LITERATURE ON PEER REVIEW OF RESEARCH

7. Disclosure of Research Information under the Freedom of Information Act. Report and Recommendations. Washington, D. C.: US Dept Health Educ Welfare, 1977:

11. Grants Peer Review: Opinions on the NIH Grants Peer Review System. Report to the Director, NIH. Phase II. Natl Inst Health, 1978:

27. Guidelines for investigation of allegations of dishonesty in research.
Minerva. 1987;25(3):358-361.

38. Statements from the International Committee of Medical Journal Editors.
Jama. 1991;265(20):2697-2698.
At its February 1991 meeting, the group approved three new statements on order of authorship, patients' right to anonymity, and what to do with competing manuscripts based on the same study. These and four other statements -- on confidentiality, the role of the correspondence column, editorial freedom, and retraction of research findings -- are published below.

50. The 2nd International Congress on Peer Review in Biomedical Publication. Proceedings. Chicago, Illinois, September 9-11, 1993.
Jama 1994;272(2):91-173.

52. Launch of the World Association of Medical Editors [news].
Jama 1995;273(13):981.

53. Peer review and the courts [editorial].
Nature 1996;384(6604):1.

60. Overmanaged medical research [editorial].
Lancet 1997;349(9046):145.

64. NIH peer review: time for some changes [editorial].
Nat Biotechnol 1998;16(5):395.

67. Administrative practices and procedures; internal agency review of decisions; companion document to direct final rule; correction--FDA. Proposed rule; correction.
Fed Regist. 1998;63(184):50815.
The Food and Drug Administration (FDA) is correcting a proposed rule that appeared in the Federal Register of June 16, 1998 (63 FR 32772). The document proposed to amend the FDA regulations governing the review of agency decisions by inserting a statement that sponsors, applicants, or manufacturers of drugs (including biologics) or devices may request review of a scientific controversy by an appropriate scientific advisory panel, or an advisory committee. The document was published with an error. This document corrects that error.

68. Administrative practices and procedures; internal agency review of decisions--FDA. Direct final rule; withdrawal.
Fed Regist. 1998;63(184):50757.
The Food and Drug Administration (FDA) published in the Federal Register of June 16, 1998 (63 FR 32733), a direct final rule to implement the new Dispute Resolution provision of the Federal Food, Drug, and Cosmetic Act, as amended by the Food and Drug Administration Modernization Act of 1997 (FDAMA). The comment period closed on August 31, 1998. FDA is withdrawing the direct final rule because the agency received significant adverse comment.

71. Administrative practices and procedures; internal agency review of decisions; companion document to direct final rule--FDA. Proposed rule.
Fed Regist. 1998;63(115):32772-4.
The Food and Drug Administration (FDA) is proposing to amend the regulations governing the review of agency decisions by inserting a statement that sponsors, applicants, or manufacturers of drugs (including biologics) or devices may request review of a scientific controversy by an appropriate scientific advisory panel, or an advisory committee. The agency is taking this action to clarify the availability of review of scientific controversies by such advisory panels or committees. This proposed rule is a companion document to a direct final rule published elsewhere in this issue of the Federal Register. If FDA receives any significant adverse comment, the direct final rule will be withdrawn, and the comments will be considered in the development of a final rule using usual notice and comment rulemaking based on this proposed rule.
72. Administrative practices and procedures; internal review of agency decisions---FDA. Direct final rule.
Fed Regist. 1998;63(115):32733-5.
The Food and Drug Administration (FDA) is amending its regulations governing the review of agency decisions by inserting a statement that sponsors, applicants, or manufacturers of drugs (including biologics) or devices may request review of a scientific controversy by an appropriate scientific advisory panel, or an advisory committee. This action is being taken to clarify the availability of review of scientific controversies by such advisory panels and committees. Elsewhere in this issue of the Federal Register, FDA is publishing a companion proposed rule. If any significant adverse comment is received, FDA will withdraw the direct final rule and will follow its usual procedures for notice-and-comment rulemaking based on the companion proposed rule.
74. Untold costs of keeping up appearances [editorial].
Lancet 1999;354(9175):265.
75. Below the fold. Meta-analysis [see comments].
Lancet 1999;353(9151):509.
81. Abby M, Massey MD, Galandiuk S, Polk HC, Jr. Peer review is an effective screening process to evaluate medical manuscripts.
Jama 1994;272(2):105-7.
OBJECTIVE--To measure the effectiveness of peer review as a screening process to evaluate medical manuscripts. DESIGN--Retrospective. SETTING--The editorial office of the American Journal of Surgery (AJS). METHOD--A MEDLINE search was conducted of publications from 1984 to 1992 for manuscripts that were identical or similar to those rejected by AJS between January and December 1989. Manuscripts that were submitted to AJS by foreign authors were excluded because of the presumed difficulty in tracking foreign-language publications. MAIN OUTCOME MEASURES--The percentage of manuscripts rejected by AJS that were subsequently published in journals indexed by MEDLINE, the time from rejection to ultimate publication, and the journal of publication. The reasons for rejection were also documented. We assumed that the majority of rejected manuscripts would be published within 3 years after rejection. RESULTS--One hundred twenty-five manuscripts submitted by North American authors were rejected by AJS in 1989, and 62% were not subsequently published in another core medical journal during the study period. The average duration between rejection and later publication was 17 months. Of those manuscripts subsequently published, 54% appeared in

general surgical journals, including 12% that were revised, reevaluated, and later accepted by AJS. Twenty-nine percent of the rejected manuscripts were published in specialty medical journals, 10% in state and local journals, and the remainder in general medical journals. Twenty-eight percent of the authors of rejected manuscripts had previously and subsequently published manuscripts on very similar subjects. CONCLUSIONS--Our data indicate that the review process serves as a sieve and influences whether manuscripts are published in core medical journals. This was demonstrated by the fact that rejected manuscripts often were not published in other indexed medical journals.
86. Alberts BM, Ayala FJ, Botstein D, et al. Proposed changes for NIH's Center for Scientific Review. Panel on Scientific Boundaries for Review. Center for Scientific Review Advisory Committee, National Institutes of Health.
Science 1999;285(5428):666-7.
90. Allison R. No more "publish or perish" [letter; comment].
Med J Aust 1998;168(7):368.
91. Alspach G. What journal editors would like from reviewers [editorial].
Crit Care Nurse 1994;14(6):13-6.
93. Altman LK. The Ingelfinger rule, embargoes, and journal peer review--part 2 [see comments].
Lancet 1996;347(9013):1459-63.
94. Altman LK. The Ingelfinger rule, embargoes, and journal peer review--Part 1 [see comments].
Lancet 1996;347(9012):1382-6.
It is 27 years since Dr Franz Ingelfinger announced that a manuscript would be rejected by his journal, the New England Journal of Medicine, if it had been published elsewhere. Many other medical journals have since adopted this so-called Ingelfinger rule. The restrictions resulting from the rule have generated enormous controversy in medical journalism, as shown by the first of the two-part article The Ingelfinger rule, embargoes, and journal peer review. Critics say that the rule restricts the free flow of information, whereas proponents claim that information from a paper released early may be inaccurate because the paper has not been subjected to peer review. Yet peer review itself has also come under scrutiny, with its many limitations rarely being openly discussed.
95. Altman DG. Statistical reviewing for medical journals.
Stat Med 1998;17(23):2661-74.
This paper reviews the difficulties associated with being a statistical reviewer for a medical journal. As background, I consider first the use of statistical reviewers by medical journals, medical journals' policies on statistical peer review, and the limited evidence of its effectiveness. The assessment of a manuscript is considered under the headings of design, methods of analysis, presentation and interpretation, with many illustrative examples of the difficulties to be overcome. I emphasize the judgemental nature of many aspects. I suggest how to present and structure the reviewer's report to the editor. Finally, I consider wider issues, including the various other ways in which statisticians can interact with medical journals.
96. Aminoff MJ. Criticism in neurology and medicine [see comments].
Neurology 1994;44(10):1781-3.
97. Anderson RH. Anonymity of reviewers [letter].
Cardiovasc Res 1994;28(11):1735.
98. Anderson WF. RAC approves accelerated review! [editorial].
Hum Gene Ther 1994;5(6):665-6.

