journals to accept manuscripts for publication based on the direction or strength of the study findings, has been termed publication bias. Such bias can threaten the validity of a systematic review's conclusions.
Cochrane Systematic Review	Hopewell S et al. Publication bias in clinical trials due to statistcal significance or direction of trial results. Cochrane Reviews 2009, Issue 1. Article No. CD000006. DOI: 10.1002/14651858. CD000006.pub3. This review contains 5 studies involving 750 clinical trials.
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PEARLS are succinct summaries of Cochrane Systematic Reviews for primary care practitioners. They are funded by the New Zealand Guidelines Group.

PEARLS provide guidance on whether a treatment is effective or ineffective. PEARLS are prepared as an educational resource and do not replace clinician judgement in the management of individual cases.

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