

EQUATOR Network:

Reporting guidelines and other
resources for editors

Iveta Simera



Outline

- EQUATOR online resources and other support
- Where to start – what to choose – and what impact to expect
- Examples



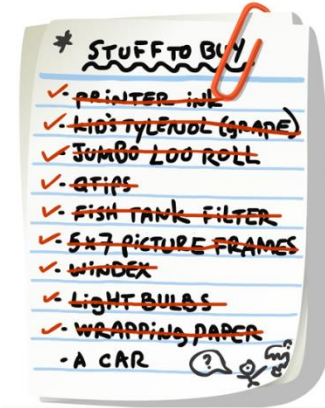
Key points

- Serious reporting **problems** exist in published research literature
- **Reporting guidelines** help to improve completeness and transparency of research articles
- EQUATOR resources support authors, editors and peer reviewers (**www.equator-network.org**)

EQUATOR core activities support good publication of research

- Raise **awareness**
 - Problems resulting from inadequate reporting
 - Existence of helpful resources / tools
- Provide **resources**
 - Ensure people have an easy access to reliable, up-to-date resources
- Develop an education and **training** programme

Reporting guidelines



- 'Reminders' of scientific content
- Definition:
 - Specify a **minimum set** of items required for a clear and transparent account of what was done and what was found in a research study (methodology, clinical focus)
 - Form: structured advice, often as a checklist (perhaps also a flow diagram)
- Most internationally accepted RGs
 - Based on evidence
 - Consensus of relevant stakeholders (multidisciplinary group)

Typical research designs

- Randomised trials **CONSORT**
- Cohort studies
- Cross-sectional studies **STROBE**
- Case-control studies
- Diagnostic, prognostic studies **STARD, TRIPOD**
- Case reports **CARE**
- Qualitative research **COREQ, SRQR**
- Research synthesis
(systematic reviews) **PRISMA, ENTREQ**

Reporting guidelines database



Enhancing the **QUALITY** and
Transparency Of health Research



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[Home](#) > [Library](#) > Reporting guideline

Search for reporting guidelines



Browse for reporting guidelines by selecting one or more of these drop-downs:

Study type

Please select...

Clinical area

Please select...

Section of report

Please select...

Or search with free text

[Start again](#) | [Help](#)

Displaying 282 reporting guidelines found.

Most recently added records are displayed first.



[Preferred reporting items for studies mapping onto preference-based outcome measures: The MAPS statement](#)



[A call for transparent reporting to optimize the predictive value of preclinical research](#)



[Guidelines for uniform reporting of body fluid biomarker studies in neurologic disorders](#)



Reporting guidelines for main study types

Randomised trials	CONSORT	Extensions
Observational studies	STROBE	Extensions
Systematic reviews	PRISMA	Extensions
Case reports	CARE	
Qualitative research	SRQR	COREQ
Diagnostic / prognostic studies	STARD	TRIPOD
Quality improvement studies	SQUIRE	
Economic evaluations	CHEERS	
Animal pre-clinical studies	ARRIVE	
Study protocols	SPIRIT	PRISMA-P

Translations

Some reporting guidelines are also available in languages other than English. Find out more in our

Easy access to the right tool



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Essential resources for writing and publishing health research



Library for health research reporting

The Library contains a comprehensive searchable database of reporting guidelines and also links to other resources relevant to research reporting.



[Search for reporting guidelines](#)



[Not sure which reporting guideline to use?](#)



[Reporting guidelines under development](#)



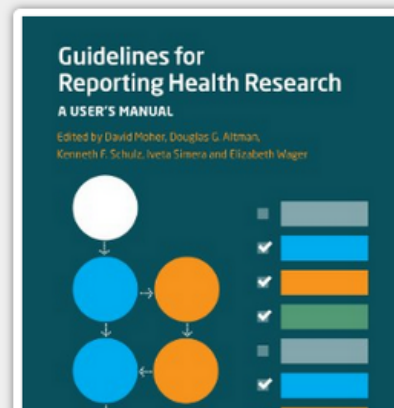
[Visit the library for more resources](#)



Reporting guidelines for main study types

Randomised trials	CONSORT	Extensions	Other
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Systematic reviews	PRISMA	Extensions	Other
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Qualitative research	SRQR	COREQ	Other
Diagnostic / prognostic studies	STARD	TRIPOD	Other
Quality improvement studies	SQUIRE		Other
Economic evaluations	CHEERS		Other
Animal pre-clinical studies	ARRIVE		Other
Study protocols	SPIRIT	PRISMA-P	Other

