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Reporting Guidelines: Optimal Use in Preventive Medicine and Public Health

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Abstract

Numerous reporting guidelines are available to help authors write higher quality manuscripts more efficiently. Almost 200 are listed on the EQUATOR (Enhancing the Quality and Transparency of Health Research) Network's website and they vary in authority, usability, and breadth, making it difficult to decide which one(s) to use. This paper provides consistent information about guidelines for preventive medicine and public health and a framework and sequential approach for selecting them.

EQUATOR guidelines were reviewed for relevance to target audiences; selected guidelines were classified as "core" (frequently recommended) or specialized, and the latter were grouped by their focus. Core and specialized guidelines were coded for indicators of *authority* (simultaneous publication in multiple journals, rationale, scientific background supporting each element, expertise of designers, permanent website/named group), *usability* (presence of checklists and examples of good reporting), and *breadth* (manuscript sections covered). Discrepancies were resolved by consensus. Selected guidelines are presented in four tables arranged to facilitate selection: core guidelines, all of which pertain to major research designs; guidelines for additional study designs, topical guidelines, and guidelines for particular manuscript sections. A flow diagram provides an overview. The framework and sequential approach will enable authors as well as editors, peer reviewers, researchers, and systematic reviewers to make optimal use of available guidelines to improve the transparency, clarity, and rigor of manuscripts and research protocols and the efficiency of conducing systematic reviews and meta-analyses.

Background

CONSORT, the first reporting guideline to gain traction among journal editors, merged two initiatives in the mid-1990's, spurred by systematic review practitioners and methodologists.[1] The very name of the first (1996) CONSORT Statement, the *Consolidated* Standards of Reporting Trials,[1] acknowledged these earlier initiatives. CONSORT and subsequent reporting guidelines were developed to improve the transparency and rigor of journal articles reporting biomedical research, and to promote consistency in both what is reported and how it is reported.[2]

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Such guidelines have now been expanded to cover many types of health research,[3] and the majority of high impact medical journals[4] (e.g., *New England Journal of Medicine, Lancet, JAMA)* now require coverage of elements specified in reporting guidelines.[5] Discriminating use of reporting guidelines can have enormous value, alerting researchers, authors, peer reviewers, journal editors, and systematic reviewers to common errors in both reporting and the conduct of empiric studies and, thus, helping to avoid these errors.[6,7]

Finding reporting guidelines has been made easier by the creation of the EQUATOR (Enhancing the QUality And Transparency Of health Research) network and its Library for Health Research Reporting at www.equator-network.org. In fact, several sources, including *Uniform Requirements,*[8] no longer specify which reporting guideline(s) to use, but simply refer the reader to EQUATOR. Since being published in January, 2010,[9,10] the EQUATOR catalogue of reporting guidelines has been expanded through systematic searches[11] five times,[12] most recently (October 2011) by 35 new guidelines, bringing the total to 191.[13] A novice user, however accomplished an author, may find the sheer number of possibilities overwhelming and be unclear how to evaluate a guideline. Some guidelines are explicitly designed to be used with other listed guidelines (e.g., TREND with CONSORT). Most guidelines vary in their authority, usability, and breadth. Navigating this thicket requires more than a simple listing of what is available. Thus, the purpose of this paper is to provide information on the authority, usability, and breadth of guidelines included in the EQUATOR catalogue that are relevant to preventive medicine and public health. We present this information together with a framework and sequential approach for selecting and using relevant guidelines.

Methods

Selection of guidelines from EQUATOR's Catalogue of Reporting Guidelines

EQUATOR's Catalogue is comprehensive for published guidelines available in English and served as the sole source of possible guidelines. Because some of the guidelines are what EQUATOR calls "highly specialized", with a focus on specific medical conditions or procedures (e.g., intra-arterial cerebral thrombolysis for acute ischemic stroke), those with the greatest relevance to preventive medicine and public health were selected from the guidelines mentioned in author instructions for journals with the highest ISI impact factors in their respective categories: (a) the highest-ranked 40 "public, environmental, and occupational health" and (b) the 10 highest-ranked "general and internal medicine" journals.[4] Next, the authors, representing behavioral sciences, epidemiology, and public policy, reviewed the remaining guidelines in November 2011.

