

Summary

- We welcome the opportunity to comment on the updated Independent Press Standards Organisation (IPSO) Editors' Code of Practice.
- The Academy is pleased to note that section 1 of the Code places an emphasis on accuracy and outlines principles that are fundamental to the reporting of science and health research, but we suggest some further specifications.
- Inaccurate reporting of health research by the press can unduly alarm or unduly reassure the public, and influence decisions they take about their health and healthcare.
- Journalists should strive to report science and health research as accurately as possible. Guidelines exist which can support them in ensuring they accurately portray results and findings (particularly for the reporting of risks, statistics and uncertainty).
- We propose that some of the content of such guidelines should be explicit in the Code of Practice, including the reporting of risk, statistics and uncertainty.
- There have been occasions where those reporting the interests of individuals carrying out scientific and health research have inferred bias in a given study. Automatically discounting the evidence and expertise of those with interests without checking whether these interests have been managed in a way that ensures the impartiality and objectivity of the research could result in a loss of expertise in discussions about the evidence base. IPSO should clarify this in its guidance.
- The scientific research community recognises that ensuring accurate reporting of research findings is a joint responsibility. Scientists and press offices should also be encouraged to exercise good practice when communicating research findings through the media.

Introduction

1. The Academy of Medical Sciences promotes advances in medical science, and supports efforts to see these advances translated into healthcare benefits for society. Our elected Fellowship includes some of the UK's foremost experts in medical science, drawn from a broad range of research areas.
2. We are currently undertaking a policy project to explore how best to use scientific evidence to judge the potential harms and benefits of medicines.¹ Our response to this consultation draws on the various workshops and discussions with stakeholders that have been held as part of this project. The full findings and recommendations of our project are due to be published by the summer of 2017. We would be pleased to provide a full copy of this report in due course, and copies of other relevant outputs as detailed in this response, if required.
3. Our response highlights how inaccurate or incomplete reporting of scientific and health research by the press can lead to confusion by publics and healthcare professionals, and

¹ Academy of Medical Sciences (2015). *How can we all best use evidence?*
<https://acmedsci.ac.uk/policy/policy-projects/how-can-we-all-best-use-evidence>

has the potential to adversely influence patients' decisions about their health and healthcare. Accuracy and balance in reporting of medical research is therefore paramount and is a shared responsibility between journalists, researchers, press officers and the wider science community.

Influence of the press on perceptions of science and health research

4. Discussions at our '*Communicating evidence about medicines*' workshop highlighted how the media play an important role in shaping perceptions about the potential benefits and harms of medicines.² A quarter of people use newspapers as one of their regular sources of science and health information.³ There is, however, concern that media stories typically focus only on potential harms or potential benefits of new drugs in isolation, rather than considering the balance of benefits and harms. In turn this can lead to an inaccurate perception of the relative benefits or harms of a drug.
5. Studies have shown that negative media coverage can impact on patient decisions regarding how they choose to take their medicines. For example, recent studies suggest that patients' decisions about whether to use statins to prevent cardiovascular disease was affected by negative coverage in the press.^{4,5,6}

Good practice in reporting research findings

6. **Given that reporting of scientific and health research by the press can influence the public's decisions about their health and healthcare, we therefore welcome the importance placed on accuracy in the revised IPSO Editors' Code of Practice as it constitutes the first section of the code.**
7. Our workshop on '*Communicating evidence in the media*', which we held in partnership the Science Media Centre, also highlighted the existence of guidelines that can encourage good practice and help the press to more accurately report scientific evidence.⁷ Examples of such guidelines include the BBC guidelines on risk communication, which have a strong emphasis on health and include a checklist to encourage good practice.⁸ The Science Media

² Academy of Medical Sciences (2016). *Perspectives on 'Communicating evidence about medicines'*. <https://acmedsci.ac.uk/file-download/41560-57b2aa9fb300a.pdf>

³ Ipsos MORI (2014). *Public Attitudes to Science*. <https://www.ipsos-mori.com/researchpublications/researcharchive/3357/Public-Attitudes-to-Science-2014.aspx>

⁴ Matthews A, et al. (2016). *Impact of statin related media coverage on use of statins: Interrupted time series analysis with UK primary care data*. *BMJ* **353**, i3283.

⁵ Picker Institute Europe (2016). *Perceptions of Statins: Research with patients, GPs and cardiologists*. https://www.bhf.org.uk/-/media/files/research/p2941-bhf-statins_finalreport_publication.pdf?la=en

⁶ Nielsen SF & Nordestgaard BG (2016). Negative statin-related news stories decrease statin persistence and increase myocardial infarction and cardiovascular mortality: a nationwide prospective cohort study. *European Heart Journal* **37**, 908–916.

⁷ Academy of Medical Sciences (2016). *Perspectives on 'Communicating evidence in the media'*. <https://acmedsci.ac.uk/file-download/41534-57a30aa387107.pdf>

⁸ BBC. *BBC editorial guidelines: Risk, Reporting Summary and Guidance in Full*. <http://www.bbc.co.uk/editorialguidelines/guidance/reporting-risk>

Centre has also published its '10 best practice guidelines for reporting science and health stories'.⁹

8. The use of such guidelines could help to ensure journalists adhere to the first section of the IPSO Editors' Code of Practice when reporting health and scientific research. **We would therefore encourage IPSO to use such guiding principles as standards and reinforce their use.** Certain points covered by these guidelines – and discussed in more detail below – are of particular importance. **We propose that they be made explicit in the Code.**

