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REVIEW

A catalogue of reporting guidelines for health research

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ABSTRACT

Growing evidence demonstrates widespread deficiencies in the reporting of health research studies. The EQUATOR Network is an international initiative that aims to enhance the reliability and value of the published health research literature. EQUATOR provides resources, education and training to facilitate good research reporting and assists in the development, dissemination and implementation of robust reporting guidelines. This paper presents a collection of tools and guidelines available on the EQUATOR website (http://www.equator-network.org) that have been developed to increase the accuracy and transparency of health research reporting.

Keywords EQUATOR Network, reporting guidelines, research reporting.

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Many scientific articles are written merely to get something published, neglecting the clinician who would like the medical literature to guide their practice [1].

Introduction

The main purpose of investing money into health research is to advance scientific understanding and improve health. However, efficient translation of research findings into health benefits, as well as into further research, requires reliable and usable data from research studies. Research articles published in peer review journals provide a scientific check and disseminate new findings into the research community and clinical practice. Essentially, without publication, the research remains invisible to the world. And yet, too often, reading these articles leaves us unable to determine exactly how the research was conducted, what was found, how reliable the findings are and how they fit into the wider context of existing knowledge. Many published articles are not fit for purpose [2].

Growing evidence demonstrates widespread deficiencies in the reporting of health research studies. Problematic issues include (but are not limited to): non-reporting or delayed reporting of whole studies [3]; omission of crucial information in the description of research methods [4] and interventions [5]; selective reporting of only some outcomes [6]; inadequate reporting of harms [7]; presenting data and graphs in confusing and misleading ways [8]; and omissions from or misinterpretation of results in abstracts [9].

These deficiencies seriously distort scientific reality [10] and prevent clinicians from applying effective interventions in patients' care [5]. Boxes 1 and 2 show just two of the numerous examples of problems identified in the research literature. A considerable amount of the huge sums of money invested in health research is therefore wasted [11].

Box 1. Missing information in descriptions of applied treatments – example of inadequate research reporting

Glasziou *et al*. [5] assessed descriptions of treatments in 80 studies (55 randomised trials and 25 systematic reviews) that had been summarised over 1 year in the *Evidence-Based Medicine*, a journal aimed specifically at doctors working in primary care. Crucial elements of the intervention descriptions were missing in 41 of the original published studies thus preventing clinicians from using these treatments in their clinical practice. Of the 25 systematic reviews, only three provided intervention description sufficient for implementation in practice.

Box 2. Selective publication of antidepressant trials – example of inadequate research reporting

In 2006, $80 billion was spent on antidepressant drugs in the USA; the US National Institutes of Health invested $335 million into depression research.

Turner *et al.* [12] assessed how accurately the published literature conveyed data on drug efficacy to the medical community by comparing the results from the published literature with the information submitted to the Food and Drug Administration (FDA) between 1987 and 2004 for marketing approval. They identified 74 FDA registered trials, including 12 564 patients; of these, 26 (35%) including 3449 patients remained unpublished.

Thirty-eight of 74 trials were viewed as 'positive' by FDA; of these, 37 (97%) were published and only one remained unpublished.

Thirty-six of 74 trials were viewed as 'negative' by FDA; of these, 22 (61%) remained unpublished, 11 (31%) were published in a distorted way giving the impression of 'positive' results and only three (8%) were published as 'negative'.

According to the published literature, it appeared that 94% of the conducted trials were 'positive'. This contrasted with the FDA records documenting only 51% of 'positive' trials. Turner *et al.* conducted separate meta-analyses of the FDA data set and dataset published in journals; this showed that the estimated effectiveness was inflated in publications by 11–69% for the individual drugs.

In this article, we discuss what can be done to improve health research reporting and introduce the EQUATOR Network. We present a collection of available tools and guidelines that have been developed to increase the accuracy and transparency of health research reporting.

Reporting guidelines

Guidelines and checklists help individuals meet certain standards by providing sets of rules or principles that guide towards the best behaviour in a particular area. They are successfully and routinely used, often on a compulsory basis, in many areas of human activity to prevent errors and omissions (e.g. in aviation, hospitals, etc.). The World Health Organisation introduced its surgical checklist in 2008 [13] and piloted its implementation at eight diverse hospitals around the world [14]. The results of this study showed that implementation of the checklist was associated with a significant decline in the rate of post-surgical complications (from 11% before to 7% after the checklist introduction) and death from surgery (from 1·5% before to 0·8% after). These results demonstrate that a very simple intervention – application and adherence to the checklist – can lead to dramatic improvements. Adherence to the guidelines that provide structured advice on how to report research studies can achieve the same dramatic effect in their own context: it can decrease honest errors and omissions in scientific reports, and improve the accuracy and transparency of publications which will allow reliable appraisal of presented research.

During the last 15 years, a number of reporting guidelines have been developed. These guidelines usually specify a minimum set of information needed for a complete and clear account of what was done and what was found during a research study, reflecting in particular, aspects that might have introduced bias into the research. Most internationally recognised guidelines reflect consensus opinion of experts in a particular field, including methodologists and journal editors and also draw on relevant empirical evidence. Reporting guidelines complement advice on scientific writing and journals' instructions to authors. Some journals already use them and require their authors to adhere to the relevant selected guidelines (e.g. the CONSORT Statement for reporting randomised controlled trials [15], PRISMA for systematic reviews and meta-analyses [16] or STROBE for observational studies [17]). Although the studies evaluating the impact of reporting guidelines on the quality of health research reporting are still sparse, those that have been undertaken show very promising results [18–21]. However, to achieve an improvement of health research reporting on a global scale, everybody involved in the publication of research findings should have at least a basic knowledge of the principles of good research reporting and of the available reporting guidelines. This applies not only to researchers – authors of research articles – but also to journals editors and peer reviewers.

EQUATOR Network

The National Knowledge Service of the UK National Health Service (NHS) was the first research funding organisation to realise that in order to enhance the reliability and value of health research literature available to the local clinicians and researchers, the problem of poor research reporting needs to be addressed systematically and on a global scale. The UK NHS provided funds to set up the EQUATOR (Enhancing the QUAlity and Transparency Of health Research) programme (http://www.equator-network.org).

The EQUATOR Network, officially launched in June 2008, is an international initiative that promotes transparent and accurate reporting of health research studies. EQUATOR provides resources, education and training to facilitate good research

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reporting and assists in the development, dissemination and implementation of robust reporting guidelines [22]. The Network is led by experts in the area of research methodology, reporting and publishing. The EQUATOR team collaborates closely with all parties involved in the publication of health research (researchers, journals, publishers, scientists developing reporting guidelines, educators and research funders) all of whom share the responsibility for the quality of research publications.