100. Andrews JS. Does good peer review assure good epidemiology?
Journal of Clinical Epidemiology. 1991;44(Suppl. I):131S-134S.
101. Ateshkadi A, Munger MA. Comparison of publication rates for basic sciences versus practice from pharmacy-based grant programs.
Pharmacotherapy 1996;16(6):1128-32.
The future of a profession in an era of scarce resources depends on maintaining a focus on science. The times demand that pharmacy practice examine its commitment to science. To address this concern, pharmacy practice-based research awards from the American College of Clinical Pharmacy Research Institute Award Program, American Society of Health-System Pharmacists Research and Education Foundation Grant Program, and American Association of Colleges of Pharmacy New Investigator Program were compared with basic sciences awards from the American Association Colleges of Pharmacy New Investigator Program from their inception to 1991 to determine the percentage of awarded grants successfully published (publication rate). Pharmacy practice published awarded grants at 46% (70/154) versus 62% (26/42) for basic sciences (p = 0.09). A significant decline of 37% in pharmacy practice publication rate was observed over the study period. Economically, an average of $11,393 was spent to publish one manuscript in pharmacy practice versus $8077 in basic sciences. The results suggest that pharmacy practice should redefine a paradigm of commitment to scholarship to provide firm evidence for supporting science and sustaining professional growth.
102. Babior BM. Confidentiality [editorial].
Curr Opin Hematol 1999;6(1):1-2.
111. Baue AE. Reflections of a former editor.
Arch Surg 1993;128(12):1305-14.
112. Bauer J. Intricate journey: the path of a manuscript from submission to publication.
J Perianesth Nurs 1998;13(2):95-8.
This article traces the path of a manuscript that is submitted for publication consideration from the time of its receipt to its ultimate appearance in print. The peer review process is explained in detail. Though the process is similar for most journals, this article describes the process specific to the Journal of PeriAnesthesia Nursing.
113. Baum H. E-publication proposal [letter].
Science 1999;285(5430):1014.
114. Baxt WG, Waeckerle JF, Berlin JA, Callaham ML. Who reviews the reviewers? Feasibility of using a fictitious manuscript to evaluate peer reviewer performance [see comments].
Ann Emerg Med 1998;32(3 Pt 1):310-7.
STUDY OBJECTIVE: To determine whether a fictitious manuscript into which purposeful errors were placed could be used as an instrument to evaluate peer reviewer performance. METHODS: An instrument for reviewer evaluation was created in the form of a fictitious manuscript into which deliberate errors were placed in order to develop an approach for the analysis of peer reviewer performance. The manuscript described a double-blind, placebo control study purportedly demonstrating that intravenous propranolol reduced the pain of acute migraine headache. There were 10 major and 13 minor errors placed in the manuscript. The work was distributed to all reviewers of Annals of Emergency Medicine for review. RESULTS: The manuscript was sent to 262 reviewers; 203 (78%) reviews were returned. One-hundred ninety-nine reviewers recommended a disposition for the manuscript: 15 recommended acceptance, 117 rejection, and 67 revision. The 15 who recommended

acceptance identified 17.3% (95% confidence interval [CI] 11.3% to 23.4%) of the major and 11.8% (CI 7.3% to 16.3%) of the minor errors. The 117 who recommended rejection identified 39.1 % (CI 36.3% to 41.9%) of the major and 25.2% (CI 23.0% to 27.4%) of the minor errors. The 67 who recommended revision identified 29.6% (CI 26.1% to 33.1%) of the major and 22.0% (CI 19.3% to 24.8%) of the minor errors. The number of errors identified differed significantly across recommended disposition. Sixty-eight percent of the reviewers did not realize that the conclusions of the work were not supported by the results. CONCLUSION: These data suggest that the use of a preconceived manuscript into which purposeful errors are placed may be a viable approach to evaluate reviewer performance. Peer reviewers in this study failed to identify two thirds of the major errors in such a manuscript.

115. Beardsley JR. The three R's: reading, writing, and research [letter; comment].
Am J Crit Care 1995;4(1):89.

117. Becker PT. Scientific integrity and the journal review process [editorial].
Res Nurs Health 1998;21(4):283-4.

124. Berk RN, Friedman DP. New category of peer-review decision: rejection with opportunity to revise and resubmit [editorial].
AJR Am J Roentgenol 1995;164(1):235.

127. Bhopal RS, Tonks A. The role of letters in reviewing research [editorial].
Bmj 1994;308(6944):1582-3.

128. Biancuzzo M. Checking references: tips for reviewers.
Nurse Author Ed 1997;7(3):1-3.
When I was a new reviewer, I was uncertain if I should check some, all, or none of the references in the manuscript. I was equally uncertain, however, if anyone was ultimately accountable for this responsibility. Reviewers must assume responsibility for checking references because "the most critical part of the review process is to check the accuracy of the content." (Brooks-Brunn, 1993, p. 4). The reviewer's three main responsibilities include checking for (1) a reference for every citation (2) accuracy of reference content (3) accuracy of cited material (Kirchhoff, 1995).

129. Biddle C, Aker J. How does the peer review process influence AANA journal article readability?
Aana J 1996;64(1):65-8.
This study examined the readability of the AANA Journal, quantifying the effect of peer review on case and research reports published from 1992 to 1994. Gunning and Flesch index-based computer analysis, as well as human comparative analysis, was undertaken. Computer and human assessment of readability revealed improvement as papers evolved from submitted to published versions; however, at publication the manuscripts remained in the "difficult" readability range. Although this study provides evidence that peer review improves readability, it may be that, due to a professed need for scientific purity and an imposed sense of scholarship, nursing and other biomedical journals may overemphasize a style and approach that paradoxically make transfer of information unreasonably difficult.

131. Bingham C, Coleman R. Enter the Web: an experiment in electronic research peer review [editorial].
Med J Aust 1996;164(1):8-9.

132. Bingham CM, Higgins G, Coleman R, Van Der Weyden MB. The Medical Journal of Australia Internet peer-review study.

Lancet 1998;352(9126):441-5.
BACKGROUND: Peer review of medical papers is a confidential consultancy between the reviewer and the journal editor, and has been criticised for its potential bias and inadequacy. We explored the potential of the internet for open peer review to see whether this approach improved the quality and outcome of peer review. METHODS: Research and review articles that had been accepted for publication in The Medical Journal of Australia (MJA) were published together with the reviewers' reports on the worldwide web, with the consent of authors and referees. Selected readers' e-mailed comments were electronically published as additional commentary; authors could reply or revise their paper in response to readers' comments. Articles were edited and published in print after this open review. FINDINGS: 60 (81%) of 74 authors agreed to take part in the study, together with 150 (92%) of 162 reviewers. There was no significant difference in the performance of commissioned reviewers before and during the study. Four articles were not included because of insufficient time before print publication. Of the remaining 56 papers, 28 received 52 comments from 42 readers (2% of readers submitted comments). Most readers' comments were short and specific, and seven articles were changed by the authors in response. INTERPRETATION: Open peer review is acceptable to most authors and reviewers. Postpublication review by readers on the internet is no substitute for commissioned prepublication review, but can provide editors with valuable input from individuals who would not otherwise be consulted. Readers also gain insight into the processes of peer review and publication.
133. Birkett NJ. The review process for applied-research grant proposals: suggestions for revision [see comments].
138. Block AJ. Blinded reviews [editorial].
Chest 1998;114(6):1501-2.
139. Bloemenkamp DG, Hart W, Overbeke AJ. [The percentage of articles which were accepted or rejected for publication in the Dutch Journal of Medicine in 1997].
Ned Tijdschr Geneeskd 1999;143(3):157-9.
OBJECTIVE: To determine the acceptance and rejection percentages of articles submitted to the editors of the Nederlands Tijdschrift voor Geneeskunde (NTvG) in 1997. DESIGN: Retrospective. METHOD: The data on all articles reviewed by the editors of the NTvG in 1997 were extracted from the registration system in April 1998. These included the outcome of the review process (rejection or acceptance for publication or no definite decision yet), the article category (e.g., original article, review article), and whether the article had been solicited by the editors or was a spontaneous submission. RESULTS: In 1997, 845 articles were received. Of these 28% (240) were rejected and 59% (497) were accepted for publication. On 13% (108) no decision had been made (in April 1998). Of the articles decided upon 36% were rejected (extrapolated). 705/845 (83%) articles were unsolicited: of these 33% (235) were rejected and 54% (382) accepted; on 13% (88) the decision was pending. The solicited articles numbered 140 (17%); of these 4% (5) were rejected and 82% (115) were accepted; on 14% (20) no decision had been made yet. CONCLUSION: The rejection of articles submitted to NTvG in 1997 was 36% (in 1990 38%). Solicited articles were rejected less frequently than unsolicited ones. The yearly number of articles submitted and the rejection percentage have not changed drastically during the last eight years.
140. Bloom FE. The importance of reviewers [editorial].
Science 1999;283(5403):789.