Designating the selected guidelines as "core" or "specialized"

Selected guidelines were categorized as "core" or specialized; specialized guidelines were subdivided by topic. Core designation was based on having been mentioned by name six or more times in 1) the author instructions for the 50 journals described above, 2) the list of guidelines in EQUATOR's right-hand navigation panel, which highlights basic guidelines, 3) the list of guidelines previously specified in *Uniform Requirements for the Submission of Manuscripts to Biomedical Journals*, and 4) the National Library of Medicine list of "research reporting guidelines and initiatives".[14]

All selected guidelines, both core and specialized, were coded by two authors of this paper for characteristics contributing to ***authority***, ***usability***, and ***breadth***. Indicators of ***authority*** included stating a *rationale*, having been developed by a *named group* e.g., CONSORT Group, maintaining a *website*, and explicitly describing, in the text or on the website, the *expertise* of those involved in guideline design. A rationale was defined as being based on a

survey of the literature or other evidence of omissions or errors in reporting and/or conducting studies. Aims, goals, or justifications lacking these elements were not considered rationales. Further indicators of authority included *simultaneous publication* of the guideline, supportive editorials, and *explanation* of the scientific background of each reporting element, with supporting citations for 75 percent or more of the explanations. Early guidelines presented examples in separate "explanation and elaboration" (E&E) documents; later guidelines often incorporate this information into the initial publication.

Second, indicators of ***usability*** included presenting a *checklist* with definitions of the included elements and *examples* of good reporting from published sources. Third, guidelines were coded for ***breadth***, i.e., the *parts of the manuscript* covered. Because guidelines differ in breadth, several guidelines may be needed to cover all sections of a manuscript. The protocol from Moher and associates' 2011 review of guidelines contains several of these coding elements.[15]

Based on experience, it was anticipated that there might be a need to use multiple guidelines to write a specific paper; thus, specialized guidelines were grouped in a logical sequence for ease of use. Discrepancies in data extraction and grouping were resolved by consensus.

Results

Fifty-one guidelines from the EQUATOR catalogue were chosen as most relevant to preventive medicine and public health. Excluded, for example, were guidelines pertaining to dentistry and music therapy. Five guidelines were designated as "core" guidelines, representing a range of study design: randomized controlled trials (CONSORT); non-randomized trials (TREND); cohort, case-control, and cross-sectional studies (STROBE); systematic reviews and meta-analyses (PRISMA); and studies of diagnostic accuracy (STARD) (Table 1). Most authors will find one of these guidelines a key resource in preparing their papers.

The core guidelines (Table 1) all present rationales, have permanent websites, were written by named groups (except TREND), have simultaneous publications or (for TREND) a supporting editorial, and, most importantly, give the scientific background for every specified element; in each case these explanations met the stated criteria. The explanations and examples may be found in separate publications (CONSORT, STROBE, and PRISMA), as a "background document" (STARD's website), or within the guideline document itself TREND. A signal feature of CONSORT is the flow diagram, with numbers rather than percentages; PRISMA and STARD have a similar feature. All five have checklists; four offer additional features in their texts or on their websites (e.g., STROBE's definitions of study designs). CONSORT and its E&E document have been updated in 2001 and 2010 since their original publication in 1996; PRISMA is an update of what was previously called QUOROM (QUality Of Reporting Of Meta-analysis).