The main areas of EQUATOR's work are summarised in Box 3. The Internet-based 'Library for Health Research Reporting' brings together resources for researchers writing up their studies (e.g. guidance on reporting, scientific writing, ethical research and publication conduct); for editors who wish to implement policies to aid accurate and transparent research reporting in their journals and also for scientists wishing to develop further high quality reporting guidelines (Fig. 1).

Box 3. 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 programme.
4. Conduct regular assessments of how journals implement and use reporting guidelines.
5. Conduct regular audits of reporting quality across the health research literature.
6. Set up a global network of local EQUATOR 'offices' to facilitate the improvement of health research reporting on a worldwide scale.
7. Develop a general strategy for translating principles of responsible research reporting into practice.

Recent years have seen a proliferation in the development of new reporting guidelines motivated mainly by the insufficient quality of published reports. The EQUATOR collection is a first attempt to bring all available reporting guidelines under one roof to allow their easy identification and use. Currently, the EQUATOR website lists over 90 reporting guidelines. The EQUATOR team is committed to keeping the resources up-to-date. The listed guidelines were identified by a systematic search of major health related bibliographic databases and the

Figure 1 EQUATOR Network Library for Health Research Reporting.

list is regularly updated [23]. We deliberately set very broad criteria for including guidelines in our resources: any guidelines published since 1996 and developed with the objective of improving the reporting of research studies relating to health. We have not excluded any guidelines on the basis of the methodology used for their development although our survey of reporting guidelines authors [24] and a systematic review of reporting guidelines [25] have shown major differences in the development processes of individual guidelines. The inclusion of a reporting guideline on the EQUATOR website is not a guarantee of the guideline 'robustness'. In the near future, the EQUATOR website will provide additional background information about the available guidelines to facilitate their implementation. As part of this improvement process, the EQUATOR team has initiated work on a tool for the evaluation of reporting guidelines that will take into account important characteristics of guidelines and their development processes and will provide helpful information for those wishing to select robust guidelines and to support their use in the editorial process.

The EQUATOR website lists reporting guidelines categorised by the type of study the guidance is aimed at. This classification is not straightforward as the guidelines were not developed systematically to cover all major research designs, but rather were produced independently to address specific problems.

Here, we provide a catalogue of reporting guidelines as available on the EQUATOR website in October 2009.

Reporting guidelines for health research studies available on the EQUATOR website

The EQUATOR 'Library for Health Research Reporting' provides reporting guidelines for the following types of health research studies:

- Experimental studies, including randomised trials
- Observational studies
- Diagnostic accuracy studies
- Systematic reviews
- Qualitative research
- Economic evaluations
- Quality improvement studies
- Other reporting guidelines
- Sections of research reports
- Specific conditions or procedures
- Reporting experimental data

In addition to these reporting guidelines, we list guidance developed by influential editorial groups that relates to publication of health research.

Experimental studies, including randomised trials

Type of study	Guideline name, acronym	Reference
Randomised controlled trials	CONSORT Statement	Altman DG, Schulz KF, Moher D, Egger M, Davidoff F, Elbourne D, Gøtzsche PC, Lang T. The revised CONSORT statement for reporting randomized trials: explanation and elaboration. *Ann Intern Med* 2001;**134**(8):663–694. PMID: 11304107 *Lancet* 2001;**357**:1191–1194. PMID: 11323066 *JAMA* 2001;**285**:1987–1991. PMID: 11308435 Moher D, Schulz KF, Altman DG. The CONSORT statement: revised recommendations for improving the quality of reports of parallel-group randomised trials. *Lancet* 2001;**357**(9263):1191–1194. PMID: 11323066
	The CONSORT group extended the Statement to cover some specific issues:	
	CONSORT Harms: Reporting harms in randomised controlled trials (RCTs)	Ioannidis JP, Evans SJ, Gøtzsche PC, O'Neill RT, Altman DG, Schulz K, Moher D, for the CONSORT Group. Better Reporting of Harms in Randomized Trials: An Extension of the CONSORT Statement. *Ann Intern Med* 2004;**141**(10):781–788. PMID: 15545678
	CONSORT Non-inferiority: Reporting non-inferiority and equivalence RCTs	Piaggio G, Elbourne DR, Altman DG, Pocock SJ, Evans SJ, for the CONSORT Group. Reporting of Noninferiority and Equivalence Randomized Trials: An Extension of the CONSORT Statement. *JAMA* 2006;**295**(10):1152–1160. PMID: 16522836
	CONSORT Cluster: Reporting cluster RCTs	Campbell MK, Elbourne DR, Altman DG. CONSORT statement: extension to cluster randomised trials. *BMJ* 2004;**328**(7441):702–708. PMID: 15031246
	CONSORT Herbal: Reporting of herbal interventions RCTs	Gagnier JJ, Boon H, Rochon P, Moher D, Barnes J, Bombardier C, for the CONSORT Group. Reporting Randomized, Controlled Trials of Herbal Interventions: An Elaborated CONSORT Statement. *Ann Intern Med* 2006;**144**(5):364–367. PMID: 16520478
	CONSORT Non-pharmacological treatment	Boutron I, Moher D, Altman DG, Schulz K, Ravaud P, for the CONSORT group. Methods and Processes of the CONSORT Group: Example of an Extension for Trials Assessing Non-pharmacologic Treatments. *Ann Intern Med.* 2008;**148**(4):W60-W66. PMID: 18283201 Boutron I, Moher D, Altman DG, Schulz KF, Ravaud P. Extending the CONSORT statement to randomized trials of nonpharmacologic treatment: explanation and elaboration. *Ann Intern Med* 2008;**148**(4):295–309. PMID: 18283207

