In the Bookstores

SECTION EDITORS

Alison McIntosh
alison.mcintosh@iconplc.com
Stephen Gilliver
stephen.gilliver@gmail.com

Guidelines for Reporting Health Research: A User's Manual

By David Moher (Editor), Douglas Altman (Editor), Kenneth Schulz (Editor), Iveta Simera (Editor), Elizabeth Wager (Editor)
Wiley Blackwell, 2014.
ISBN: 978-0-470-67044-6 (paperback)
32.99 GBP. 344 pages.

The need for accurate scientific reporting is more important than ever. With thousands of articles indexed monthly on PubMed alone, there has never been such a wealth of knowledge and research. But with this wealth comes the potential for error; the ever-increasing need to publish means that selective reporting and over-reaching conclusions are common among the scientific literature. In *Guidelines for Reporting Health Research: A User's Manual*, the book's editors, in association with the EQUATOR (Enhancing the QUAlity and Transparency Of health Research) network (www.equator-network.org) and over 60 individual contributors, present a collection of respected and commonly used guidelines for reporting health research, with the purpose of increasing the clarity, completeness, and transparency of reported research. This book is aimed at a range of professions and roles within the medical and academic fields, including authors, editors, peer reviewers, and funders. From a medical writing perspective, it provides some fundamental background knowledge on the necessity, generation and application of guidelines for publishing research.

This book is separated into four parts. Part 1 (Chapters 1 to 6) looks at some of the fundamental errors in health reporting. In particular, it describes the risks of selective reporting, highlights the prevalent use of inadequate statistical tests, and questions the use of peer review in preventing the reporting of inaccurate data. Furthermore, it provides several examples of deficiencies in published articles and cautions against drawing conclusions from insufficient data. This part also highlights the knock-on effects of poor reporting on systematic reviews. Specific chapters look at the importance of transparency in health research, the structure set in place to develop a reporting guideline, the characteristics of available reporting guidelines, and how to use a reporting guideline effectively.

The penultimate chapter of Part 1 (Chapter 5) looks at ambiguities and confusion between reporting and the conduct of research. It highlights that the misuse of reporting guidelines may impact the conduct of a study and that the purpose of the guidelines is to state what needs to be reported rather than saying what is good or bad. It also provides useful scenarios of excellent, ambiguous/incomplete, and poor reporting of study conduct. The final chapter of this part focuses on how the EQUATOR network – an online library of reporting guidelines – can be used to maintain high standards of reporting in health research, namely by providing a comprehensive online resource for health research reporting with up-to-date information, tools, and materials, as well as by developing, promoting, providing training in, and assessing reporting guidelines.

> This book provides some fundamental background knowledge on the necessity, generation and application of guidelines for publishing research.

The CONSORT (CONsolidated Standards Of Reporting Trials) 2010 Statement has been endorsed by over 600 journals worldwide, is supported by the Council of Science Editors and World Association of Medical Editors, and is recommended by the International Committee of Medical Journal Editors (ICMJE). Part 2 (Chapters 7 to 24) looks in detail at over a dozen specific guidelines in health research, with a primary focus on the use of the CONSORT Statement in various trial designs. Chapter 7 describes SPIRIT 2013, a 33-item checklist for use in developing clinical study protocols. With key aspects relating to outcomes, sample size, and administrative information, SPIRIT 2013 aims to improve protocol design by promoting completeness and to improve study conduct. Chapter 8 describes the use of CONSORT for abstracts of randomised trials in journal and conference articles. It provides guidance on key information to maximise the transfer of knowledge within a typical 250 to 300 word limit. Chapter 9 describes the main CONSORT Statement, in addition to the CONSORT Flow Diagram and 25-item CONSORT Checklist. This chapter primarily describes the use of CONSORT (originally published in 1996 but updated in 2001 and 2010 to provide more comprehensive guidance for randomised clinical trials) in relation to randomised two-group parallel trials, but also extensions of its use to other designs. CONSORT's use in non-pharmacological treatments, pragmatic trials, cluster randomised trials, and non-inferiority and equivalence trials is detailed in Chapters 11 to 14.

Subsequent chapters go on to describe a further 10 guidelines, including TREND (Transparent Reporting of Evaluations with Non-randomised Designs), a 22-point checklist for assessing the completeness of evaluations in non-randomised trials, and STROBE (STrengthening the Reporting of OBservational studies in Epidemiology), a 22-item checklist guideline for use in case, cohort, and cross-sectional observational studies. Additional,

perhaps less well known, guidelines discussed include STARD (STAndards for Reporting Diagnostic accuracy studies), SURGE (SUrvey Reporting GuidelinE), COREQ (COnsolidated criteria for REporting Qualitative research), SQUIRE (Standards for QUality Improvement Reporting Excellence), and REMARK (REporting recommendations for tumour MARKer prognostic studies).