The next group of guidelines (n=31) comprises *additional study designs* organized under the broad headings used on EQUATOR, with further subdivision to differentiate subgroups that assist readers in identifying guidelines of interest: Experimental studies (n=4), observational studies (n=8), reliability studies (n=1), meta-analyses (n=1), qualitative research (n=3), economic evaluations (n=6), health administration (n=1), statistics (n=4), quality improvement studies (n=2), and participatory action research (n=1) (Table 2). Authors who do not find a fit in Table 1 (e.g., for a qualitative study) should check Table 2, where they will find, for example, COREQ for qualitative interviews and focus groups. Authors who *do* find a good fit with a guideline from Table 1 also should check Table 2, for additional, related guidelines. For example, after choosing STROBE from Table 1 for a cross-sectional

study using an Internet survey, adding CHERRIES (Internet surveys) from Table 2 will help in reporting the appropriate information about sample selection. Another (2003)[16] guideline for surveys in Table 2 has few indications of authority compared to STROBE, but offers a perspective on non-epidemiologic surveys.

Six Table 2 guidelines are "extensions" of either CONSORT or STROBE. All of the official CONSORT extensions are being revised in keeping with the 2010 revision of the parent guideline. In addition to the CONSORT and STROBE groups, seven more guidelines are group efforts (e.g., REMARK, for tumor marker prognostic studies). The remainder are the work of one or more individual authors rather than named groups (e.g., CHERRIES for Internet surveys). A majority (n=17) of the Table 2 guidelines do not provide a rationale, but almost all (n=29) include a checklist with definitions, and the majority offer explanations of checklist elements (n=17). Fewer include examples (n=13). All cover the methods section; more than half cover at least three of the five other sections of a paper (n=17).

The next group of guidelines (n=9) addresses research *topics* rather than designs (Table 3). Topical guidelines cover a wide range of subjects, conditions, treatments, and outcomes; examples include health informatics, HIV interventions, and quality of life. All those in Table 3 have checklists and two-thirds (n=6) have explanations of included items. Seven discuss all sections of a paper and one covers only the methods and results sections. Four offer examples of good reporting. In addition to these 9, there are numerous highly specific guidelines that may be helpful with particular study types and topics, such as economic evaluations of fall prevention research. To access such fine-grained guidelines, there is a search engine at the EQUATOR website.

The fourth group of guidelines (n=6) focuses on *sections of a manuscript*, e.g., the abstract or the discussion section (Table 4). The most authoritative and broad source is *Uniform Requirements for Submission of Manuscripts to Biomedical Journals* (URM). If the selected guidelines do not cover a particular section or if the instructions are very general (e.g., "include the study type in the title" or "use a structured abstract"), URM is the default (available under "Guidance developed by editorial groups" at EQUATOR or directly at http://www.icmje.org/). An extension of CONSORT addresses abstracts and two guidelines address descriptions of literature searches (e.g., STARLITE, supplementing PRISMA and MOOSE). Specific perspectives on aspects of discussion sections are also available.

Thus, it is suggested that Tables 1–4, representing a division of guidelines into logical groups, be used in sequence, as illustrated (Figure 1). These groups may be expanded in the future through new guidelines and extensions of existing guidelines; see EQUATOR's section on "reporting guidelines under development".[17] Consolidation and evaluation of guidelines also is occurring. For example, Moher's group has done a systematic review to identify guidelines for reporting survey research and to compare and critique those available; they concluded that there was no consensus on items to be included and that a new, validated guideline should be developed, possibly building on STROBE.[18]

Discussion

Impact of reporting guidelines

Guidelines have gained momentum in the number of journals endorsing particular guidelines or at least referring authors to the EQUATOR Network. Two of the "core" guidelines in Table 1 (CONSORT and STROBE) now have growing "families" of related guidelines, sanctioned by the group that keeps the core guideline updated. These "families" are positive developments, in that each new guideline is specifically designed as a supplement to the original, re-using those aspects which are common to both, and making it easy for users to

follow them. CONSORT, the most extensively studied of reporting guidelines, has had a modest positive influence on the quality of reporting;[19,20] the CONSORT extension for cluster randomized trials[21] has been reported to have improved identification of trials as cluster designs, but there has been little improvement in the frequency of inappropriate statistical analyses.[22]

It is not unreasonable for journal editors to make a distinction between guidelines or standards and *requirements.* As discussed by the American Psychological Association's Working Group on Journal Article Reporting Standards (the JARS group) in offering their recommendations to the APA Publications and Communication Board, "By not calling them 'requirements,' … [we] felt the standards should be given the weight of authority while retaining for authors and editors the flexibility to use the standards in the most efficacious fashion."[3, p. 847]