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Continued

Type of study	Guideline name, acronym	Reference
	CONSORT Abstracts	Hopewell S, Clarke M, Moher D, Wager E, Middleton P, Altman DG, Schulz KF and the CONSORT Group. CONSORT for reporting randomized controlled trials in journal and conference abstracts: explanation and elaboration. *PLoS Med* 2008;**5**(1):e20. doi:10·1371/journal.pmed.0050020. PMID: 18215107 Hopewell S, Clarke M, Moher D, Wager E, Middleton P, Altman DG, *et al.* CONSORT for reporting randomised trials in journal and conference abstracts. *Lancet* 2008;**371**(9609):281–3. PMID: 18221781
	CONSORT Pragmatic Trials	Zwarenstein M, Treweek S, Gagnier JJ, Altman DG, Tunis S, Haynes B, Oxman AD, Moher D; CONSORT group; Pragmatic Trials in Healthcare (Practihc) group. Improving the reporting of pragmatic trials: an extension of the CONSORT statement. *BMJ* 2008;**337**:a2390. PMID: 19001484
	Four groups independent from the CONSORT group have expanded the CONSORT criteria to other areas of clinical research:	
	STRICTA Controlled trials of acupuncture	MacPherson H, White A, Cummings M, Jobst K, Rose K, Niemtzow R. Standards for reporting interventions in controlled trials of acupuncture: The STRICTA recommendations. STandards for Reporting Interventions in Controlled Trials of Acupuncture. Complement *Ther Med* 2001;9(4):246–**9**. PMID: 12184354 *Acupunct Med* 2002;**20**(1):22–25. PMID: 11926601 *J Altern Complement Med* 2002;**8**(1):85–9. PMID: 11890439
	Behavioural medicine RCTs	Davidson KW, Goldstein M, Kaplan RM, Kaufmann PG, Knatterud GL, Orleans CT, Spring B, Trudeau KJ, Whitlock EP. Evidence-based behavioral medicine: what is it and how do we achieve it? *Ann Behav Med* 2003;**26**(3):161–171. PMID: 14644692
	Occupational therapy RCTs	Moberg-Mogren E, Nelson DL. Evaluating the quality of reporting occupational therapy randomized controlled trials by expanding the CONSORT criteria. *Am J Occup Ther* 2006;**60**(2):226–235. PMID: 16596926
	RedHot Homeopathic treatments	Dean ME, Coulter MK, Fisher P, Jobst K, Walach H. Reporting data on homeopathic treatments (RedHot): A supplement to CONSORT. *Forsch Komplementmed* 2006;**13**(6):368–371. PMID: 17200612
Neuro-oncology trials – phase I and II	GNOSIS	Chang SM, Reynolds SL, Butowski N, Lamborn KR, Buckner JC, Kaplan RS, Bigner DD. GNOSIS: guidelines for neuro-oncology: standards for investigational studies-reporting of phase 1 and phase 2 clinical trials. *Neuro Oncol* 2005;**7**(4):425–434. PMID: 16212807
Neuro-oncology trials – surgery	GNOSIS	Chang S, Vogelbaum M, Lang FF, Haines S, Kunwar S, Chiocca EA, *et al.* GNOSIS: Guidelines for Neuro-Oncology: Standards for Investigational Studies – reporting of surgically based therapeutic clinical trials. *J Neurooncol* 2007;**82**(2):211–20. PMID: 17146595
Phase II trials with historical data		Vickers AJ, Ballen V, Scher HI. Setting the bar in phase II trials: the use of historical data for determining 'go/no go' decision for definitive phase III testing. *Clin Cancer Res* 2007;**13**(3):972–976. PMID: 17277252
Non-randomised evaluations of behavioural and public health interventions	TREND	Des Jarlais DC, Lyles C, Crepaz N, TREND Group. Improving the reporting quality of non-randomized evaluations of behavioral and public health interventions: the TREND statement. *Am J Public Health* 2004;**94**(3):361–366. PMID: 14998794

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Type of study	Guideline name, acronym	Reference
Non-randomised studies		Reeves BC, Gaus W. Guidelines for reporting non-randomised studies. *Forsch Komplementarmed Klass Naturheilkd* 2004;**11** Suppl 1:46–52. PMID: 15353903
Infection control intervention studies	ORION	Stone SP, Cooper BS, Kibbler CC, Cookson BD, Roberts JA, Medley GF, Duckworth G, Lai R, Ebrahim S, Brown EM, Wiffen PJ, Davey PG. The ORION statement: guidelines for transparent reporting of Outbreak Reports and Intervention studies Of Nosocomial infection. *J Antimicrob Chemother* 2007;**59**(5):833–840. PMID: 17387116 *Lancet Infect Dis* 2007;**7**:282–288. PMID: 17376385

Observational studies

Type of study	Guideline name, acronym	Reference
Observational studies in epidemiology	STROBE	von Elm E, Altman DG, Egger M, Pocock SJ, Gotzsche PC, Vandenbroucke JP. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) Statement: guidelines for reporting observational studies. *Ann Intern Med* 2007;**147**(8):573–577. PMID: 17938396 *PLoS Med.* 2007;**4**(10):e296. PMID: 17941714 *BMJ.* 2007;**335**(7624):806–808. PMID: 17947786 *Prev Med.* 2007;**45**(4):247–251. PMID: 17950122 *Epidemiology.* 2007;**18**(6):800–804. PMID: 18049194 *Lancet.* 2007;**370**(9596):1453–1457. PMID: 18064739 Vandenbroucke JP, von Elm E, Altman DG, Gotzsche PC, Mulrow CD, Pocock SJ, Poole C, Schlesselman JJ, Egger M. Strengthening the Reporting of Observational Studies in Epidemiology (STROBE): Explanation and Elaboration. *PLoS Med* 2007;**4**(10):e297. PMID: 17941715 *Epidemiology.* 2007;**18**(6):805–35. PMID: 18049195 *Ann Intern Med.* 2007;**147**(8):W163–94. PMID: 17938389
	The STROBE Statement has been extended to cover genetic association studies:	
	STREGA Genetic association studies	Little J, Higgins JP, Ioannidis JP, Moher D, Gagnon F, von Elm E, *et al.* STrengthening the REporting of Genetic Association Studies (STREGA): An Extension of the STROBE Statement. *PLoS Med* 2009;**6**(2):e22. PMID: 19192942 *Hum Genet* 2009;**125**(2):131–151. PMID: 19184668 *Eur J Epidemiol* 2009;**24**(1):37–55. PMID: 19189221 *Ann Intern Med* 2009;**150**(3):206–215.PMID: 19189911 *J Clin Epidemiol* 2009;**62**(6):597–608.e4. PMID: 19217256 *Genet Epidemiol* 2009;**33**(7):581–598. PMID: 19278015 *Eur J Clin Invest* 2009;**39**(4):247–266. PMID: 19297801

