The EQUATOR Network: a global initiative to improve the quality of reporting research
Author behaviour concerning publishing health research (1)

• A journal received a submission it had already rejected twice after peer-review:
  • in the first submission the study was comparative
  • in the second submission the study was cut to a one-arm description
  • in the third submission the study had become again comparative
• The authors made no allusion to the previous submissions and reviewer comments
Author behaviour concerning publishing health research (2)

- Omit submitting for publication a substantial amount of their research
- In a recent systematic review update of 79 studies examining research initially presented at scientific meetings and followed forward to publication
  - Only 53% of the meeting presentations were subsequently published after nine years
Author behaviour concerning publishing health research (3)

- 80 consecutive studies
  - subsequently published in Evidence Based Medicine (Oct 05 for 12 months)
  - 55 RCTs; 25 SRs
  - Usable information about the intervention missing from 41/80

Author behaviour concerning publishing health research (4)

• 10 essential elements about intervention
  • e.g., drug name, dose, route....
• Examined 262 reports of randomized trials from most prominent oncology journals
• Overall, only 11% of articles reported all 10 essential items
Author behaviour concerning publishing health research (5)

- Selecting specific outcomes to tell readers about
  - the selection – based on the results

Net effect

• “This research investment should be protected from the avoidable waste of inadequately producing and reporting research”
  • Chalmers and Glasziou
• “Thoughtful consideration of reporting trial-related procedures that could assist with turning “best evidence” to “best Practice” would be worthwhile”
• “Careful and consistent reporting would help to promote safe and effective clinical application of oncology therapeutics ...”
  • Dancey

Reasons authors behave like this

• Don’t know completely
  • Publish of peril
• Needs to be studied
Changing author behaviour

• The EQUATOR Network
  • www.equator-network.org
• An international initiative set up to improve reliability of health research publications
Seven major goals of the EQUATOR Network

1. Develop and maintain a comprehensive internet based resource centre providing up-to-date information, tools and other materials related to health research reporting
2. Assist in the development, dissemination and implementation of robust reporting guidelines
3. Actively promote the use of reporting guidelines and good research reporting practices through an education and training program
4. Conduct regular assessments of how journals implement and use reporting guidelines
5. Conduct regular audits of the reporting quality across the whole spectrum of health research literature
6. *Set up a global network of local EQUATOR collaborating centres in order to facilitate the improvement of health research reporting on a worldwide scale*
7. Develop a general strategy for translating the principles of responsible research reporting into practice
Steps to support and practice accurate and transparent reporting of health research

- Find out about reporting requirements **early** when planning your research study
- When writing up your research, check the EQUATOR website for any new relevant reporting guidelines in order to help improve the quality of your manuscript
EQUATOR resources

Library for health research reporting

The EQUATOR Network library currently contains:

- An introduction to reporting guidelines
- Comprehensive lists of the available reporting guidelines, listed by study type
  - Experimental studies
  - Observational studies
  - Diagnostic accuracy studies
  - Systematic reviews
  - Qualitative research
  - Economic evaluations
  - Quality improvement studies
  - Other reporting guidelines
- Reporting data
- Sections of research reports
- Specific conditions or procedures
- Reporting guidelines under development
- Reporting guidelines in other research fields
- Guidance on scientific writing
- Guidance developed by editorial groups
- Medical writers - additional resources
- Research ethics, publication ethics and good practice guidelines
- Development and maintenance of reporting guidelines
- Editors introducing reporting guidelines
- Guidelines for peer reviewers
- Case studies: how journals implement reporting guidelines
- Examples of good research reporting
- Useful and interesting presentations
- EQUATOR ‘pick’ - comments, discussion and other thought provoking articles and interesting quotes

Download the most frequently used reporting guidelines:

- CONSORT checklist
- CONSORT flowchart
- CONSORT extensions
- STARD checklist & flowchart
- STROBE checklists
- PRISMA checklist
- PRISMA flow diagram

Guidelines for reporting systematic reviews and meta-analysis

<table>
<thead>
<tr>
<th>PRISMA</th>
<th>PRISMA (talk)</th>
</tr>
</thead>
<tbody>
<tr>
<td>When to use</td>
<td>When to use</td>
</tr>
<tr>
<td>Authors</td>
<td>Authors</td>
</tr>
</tbody>
</table>