144. Bondurant S. Peer review of research project grants by NIH study sections: report of the Committee on National Medical Policy, American Society for Clinical Investigation.
Clin Res. 1977;25(5):297-305.
146. Bowrey DJ, Morris-Stiff GJ, Clark GW, Carey PD, Mansel RE. Peer-reviewed publication following presentation at a regional surgical meeting.
Med Educ 1999;33(3):212-4.
OBJECTIVES: The aim of the study was to investigate the proportion of publications arising from work presented at a regional surgical meeting. DESIGN: A list of all presentations to the Welsh Surgical Society 1983-95 was compiled and a detailed search made of the Medicine Database. The surgical topic of each presentation, the date of presentation, the date of publication and the journal of publication were recorded. SETTING: University Hospital of Wales. RESULTS: Four hundred and ninety-six papers were presented to the society, of which 402 (81%) were by trainees. The most frequent topics of presentation were colorectal (15%), vascular (15%) and hepato-pancreatico-biliary (11%). Two hundred and thirty-three papers (47%) have been published in peer-reviewed journals. The most popular journals for publication were Annals of the Royal College of Surgeons of England (19%), British Journal of Surgery (16%) and Journal of the Royal College of Surgeons of Edinburgh (8%). The median time from presentation to publication was 17.0 months (interquartile range 10.0-27.5 months). CONCLUSIONS: Regional surgical meetings have an important role in the annual surgical calendar and they are the ideal initial setting for presentation by trainees.
151. Broad WJ. Report absolves Harvard in case of fakery.
Science. 1982;215(4534):874-876.
A committee composed of Harvard faculty members and the deans of the Johns Hopkins, New York University, and Tufts University medical schools has decided that Harvard Medical School officials acted reasonably in allowing John Darsee to perform research for six months after he confessed to fabrication of research data. Although the committee found justification for Harvard's slowness in notifying the National Institutes of Health that Darsee was working on a federal study, an NIH spokesman has faulted Harvard on national television for its delay in reporting the problem. Excerpts from the committee's report, and its suggestions for preventing dishonesty in scientific research, are included here. (KIE abstract).
153. Browman GP. Scientific evidence and expert opinion in ACP Journal Club: commentary on commentaries [editorial] [see comments].
ACP J Club 1994;120 Suppl 1:A11.
158. Brunier G, Turpin C. Publish or perish: the inside story.
J Cannt 1998;8(1):26-7.
171. Butler D. Peer review 'still essential', say researchers [news].
Nature 1996;379(6568):758.
174. Callaham ML, Waeckerle JF. Medical journals and the science of peer review: raising the standard [editorial] [published erratum appears in Ann Emerg Med 1996 Aug;28(2):247].
Ann Emerg Med 1996;28(1):75-7.
175. Callaham ML, Wears RL, Waeckerle JF. Effect of attendance at a training session on peer reviewer quality and performance.
Ann Emerg Med 1998;32(3 Pt 1):318-22.

STUDY OBJECTIVE: To determine whether attendance at a voluntary training workshop improves quality ratings of medical journal peer reviewers. METHODS: Peer reviewers for Annals of Emergency Medicine who completed two or more reviews during the 20 months before or the 20 months after October 1995 were eligible. Reviews were routinely rated by editors on a subjective 5-point quality scale. Comparisons were made between reviewers who chose to attend a 4-hour workshop on peer review sponsored by the journal in 1995 (attendees) and 2 groups of reviewers who did not attend: controls matched for review quality and number of reviews completed before the workshop, and unmatched controls. Guest reviewers were excluded. RESULTS: A total of 298 reviewers completed 1906 reviews before the workshop and 2,194 after the workshop; 2,117 of these reviews were rated by editors. Forty-five attendees participated in the workshop, 39 of whom had sufficient ratings for analysis. Matched controls were almost identical in performance to attendees, but unmatched controls had performed fewer reviews and had lower average ratings before the workshop. There was no significant change in any performance measurement after the workshop, including average quality rating, percent change in quality rating, odds ratio for recommending acceptance, and odds ratio for congruence with editor's decision. CONCLUSION: In a self-selected group of experienced reviewers who attended a 4-hour workshop on peer review, no effect could be identified in subsequent performance as measured by editors' quality ratings or reviewer performance statistics.

179. Cantekin EI, McGuire TW, Potter RL. Biomedical information, peer review, and conflict of interest as they influence public health.
Jama. 1990;263(10):1427-1430.

The authors present a case involving the University of Pittsburgh School of Medicine in which the dissenting views of one of the authors, Cantekin, a coinvestigator for a National Institutes of Health funded trial, were surpressed from publication. The principle investigator and the grantee institution claimed that the coinvestigator was not authorized to use data from the publicly funded grant, and the editor of a scholarly journal refused to review the dissenting manuscript or submit it for external peer review. At the time this article was submitted, the case had attracted the attention of the media and of the U.S. Congress. It raises the issues of ownership of data from publicly financed research and of the failure of the current peer review process to deal with dissent in scientific publication. (KIE abstract).

191. Ceci SJ, Peters DP. Peer review--a study of reliability.
Change. 1982;14(6):44-8.

194. Channer KS. Auditing the British Medical Journal.
J R Soc Med 1994;87(11):655-7.

The purpose of this study was to audit the outcome in terms of change in practice of the published research from one volume of the British Medical Journal. All original papers and short reports from one Volume 296 of the British Medical Journal (BMJ) 1988 were read and classified into theoretical only, practical and theoretical and practical. Those papers with any practical message were reviewed by one of a panel of specialists in the subject of the paper to assess if the recommendation made by the paper had become common clinical practice. The results show that most papers originated from teaching centres and research institutes in the UK. Only 8% of main papers and 6% of short reports had a solely practical application, although a further 18% and 22% had practical elements. The majority of the recommendations aimed at changing practice were of relevance to hospital specialists rather than general practitioners (GPs). Of the papers with any practical implications 48% (12% of the total) of main papers and 41% (11% of the total) of short reports were considered to be current practice. The

reasons why the papers failed to change practice are discussed. In conclusion, the majority of the original research papers published in the BMJ in 1988 were of a theoretical nature and only about 20% of papers made recommendations for a change in practice. About 50% of the recommendations are now current practice.

202. Cho MK, Bero LA. Instruments for assessing the quality of drug studies published in the medical literature.
Jama 1994;272(2):101-4.
OBJECTIVES--To develop valid and reliable instruments to assess the methodologic quality and clinical relevance of drug studies. DESIGN--We developed an instrument to assess the methodologic quality of articles reporting clinical research and an instrument to measure nonmethodologic measures of quality, such as clinical relevance, generalizability, and adherence to ethical standards. Each instrument was pretested by seven independent, masked reviewers and modified based on interrater agreement and content validity of individual items. We determined correlational validity of the final methodologic quality instrument by comparing quality scores assigned to 10 articles by means of our instrument and a previously published one. PARTICIPANTS--Clinical drug studies published in symposium proceedings and peer reviewed biomedical literature. MAIN OUTCOME MEASURES--Interrater reliability of overall quality scores, measured by intraclass correlation (r) and Kendall's coefficient of concordance (W), and interrater reliability of individual items, by percentage agreement. MAIN RESULTS--The interrater reliability of the pretest methodologic quality instrument was high (r = .89 [95% confidence interval, .73 to .96]; W = 0.64). Correlational validity of the final instrument was suggested by the high degree of concordance with another previously published one (W = 0.74). The interrater reliability of the pretest clinical relevance instrument was moderate (r = .41 [95% confidence interval, .18 to .64]; W = 0.47). Reviewers confirmed the content validity of both instruments. CONCLUSIONS--The two instruments we developed, one measuring methodologic quality and one measuring clinical relevance of articles reporting clinical research, are reliable, valid, and applicable to a variety of research designs.

203. Choo V. Thin line between research and audit [see comments].
Lancet 1998;352(9125):337-8.

208. Clarke RP. Malicious referees [letter; comment].
Nature 1997;386(6623):319.

209. Clayson DB. Anonymity in peer review--time for a change?
Regul Toxicol Pharmacol 1995;22(1):101.

211. Cohen LH, Pizzirusso D. Peer review of psychodynamic psychotherapy. Experimental studies of the American Psychological Association/CHAMPUS program.
Eval Health Prof. 1982;5(4):415-36.
Two factorial experiments examined the effects of reviewer theoretical orientation, documented treatment progress, and patient concurrence data on the peer review of clinical treatment reports that described long-term psychodynamic psychotherapy with a depressed, female outpatient. The experiments employed an unobtrusive methodology; peer reviewers believed that their evaluations would affect the disposition of actual mental health insurance claims. Subjects (n = 105) were American Psychological Association/Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) peer reviewers of a psychodynamic, behavioral, or eclectic theoretical orientation. The psychodynamic reviewers, compared with the behavioral and eclectic reviewers, were more positive in their ratings of treatment and more generous in their future care reimbursement recommendations.