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Type of study	Guideline name, acronym	Reference
Infection control intervention studies	ORION	Stone SP, Cooper BS, Kibbler CC, Cookson BD, Roberts JA, Medley GF, Duckworth G, Lai R, Ebrahim S, Brown EM, Wiffen PJ, Davey PG. The ORION statement: guidelines for transparent reporting of Outbreak Reports and Intervention studies Of Nosocomial infection. *J Antimicrob Chemother* 2007;**59**(5):833–840. PMID: 17387116 *Lancet Infect Dis* 2007;**7**: 282–288. PMID: 17376385
Longitudinal observational studies in rheumatology		Wolfe F, Lassere M, van der Heijde D, Stucki G, Suarez-Almazor M, Pincus T, Eberhardt K, Kvien TK, Symmons D, Silman A, van Riel P, Tugwell P, Boers M. Preliminary core set of domains and reporting requirements for longitudinal observational studies in rheumatology. *J Rheumatol* 1999;**26**(2):484–489. PMID: 9972992
Case series		Jabs DA. Improving the Reporting of Clinical Case Series. *Am J Ophthalmol* 2005;**139**(5):900–905. PMID: 15860297
Case series – acupuncture (conduct, reporting)		White A. Conducting and reporting case series and audits–author guidelines for acupuncture in medicine. *Acupunct Med* 2005;**23**(4):181–187. PMID: 16430126
Case-control studies (participation)		Olson SH, Voigt LF, Begg CB, Weiss NS. Reporting participation in case-control studies. *Epidemiology* 2002;**13**(2):123–126. PMID: 11880750
Case reports		Sorinola O, Olufowobi O, Coomarasamy A, Khan KS. Instructions to authors for case reporting are limited: a review of a core journal list. *BMC Med Educ* 2004;**4**:4. PMID: 15043755
Case reports	Cases Journal	No published guideline available – journal's instructions.
Case reports	BMJ guidance	No published guideline available – journal's instructions.
Adverse event reports		Kelly WN, Arellano FM, Barnes J, Bergman U, Edwards RI, Fernandez AM, *et al.* Guidelines for submitting adverse event reports for publication. *Drug Saf* 2007;**30**(5):367–73. PMID: 17472416
Tumour marker prognostic studies	REMARK	McShane LM, Altman DG, Sauerbrei W, Taube SE, Gion M, Clark GM. REporting recommendations for tumour MARKer prognostic studies (REMARK). *Br J Cancer* 2005;**93**(4):387–391. PMID: 16106245 *Eur J Cancer* 2005;**41**(12):1690–1696. PMID: 16043346 *J Natl Cancer Inst* 2005;**97**(16):1180–1184. PMID: 16106022 *Nat Clin Pract Oncol* 2005;**2**(8):416–422. PMID: 16130938 *J Clin Oncol* 2005;**23**(36):9067–9072. PMID: 16172462
Prognostic studies with missing covariate data		Burton A, Altman DG. Missing covariate data within cancer prognostic studies: a review of current reporting and proposed guidelines. *Br J Cancer* 2004; **91**(1):4–8. PMID: 15188004
Genetic results in research studies		Bookman E, Langehorne A, Eckfeldt J, Glass K, Jarvik G, Klag M, Koski G, Motulsky A, Wilfond B, Manolio T, Fabsitz R, Luepker RV. Reporting genetic results in research studies: summary and recommendations of an NHLBI working group. *Am J Med Genet Part A* 2006;**140**(10):1033–1040. PMID: 16575896
Survey research		Kelley K, Clark B, Brown V, Sitzia J. Good practice in the conduct and reporting of survey research. *Int J Qual Health Care* 2003;**15**(3):261–266. PMID: 12803354

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Type of study	Guideline name, acronym	Reference
		Burns KE, Duffett M, Kho ME, Meade MO, Adhikari NK, Sinuff T, *et al.* A guide for the design and conduct of self-administered surveys of clinicians. *CMAJ* 2008 Jul 29;**179**(3):245–52. PMID: 18663204
Quality of medicine surveys		Newton PN, Lee SJ, Goodman C, Fernandez FM, Yeung S, Phanouvong S, *et al.* Guidelines for field surveys of the quality of medicines: a proposal. *PLoS Med* 2009 Mar 24;**6**(3):e52. PMID: 19320538
Internet e-surveys		Eysenbach G. Improving the quality of Web surveys: the Checklist for Reporting Results of Internet E-Surveys (CHERRIES). *J Med Internet Res* 2004;**6**(3):e34. PMID: 15471760
Momentary self-report data		Stone AA, Shiffman S. Capturing momentary, self-report data: a proposal for reporting guidelines. *Ann Behav Med* 2002;**24**(3):236–243. PMID: 12173681

Diagnostic accuracy studies

Type of study	Guideline name, acronym	Reference
Diagnostic accuracy studies	STARD	Bossuyt PM, Reitsma JB, Bruns DE, Gatsonis CA, Glasziou PP, Irwig LM, Lijmer JG, Moher D, Rennie D, de Vet HC. Towards complete and accurate reporting of studies of diagnostic accuracy: the STARD initiative. Standards for Reporting of Diagnostic Accuracy. *Clin Chem* 2003;**49**(1):1–6. PMID: 12507953 *BMJ* 2003;**326**(7379):41–4. PMID: 12511463 *Radiology* 2003;**226**(1):24–8. PMID: 12511664 *Ann Intern Med* 2003;**138**(1):40–4. PMID: 12513043 *Am J Clin Pathol* 2003;**119**(1):18–22. PMID: 12520693 *Clin Biochem* 2003;**36**(1):2–7. PMID: 12554053 *Clin Chem Lab Med* 2003;**41**(1):68–73. PMID: 12636052 Bossuyt PM, Reitsma JB, Bruns DE, Gatsonis CA, Glasziou PP, Irwig LM, *et al.* The STARD statement for reporting studies of diagnostic accuracy: explanation and elaboration. *Clin Chem* 2003;**49**(1):7–18. PMID: 12507954 *Ann Intern Med* 2003;**138**(1):W1–12. PMID: 12513067

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Systematic reviews and meta-analyses

Type of study	RG name/acronym RG	Reference
Systematic reviews and meta-analyses	PRISMA	Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group. Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *PLoS Med* 2009;**6**(7):e1000097. PMID: 19621072 *BMJ* 2009;**339**:b2535. PMID: 19622551 *Ann Intern Med* 2009;**151**(4):264–9, W64. PMID: 19622511 *J Clin Epidemiol* 2009;**62**(10):1006–12. PMID: 19631508 *Open Med* 2009;**3**(3);123–130 Liberati A, Altman DG, Tetzlaff J, Mulrow C, Gøtzsche PC, *et al.* The PRISMA Statement for Reporting Systematic Reviews and Meta-Analyses of Studies That Evaluate Health Care Interventions: Explanation and Elaboration. *PLoS Med* 2009;**6**(7): e1000100. PMID: 19621070 *BMJ* 2009;**339**:b2700. PMID: 19622552 *Ann Intern Med* 2009;**151**(4):W65–94. PMID: 19622512 PRISMA Statement replaces the QUOROM guideline (PMID: 10584742)
Meta-analyses of observational studies	MOOSE	Stroup DF, Berlin JA, Morton SC, Olkin I, Williamson GD, Rennie D, Moher D, Becker BJ, Sipe TA, Thacker SB. Meta-analysis of observational studies in epidemiology: a proposal for reporting. Meta-analysis Of Observational Studies in Epidemiology (MOOSE) group. *JAMA* 2000;**283**(15):2008–2012. PMID: 10789670