Benefits of reporting guidelines to several user groups

Systematic reviewers provided the impetus for the creation of reporting guidelines, out of their frustration with missing, unclear, and erroneous information that made it perilous to describe study samples, interventions, outcomes, and the risk of bias and, therefore, to draw appropriate conclusions.[23] Moreover, reporting guidelines provide guidance about study characteristics to code and definitions for the codebook as well as more informative titles and abstracts that make it faster to select citations for inclusion.

The utility of reporting guidelines for authors seems self-evident: They prescribe necessary information, in a sequence and form which is standardized within a specific field. Indeed, many journals require the submission of a completed checklist. Indicating the use of reporting guidelines with a statement such as "Items are reported in accordance with ----" allows searchers to find such articles to monitor adoption of guidelines in addition to indicating the authority for items included in the manuscript. The concern of the JARS group and others regarding space limitations and complete reporting[3] is more easily resolved in this age of electronic publishing, with easy access to supplemental material stored online.

Some guidelines stress that journal peer reviewers and editors should not use a guideline's checklist as a first screening tool for publication. For example, CONSORT 2010 states, "The items should elicit clear pronouncements of how and what the authors did, but do not contain any judgments on how and what the authors should have done. Nor is it appropriate to use the checklist to construct a 'quality score.'"[24] Nevertheless, clearer *reporting* of guideline-specified information makes it easier to evaluate a study's strengths and weaknesses.

CONSORT (among others) also disclaims its value in designing a research protocol. "Note that the Statement does not include recommendations for designing, conducting, and analyzing trials. It solely addresses the reporting of what was done and what was found."[24] First, reporting elements that have not been anticipated may leave the investigator at a loss when it comes time to write the manuscript. Second, having a clear understanding of the definitions and acceptable operations of certain reporting elements, e.g., "intent to treat analysis", should result in clearer and higher quality protocols. Third, for types of studies prone to inappropriate research questions or analyses, guidelines such as CONSORT for Reporting of Noninferiority and Equivalence Randomized Trials provide advice on appropriate questions and analyses.

The EQUATOR website is likely to continue to be the long-term go-to place to discover the existence of specific reporting guidelines, as well as those under development.[25] Moher's recent review and evaluation of guideline creation processes[15] is designed to be part of a

possible future rating system for reporting guidelines,[15,26] but such a rating system is not yet in place.[9,10]

Limitations

Several potential limitations in this paper must be noted. Reliance on the EQUATOR Network as the source of guidelines is viewed by the authors of this paper as a relatively minor flaw because of the pre-eminent position of the Network, the quality of its periodic searches, and the ease of going to a single source for virtually all reporting guidelines relevant to the public health and preventive medicine literature. It should be noted, however, that the influential RE-AIM framework (reach, effectiveness, adoption, implementation and maintenance)[27] is not included in the EQUATOR database, despite proposing an expansion to CONSORT to cover external validity.[28] EQUATOR also does not necessarily list papers which critique current survey guidelines; the one mentioned above[18] was not found on EQUATOR, despite authors who are deeply involved in the EQUATOR network; it might be found by searching PubMed.

Further limitations are that in the tables, the tradeoff of space versus nuanced description means that some characteristics receiving an "x" were partially present. The relatively simple coding scheme used here to indicate *"authority"* does not purport to address validity, a complex task underway by the EQUATOR network team. When faced with a guideline with few indicators of authority, EQUATOR's section on reporting guidelines under development is again a valuable point of contact. Ultimately, users must make their own judgments as to which guideline(s) are potentially of greatest value to them, whether they are writing a paper or systematic review, preparing a research proposal, or providing peer review. By using the sequential approach outlined here and the indicators of authority, usability, and breadth in picking 1) a core guideline, 2) a supplementary or specialty secondary guideline, 3) a topic-based guideline if available, and 4) appropriate resources for specific parts of the manuscript, a user can make optimal use of guidelines and provide much-needed transparency and rigor.