Additionally, the data demonstrated that APA/CHAMPUS peer review was sensitive to reported treatment progress, and that reviewers of diverse orientations were equally responsive to documented progress in psychodynamic psychotherapy. The patient concurrence manipulation had little effect on the dependent measures. Implications for mental health quality assurance programs are discussed.

212. Cohen LH, Nelson DW. Peer review of psychodynamic psychotherapy: generous versus restrictive reviewers.
Eval Health Prof. 1982;5(2):130-44.

American Psychological Association/CHAMPUS peer reviewers (N=168) evaluated clinical treatment reports that described psychodynamic treatment of middle-aged, depressed outpatients. Descriptive data are reported on the reviewer' recommendations concerning the reimbursement for previous and total (previous plus future) care. In addition, generous and restrictive reviewers are compared on their theorectical orientation, the self-reported factors affecting their review decisions, and their previously reported clinical practice patterns and attitudes toward psychological peer review. The implications of these findings for mental health quality assurance programs are discussed.

214. Cohen HH. Peer review: Patrick redux.
Med Staff Couns. 1990;4(1):59-63.

216. Colaianni LA. Peer review in journals indexed in Index Medicus.
Jama 1994;272(2):156-8.

OBJECTIVE--To determine whether peer review policies are published in English-language journals indexed in Index Medicus and, secondarily, to obtain information on the peer review practices of such journals. DESIGN--Examined one issue of a sample of all journal titles written in English and indexed in Index Medicus, and all indexed English-language journals in four subject fields. A questionnaire was sent to the editors of journals in the subject fields requesting information on their peer review practices. SETTING--Journals received at the National Library of Medicine. PARTICIPANTS--Editors of journals in four subject fields. MAIN OUTCOME MEASURE--Existence of a printed statement of the peer review process for manuscripts. RESULTS--Although the editors queried in the four subject fields indicated that overall, 56% to 65% of the articles were peer reviewed, clear statements about their peer review practices were not found in half of their journals or in the overall sample. CONCLUSIONS--Editors should publish clear statements of the peer review process followed for each type of article published in their journals.

225. Copnell B. The criteria used for reviewing abstracts [letter] [see comments].
Aust Crit Care 1994;7(1):6.

232. Crigger NJ. What we owe the author: rethinking editorial peer review.
Nurs Ethics 1998;5(5):451-8.

Editorial peer reviewers play an important role in shaping the direction of knowledge growth of their discipline. Recent concern over reports of peer review misconduct has led some to advocate the establishment of a code of ethics for peer reviewers. Such a code should include guidelines for the discipline and for society at large, but it should also contain guidelines for the authors whose manuscripts are reviewed. Peer reviewers have a special obligation to show beneficence and fairness or impartiality towards the authors for whom they review. The practical application of these two ethical concepts is discussed.

244. Danoff J. Evaluating scientific merit [letter; comment].
Phys Ther 1996;76(7):786-7.

258. Dickson D. Peer review: a call for help.
Nature 1994;372(6507):597.
261. DiStefano JJ, 3rd. A retrospective on the modeling methodology forum. The review process for modeling papers: a revisionist's experiences and perspectives [editorial].
Am J Physiol 1994;267(4 Pt 1):E485-8.
270. Dowd SB, McElveny C. Revision of manuscripts for scholarly publication.
Radiol Technol 1997;69(1):47-54.
Research shows that only 5% to 10% of manuscripts submitted to scholarly journals are accepted upon submission; the remainder must be revised before they are suitable for publication. Research also shows that authors who perform requested revisions greatly improve their chances of being published. In fact, a properly revised manuscript is almost guaranteed eventual publication at many journals. Despite these encouraging statistics, a significant number of authors choose to withdraw their manuscripts rather than perform revisions. This article examines the peer-review process, looks at common reasons why revisions are requested by reviewers and presents advice to authors on how to revise and resubmit their manuscripts for publication.
278. Dunn LJ, Jr., Holbrook RF. Legal issues concerning peer review documents.
Top Health Rec Manage. 1981;2(1):9-16.
279. DuRant RH. Checklist for the evaluation of research articles.
J Adolesc Health 1994;15(1):4-8.
282. Ector H, Aubert A, Stroobandt R. Review of the reviewer [editorial].
Pacing Clin Electrophysiol 1995;18(6):1215-7.
Reviewers can disagree substantially when evaluating the same materials. For papers submitted to an editorial board, the Editor-in-Chief can suggest compromises. However, this is not the case in the normal abstract grading procedures for large meetings. If important discrepancies arise between reviewers, a review committee may propose corrective measures. However, this is only feasible for smaller meetings with a limited number of abstract submissions. In this study, when reviewing the same abstracts, a statistically significant correlation between reviewers was present in 15 instances and absent in 13 others. It would appear that some review of the reviewer is highly desirable and may prevent publication bias.
286. Eldredge J. Characteristics of peer reviewed clinical medicine journals.
Med Ref Serv Q. 1999;18(2):13-26.
Many variations exist in editorial peer review practices in clinical medicine journals. These practices will become more crucial as medical journals make more of their contents available via the World Wide Web. This paper explores five fundamental dimensions of editorial peer review variations: (1) the extent to which manuscripts are subjected to peer review; (2) the sequence of decision points in the peer review process; (3) blinding practices; (4) acceptance rates for submitted manuscripts; and (5) guidelines stating editors' expectations of reviewers. Variations in editorial peer review practices make it difficult to define a "peer reviewed journal" in clinical medicine. Research in this relatively new area of inquiry has not established the relative strengths of each variation in relation to a journal's quality.
287. Ellis SJ. Peer review and conflicts of interest [editorial].
J Intern Med 1995;237(3):219-20.
291. Emden C, Schubert S. Manuscript reviewing: what reviewers have to say.
Contemp Nurse 1998;7(3):117-24.

This paper reports a study that examined the experience of manuscript reviewing. Fifteen reviewers participated, responding to questions about their experience of the process, its perceived strengths and weaknesses, and areas considered worthy of further investigation. Qualitative methodology and analysis were employed. Overall, the study showed that manuscript reviewing brings both extrinsic and intrinsic rewards, but that a price must be paid for these in terms of time spent and frustrations associated with the task. There was some skepticism among reviewers about the value of the peer review process, along with a desire for improvement. Recommendations for further research centre largely around the politics of scholarship and creating a more transparent process.

295. Ernst E, Resch KL. Reviewer bias against the unconventional? A randomized double-blind study of peer review.

Complement Ther Med 1999;7(1):19-23.

OBJECTIVE: To test the hypothesis that there is a reviewer bias against publication of a test of an unconventional drug. DESIGN: Randomized, controlled, double-blind study of peer review. PARTICIPANTS: Convenience sample of 291 medical doctors from a wide variety of specialties drawn from a list of conference participants. METHODS: Reviewers were randomly assigned to receive one of two versions of a manuscript. Version M related to an in-vitro experiment on a mainstream drug (Metoprolol). The otherwise identical version V used a highly unconventional drug (beef spleen cell extract) for the same experiment. Reviewers were asked to complete a standardised evaluation sheet including visual analogue scales (VASs) on a set of predefined quality criteria. All participants were debriefed after completion of the study. RESULTS: The response rate was 61%. There were no significant differences in VAS ratings between the two versions of the manuscript. Ratings covered the entire range of the VASs. CONCLUSION: In the present setting, there was no evidence for a reviewer-bias against testing an unconventional drug. The low inter-rater reliability, however, suggested inadequate validity of peer review.

298. Evans AT, McNutt RA, Fletcher SW, Fletcher RH. The characteristics of peer reviewers who produce good-quality reviews.

J Gen Intern Med 1993;8(8):422-8.

OBJECTIVE: To determine the characteristics of good peer reviewers. DESIGN: Cross-sectional analysis of data gathered during a randomized controlled trial. SETTING: The Journal of General Internal Medicine. PARTICIPANTS: 226 reviewers of 131 consecutively submitted manuscripts of original research. 201 (91%) completed the review and submitted a curriculum vitae. MEASUREMENTS AND MAIN RESULTS: The quality of each review was judged on a scale from 1 to 5 by an editor who was blinded to the identity of the reviewer. Reviewer characteristics were taken from the curricula vitae. 86 of the 201 reviewers (43%) produced good reviews (a grade of 4 or 5). Using logistic regression, the authors found that when a reviewer was less than 40 years old, from a top academic institution, well known to the editor choosing the reviewer, and blinded to the identity of the manuscript's authors, the probability that he or she would produce a good review was 87%, whereas a reviewer without any of these characteristics had a 7% probability of producing a good review. Other characteristics that were significant only on bivariate analysis included previous clinical research training, additional postgraduate degrees, and more time spent on the review. There was a negative but statistically nonsignificant association between academic rank and review quality: 37% of full professors, 39% of associate professors, and 51% of assistant professors or fellows produced good reviews ($p = 0.11$). CONCLUSIONS: Good peer reviewers for this journal tended to be young,

from strong academic institutions, well known to the editors, and blinded to the identity of the manuscript's authors.