Other resources that include guidance on reporting systematic reviews:

1. *Cochrane Handbook for Systematic Reviews of Interventions*, Cochrane Collaboration.
2. Little J, Higgins JPT (editors). The HuGENE™ HuGE Review Handbook, version 1.0. Guidelines for systematic review and meta-analysis of gene disease association studies (see also Systematic Reviews of Genetic Association Studies, PLoS Medicine 2009, 6 (3):e1000028).
3. *Systematic Reviews*. CRD's guidance for undertaking reviews in health care. Centre for Reviews and Dissemination, University of York, 2008

Qualitative research

Type of study	Guideline name, acronym	Reference
Qualitative research	COREQ	Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care* 2007 Dec;**19**(6):349–57. PMID: 17872937
Qualitative research studies in psychology and related fields+		Elliott R, Fischer CT, Rennie DL. Evolving guidelines for publication of qualitative research studies in psychology and related fields. *Br J Clin Psychol* 1999;**38**(3):215–229. PMID: 10532145
Qualitative research	RATS	The RATS guidelines modified for BioMed Central Instructions to Authors are copyright Jocalyn Clark, BMJ. They can be found in Clark JP: How to peer review a qualitative manuscript. In *Peer Review in Health Sciences. Second edition*. Edited by Godlee F, Jefferson T. London: BMJ Books; 2003:219–235

Economic evaluations

Type of study	Guideline name, acronym	Reference
Cost-effectiveness analyses		Siegel JE, Weinstein MC, Russell LB, Gold MR. Recommendations for reporting cost-effectiveness analyses. Panel on Cost-Effectiveness in Health and Medicine. *JAMA* 1996;**276**(16):1339–1341. PMID: 8861994
Cost-effectiveness analyses conducted as part of clinical trials (design, conduct, reporting)	ISPOR RCT-CEA	Ramsey S, Willke R, Briggs A, Brown R, Buxton M, Chawla A, Cook J, Glick H, Liljas B, Petitti D, Reed S. Good Research Practices for Cost-Effectiveness Analysis Alongside Clinical Trials: The ISPOR RCT-CEA Task Force Report. *Value in Health* 2005;**8**(5):521–533. PMID: 16176491
Economic evaluation for trial-based studies and decision analytic models (design, analysis, reporting)		Drummond M, Manca A, Sculpher M. Increasing the generalizability of economic evaluations: recommendations for the design, analysis, and reporting of studies. *Int J Technol Assess Health Care* 2005;**21**(2):165–171. PMID: 15921055
Economic evaluations (BMJ)		BMJ – journal's instructions Drummond MF, Jefferson TO. Guidelines for authors and peer reviewers of economic submissions to the BMJ. The BMJ Economic Evaluation Working Party. *BMJ* 1996;**313**(7052):275–83. PMID: 8704542
Economic evaluation (modelling studies)		Nuijten MJ, Pronk MH, Brorens MJ, Hekster YA, Lockefeer JH, de Smet PA, Bonsel G, van der Kuy A. Reporting format for economic evaluation. Part II: Focus on modelling studies. *Pharmacoeconomics* 1998;**14**(3):259–268. PMID: 10186465
Economic evaluation studies in obstetrics (design, execution, interpretation, reporting)		Vintzileos AM, Beazoglou T. Design, execution, interpretation, and reporting of economic evaluation studies in obstetrics. *Am J Obstet Gynecol* 2004; **191**(4):1070–1076. PMID: 15507923
Economic evaluation of haemophilia prophylaxis		Nicholson A, Berger K, Bohn R, Carcao M, Fischer K, Gringeri A, *et al*. Recommendations for reporting economic evaluations of haemophilia prophylaxis: a nominal groups consensus statement on behalf of the Economics Expert Working Group of The International Prophylaxis Study Group. *Haemophilia* 2008;**14**(1):127–32. PMID:18005148

Quality improvement studies

Type of study	Guideline name, acronym	Reference
Quality improvement studies	SQUIRE	Davidoff F, Batalden P, Stevens D, Ogrinc G, Mooney S. Publication guidelines for quality improvement in health care: evolution of the SQUIRE project. *Qual Saf Health Care* 2008;**17** Suppl 1:i3-i9. PMID: 18836063 *BMJ* 2009;**338**:a3152. PMID: 19153129 *Jt Comm J Qual Patient Saf* 2008;**34**(11):681–7. PMID: 19025090 *Ann Intern Med* 2008;**149**(9):670–6.PMID: 18981488 *J Gen Intern Med* 2008;**23**(12):2125–30. PMID: 18830766
Quality improvement studies		Moss F, Thompson R. A new structure for quality improvement reports. *Qual Saf Health Care* 1999;**8**(2):76. PMID: 10557680

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Other reporting guidelines Some guidelines were impossible to categorise under the above headings; they provide guidance for reporting other types of research studies

Type of study	Guideline name, acronym	Reference
Quality of life assessed in clinical trials		Staquet M, Berzon R, Osoba D, Machin D. Guidelines for reporting results of quality of life assessments in clinical trials. *Qual Life Res* 1996;**5**(5):496–502. PMID: 8973129
Quality of life in cancer clinical trials		Lee CW, Chi KN. The standard of reporting of health-related quality of life in clinical cancer trials. *J Clin Epidemiol* 2000;**53**(5):451–458. PMID: 10812316
Clinical guidelines	COGS	Shiffman RN, Shekelle P, Overhage JM, Slutsky J, Grimshaw J, Deshpande AM. Standardized reporting of clinical practice guidelines: a proposal from the Conference on Guideline Standardization. *Ann Intern Med* 2003;**139**(6):493–498. PMID: 13679327
Anecdotes of suspected drug adverse reactions	PHARMA	Aronson JK. Anecdotes as evidence. *BMJ* 2003;**326**(7403):1346. PMID: 12816800
Adverse event reports		Kelly WN, Arellano FM, Barnes J, Bergman U, Edwards RI, Fernandez AM, *et al.* Guidelines for submitting adverse event reports for publication. *Drug Saf* 2007;**30**(5):367–73. PMID: 17472416
Good publication practice for pharmaceutical companies		Wager E, Field EA, Grossman L. Good publication practice for pharmaceutical companies. *Curr Med Res Opin* 2003;**19**(3):149–154. PMID: 128141
Evaluation studies in Health Informatics	STARE-HI	Talmon J, Ammenwerth E, Brender J, de Keizer N, Nykanen P, Rigby M. STARE-HI – Statement on reporting of evaluation studies in Health Informatics. *Int J Med Inform* 2009;**78**(1):1–9. PMID: 18930696