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Note: In cases of multiple concurrent publication, we have when possible chosen a version appearing in an open-access journal.

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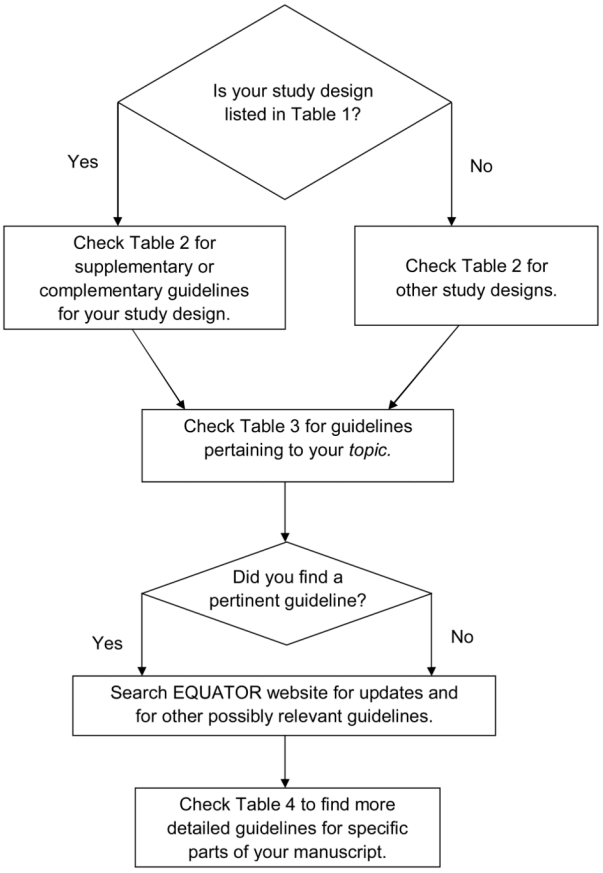

Figure 1.

Table 1

Core Guidelines

	RCTs CONSORT 2010 rev	Non-RCTs TREND 2004	Observational Studies in Epidemiology: STROBE 2007	Systematic Reviews and Meta-Analyses PRISMA 2009	Diagnostic Accuracy Studies STARD 2003
Group, Web site	CONSORT Group www.consort-statement.org/	HIV/AIDS Prevention Research Systhesis Team www.cdc.gov/trendstatement/	STROBE Initiative www.strobe-statement.org/	PRISMA Group www.prisma-statement.org/	STARD Group www.stard-statement.org/
Expertise	Clinical trials, statistics, biomedical editors	HIV/AIDS prevention, research, public health practice, journal editors	Epidemiology, methods, statistics, research, journal editors	Systematic review, methods, clinical med, medical editors, a consumer	Research, methods, editors, reps of prof orgs
Explanations	E&E doc + website	[CONSORT E&E doc]	E&E doc	E&E doc	E&E doc
Examples	E&E doc	[CONSORT E&E doc]	E&E doc	E&E doc	E&E doc
Flow diagram	✓	x	x	✓	✓
Additional features	Definitions, contents of an abstract; baseline demographics example.	Distinguishes new items from CONSORT items.	Draft checklist for conference abstracts on website.	Evolution of revision; comparison of two.	
Notes; Open access citation + no. simultaneous publications	Replaced CONSORT 2001; 2010 *BMC Med*[2] +10 E&E: 2010 *BMJ*[29] +1	Focus=behavioral & public health interventions; *Am J Public Health,*[30] + editorial	Cohort, case-control, cross-sectional studies; 2007 *PLoS Med*[31] +7 E&E: 2007 *PLoS Med*[32] +2	Replaced QUOROM; 2009 *PLoS Med*[33] +5 E&E: 2009 *PLoS Med*[34] +2	2003 *BMJ*[35] + 6 others; +8 later E&E: 2003 *Ann Intern Med*[36] +1; +1 later

✓included

x not included

E&E doc: Explanation and elaboration document

All have rationales and checklists.