301. Fainter J. Better structure can improve peer review.
QA Rev. 1989;1(2):2-3.

303. Feigenbaum K. Evaluating research proposals.
Gastroenterol Nurs 1994;16(6):281-2.

306. Felice AE. Guardianship by peer review in genetic engineering and biotechnology.
<In:> Agius, Emmanuel 1998:117-129.

312. Fitzgerald RM. The problems of a "gross and flagrant" peer review.
Med Group Manage. 1987;34(4):17, 23.

315. Flanagin A. Blind peer review: tips for authors, reviewers, and editors.
Nurse Author Ed 1994;4(4):1-2.
Most nursing journal editors use peer review to help them make decisions about which manuscripts to publish. Blind review, masking the identities of authors and/or reviewers, is applied to keep the process fair and to limit biases.

316. Fletcher SW, Fletcher RH. Peer review and medical journals: how to make a good thing better [editorial].
Natl Med J India 1994;7(3):103-5.

319. Fondiller SH. Editorial peer review: is nursing at risk?
Nurs Health Care 1994;15(3):142-8.

324. Fox MF. Scientific misconduct and editorial and peer review processes.
Journal of Higher Education. 1994;65(3):298-309.

325. Frank E. Editors' requests of peer reviewers: a study and a proposal.
Prev Med 1996;25(2):102-4.
BACKGROUND. Despite the pivotal role of peer review in the scientific process, there has never been a formal study of the way in which reviewers' opinions are elicited. This article describes such a study and makes recommendations for a more standardized approach to the peer review process. We hope, through this publication and related efforts, to encourage such a process in Preventive Medicine and in other journals. METHOD. The study population included the top 100 journals (as rated by the 1989 Institute for Scientific Information citation frequency index). Only journals with primarily U.S.-based editorial offices are included (n = 73). Participants provided their reviewer forms, cover letters for reviewers, and instructions for reviewers that were used routinely. All data were collected in February 1992. RESULTS. The response rate was 97.3%. Journals varied substantially in many of their reviewer requests. While 96% of journals asked reviewers to recommend acceptance or rejection, only 72% asked reviewers to assess manuscripts' novelty, 69% requested assessments of clarity, and only 51% asked for assessments of the reasonableness of manuscripts' conclusions. Similarly, only 46% of journals reminded reviewers that manuscripts were confidential documents, 51% provided a separate cover letter, and 25% provided extensive (>1 full page) reviewer instructions. CONCLUSIONS. While review uniformity is not requisite, differences between review protocols may not be a function of specific journals' needs, but of some journals' excluding important review components from explicit mention. Based in part on the Council of Biology Editors' recommendations, standard components of reviews and of instructions for reviewers are suggested. If editors' expectations were more explicit, reviewers' comments could better serve editorial needs.

330. Friedman DP. Manuscript peer review at the AJR: facts, figures, and quality assessment.
AJR Am J Roentgenol 1995;164(4):1007-9.
Concern by the government, funding institutions, and the public for quality assurance in all aspects of medical endeavors mandates critical examination of various professional activities. Although peer review is generally regarded as the best system for selecting and improving scientific papers for publication, the efficacy of this process has never been proved. Moreover, the administrative functions of the editorial staff are often poorly understood. The purpose of this article is to make peer review a the AJR less esoteric and more understandable by quantifying some of its activities. This information is then assessed as it relates to the quality of this important step in scientific publication.
335. Gabriel CJ. Life-sciences peer review at NASA [letter; comment].
Science 1994;265(5169):170.
339. Gammie F. Grant challenges role of peer review in an age of e-mail [news].
Nature 1995;374(6520):295.
341. Gardner J. Quality focus retools peer review panels [news].
Mod Healthc. 1996;26(26):97.
342. Garfunkel JM, Ulshen MH, Hamrick HJ, Lawson EE. Effect of institutional prestige on reviewers' recommendations and editorial decisions.
Jama 1994;272(2):137-8.
OBJECTIVE--To determine whether manuscripts from institutions with greater prestige are more likely to be recommended for publication by reviewers and to be accepted for publication. DESIGN--Retrospective study of reviewers' recommendations and editorial decisions for manuscripts from the United States received at the Journal of Pediatrics between January 1 and July 31, 1992. Manuscripts were classified as major papers or as brief reports. Institutions were ranked in quintiles according to the monetary value of grants funded by the National Institutes of Health. Reviewers' recommendations were classified as reject, reconsider, or accept, and editorial decisions as accept or reject, without regard to qualifying recommendations. RESULTS--For the 147 brief reports, lower institutional rank was associated with lower rates of recommendation for acceptance and of selection for publication. For the 258 major papers, however, there was no significant relationship between institutional rank and either the reviewers' recommendations or the acceptance rate. Similar results were found when the manuscripts were divided into five numerically equal groups according to institutional rank. CONCLUSIONS--Major manuscripts from institutions with greater prestige were no more likely to be recommended or accepted for publication than those from institutions with lesser prestige. In contrast, the likelihood of recommendation for acceptance and of selection for publication of brief reports appeared to correlate with the prestige of the institution.
345. Gavaghan H. Cautious welcome to NIH peer review reforms [news].
Nature 1994;369(6478):269.
349. Gellert GA. Editorial peer review [letter; comment].
Jama 1995;273(2):114-5.
351. George R. Guide to decision-making in institutional review of proposals for human experimentation: commentary.
Man Med. 1978;3(3):210-2.
362. Goldbeck-Wood S. What makes a good reviewer of manuscripts? [editorial].
Bmj 1998;316(7125):86.

384. Guallar E, Conde J, de la Cal MA, Martin-Moreno JM. [Guideline for the evaluation of health science research projects. Group of Evaluation of the Activities of the Fund for Health Research from 1988 to 1995].
Med Clin (Barc) 1997;108(12):460-71.
386. Gunn IP. Evidence-based practice, research, peer review, and publication.
Crna 1998;9(4):177-82.
For about a quarter of a century, concerns have been expressed about published biomedical research. It became more acute after some published research and broad dissemination was found fraudulent. With the emphasis now being placed on scientifically validated or evidence-based practice, it has become more imperative that clinical guidelines be based on credible information in our textbooks and research literature. Since the early 1990s, it has been found that much of the research in our electronic databases does not meet quality standards and often is irrelevant, calling into questions problems with peer review, including the selection and publication process of our journals. This column is devoted to calling attention to these problems not only to CRNAs and other researchers, but also to the consumers of research who often use it to make changes in their practice. It also calls attention to the CRNA community about the movement toward calls for greater accountability in practice, both as to quality and cost, from which the movement toward evidence-based practice, the identification and benchmarking of best practices, and the development and implementation of clinical practice guideline has evolved. To feel ownership in anesthesia-related clinical practice guidelines, CRNAs must become involved in their development and implementation.
402. Handysides S, Goalen V, Soltanpoor N. CDR review's editorial process in 1997 and the introduction of blinded peer review prepare the way for Communicable Disease and Public Health.
Commun Dis Public Health 1998;1(1):51-3.
Openness about a journal's editorial process fosters confidence among its authors and readers. The time taken to accomplish steps in the Communicable Disease Report (CDR) Review's editorial process to be accomplished is described for papers published in 1997, and compared with similar data on papers published in 1995 and 1996. Over half of the papers published in 1997 had been submitted less than six months earlier. The introduction of blinded peer review was associated with an increase in quality of reviewers' reports. Communicable Disease and Public Health will follow the same procedures.
403. Hansen DS. Critique for success.
Emergency 1989;21(11):62.
414. Herman CJ. Quality of peer review [letter].
J Gen Intern Med 1994;9(4):238.
415. Herrera AJ. Language bias discredits the peer-review system [letter].
Nature 1999;397(6719):467.
426. Hirshfeld EB. How to avoid peer review pitfalls.
QA Rev. 1989;1(1):6-7.
431. Hojgaard L. [Bias in evaluation of medical research (editorial)].
Ugeskr Laeger 1997;159(37):5500.
435. Holoweiko M. What competition can do to peer review.
Med Econ. 1985;62(17):122-7, 131-9.
446. Howard L, Wilkinson G. Peer review and editorial decision-making.