Guidance for reporting specific sections of research report

Type of study	Guideline name, acronym	Reference
Literature searches	STARLITE	Booth A. 'Brimful of STARLITE': toward standards for reporting literature searches. *J Med Libr Assoc* 2006;**94**(4):421–9, e205. PMID: 17082834
Figures, Graphs		Pocock SJ, Travison TG, Wruck LM. Figures in clinical trial reports: current practice & scope for improvement. *Trials* 2007;**8**:36. PMID: 18021449
		Puhan MA, ter Riet G, Eichler K, Steurer J, Bachmann LM. More medical journals should inform their contributors about three key principles of graph construction. *J Clin Epidemiol* 2006 Oct;**59**(10):1017–22. PMID: 16980140

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Type of study	Guideline name, acronym	Reference
Bayesian analyses of health care evaluations	BayesWatch	Spiegelhalter DJ, Myles JP, Jones DR, Abrams KR. Bayesian methods in health technology assessment: a review. *Health Technol Assess* 2000;**4**(38):1–130.
Bayesian analysis in clinical studies	ROBUST	Sung L, Hayden J, Greenberg ML, Koren G, Feldman BM, Tomlinson GA. Seven items were identified for inclusion when reporting a Bayesian analysis of a clinical study. *J Clin Epidemiol* 2005;**58**(3):261–268. PMID: 15718115
Subgroup analysis in trials		Wang R, Lagakos SW, Ware JH, Hunter DJ, Drazen JM. Statistics in medicine – reporting of subgroup analyses in clinical trials. *N Engl J Med* 2007;**357**(21):2189–2194. PMID: 18032770
Missing data in epidemiological and clinical research		Sterne JA, White IR, Carlin JB, Spratt M, Royston P, Kenward MG, *et al.* Multiple imputation for missing data in epidemiological and clinical research: potential and pitfalls. *BMJ* 2009;**338**:b2393. PMID:19564179
Discussion		Docherty M, Smith R. The case for structuring the discussion of scientific papers. *BMJ* 1999;**318**(7193):1224–1225. PMID: 10231230
Narrative sections of study reports		Schriger DL. Suggestions for improving the reporting of clinical research: the role of narrative. *Ann Emerg Med* 2005; **45**(4):437–443. PMID: 15795727
Research recommendations		Brown P, Brunnhuber K, Chalkidou K, Chalmers I, Clarke M, Fenton M, Forbes C, Glanville J, Hicks NJ, Moody J, Twaddle S, Timimi H, Young P. How to formulate research recommendations. *BMJ* 2006;**333**(7572):804–806. PMID: 17038740
Acknowledgement of funders (UK)		Research Information Network. Acknowledgement of Funders in Scholarly Journal Articles. Guidance for UK Research Funders, Authors and Publishers. RIN 2008. http://www.rin.ac.uk/
Conflict of interest		ICMJE: Uniform Format for Disclosure of Competing Interests in ICMJE Journals. October 2009 Editorial: http://www.icmje.org/format.pdf Disclosure form: http://www.icmje.org/coi_disclosure.pdf WAME Conflict of Interest Policy Statement. March 2009 http://www.wame.org/conflict-of-interest-in-peer-reviewed-medical-journals Rothman DJ, McDonald WJ, Berkowitz CD, Chimonas SC, DeAngelis CD, Hale RW, *et al.* Professional medical associations and their relationships with industry: a proposal for controlling conflict of interest. *JAMA* 2009;**301**(13):1367–1372. PMID: 19336712

Reporting guidelines for specific conditions or procedures

Type of study	Guideline name, acronym	Reference
Actigraphy		Berger AM, Wielgus KK, Young-McCaughan S, Fischer P, Farr L, Lee KA. Methodological challenges when using actigraphy in research. *J Pain Symptom Manage* 2008;**36**(2):191–199. PMID: 18400460

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Type of study	Guideline name, acronym	Reference
Clinical trials – acute myeloid leukaemia		Cheson BD, Bennett JM, Kopecky KJ, Buchner T, Willman CL, Estey EH, Schiffer CA, Doehner H, Tallman MS, Lister TA, Lo-Coco F, Willemze R, Biondi A, Hiddemann W, Larson RA, Lowenberg B, Sanz MA, Head DR, Ohno R, Bloomfield CD. Revised recommendations of the International Working Group for Diagnosis, Standardization of Response Criteria, Treatment Outcomes, and Reporting Standards for Therapeutic Trials in Acute Myeloid Leukemia. *J Clin Oncol* 2003;**21**(24):4642–4649. PMID: 14673054
Vision screening studies		Donahue SP, Arnold RW, Ruben JB. Preschool vision screening: what should we be detecting and how should we report it? Uniform guidelines for reporting results of preschool vision screening studies. *J AAPOS* 2003;**7**(5):314–316. PMID: 14566312
Evaluations of risk stratification of ED patients with potential acute coronary syndromes		Hollander JE, Blomkalns AL, Brogan GX, Diercks DB, Field JM, Garvey JL, Gibler WB, Henry TD, Hoekstra JW, Holroyd BR, Hong Y, Kirk JD, O'Neil BJ, Jackson RE. Standardized reporting guidelines for studies evaluating risk stratification of ED patients with potential acute coronary syndromes. *Acad Emerg Med* 2004;**11**(12):1331–1340. PMID: 15576525
Intravascular ultrasound studies		Mintz GS, Nissen SE, Anderson WD, Bailey SR, Erbel R, Fitzgerald PJ, Pinto FJ, Rosenfield K, Siegel RJ, Tuzcu EM, Yock PG. American College of Cardiology Clinical Expert Consensus Document on Standards for Acquisition, Measurement and Reporting of Intravascular Ultrasound Studies (IVUS). A report of the American College of Cardiology Task Force on Clinical Expert Consensus Documents. *J Am Coll Cardiol* 2001;**37**(5):1478–1492. PMID: 11300468
Case series – colon and rectum tumours		Rubino M, Pragnell MVC. Guidelines for reporting case series of tumours of the colon and rectum. *Techniques in Coloproctology*. 1999;**3**:2–97.
Clinical trials – rising prostate-specific antigen		Scher HI, Eisenberger M, D'Amico AV, Halabi S, Small EJ, Morris M, Kattan MW, Roach M, Kantoff P, Pienta KJ, Carducci MA, Agus D, Slovin SF, Heller G, Kelly WK, Lange PH, Petrylak D, Berg W, Higano C, Wilding G, Moul JW, Partin AN, Logothetis C, Soule HR. Eligibility and outcomes reporting guidelines for clinical trials for patients in the state of a rising prostate-specific antigen: recommendations from the Prostate-Specific Antigen Working Group. *J Clin Oncol* 2004;**22**(3):537–556. PMID: 14752077
Clinical trials of exercise therapy for low back pain		Helmhout PH, Staal JB, Maher CG, Petersen T, Rainville J, Shaw WS. Exercise therapy and low back pain: insights and proposals to improve the design, conduct, and reporting of clinical trials. *Spine (Phila Pa 1976)* 2008;**33**(16):1782–8. PMID:18628711
Clinical trials of rheumatoid arthritis – reporting disease activity		Aletaha D, Landewe R, Karonitsch T, Bathon J, Boers M, Bombardier C, *et al.* Reporting disease activity in clinical trials of patients with rheumatoid arthritis: EULAR/ACR collaborative recommendations. *Ann Rheum Dis* 2008;**67**(10):1360–4. PMID:18791055
Surgery – trigeminal neuralgia		Zakrzewska JM, Lopez BC. Quality of reporting in evaluations of surgical treatment of trigeminal neuralgia: recommendations for future reports. *Neurosurgery* 2003;**53**(1):110–120. PMID: 12823880