Part 2 concludes with Chapter 24, which describes PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analyses). Widely endorsed and with extension guidelines for abstracts and equity-focused reviews, this 27-item checklist is an expansion of a previous guideline, QUORUM (QUality Of Reporting Of Meta-analyses), and is for use in broad-spectrum systematic reviews and meta-analyses.

Overall, Part 2 is well-structured and insightful, with many chapters containing checklist items for the guidelines in addition to highlighting the key aspects of each guideline, the development of the guideline, how best to use it, and its future directions. The authors evaluate each guideline critically for its merits and limitations and are careful to emphasise that the aim of the guidelines is not to determine the quality of the data presented but instead to clarify what should be included to ensure completeness and transparency.

Part 3 (Chapters 25 to 28) looks at the use of guidelines on how to present statistics, tables and figures, and clinical and laboratory images in publications. Chapter 25 reviews the SAMPL (Statistical Analyses and Methods in the Published Literature) guidelines, which outline the general principles for reporting some of the most commonly used statistical methods. Chapter 26 looks at guidelines for presenting tables and figures in scientific manuscripts, while Chapter 27 looks at the CLIP (Clinical and Laboratory Images in Publications) principles and includes a useful excerpt from an article on how to document magnetic resonance images.

Part 4 concludes this book with Chapter 29, which discusses the need for journals to adopt a coherent reporting guideline policy to ensure guidelines are effectively followed. The authors of this chapter outline an 8-step process that journals can follow in order to implement a reporting guideline, based on their personal experience of launching a reporting guideline adherence policy at an international journal.

Overall this book provides a valuable resource for authors, editors, peer reviewers, and funders to ensure the appropriate guidelines are chosen and correctly applied. I would highly recommend it to any medical writer looking to broaden their knowledge of how best to report health research.

Online resources and details of guidelines are available from the EQUATOR network website (www.equator-network.org).

Reviewed by
Nicholas Churton
Medical Writer
Clinical Research Services,
ICON, Eastleigh, UK
Nicholas.Churton@iconplc.com

Recommended reading in *European Science Editing*

The August 2016 issue of *European Science Editing* (ESE) boasted a fascinating discourse on whether ICMJE (International Committee of Medical Journal Editors) and other guidance on authorship discriminates against non-native English speakers.[1] According to the ICMJE criteria, an author should contribute to "drafting the work or revising it critically for important intellectual content" and give "final approval of the version to be published".[2] How can someone who knows little or no English fulfil these criteria? Unsurprisingly, translation was a central theme of the discussion, with one contributor citing GPP3 (Good Publication Practice): "If needed, translation services should be provided to authors to ensure they can provide detailed feedback and contribute fully".[3] However, not everyone was satisfied by this provision, with another contributor expressing concern that it could be undermined by faulty translation of manuscripts. The discussion progressed to acknowledging the involvement of translators in scientific papers. Some translators were worried that mistakes introduced by the author *after* translation could make them look bad if they were named on the manuscript. I myself have had a similar concern when working as an editor!

A second, briefer discussion covered the thorny subject of editing assistance for PhD students.[4] Is it acceptable to copy edit a PhD thesis or the papers a thesis comprises? A pertinent consideration was highlighted: the thesis might be judged on writing quality. In the apparent absence of any consensus or universally accepted guidance, perhaps the best thing to do would be to consult the guidelines of the examining university and to explicitly acknowledge any help received.

References

1. Langdon-Neuner E (complier). EASE-Forum Digest: March to June 2016. Do authorship criteria exclude authors whose first tongue is not English? European Science Editing. 2016;42(3):79-80.
2. Defining the Role of Authors and Contributors. Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly work in Medical Journals International Committee of Medical Journal Editors. 2015 [cited 2016 Oct 11]. Available from: http://www.icmje.org/recommendations/ browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html.
3. Battisti WP, Wager E, Baltzer L, Bridges D, Cairns A, Carswell CI, et al. Good Publication Practice for Communicating Company-Sponsored Medical Research: GPP3. Ann Intern Med. 2015; 163(6):461-4.
4. Langdon-Neuner E (complier). EASE-Forum Digest: March to June 2016. Is helping students to achieve academic grades by editing their papers/theses ethical? European Science Editing. 2016;42(3):80.