Reporting risk and statistics in health research

9. Both the guidelines referenced above draw attention to the reporting of risk and statistics in health research. The use of statistics in the press can be misleading to the lay public, with an estimated 61% of adults not having the necessary health literacy skills to fully understand text-based health information that includes numerical information.¹⁰ Appropriate communication of statistical information therefore is critical to prevent confusion.¹¹ Quantitative findings (e.g. absolute risk, relative risk, numbers needed to treat) should be reported in ways that are meaningful to non-specialist audiences.
10. Although it may be tempting for journalists to use more impactful figures such as relative risk or odds ratios if they look more significant, such statistics can be hard to interpret and lead to confusion. For example, a study found that eating a bacon sandwich a day increased the risk of bowel cancer by 20% (relative risk), which led to alarming headlines.¹² However, when put in the context of absolute risk this equates to only a 1% increased risk (from 5% to 6% over a lifetime). This example highlights the importance of providing statistical information in the most relevant and easy to interpret format.
11. The accurate reporting of risk and statistics constitutes an important point to ensure accuracy and not mislead the public. We therefore recommend that **the IPSO Code should help ensure that statistics and other numerical data is not framed in a way that may mislead and thereby portray an inaccurate report of scientific and health research.**
12. Other examples of good practice are the placing of findings in the context of previous research (reports should be based on distillation of all relevant information) and providing an explanation of where there is uncertainty. Journalists should be wary of any press releases that do not similarly abide by these practices.

Reporting conflicts of interests

13. Interests can be financial (e.g. source of funding) or non-financial (e.g. strong belief in a scientific theory, eagerness for career progression), and both direct or indirect (e.g. a close association with an individual who has a relevant interest).

⁹ Science Media Centre. *10 best practice guidelines for reporting science and health stories.* <http://www.sciencemediacentre.org/wp-content/uploads/2012/09/10-best-practice-guidelines-for-science-and-health-reporting.pdf>

¹⁰ Rowlands G, et al. (2015). *A mismatch between population health literacy and the complexity of health information: an observational study.* British Journal of General Practice. **65(635)**, e379-386.

¹¹ Academy of Medical Sciences (2016) *Perspectives on 'Communicating evidence in the media'.* <https://acmedsci.ac.uk/file-download/41534-57a30aa387107.pdf>

¹² World Cancer Research Fund (2007). *Food, Nutrition, Physical Activity and the Prevention of Cancer: a Global Perspective.* http://www.aicr.org/assets/docs/pdf/reports/Second_Expert_Report.pdf

14. The public perception of interests, and conflicts of interest, was an important theme of our 'Conflicts of interest' workshop.¹³ Participants noted that not all interests necessarily lead to conflicts of interest, and similarly, while conflicts of interest are a potential source of bias, they are not an inherent source of bias and do not automatically undermine the results of a study. In many cases, interests – and any resulting conflicts – can be managed to ensure the independence of research findings. For example, a recent study on the effect of e-cigarettes which included members with e-cigarette industry connections used a transparent methodology based on an objective criteria-based framework enabling expert opinion to be discussed and challenged in an open forum.¹⁴ This meant that although members had associations with industry, the results of the study itself were designed to be unbiased.
15. Although participants at our workshop noted that conflicts of interest do not necessarily lead to bias, they also recognised that the reporting of conflicts of interest in the media was sometimes inappropriately used to undermine the credibility of research.¹⁵ This represents another way in which the press can influence the public's opinion through inaccurate reporting and misrepresentation of research.
16. Participants raised caution that if too much emphasis is placed on the existence of an interest and its importance is overstated, knowledgeable voices could become unnecessarily excluded from discussion or scientists may be dissuaded from communicating with the media. This can in turn can lead to advice becoming dependent on groups lacking sufficient knowledge and expertise, which will also compromise accuracy. **IPSO may wish to explicitly state that the existence of interests, while in the public interest, should not be used as a proxy for bias.**
17. In addition, where two conflicting views are given, **any interests of those on both sides of the debate should be highlighted.**
18. Care must be taken not to create "false balance" where there is a strong evidence base and only a minority of opposing views. **The minority view should not be presented on an equal standing to create more engaging reporting.**
19. It has been suggested to us that a declaration of relevant interests should also be required from journalists, so that readers can judge whether they are conflicted in their reporting about medical evidence.

Recognition of joint responsibility

20. The 'Communicating evidence in the media' workshop highlighted that misreporting of scientific findings in the press can be due to the providers of evidence themselves. For example, researchers or their institutions may over-sell their research findings to increase coverage of the story. Recent research has shown that the exaggeration of research

¹³ Academy of Medical Sciences (2016). *Perspectives on conflicts of interest*. <https://acmedsci.ac.uk/file-download/41514-572ca1ddd6cca.pdf>

¹⁴ Nutt DJ, et al. (2014). *Estimating the harms of nicotine-containing products using the MCDA approach*. *European Addiction Research* **20(5)**, 218–225.

¹⁵ Academy of Medical Sciences (2016). *Perspectives on conflicts of interest*. <https://acmedsci.ac.uk/file-download/41514-572ca1ddd6cca.pdf>

findings in media reports is often due to statements made in original media releases rather than journalistic misreporting.¹⁶

21. Our workshop participants agreed that accurate reporting is not only the responsibility of journalists but also of press offices and scientists who have a duty to report science and health research findings in a balanced manner (by reporting caveats, putting research findings into context and offering a balanced view of research findings). However, journalists should seek to verify findings with external (e.g. research charities) and internal experts (e.g. specialist journalists). **IPSO may want to make seeking of independent expert advice a part of the Code of Practice.**

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¹⁶ Sumner P, et al. (2014). *The association between exaggeration in health related science news and academic press releases: retrospective observational study*. BMJ **349**:g7015.