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Type of study	Guideline name, acronym	Reference
HIV interventions		Flores SA, Crepaz N. Quality of study methods in individual- and group-level HIV intervention research: critical reporting elements. *AIDS Educ Prev* 2004;**16**(4):341–352. PMID: 15342336
Surgery – refractive surgery results		Rosa N. Standards for reporting results of refractive surgery. *J Refract Surg* 2001;**17**(4):473–474. PMID: 11472009
Surgery – heart valve surgery morbidity		Horstkotte D, Lengyel M, Mistiaen WP, Piper C, Voller H. Recommendations for reporting morbid events after heart valve surgery. *J Heart Valve Dis* 2005;**14**(1):1–7. PMID: 15700427
Surgery – atrial fibrillation		Shemin RJ, Cox JL, Gillinov AM, Blackstone EH, Bridges CR. Guidelines for reporting data and outcomes for the surgical treatment of atrial fibrillation. *Ann Thorac Surg* 2007;**83**(3):1225–1230. PMID: 17307507
Systematic inflammatory response to cardiopulmonary bypass		Landis RC, Arrowsmith JE, Baker RA, de Somer F, Dobkowski WB, Fisher G, *et al.* Consensus statement: Defining minimal criteria for reporting the systemic inflammatory response to cardiopulmonary bypass. *Heart Surg Forum* 2008; **11**(5):E316-E322. PMID:19131308
Uveitis		Jabs DA, Nussenblatt RB, Rosenbaum JT. Standardization of uveitis nomenclature for reporting clinical data. Results of the First International Workshop. *Am J Ophthalmol* 2005;**140**(3):509–516. PMID: 16196117
In-hospital resuscitation	Utstein-style guidelines – resuscitation	Cummins RO, Chamberlain D, Hazinski MF, Nadkarni V, Kloeck W, Kramer E, Becker L, Robertson C, Koster R, Zaritsky A, Bossaert L, Ornato JP, Callanan V, Allen M, Steen P, Connolly B, Sanders A, Idris A, Cobbe S. Recommended guidelines for reviewing, reporting, and conducting research on in-hospital resuscitation: the in-hospital 'Utstein style'. A statement for healthcare professionals from the American Heart Association, the European Resuscitation Council, the Heart and Stroke Foundation of Canada, the Australian Resuscitation Council, and the Resuscitation Councils of Southern Africa. *Resuscitation* 1997;**34**(2):151–183. PMID: 9141159
Trauma		Dick WF, Baskett PJ. Recommendations for uniform reporting of data following major trauma–the Utstein style. A report of a working party of the International Trauma Anaesthesia and Critical Care Society (ITACCS). *Resuscitation* 1999;**42**(2):81–100. PMID: 10617327
Laboratory cardiopulmonary resuscitation (CPR) research		Idris AH, Becker LB, Ornato JP, Hedges JR, Bircher NG, Chandra NC, Cummins RO, Dick W, Ebmeyer U, Halperin HR, Hazinski MF, Kerber RE, Kern KB, Safar P, Steen PA, Swindle MM, Tsitlik JE, von Planta I, von Planta M, Wears RL, Weil MH. Utstein-style guidelines for uniform reporting of laboratory CPR research. A statement for healthcare professionals from a task force of the American Heart Association, the American College of Emergency Physicians, the American College of Cardiology, the European Resuscitation Council, the Heart and Stroke Foundation of Canada, the Institute of Critical Care Medicine, the Safar Center for Resuscitation Research, and the Society for Academic Emergency Medicine. *Writing Group. Circulation* 1996;**94**(9):2324–2336. PMID: 8901707

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Type of study	Guideline name, acronym	Reference
Post-resuscitation care		Langhelle A, Nolan J, Herlitz J, Castren M, Wenzel V, Soreide E, Engdahl J, Steen PA. Recommended guidelines for reviewing, reporting, and conducting research on post-resuscitation care: the Utstein style. *Resuscitation* 2005;**66**(3):271–283. PMID: 16129543
Medical dispatch in emergency medicine studies		Castren M, Karlsten R, Lippert F, Christensen EF, Bovim E, Kvam AM, *et al.* Recommended guidelines for reporting on emergency medical dispatch when conducting research in emergency medicine: the Utstein style. *Resuscitation* 2008;**79**(2):193–7. PMID: 18805620
Paediatric advanced life support		Zaritsky A, Nadkarni V, Hazinski MF, Foltin G, Quan L, Wright J, Fiser D, Zideman D, O'Malley P, Chameides L. Recommended guidelines for uniform reporting of pediatric advanced life support: the pediatric Utstein style. *Ann Emerg Med* 1995;**26**(4):487–503. PMID: 7574133
Intra-arterial cerebral thrombolysis for acute ischemic stroke	Society for Interventional Radiology guidelines	Higashida RT, Furlan AJ, Roberts H, Tomsick T, Connors B, Barr J, Dillon W, Warach S, Broderick J, Tilley B, Sacks D. Trial design and reporting standards for intra-arterial cerebral thrombolysis for acute ischemic stroke. *Stroke* 2003; **34**(8):e109–e137. PMID: 12869717
Renal artery revascularization		Rundback JH, Sacks D, Kent KC, Cooper C, Jones D, Murphy T, Rosenfield K, White C, Bettmann M, Cortell S, Puschett J, Clair DG, Cole P. Guidelines for the reporting of renal artery revascularization in clinical trials. *J Vasc Interv Radiol* 2003;**14**(9 Pt 2):S477–S492. PMID: 14514863
Evaluation of new peripheral arterial revascularization devices		Sacks D, Marinelli DL, Martin LG, Spies JB. Reporting standards for clinical evaluation of new peripheral arterial revascularization devices. *J Vasc Interv Radiol* 2003;**14**(9 Pt 2):S395–S404. PMID: 14514855
Percutaneous interventions in dialysis access		Gray RJ, Sacks D, Martin LG, Trerotola SO. Reporting standards for percutaneous interventions in dialysis access. Technology Assessment Committee. *J Vasc Interv Radiol* 1999;**10**(10):1405–1415. PMID: 10584659
Infectious complications in immuno-suppression trials	American Society of Transplantation guidelines	Humar A, Michaels M. American Society of Transplantation recommendations for screening, monitoring and reporting of infectious complications in immunosuppression trials in recipients of organ transplantation. *Am J Transplant* 2006;**6**(2):262–274. PMID: 16426310
Percutaneous vertebral augmentation	Society of Interventional Radiology	Radvany MG, Murphy KJ, Millward SF, Barr JD, Clark TW, Halin NJ, *et al.* Research reporting standards for percutaneous vertebral augmentation. *J Vasc Interv Radiol* 2009;**20**(10):1279–1286. PMID:19800540
Novel markers of cardiovascular risk	American Heart Association	Hlatky MA, Greenland P, Arnett DK, Ballantyne CM, Criqui MH, Elkind MS, *et al.* Criteria for evaluation of novel markers of cardiovascular risk: a scientific statement from the American Heart Association. *Circulation* 2009;**119**(17):2408–2416. PMID:19364974