Br J Psychiatry 1998;173:110-3; discussion 114-5.
INTRODUCTION: This paper describes and analyses the editor's decision-making process at the British Journal of Psychiatry (BJP), and investigates the association between reviewers' assessments and editorial decisions. METHOD: Four hundred consecutive manuscripts submitted over a six-month period to the BJP were examined prospectively for assessors' comments and editorial decisions on acceptance or rejection. Interrater reliability of assessments was calculated and a logistic regression analysis investigated the effect of the rank allocated by assessors and the comprehensiveness of the assessments on the editor's decision. RESULTS: The editor sent 248/400 (62%) manuscripts to assessors for peer review. Kappa for reliability of assessors rankings was 0.1 indicating poor interrater reliability. Assessors agreed best on whether to reject a paper. A ranking of five (indicating rejection) had the greatest association with editor's rejection (P < 0.001, odds ratio 0.079), and the mean ranking of assessments was also significantly associated with editorial acceptance or rejection (P = 0.004, odds ratio 0.24). CONCLUSION: Assessors and editors tend to agree on what is clearly not acceptable for publication but there is less agreement on what is suitable.
479. Judson HF. Structural transformations of the sciences and the end of peer review.
Jama 1994;272(2):92-4.
480. Justice AC, Berlin JA, Fletcher SW, Fletcher RH, Goodman SN. Do readers and peer reviewers agree on manuscript quality?
Jama 1994;272(2):117-9.
OBJECTIVE--To study readers' judgments of manuscript quality and the degree to which readers agreed with peer reviewers. DESIGN--Cross-sectional study. SETTING--Annals of Internal Medicine. SUBJECTS--One hundred thirteen consecutive manuscripts reporting original research and selected for publication. Each of two manuscript versions (one before and one after revision) was judged by two readers, randomly sampled from those who said (based on the title) that they would read the article; one peer reviewer (peer), chosen in the usual way for Annals; and one expert in clinical research methods (expert). Each judge completed an instrument that included a 10-point subjective summary grade of manuscript quality. MAIN OUTCOME MEASURES--Agreement on the 10-point summary grade of manuscript quality between reader-expert, reader-peer, and reader-reader. RESULTS--Readers and peers gave high grades (77% and 73% gave a grade of 5 or better, respectively), while experts were more critical (52% gave a grade of 5 or better; P < .0001). Agreement was relatively high among judge groups (in all cases, > 69%) but agreement beyond chance was poor (kappa < 0.04). One third of readers (33%) thought that the manuscript had little relevance to their work. CONCLUSION--Readers, like most peer reviewers, are generally satisfied with the quality of manuscripts but would like research articles to be more relevant to their clinical practice.
493. Kalla G. The role of letters in reviewing research [letter].
Bmj 1994;309(6953):539.
494. Kangilaski J. OURS appears good way for peer review.
Bull Am Coll Physicians. 1977;18(10):11-4.
495. Kassirer JP, Campion EW. Peer review. Crude and understudied, but indispensable.
Jama 1994;272(2):96-7.
507. Kieburtz K. Avoiding conflicts of interest: responsibilities of authors, reviewers, and editors [editorial; comment].
Neurology 1998;51(6):1527-8.

509. King CR, McGuire DB, Longman AJ, Carroll-Johnson RM. Peer review, authorship, ethics, and conflict of interest.
Image J Nurs Sch 1997;29(2):163-7.
PURPOSE: To explore problems in peer review, authorship, ethics, and conflict of interest related to writing and publishing. Publishing and adhering to principles is critical as nurse researchers, educators, administrators, and practitioners participate in the development and dissemination of knowledge. CONCLUSIONS: The quality and integrity of nursing publications are affected by peer review, author collaboration, and ethical conduct. Understanding the conflicts of interest inherent in each action and being committed to impartial review and meeting the requirements of authorship can ensure fewer difficulties for authors, publishers, and consumers.
513. Kirschstein RL. Proposals for improving the Peer Review System of the National Institutes of Health [editorial].
Clin Res. 1977;25(5):295-6.
514. Klein DF. Conflict of interest [letter; comment].
Science 1993;262(5141):1802.
518. Kochar MS. Peer review in medical publishing--how to streamline the system.
Am Coll Physicians Obs. 1984;4(9):6.
519. Koenig R. Allegations prompt debate in Germany [news].
Science 1997;277(5323):172.
520. Kohn A, Putterman C. Problems and conflicts in peer review.
Int J Impot Res 1993;5(3):133-7.
The process of refereeing of scientific papers is essential in the course of their evaluation and selection for publication in a journal. Scientists who voluntarily and selflessly serve as referees may encounter situations which put them in conflict of interest. This review considers and analyses such conflicts.
525. Koshland DE. Conflict of interest. [Editorial].
Science. 1990;249(4965):109.
526. Koshland DE, Jr. Kaposi's sarcoma, vascular permeability, and scientific integrity [letter; comment].
Jama 1994;272(12):921-2.
532. Laband DN, Piette MJ. A citation analysis of the impact of blinded peer review.
Jama 1994;272(2):147-9.
OBJECTIVE--To determine whether articles published in journals using blinded peer review receive significantly more or fewer citations than those published in journals using nonblinded peer review. DESIGN--Drawing from a sample of 1051 full articles published in 28 economics journals during 1984, we used nonlinear regression and ordered probit techniques to estimate the impact of blinded peer review on citations of these articles in 1985 through 1989. OUTCOMES--Citations of articles. RESULTS--Articles published in journals using blinded peer review were cited significantly more than articles published in journals using nonblinded peer review, controlling for a variety of author, article, and journal attributes. CONCLUSIONS--Nonblinded peer review apparently suffers from type I error to a greater extent than blinded peer review. That is, journals using nonblinded peer review published a larger fraction of papers that should not have been published than do journals using blinded peer review. When reviewers know the identity of the author(s) of an article, they are able to (and evidently do) substitute particularistic criteria for universalistic criteria in their evaluative process.

539. Laws ER, Jr., Pait TG, Jane JA, Sr. Pitfalls and successes of peer review in neurosurgery.
J Neurosurg 1997;87(6):972-6.
As the first editor of the Journal of Neurosurgery, Louise Eisenhardt, acting with the advice of the editorial board, was responsible for making decisions on the acceptance or rejection of submitted manuscripts. Her log, covering the first 14 years of editorial decisions, is a record of neurosurgical progress and of the forces--scientific, technical and other--that shaped the field of neurosurgery. Any peer-review process is subject to pitfalls that become evident in retrospect, but an effective peer-review process is one of the basic ingredients of scientific progress. The decisions to accept or reject manuscripts submitted to the Journal of Neurosurgery during Eisenhardt's tenure are highlighted in this historical vignette.
540. Leatt P. A peer-reviewed journal?
Health Manage Forum. 1985;6(1):33-4.
544. Lee ST. The impact of electronic publication and the E-journal on quality and the peer review process [editorial].
Ann Acad Med Singapore 1997;26(4):393.
545. Legendre AM. Peer review of manuscripts for biomedical journals.
J Am Vet Med Assoc 1995;207(1):36-8.
560. Lore W. Peer review and refereeing in science.
East Afr Med J 1995;72(5):335-7.
562. Love RR, Fost NC. Ethical and regulatory challenges in a randomized control trial of adjuvant treatment for breast cancer in Vietnam.
J Investig Med 1997;45(8):423-31.
563. Lundberg GD, Glass RM. What does authorship mean in a peer-reviewed medical journal? [editorial] [see comments].
Jama 1996;276(1):75.
565. MacDermott RP. Fraudulent research in science: the responsibility of the peer reviewer.
Cancer Investigation. 1991;9(6):703-5.
570. Madhok R. The pursuit of research publications [letter; comment].
J Public Health Med 1997;19(2):240-2.
590. Martin PA. Research peer review: a committee when none is required.
Appl Nurs Res 1998;11(2):90-2.
Good research does not occur in isolation. The researcher should choose one or more reviewers to serve as quality monitors of the process. The reviewer(s) should be carefully chosen, and the relationship should be nurtured. When the research is not enhanced by the relationship, new reviewers should be sought even if this delays the research process. A good study has enough glory to share with all reviewers, and a poor study is a heavy burden to bear alone.
593. Marusic A, Mestrovic T, Petrovecki M, Marusic M. Peer review in the Croatian Medical Journal from 1992 to 1996.
Croat Med J 1998;39(1):3-9.
We analyzed the peer review process in the Croatian Medical Journal (CMJ) from 1992 to 1996 by a retrospective analysis of review forms for 319 manuscripts. The forms asked about manuscript's structure (7 questions), its scientific value (7-item scale), clarity and length, and final recommendation (5-item scale). An international manuscript had at least one author affiliated with a non-Croatian

institution. The overall rejection rate of manuscripts was 23.5%. National and international manuscripts had similar rejection rates except for original research manuscripts in clinical sciences (34.7% vs. 18.9%, p=0.046). Out-door peer review was asked for 77.4% of the manuscripts; other manuscripts were commissioned and passed an in-house review. Over the years, the number of international reviewers increased, and that of national reviewers decreased. National reviewers more often did not fill in the review form, and international reviewers more often asked for a major revision. The agreement between reviewers ranged from 34.1% (scientific value) to 90.7% (reference citations). Kappa for inter-rater agreement was poor to fair, without difference between national and international manuscripts. International manuscripts had shorter median review time (from receipt to decision) and publishing time (from acceptance to publication) than national manuscripts: 58 vs. 112 days ($p<0.001$), and 116 vs. 140 days ($p<0.009$), respectively. Our analysis shows that peer review can be introduced and sustained in a small journal from the scientific periphery. It can be fair both to national and international manuscripts, although work with the authors of national manuscripts may be needed to improve the quality of data presentation.