[See all 282 reporting guidelines](#)



New book edited by the EQUATOR team
[Guidelines for Reporting Health Research: a User's Manual](#)

[Toolkits](#)

[EQUATOR highlights](#)

[News](#)

Impact – 2 types

- Impact of EQUATOR activities (core programme)
 - Awareness, resources, training
- Impact of using reporting guidelines

Impact of using RG

- Primary goal for the use of RG is to improve **completeness** of reporting
 - Ensure that research publications contain all important information allowing **study assessment** and **further use**
- Achieving this goal is possible only through **combined actions / accumulated impact** of:
 - Effectiveness of reporting guidelines
 - Availability / easy access to these guidelines
 - True use of these guidelines

Impact: Role of EQUATOR and others

	Role of EQUATOR	Other leading players
Effectiveness of reporting guidelines	*	RG developers *** (robust dev)
Awareness / easy access to these guidelines	***	RG developers * (OA) Editors, educators ** (awareness)
True use of these guidelines	*	Authors *** (know & use RG) Editors, Peer reviewers ** (check) Funders ** (require, check, reward or punish?)

Impact: Use of RG by authors (?)

- Impact of an online writing aid tool for writing a randomized trial report: the COBWEB (Consort-based WEB tool) randomized controlled trial
Barnes C et al. *BMC Medicine* 2015, 13:221
- Reporting diagnostic accuracy studies: some improvements after 10 years of STARD.
Korevaar DA et al. *Radiology* 2015, 274:781-789.
- Does use of the CONSORT Statement impact the completeness of reporting of randomised controlled trials published in medical journals? A Cochrane review.
Turner L et al. *Syst Rev* 2012 1:60.
- Risk of bias of randomized trials over time.
Reveiz et al. *J Clin Epid* 2015 Sep;68(9):1036-45

Impact: Active implementation by journals

- Effect of editors' implementation of CONSORT guidelines on the reporting of abstracts in high impact medical journals: interrupted time series analysis

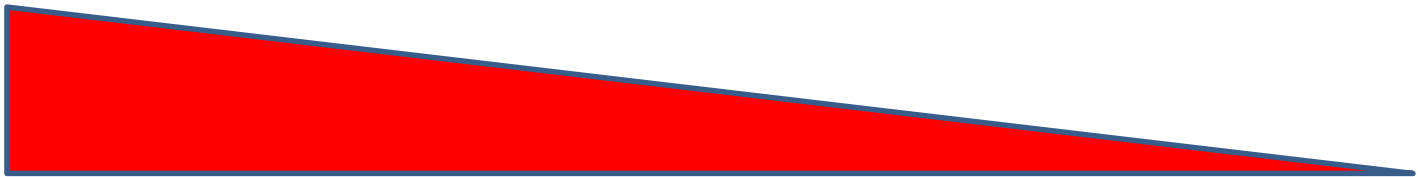
Hopewell et al. *BMJ* 2012; 344

- The CONSORT Statement: Application within and adaptations for orthodontic trials.

Pandis N et al. *Am J Orthod Dentofacial Orthop*_2015; 147(6):663-79.

Examples from journals

Implementation of reporting guidelines



Mandatory

Nothing

Jason Roberts, *Headache*

Headache
© 2009 the Authors
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Published by Wiley Periodicals, Inc.

Editorial

Improving the Quality of Research Reporting: *Headache* Steps Up to the Plate

Elizabeth W. Loder, MD, MPH; Donald B. Penzien, PhD

Good reporting is not a trivial component of good science. It is an obligation and responsibility.

Committed editor and editorial team

And increasingly, preclinical evidence is summarized in meta-analyses. All of these

Professor Douglas Altman, Centre for Statistics in Medicine, University of Oxford, United Kingdom.¹

Have you ever read a research article and searched in vain for important details about how the work was conducted? Perhaps you wanted to know how the authors decided on the sample size, whether the subjects in the study were similar to patients you treat, or how many participants dropped out of the

activities are dependent upon the quality of information in the original research report.