Reporting experimental data

The EQUATOR Network website provides a link to the 'Minimum Information for Biological and Biomedical Investigations' (MIBBI) website [26]. The MIBBI portal lists projects developing 'minimum information checklists' for reporting particular kinds of experimental data in 'omics' (and allied) technologies. The website currently contains guidance for the following types of experiments:

Project	Name
CIMR	Core Information for Metabolomics Reporting
MIABE	Minimal Information About a Bioactive Entity
MIACA	Minimal Information About a Cellular Assay
MIAME	Minimum Information About a Microarray Experiment
MIAME/Env	MIAME/Environmental transcriptomic experiment
MIAME/Nutr	MIAME/Nutrigenomics
MIAME/Plant	MIAME/Plant transcriptomics
MIAME/Tox	MIAME/Toxicogenomics
MIAPA	Minimum Information About a Phylogenetic Analysis
MIAPAR	Minimum Information About a Protein Affinity Reagent
MIAPE	Minimum Information About a Proteomics Experiment
MIARE	Minimum Information About a RNAi Experiment
MIASE	Minimum Information About a Simulation Experiment
MIASPPE	Minimum Information About Sample Preparation for a Phosphoproteomics Experiment
MIENS	Minimum Information about an ENvironmental Sequence
MIFlowCyt	Minimum Information for a Flow Cytometry Experiment
MIGen	Minimum Information about a Genotyping Experiment
MIGS	Minimum Information about a Genome Sequence
MIMIx	Minimum Information about a Molecular Interaction Experiment
MIMPP	Minimal Information for Mouse Phenotyping Procedures
MINI	Minimum Information about a Neuroscience Investigation
MINIMESS	Minimal Metagenome Sequence Analysis Standard
MINSEQE	Minimum Information about a high-throughput SeQuencing Experiment
MIPFE	Minimal Information for Protein Functional Evaluation
MIQAS	Minimal Information for QTLs and Association Studies
MIqPCR	Minimum Information about a quantitative Polymerase Chain Reaction experiment
MIRIAM	Minimal Information Required In the Annotation of biochemical Models

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Project	Name
MISFISHIE	Minimum Information Specification For *In Situ* Hybridization and Immunohistochemistry Experiments
STRENDA	Standards for Reporting Enzymology Data
TBC	Tox Biology Checklist

Guidance developed by editorial groups The following guidelines relating to publications of health research were developed by influential editorial groups:

Editorial group	Website	Reference
International Committee of Medical Journal Editors (ICMJE)	http://www.icmje.org/	Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication. (Updated October 2008)
World Association of Medical Editors (WAME)	http://www.wame.org/resources	Resources, Policy Statements
Council of Science Editors (CSE)	http://www.councilscienceeditors.org/editorial_policies/white_paper.cfm	CSE's White Paper on Promoting Integrity in Scientific Journal Publications
The American Psychological Association (APA) Working Group on Journal Article Reporting Standards (JARS Group)	http://www.apa.org/journals/authors/jars.pdf	Reporting Standards for Research in Psychology: Why Do We Need Them? What Might They Be? *American Psychologist* 2008;**63**(9):839–851
Committee on Publication Ethics (COPE)	http://publicationethics.org/code-conduct	Code of Conduct
Forum for African Medical Editors (FAME)	http://whqlibdoc.who.int/hq/2004/TDR_RCS_FAME_04·2.pdf	FAME editorial guidelines

All EQUATOR resources are regularly updated and are freely available to allow their wide use. The EQUATOR Network encourages organisations to link to its website (http://www.equator-network.org) and to promote this resource.

Limitations of the EQUATOR reporting guideline collection

Although we run regular comprehensive searches across the main databases indexing health-related literature it is possible that we missed some published guidelines. This might have happened particularly in the case of reporting guidelines for specific diseases or conditions.

There are also guidelines being developed with the aim of standardising terminology in health research reporting. These are not currently included on the EQUATOR website, but we are planning to put greater emphasis on identification of those guidelines and add them to the EQUATOR Library in the future.

We would like to acknowledge the support of many journals who agreed to publish some reporting guidelines as identical multiple publications, which requires a great effort and collaboration, to support wider dissemination of the guidelines. These guidelines include CONSORT, STRICTA, ORION, STROBE, STREGA, REMARK, STARD, PRISMA, SQUIRE, and some of the guidelines for specific conditions. Currently, the EQUATOR website lists only one reference per guideline without any preference for a particular journal. However, we are in the process of developing a much improved database, which will offer more information about the available guidelines, including references to all guideline publications, evaluations of guideline impact, etc. The EQUATOR Network and guideline groups greatly appreciate

journals' support and want to encourage multiple publications of new guidelines in the future.

Concluding remarks

Empowering authors, editors and peer reviewers by providing tools that facilitate better reporting and strengthen the peer review process can significantly improve the reliability of medical research literature. Such improvement would enable better evidence-based decision making by clinicians, managers and other health professionals and better returns on investment into health research.

If we want health to be improved by new research evidence, we must exercise greater discipline when publishing research studies. Following robust reporting guidelines is a simple 'intervention' that can lead to more accurate and complete research reports. We need to create a culture that encourages and supports honest and accurate reporting, and gives the opportunity to share mistakes without the fear of being 'punished'.

The EQUATOR Network can substantially contribute to this process by leading a global collaboration between the research, higher education and publishing communities. This effort needs to be strongly supported by research funders, regulatory bodies and everyone involved in publication of health research findings.

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