599. McCarthy CR. When OPRR (Office for Protection from Research Risks) comes calling: enforcing Federal research regulations.
Kennedy Inst Ethics J 1995;5(1):51-5.

600. McConnell EE, Eustis SL. Peer review in carcinogenicity bioassays: uses/abuses.
Toxicol Pathol 1994;22(2):141-4.

"Truth is the essence of science," and "peer review" is a key element in assuring the "truth". Peer review is particularly important with regard to diagnostic pathology in bioassays used for regulatory purposes and approval of drugs and medical devices for at least 2 reasons: (a) If a study is designed correctly and conducted properly, the bottom-line results rely almost entirely on pathological interpretations, and (b) diagnostic pathology is a subjective science that relies on the training and experience of the pathologist and therefore is subject to individual bias. "Bias" can be introduced during the collection and preparation of pathological materials, use of inconsistent terminology during the pathology evaluation and interpretation of the results. Peer review can help in reducing this bias. However, peer review is also subject to bias by knowledge of treatment groups, selection of inappropriate slides for review, in the type of question asked of the reviewers, and in the selection of the reviewers. When done correctly, pathology peer review can be an effective and important part of a process to assure the results of a study, but when done improperly it can cloud the issue and have a negative impact on the credibility of the study.

608. McKenzie S. Reviewing scientific papers.
Arch Dis Child 1995;72(6):539-40.

Guidelines for the preparation of structured reports for laboratory studies, clinical studies, epidemiological studies, and observations could be useful. A structured report should prompt reviewers to acknowledge familiarity or otherwise with method, background papers, and so on. New reviewers could draw up their own system. Reports should be helpful and courteous so that whether or not the paper is accepted for publication the authors have a chance to improve it.

613. Meijman FJ, de Melker RA. The extent of inter- and intrareviewer agreement on the classification and assessment of designs of single-practice research.
Fam Pract 1995;12(1):93-7.

The aim of this study was to investigate how much inter- and intrareviewer agreement there was with regard to the classification of research designs and the assessment of the methodological quality of research reports. This was done by means of formal criteria and criteria relating to content. Three successive reliability tests were performed on two random samples of reports of single-practice research in general practice. Inter- and intrareviewer agreement on the classification tended to be satisfactory. The results of the tests to assess the methodological quality were, however, more deviant, the interreviewer agreement ranging from predominantly mediocre/poor to mostly good and intrareviewer agreement ranging from mediocre to good. These results emphasize the need for further discussion and follow-up research.

622. Mills A, Foureman GL. US EPA's IRIS pilot program: establishing IRIS as a centralized, peer-reviewed data base with agency consensus. Integrated Risk Information System.
Toxicology 1998;127(1-3):85-95.

The US EPA's Integrated Risk Information System (IRIS) contains Agency consensus scientific positions and quantitative values on cancer and noncancer health effects that may result from lifetime oral or inhalation exposure to specific chemical substances in the environment. Combined with specific exposure assessment information, the summary health information in IRIS may be used as a source in evaluating potential public health risks from environmental contaminants. IRIS is available to the public via EPA's Internet server at http://www.epa.gov/iris. Originally developed for internal EPA use, IRIS usage has broadened since being made publicly available in 1988 to include the private and public sectors nationally and internationally. Up to 1995, IRIS summaries were generated from within various EPA Offices and Regions and reviewed by Agency Workgroups, one for cancer and one for noncancer endpoints, before entry onto IRIS. In response to the increasing usage and recognition of IRIS and suggestions for improvement, an IRIS Pilot program was initiated in 1995. The purpose of the Pilot was 3-fold: To improve efficiency in getting information on to IRIS; to improve documentation for the positions reported in IRIS summaries, including applying new methodologies and guidance; and to improve opportunity for public input including external peer review. A new infrastructure was put in place, consisting of a cross-Agency team of 'Chemical Managers', a Pilot Program Manager, and a set of Agency 'Consensus Reviewers'. Cancer and noncancer assessments were prepared in an integrated fashion for Pilot chemical substances, documented in 'Toxicological Reviews' and derivative IRIS summaries. Public input was emphasized via an initial data call and rigorous external peer review. A final step was Agency-wide consensus review by senior staff scientists representing EPA's Offices and Regions. EPA's experience with the Pilot is forming the basis for designing operational aspects of the long-term IRIS program.

647. Niemcryk SJ, Glascoff DW. Considerations in presenting, interpreting, and reviewing research findings.
J Transpl Coord 1997;7(1):41-5.

By disseminating reports of well-conducted research in peer-reviewed journals, investigators regularly provide valuable information and insights to other professionals. Prospective authors of such reports should be aware that submitted manuscripts undergo considerable scrutiny and analysis by reviewers and editors as part of the publication cycle and, later, by readers for whom the information is intended. Therefore, when a researcher becomes an author, he or she should attempt to be as complete as possible in meeting the needs of those audiences. In this article, we discuss problems often found in

research reports submitted to peer-reviewed journals so that investigators may improve the quality of their manuscripts.

648. Nigg HN, Radulescu G. Scientific misconduct in environmental science and toxicology.
Jama 1994;272(2):168-70.
Scientific misconduct easily occurs in environmental science and toxicology; we encountered four such cases. Only one case was discovered by editors; three were reported by other authors. All guilty authors were eventually banned from future publication in the Bulletin of Environmental Contamination and Toxicology. Cases in the Bulletin indicate that scientific misconduct may occur undetected across phyla, genera, and species; that distance from the publishing source makes detection more difficult; that editors and reviewers are not organized to take action against scientific misconduct; that plagiarized authors are likely to report plagiarism; and that there is only a small risk of censure from any source for authors engaging in scientific misconduct.

652. Nystrom L. Quality of published articles in CAJM [letter; comment].
Cent Afr J Med 1998;44(10):264-5.

661. Olson CM, Glass RM, Thacker SB, Stroup DF. Ethical issues in studying submissions to a medical journal.
Jama. 1998;280(3):290-291.
A protocol to prospectively study characteristics of meta-analyses submitted to a weekly medical journal raised several ethical issues. In submitting a manuscript for publication, authors do not implicitly consent to have their work used for research. Authors must be free to refuse to consent, without it affecting their chances for publication. Systematically analyzing data on manuscript characteristics might influence the decision to publish. Having investigators who are not on the editorial staff or peer reviewers extract the manuscripts' characteristics breaks the confidentiality of the author-editor-reviewer relationship. In response to these issues, we added a statement to our journal's instructions for authors that submitted manuscripts may be systematically analyzed to improve the quality of the editorial or peer review process. Authors had to actively consent to participate, but editors and external reviewers were unaware of which authors were participating. The manuscript characteristics were not shared with authors, editors, or external reviewers. The investigators were blinded to each manuscript's author and institution. After we addressed ethical issues encountered in studying manuscripts submitted to a medical journal, 99 of 105 authors submitting a meta-analysis during the study's first 24 months agreed to participate.