If you have submitted an article to *Headache* since the beginning of this year, you probably noticed that you were asked to upload a reporting checklist along with your work. In an attempt to improve the quality of research reports in the journal, *Headache* now requires a completed reporting checklist as a condition of article submission. The electronic manu-

Elevating the Quality of Disability and Rehabilitation Research: Mandatory Use of the Reporting Guidelines

Collaboration of key journals within medical specialty

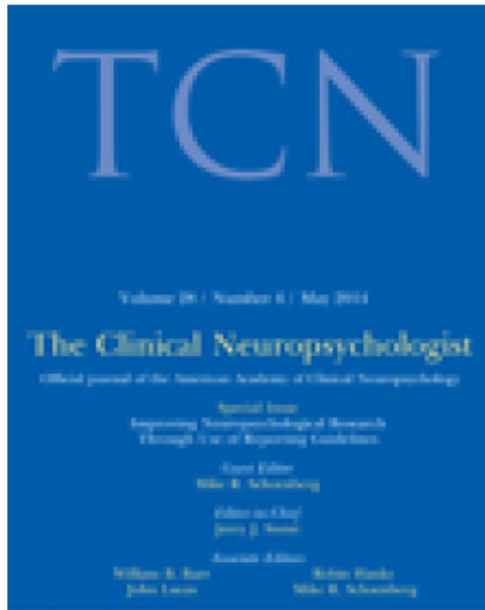
With the remarkable growth of disability- and rehabilitation-related research in the last decade, it is imperative that we support the highest quality research possible. With cuts in research funding, rehabilitation research is now under a microscope like never before, and it is critical that we put our best foot forward.

To ensure the quality of the disability and rehabilitation research that is published, the 28 rehabilitation journals simultaneously publishing this editorial (see acknowledgments) have agreed to take a more aggressive stance on the use of reporting guidelines.* Research reports must contain sufficient information to allow readers to understand how a study was designed and conducted, including variable definitions, instruments and other measures, and analytical techniques.¹ For review articles, systematic or narrative, readers should be informed of the rationale and details behind the literature search strategy. Too often ar-

... errors in reporting research methods and findings. They are typically presented as checklists or flow diagrams that lay out the core reporting criteria required to give a clear account of a study's methods and results. The intent is not just that authors complete a specific reporting checklist but that they ensure that their articles contain key elements. Reporting guidelines should not be seen as an administrative burden; rather, they are a template by which an author can construct their articles more completely.

Reporting guidelines have been developed for almost every study design. More information on the design, use, and array of reporting guidelines can be found on the website for the Enhancing the Quality and Transparency of Health Research (EQUATOR) network,⁴ an important organization that promotes improvements in the reporting





The Clinical Neuropsychologist

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/ntcn20>

Introduction to the Special Issue on Improving Neuropsychological Research Through Use of Reporting Guidelines

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^b Department of Psychology,
Florida Memorial University,
Published Online: 07 Jul 2014.

Practical introduction of reporting guidelines – examples relevant to a specific medical field

This 2014 special issue of *The Clinical Neuropsychologist* includes papers describing the application of reporting guidelines to neuropsychology, along with several papers highlighting the use of reporting guidelines followed by how reporting guidelines support evidence-based neuropsychology practice. Loring and Bowden

research consumers. We trust that the consumers of research published in *The Clinical Neuropsychologist* will appreciate this evolutionary process and the fact that TCN intends to join the ranks of peer-review academic journals in using publication guidelines.

Reporting Guidelines and Quality Research



Transparent reporting of studies relevant to physical therapy practice

Como escrever de forma transparente artigos científicos relevantes para a prática da Fisioterapia

Leonardo O. P. Costa^{1,2}, Chris G. Maher², Alexandre D. Lopes¹, Marcos A. de Noronha³, Lucíola C. M.

Abstract

Background: There was a clear growth, in the last 2 decades, of up to 6 fold in scientific articles that are directly relevant to physical therapy practice. However, along with this fast growth, little attention has been given to transparency when reporting research methods and results. More recently, groups of researchers around the world have made successful attempts to address this issue by creating guidelines that will help researchers not only on the preparation of manuscripts but also on making sure that important details related to design and methodology are controlled and reported. **Objective:** To present four specific reporting guidelines, which are best known as "statements". **Discussion:** A network named EQUATOR (Enhancing the Quality and Transparency of Health Research) was created with the main mission of providing basic principles for responsible and transparent reporting. The EQUATOR network encompasses, among others, the CONSORT statement which is related to randomized controlled trials; the PRISMA statement, which is related to systematic reviews and meta-analysis; the STROBE Statement, which is related to observational studies; and the STARD statement, which is related to reporting of accuracy of diagnostic tests. Some journals have recommended the use of these statements, while in others their use is mandatory. The goal of the use of these statements by journals is to guarantee fast decisions regarding publication and the best possible quality of reporting. Ultimately, it will help readers, including physical therapists, to make better decisions in clinical practice.

Keywords: physical therapy; bias; guideline; editorial policies.