Table 2

Guidelines for Other Designs and Analyses

	Designs	Citations	Characteristics	Breadth				
				Ti	Ab	Int	Re	D
EXPERIMENTAL STUDIES								
TRIALS	Non-inferiority and equivalence	**CONSORT** ext; 2006 *JAMA*[37]	xRationale xExplanations ✓Examples xExpertise ✓Group: www.consort-statement.org/extensions/	✓	✓	✓		✓
	Comparative effectiveness	2009 *Value Health*[38]	xRationale ✓Explanations xExamples xExpertise ✓Group: ISPOR Good Research Practices for Retrospective Database Analysis Task Force + guidelines for appropriate research questions		✓	✓	✓	✓
	Pragmatic trials	**CONSORT** ext; 2008 *BMJ*[39]	xRationale ✓Explanations xExamples xExpertise ✓Group: Pragmatic Trials in Healthcare www.consort-statement.org/extensions/			✓	✓	✓
	Cluster RCTs	**CONSORT** ext; 2004 *BMJ,*[21] *BMJ* [ed] 2004[40]	✓Rationale ✓Explanations ✓Examples xExpertise ✓Group: http://www.consort-statement.org/extensions/	✓	✓	✓	✓	✓
OBSERVATIONAL STUDIES								
BIOMARKERS	Molecular epidemiology (biomarker) studies	**STROBE** ext; **STROBE-ME**; 2011 *PloS Med*[41] +6	xRationale ✓Explanations ✓Examples ✓Expertise: epidemiology, biostatistics, lab science ✓Group: Initiated by Environmental Cancer Risk, Nutrition & Individual Susceptibilty European Network of Excellence	✓	✓	✓	✓	✓
	Tumour marker prognostic studies	**REMARK;** 2005 *J Natl Cancer Inst*[42] +5	✓Rationale ✓Explanations xExamples ✓Expertise ✓Group: Nat'l Cancer Inst & Eur Org for Res & Treatment of Cancer http://cdp.cancer.gov/scientificPrograms/pacct/remark.htm		✓	✓	✓	✓
GENETIC STUDIES	Genetic association studies	**STROBE** ext; **STREGA;** 2009 *PLoS Med*[43] +6 +3 eds E&E: website	✓Rationale ✓Explanations xExamples ✓Expertise: epidmiology, genetics, statistics, journal editors ✓Group: www.strega-statement.org	✓	✓	✓	✓	✓
	Immunogenomic studies	**STREGA** ext; **STREIS;** 2011 *Tissue Antigens*[44]	xRationale ✓Explanations ✓Examples xExpertise ✓Group: Immunogenomics Data Analysis Working Group http://igdawg.org/streis.html			✓		✓
	Genetic risk prediction studies	**GRIPS;** 2011 *PLoS Med*[45] +9 E&E: 2011 *J Clin Epidemiol*[46] +3	✓Rationale ✓Explanations ✓Examples ✓Expertise: risk predicttion, epidemiology, genetics, methods, statistics, journal editors	✓	✓	✓	✓	✓
SURVEYS	Internet e-surveys	**CHERRIES;** 2004 *J Med Internet Res*[47] [ed]	✓Rationale xExplanations xExamples ✓Expertise: author is journal's editor					
	Momentary self-report	2002 *Ann Behav Med*[48]	✓Rationale xExplanations xExamples xExpertise					
	Survey research	2003 *Int J Qual Health Care*[16]	xRationale xExplanations xExamples xExpertise		✓	✓	✓	✓

