PRs are, ideally, condensed and accurate summaries of research. However, it is in the interests of researchers to maximise their media exposure, citations and funding.9 Despite this, the process of peer review is key to validate the method, and thereby the results, of research.10 Scientific publishing remains a self regulated entity; the provenance of any journal is upheld only by the quality of material that it publishes, material that is, in part, selected by peer review.

Peer review is by no means a perfect system and one that carries its own bias.10 One needs only mention the Wakefield MMR scandal and one of the key issues of peer review is highlighted; it relies on those reporting results to do so accurately and in good faith.11 This reliance is present when researchers condense their material into vignettes for PRs. Ideally PRs should contain the original study aims without hypothesising after the results are known (“HARKing”), all results (be they positive or negative), and the limitations of the underlying methodology.7,12

In a survey of 468 science reporters in 2008, Viswanath et al. found that the major factors relating to the newsworthiness of a scientific story were the “potential for public impact”, and “new information or development”.13 This is understandable from the viewpoint of the media, whose aim it is to sell news. Those articles showing new developments or emphatic results are also more likely to be published in high impact journals.14 Journals and newspapers both look to publish exciting and important articles, but this must not come at the expense of scientific rigor.

This cohort study outlines the fact that spin at the start of the process (i.e. the writing of the press release or abstract) leads to higher levels of spin at the final stage – the news item. They show that of articles where a final news item was published, 46% of PRs had a positive spin (i.e. representing results better than was evident from the original article) and spin was only increased to 51% by the time the news article reached publication (figure 2).5 This demonstrates the importance of accurate reporting in PRs, the spin in the news articles in this study was due to inaccuracies made by the scientists producing the PRs rather than journalists writing the final article.

It is estimated that 90% of the general public use mass media to remain updated with medical advances.1 Furthermore, a number of studies have outlined the importance of media coverage on clinical utilization, practice, and future research behaviour; highlighting the importance of accurate media reporting of medical research.2,3 The recent investigation of mass media practices by the Leveson inquiry, and the subsequent report stated with regard to scientific journalism that, “Most non-specialist readers cannot easily judge for themselves what experts are telling us”.4 Yavchitz et al. investigate the way such information is published and subsequently disseminated by mass media in this cohort study.5 A literature search of press releases (PR) relating exclusively to randomized controlled trials (RCTs) was performed, with the original article and the news item then retrieved. The presence of ‘spin’ was assessed from the RCT abstract conclusion, the PR, and the news item. Spin was defined as emphasising beneficial outcomes of the trial or inadequate reporting of harm.6 It was calculated by comparing the results of the full article and how they were represented in the PR, abstract conclusion, and news item. They report that 40% of RCT abstract conclusions had spin present, and that 47% of PR had spin present.5 Bivariate and multivariable analysis found the only factor associated with spin being present in the PR was spin in the abstract conclusion. Therefore, even if journalists are using the original abstract conclusion in good faith, they still run the risk of deceiving their readers. Mass media is an important method for dissemination of information gleaned from research so accuracy in compiling PRs and abstracts is critical.8 The Science Media Centre is a charity that co-ordinates the media and the scientific community. It provided evidence to the Leveson inquiry in 2012 and following that formed the “10 best practice guidelines for reporting science and health stories” (figure 1).7 These outline the basics of research reporting and, although they are suggested for journalists, perhaps those compiling PRs could utilise them to ensure that they have supplied all the required information.
In 1969, Franz Ingelfinger, at the time editor of the New England Journal of Medicine (NEJM), instigated what would become known as the “Ingelfinger – Relman” rule.14 This stated that the NEJM would refuse to publish any papers that had any results previously reported in the media. He felt that the peer review process should be fully complied with before any data were released to the public. This allows interpretation of the results to be based upon the whole paper, and not just a condensed vignette. This restriction remains a deterrent for those hoping to publish in the NEJM and protects the journal from re-publishing already available information.14 But does this aid research? By preventing release, important developments may be held from implementation and knowledge. It could also lead to the preferential media exposure of poorer studies and does not necessarily answer the problem of ‘spin’.

Hopefully, articles such as Yavchitz et al. and the Leveson report with its ensuing changes to legislation and press practices should result in more accurate reporting of research.4,5,7 Given the impact of media stories on researchers, clinicians and the lay public this is imperative.1–3 While this paper is limited by its use of a single database for searching for press releases and exclusively investigating RCTs, it highlights an important issue; if researchers are not wholly transparent in their reporting of results and methodology, the knock on effect can be inaccurate public perception.11 This problem may be, as the authors state in their conclusion, ‘responsible for an important gap between the public perception of

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**Fig 1** 10 Best practice guidelines for reporting science and health stories.7

![Graph showing 10 best practice guidelines for reporting science and health stories](image)

**Fig 2** “Spin” in abstracts, conclusions, press releases and news items.5

![Graph showing “Spin” in abstracts, conclusions, press releases and news items](image)
the beneficial effect and the real effect of the treatment studied".5 Many tools exist to help all the involved parties and it is important that these tools are utilised fully to improve accuracy and reduce ‘spin’.8,15

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