Download:
- Catalogue of reporting guidelines (2010)
Reporting guidelines

- Checklist
- Flow diagram
- Explicit text to guide authors in reporting a specific type of research, developed using explicit methodology

The rate of death was 1.5% before the checklist was introduced and declined to 0.8% afterward (P = 0.003). Inpatient complications occurred in 11.0% of patients at baseline and in 7.0% after introduction of the checklist (P<0.001)
Differences in reporting of methodological items between CONSORT endorsing and non-endorsing journals in 2006

<table>
<thead>
<tr>
<th>Subgroup</th>
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<th>Risk ratio (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endorsing</td>
<td>Non-endorsing</td>
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</tr>
<tr>
<td>&quot;Randomized&quot; in title</td>
<td>113/274</td>
<td>92/342</td>
</tr>
<tr>
<td>Primary outcome</td>
<td>176/274</td>
<td>148/342</td>
</tr>
<tr>
<td>Sample size calculation</td>
<td>158/274</td>
<td>121/342</td>
</tr>
<tr>
<td>Sequence generation</td>
<td>117/274</td>
<td>92/342</td>
</tr>
<tr>
<td>Allocation concealment</td>
<td>91/274</td>
<td>65/342</td>
</tr>
<tr>
<td>Blinding</td>
<td>88/274</td>
<td>72/342</td>
</tr>
<tr>
<td>Participant flow diagram</td>
<td>107/274</td>
<td>65/342</td>
</tr>
<tr>
<td>Loss to follow-up</td>
<td>215/274</td>
<td>207/342</td>
</tr>
<tr>
<td>Funding</td>
<td>188/274</td>
<td>192/342</td>
</tr>
<tr>
<td>Trial registration</td>
<td>47/274</td>
<td>11/342</td>
</tr>
</tbody>
</table>
EQUATOR resources

Resources for authors
The following resources will help you to produce high quality research publications:

- Planning and conducting your research
- Writing up your research
- Medical writers – additional resources
- Ethical guidelines and considerations
- Other resources
- What can I do to support the EQUATOR Network's effort

Planning and conducting your research
It is important to be aware of reporting requirements and think about reporting when you are planning and conducting your research study:

- UK National Health System Research Plan (providing resources and points for consideration at all stages of the research process: from formulating a research question to the reporting and dissemination of new findings)
- UK MRC Route Map (Medical Research Council guidance through the legal and good practice requirements when designing conducting and disseminating experimental medicine studies)

Writing up your research
A good scientific article combines clear writing style with a high standard of reporting of the research content:

- Guidance on scientific writing
- Reporting guidelines (comprehensive lists of the available guidelines appropriate to each study type)
- Examples of good research reporting (specific examples showing why and how to correctly describe important aspects of your trial or other types of research studies)

Tip: When you finish your writing...
When published, your article will start a new independent life – it will be read and critically appraised, and it may contribute to systematic reviews, inform clinical guidelines, and influence clinical practice, etc. So, before you submit your paper to a journal, try to consider whether the article is ‘fit for purpose’ and able to pass this future scrutiny. E.g., will a Cochrane reviewer be able to identify your study’s methods to assess risk of bias (Cochrane handbook, Table 8.5.4)? Can numerical results be extracted from your paper without any ambiguity, have you provided enough details about your intervention to allow its use in clinical practice, etc.
EQUATOR resources

- Developing a comprehensive educational program
- Webinar
  - Crystal clear reporting of systematic reviews and EQUATOR Network
    - http://www.youtube.com/watch?v=TVFYenon1Jo&feature=player_embedded
- Developing short courses
  - Editors and peer reviewers
  - Young research professionals and research students
What can you do to help improve the quality of reporting health research?

**Author**
- Adhere to the relevant reporting guideline(s)
  - when not reporting on certain items explain the reason why
- Reporting guidelines provide a minimum set of items
  - other details specific to your particular study might be relevant for a clear and complete account of what was done and found.

**Institution**
- Ensure your workplace:
- Implements a policy whereby
  - research from the institution must use reporting guidelines
- insist upon populating a reporting guideline checklist for each journal submission
- Ask your institution leadership to set aside resources to develop courses on reporting research and peer review
“GOOD REPORTING IS A MANDATORY COMPONENT OF GOOD SCIENCE, NOT AN OPTIONAL EXTRA”
Thank you!