	Designs	Citations	Characteristics	Breadth				
				Ti	Ab	Int	Re	D
RELIABILITY AND AGREEMENT STUDIES								
	Reliability & agreement studies	**GRRAS**; 2011 *Clin Epidemiol*[49] +1 [ed]	xRationale ✓Explanations xExamples ✓Expertise: instrument development, evaluation, reliability & agreement estimation, sys tematic review	✓	✓	✓	✓	✓
SYSTEMATIC REVIEWS AND META-ANALYSES								
	Meta-analyses: epidemiology	**MOOSE**; 2000 *JAMA*[50]	✓Rationale ✓Explanations xExamples ✓Expertise: clinical med, trials, statistics, epidemiology, social science, journal editors ✓Group: MOOSE group (no website)		✓	✓	✓	✓
QUALITATIVE RESEARCH								
	Interviews, focus groups	**COREQ**; 2007 *Int J Qual Health care*[51]	✓Rationale ✓Explanations ✓Examples xExpertise				✓	
	Qualitative research in psychology	1999 *Br J Clin Psychol*[52]	✓Rationale xExplanations ✓Examples ✓Expertise: Soc for Psychotherapy workshop (1993), Am Psychological Assoc Symposium (1994)				✓	✓
	Qualitative research	**RATS**; 2003 book[53]	xRationale xExplanations xExamples xExpertise Modified for Biomed Central http://www.biomedcentral.com/info/ifora/rats				✓	✓
ECONOMIC EVALUATIONS								
	Cost-effectiveness analyses	1996 *JAMA*[54]	xRationale xExplanations ✓Examples ✓Expertise: CEA, clinicalmed, ethics, health outcomes measurement ✓Group: Panel on Cost-Effectiveness in Health & Medicine			✓	✓	
	Cost-effectiveness analyses with clin trials	2005 *Value Health*[55]	xRationale ✓Explanations ✓Examples xExpertise ✓Group: Internatl Soc for Pharmacoeconomics & Outcomes Res RCT-Cost Effectiveness Analysis Task Force http://www.ispor.org/workpaper/clinical_trial.asp			✓	✓	
	Economic evaluations for trial-based studies & decision analytic models	2005 *Int J Technol Assess Health Care*[56]	xRationale xExplanations ✓Examples xExpertise			✓	✓	
	Economic evaluations (modeling studies)	1998 *Pharmacoeconomics*[57]	xRationale xExplanations ✓Examples xExpertise		✓	✓	✓	✓
	Economic evaluation w/RCTs	2011 *BMJ*[58]	xRationale xChecklist xExplanations xExamples xExpertise			✓	✓	
	Economic evaluation (modeling)	2011 *BMJ*[59]	xRationale xChecklist xExplanations xExamples xExpertise			✓	✓	
HEALTH ADMINISTRATION								
	Validation studies of health admin data	STARD modification; 2011 *J Clin Epidemiol*[60]	✓Rationale xExplanations xExamples ✓Expertise: research using health administrative data			✓		

	Designs	Citations	Characteristics	Breadth				
				Ti	Ab	Int	Re	D
STATISTICAL METHODS & ANALYSES								
	Bayesian: health-care evaluations	**BayesWatch**; 2000 *Health Technol Assess*[61]	✓Rationale ✓Explanations ✓Examples xExpertise		✓	✓	✓	✓
	Bayesian: clinical studies	**ROBUST**; 2005 *J Clin Epidemiol*[62]	✓Rationale xExplanations xExamples ✓Expertise: Bayesian analysis of clinical studies			✓	✓	
	Heterogeneity in effects	2010 *Trials*[63]	xRationale ✓Explanations xExamples xExpertise			✓	✓	
	Subgroup analysis in clinical trials	2007 *N Engl J Med*[64]	xRationale xExplanations xExamples xExpertise	✓		✓	✓	✓
QUALITY IMPROVEMENT STUDIES								
	Quality improvement studies	**SQUIRE**; 2008 *Qual Saf Health Care*[65]	xRationale ✓Explanation xExamples ✓Expertise: authors, publication guideline developers, peer reviewers, journal editors	✓	✓	✓	✓	✓
	Quality improvement studies	1999 *Qual Health Care*[66]	xRationale ✓Explanation xExamples ✓Expertise: journal editors			✓	✓	✓
OTHER REPORTING GUIDELINES								
	Participatory action research	2010 *Couns Psychol*[67]	xRationale ✓Explanations ✓Examples xExpertise		✓	✓	✓	✓

Notes: All listed address the methods section of papers; all have checklists unless otherwise noted.