Resumo

Contextualização: Nas últimas duas décadas, ocorreu um rápido crescimento, de até seis vezes, do número de artigos científicos que são diretamente relevantes para a prática da Fisioterapia. No entanto, junto com esse rápido crescimento, tem-se dado pouca atenção à transparência de como são descritos os métodos e os resultados desses estudos. Mais recentemente, grupos de pesquisadores

No one likes more work. Writing a scientific paper is hard enough. However, one of the problems with manuscript preparation is the omission of key data that results in either rejection of the manuscript or excessive post-submission work to correct these deficiencies. As a result, over the years, an international initiative known as the *EQUATOR Network* (<http://www.equator-network.org/>), has, since 2006, developed guidelines that many journals have adopted, including the *JOURNAL OF ORTHOPAEDIC TRAUMA*, *ORTHOPEDICS*, *ORTHOPEDIC SURGERY*, and *PLoS Medicine*. Following a vote of the editorial board at the Fall 2014 OTA meeting, the *Journal of Orthopaedic Trauma* has recently adopted them as well.

It is important. Accurate reporting of data is critical to the publication process. Transparency, clarity, and quality are the hallmarks of good research. The EQUATOR network provides a set of reporting guidelines for a variety of study designs, including randomized controlled trials, observational studies, and systematic reviews. The EQUATOR network also provides an *ARRIVE Statement* for in vivo animal experiments. The EQUATOR network provides a set of reporting guidelines regarding proper reporting of research data can be found at www.equator-network.org/. There is an author toolkit, and checklists are available and confirm that you have met the criteria for each guideline. We have also created a Web site for further assistance and will be happy to provide assistance to authors who wish to improve the quality of our accepted articles. The EQUATOR network provides a set of reporting guidelines. Our editorial office will work to assist both authors and reviewers. Manuscript review using these criteria will be July 1, 2015. These steps will allow *Journal of Orthopaedic Trauma* to maintain the highest quality, and readers will rely on the accuracy and reliability of the information. Our goal is to reduce waste in research in the field of orthopaedics and to increase the value of JOT to readers.

Frequent problems

- Difficulties matching a specific study with a relevant reporting guideline
- Instructions to authors
 - Authors don't read them
 - Often ambiguous in what they are asking for

Dear Madam,

we want to publish an original article on the DMCN journal.

They require that we have a document in accordance with EQUATOR guidelines, however, its not clear for us which guidelines to use for an original article.

Could you please advise?

Thank you.

Juan

Frequent problems

- Difficulties in using reporting guidelines
 - Authors
 - Often should use more than 1 (difficult)
 - Checklists often not easy to use
 - Lack of good examples implementing RG in a specific areas
 - Lack of tools (e.g. tool to help create a flowchart)
 - ‘Misusing’ RG – they are guiding reporting not conduct
 - Lack of knowledge of RG (too late when submitting a manuscript)
 - Editors
 - At what stage of editorial and peer review process this might be most efficient?
 - Lack of standardised templates (standard letters to authors)
 - Lack of knowledge of RG
 - Time issues

How can EQUATOR help (now and in the future)

- EQUATOR online resources
- Toolkits for editors
 - [GoodReports 2016](#)
- Software development
 - CONSORT – Koneka checking tool
 - Writing tool – Paris
 - StatsReviewer
 - Penelope – James Harwood, Help to select RG
- Resources and training for researchers / authors



The screenshot shows the EQUATOR Network website's 'Editors of research publications' page. The navigation bar includes 'Home', 'Library', 'Toolkits', 'Courses & events', 'News', 'Blog', and 'About us'. The breadcrumb trail is 'Home > Toolkits > Editors of research publications'. The page title is 'Editors of research publications'. The main content area lists resources to help produce high quality research publications:

- [Developing journal's policies on research reporting](#)
- [Guidance for peer reviewers](#)
- [Training opportunities](#)
- [Do you want to write an editorial about EQUATOR?](#)
- [What can I do to support the EQUATOR Network's effort](#)

There is an image of five people sitting around a table, looking at documents and laptops.

Developing journal's policies on research reporting

To help editors with selecting appropriate reporting guidelines to improve the accuracy and completeness of the research they publish, the EQUATOR Network has prepared a brief outline of the steps and issues editors might consider when producing these guidelines into their journals:

- [How to implement reporting guidelines in your journal: guidance from EQUATOR](#)
- Simera I.: [Reporting guidelines](#): a tool to increase completeness, transparency, and value of health research published in your journal. Chapter 5.6 (in proof) in Smart P., Maisonneuve H. and Polderman A. (eds) Science Editors' Handbook European Association of Science Editors. www.ease.org.uk.