Table 3

Guidelines for Specialized Topics

Topic	Citation(s)	Characteristics	Ti	Ab	I	R	D
Behavioural medicine	Unofficial CONSORT ext; 2003 *Ann Behav Med*[68]	xRationale ✓Explanations ✓Examples xExpertise	✓	✓	✓	✓	✓
eHealth interventions	2010 *Patient Educ Couns*[69]	xRationale ✓Explanations ✓Examples xExpertise	✓	✓	✓	✓	✓
Biospecimen reporting	**BRISQ**; 2011 *J Proteome Res*[70] +1	xRationale ✓Explanations ✓Examples ✓Expertise: lab science, clinical med, pathology, statistics, patient advocacy, biobanking, professional societies					
Evaluation studies in health informatics	**STARE-HI**; 2009 *Int J Med Inform*[71]	✓Rationale xExplanations xExamples ✓Expertise: journal's eds, reviewers, authors, readers ✓Group: Med Informatics & Am Med Informatics Assoc work groups on evaluation http://iig.umit.at/efmi/starehi.htm	✓	✓	✓	✓	✓
Harms	**CONSORT** ext; 2004 *Ann Intern Med*[72]	✓Rationale ✓Explanations xExamples ✓Expertise: journal editors, experts in related fields ✓Group: http://www.consort-statement.org/extensions/data/harms/	✓	✓	✓	✓	✓
HIV intervention research	2004 *AIDS Educ Prev*[73]	✓Rationale xExplanations xExamples xExpertise ✓Group: Behavioral Intervention Research Branch, Divisions of HIV/AIDS Prevention, Centers for Disease Control & Prevention				✓	
Non- pharmacologic treatments	**CONSORT** ext; 2008 *Ann Intern Med*,[74] E&E: 2008 *Ann Intern Med*[75]	✓Rationale ✓Explanations ✓Examples ✓Expertise: "content", methods, editors ✓Group: http://www.consortstatement.org/extensions/	✓	✓	✓	✓	✓
Outbreak reports of nosocomial infections	**ORION**; 2007 *Lancet Infect Dis*[76] +2	xRationale ✓Explanations xExamples ✓Expertise: Authors, editors, content, learned soc ✓Group: Infectious Disease Research Network www.idrn.org/orion.php	✓	✓	✓	✓	✓
Quality of life in clinical trials	1996 *Qual Life Res*[77]	✓Rationale xExplanations xExamples xExpertise	✓	✓	✓	✓	✓

Note: All guidelines listed address the methods section of papers. All guidelines have checklists unless otherwise noted.

Table 4

Parts of a Manuscript

Guideline	Citation(s)	Characteristics	Breadth					
			Ti	Ab	I	M	R	D
CONSORT for Abstracts (RCTs)[a]	2008 *Lancet*[78] E&E: 2008 *PLoS Med*[79]	✓Rationale ✓Explanations ✓Examples (website) xExpertise ✓Group: CONSORT group www.consort-statement.org/extensions/data/abstracts		✓				
Literature searches	**STARLITE**; 2006 *J Med Libr Assoc*[80]	✓Rationale xExplanations xExamples xExpertise				✓		
	2010 *Int J Technol Assess Health Care*[81]	✓Rationale xExplanations xExamples xExpertise				✓		
Narrative sections	2005 *Ann Emerg Med*[82]	xRationale xChecklist ✓Explanations xExamples xExpertise			✓	✓	✓	✓
Structured discussions	1999 *BMJ*[83]	xRationale xExplanations xExamples xExpertise						✓
Research recommendations	2006 *BMJ*[84,85]	xRationale xExplanations ✓Examples ✓Expertise: BMJ Pub Grp, Centre for Reviews & Dissem, Nat'l Coord Centre for Health Tech Assess, Nat'l Instit for Health & Clin Excellence, Scottish Intercollegiate Guidelines Network, UK Cochrane Center						✓

note: All items have checklists unless otherwise noted.