662. Olsson CA, Kennedy WA, 2nd. Urology peer review at the National Institutes of Health.
J Urol 1995;154(5):1866-9.
PURPOSE: Urology is a field with many subspecialties and, as a consequence, urological research grant applications are distributed to a variety of different study sections at the National Institutes of Health (NIH). It has long been the conviction of urological investigators that urological grant funding suffers as a result of this distribution. We investigated the composition of these study sections to identify the prevalence of urological expertise (or lack thereof). The review challenges the concept that urological research grant applications are being subjected to adequate peer review. MATERIALS AND METHODS: Aided by personnel from the National Institute for Diabetes, and Digestive and Kidney Diseases, and the National Cancer Institute, 22 study sections to which urological grants are distributed were identified. A 3 to 5-year retrospective MEDLINE analysis of all the scientific publications of each study section member was done. Urological experts were identified by the criterion

of having more than 1 urological publication published per year or a proportional equivalent. An equivalent analysis was performed for the study sections reviewing cardiology grants to serve as a comparison. RESULTS: Data analysis revealed that only 12 of 351 study section members reviewing urological grants are urological experts (3.4%). Only 3.1% of the collective published productivity of these members is in the broadly defined field of urological investigation. Omitting the published productivity of these 12 experts, less than 1% of the published works of the remaining 339 members reflects interest or expertise in urological investigations. Of the 22 study sections only 8 have urological expertise represented in their membership. Except for 1 study section, representation of urological experts was usually limited to 1 individual reflecting a 5.9 to 11.1% minority in these study sections. CONCLUSIONS: The lack of urological expertise represented on the NIH study sections reviewing basic and clinical urological research grant applications has far reaching ramifications. Consequently, grant applications on genitourinary diseases that commonly afflict a preponderance of Americans are inadequately reviewed at the NIH. Only through the provision of appropriate peer reviewers will this problem be solved.

666. Oxman AD, Guyatt GH. The science of reviewing research.
Ann N Y Acad Sci 1993;703:125-33; discussion 133-4.

672. Parse RR. The art of criticism [editorial].
Nurs Sci Q 1998;11(2):43.

682. Pierie JP, Walvoort HC, Overbeke AJ. Readers' evaluation of effect of peer review and editing on quality of articles in the Nederlands Tijdschrift voor Geneeskunde.
Lancet 1996;348(9040):1480-3.
BACKGROUND: Academic biomedical journals use peer review and editing to help to select and improve the quality of articles. We have investigated whether articles accepted by the Nederlands Tijdschrift voor Geneeskunde, the Dutch Journal of Medicine, were improved after peer review and editing (post-acceptance scientific and copy editing). METHODS: 400 readers of the journal (100 each of medical students, recent medical graduates, general practitioners, and specialists) were invited to participate in a questionnaire survey. The first 25 from each group who agreed to participate were included. We posted a pack containing a set of identically appearing typescripts (ie, blinding) of the submitted, accepted, and published versions of 50 articles that had been published in Ned Tijdschr Geneeskd. Each evaluator received two of the sets of versions, and each set was evaluated by one person from each group. The package also included two questionnaires: the first was used to compare the submitted with the accepted version (25 questions), the second compared the accepted with the published version (17 questions). The questions were answered on five-point scales, and were about the quality of the articles or were general/overall scores. We analysed the data as scores of 3-5 (ie, improvement) versus 1-2. FINDINGS: After peer review, the quality in 14 of 23 questions (61%) was significantly improved ($p = 0.03$ or smaller). In particular, the overall score and general medical value were significantly improved ($p = 0.00001$ for each). Editing led to significant improvement in 11 of 16 questions (69%, $p = 0.017$ or smaller), and especially in style and readability ($p = 0.001$ and $p = 0.004$). Generally, we found no differences between the scores of the four categories of evaluators. 72% of the evaluators correctly identified which version was which. INTERPRETATION: Evaluations by readers of the Ned Tijdschr Geneeskd indicated significant improvement of published articles after both peer review and editing. We think that peer review and editing are worthwhile tasks. We also think that possible biases would have had a negligible effect on our results (including the fact that we

selected the first 25 evaluators who responded, that some evaluators may have read the published version, and that one questionnaire may have looked more scientific than the other, more editorial one).
685. Pitkin RM. The death of biomedical journals. Popularity does not equal peer review [letter; comment].
Bmj 1995;311(7003):507.
690. Polak JF. The role of the manuscript reviewer in the peer review process.
AJR Am J Roentgenol 1995;165(3):685-8.
Peer review of submitted manuscripts is recognized as a critical component of the publication process in all major medical journals. It lends respectability and scientific credibility to those journals that have adopted the process [1]. This function is delegated to a group of persons who perform the task selflessly and without compensation. Of the many facets of the peer review process, the selection of manuscript reviewers and their subsequent interaction with both editors and authors may be so poorly understood by aspiring authors that certain misconceptions ensue. Authors of rejected manuscripts may fear that reviewers have acted in an arbitrary and possibly censorial fashion [2, 3]. Conversely, authors of accepted manuscripts who face a mountain of revisions may wonder if such an effort is likely to improve their manuscript [4, 5]. The following questions come to mind: Where do the reviewers come from? What do they do, and what constitutes a good reviewer? What power do they have? How is reviewer performance measured? Can the editor recognize publicly the good reviewer? Are reviewers really blinded? How does one become a good reviewer? Who will be the reviewers of the future? While looking at these questions, we should consider objective approaches of assessing reviewer quality and wonder whether they would improve the quality of the published manuscript.
705. Reichlin M. Kaposi's sarcoma, vascular permeability, and scientific integrity [letter; comment].
Jama 1994;272(12):922; discussion 922-4.
708. Relman AS, Angell M. How good is peer review? [Editorial].
New England Journal of Medicine. 1989;321(12):827-829.
709. Relman AS. Publishing biomedical research: roles and responsibilities.
Hastings Center Report. 1990;20(3):23-27.
Authors, reviewers, and editors have critical responsibilities to ensure the validity and utility of published biomedical research...The peer review system I have described has come under criticism recently for being subjective, susceptible to error and bias, and ineffective at screening out fraud. These complaints are to a degree true, although beside the point. No doubt efforts at improvement should be made, but the basic system enjoys wide acceptance simply because no one has ever come up with anything better. Infallibility is not to be expected, but so long as author, reviewer, and editor conscientiously do their best the results will usually be acceptable.
710. Relman AS. The NIH "E-biomed" proposal--a potential threat to the evaluation and orderly dissemination of new clinical studies [editorial].
N Engl J Med 1999;340(23):1828-9.
712. Rennie D. Editors and auditors. [Editorial].
Jama. 1989;261(17):2543-2545.
714. Rennie D, Flanagin A. The Second International Congress on Peer Review in Biomedical Publication [editorial] [see comments].
Jama 1994;272(2):91.
715. Reyes H. [The Editorial Advisory Committee (editorial)].

Rev Med Chil 1996;124(12):1421-2.
Since 1970, Revista Medica de Chile applies the peer review system as a main step in the selection and improvement of the manuscripts to be published. Over 150 experts participate in this process annually, reviewing up to 5 manuscripts per year. The final decision with regards to to the acceptability of a manuscript remains a responsibility of the Editor. The reviewers are selected by the Editor and his Associates among clinical investigators, prominent subspecialits and basic scientists, according to the nature of the manuscript. Most of them work in Chile. Their names are published and their confidential work is acknowledged in a special chronicle published in the Revista once a year. A small number of these reviewers appears in every issue of the journal identified as Members of its Editorial Advisory Committee. They have been selected by the Editors among those reviewers who deal with a greater number of manuscripts and also those experienced specialists whose opinion is requested when an exceptional conflict of opinions is raised by the authors and their reviewers. After 5 to 10 years of a highly praised collaboration, the previous Committee has been changed and new names were included, starting in this issue of Revista Medica de Chile.
721. Roberts JC, Fletcher RH, Fletcher SW. Effects of peer review and editing on the readability of articles published in Annals of Internal Medicine.
Jama 1994;272(2):119-21.
OBJECTIVE--To measure the effect of the peer review and editorial processes on the readability of original articles. DESIGN--Comparison of manuscripts before and after the peer review and editorial processes. SETTING--Annals of Internal Medicine between March 1 and November 30, 1992. MANUSCRIPTS--One hundred one consecutive manuscripts reporting original research. MEASUREMENTS--Assessment of readability by means of two previously validated indexes: the Gunning fog index (units of readability in the fog index roughly correlate to years of education) and the Flesch reading ease score. Each manuscript was analyzed for readability and length on receipt and after it had passed through the peer review and editorial processes. Text and abstracts were analyzed similarly but separately. Mean readability scores were compared by two-tailed t tests for paired observations. RESULTS--Mean (+/- SD) initial readability scores of manuscripts and abstracts by the Gunning fog index were 17.16 +/- 1.55 and 16.65 +/- 2.80, respectively. At publication, scores were 16.85 +/- 1.42 and 15.64 +/- 2.42 ($P = .0005$ and $P < .0001$ for before-after differences, respectively). By comparison, studies of other print media showed scores of about 11 for the New York Times editorial page and about 18 for a typical legal contract. Similar changes were found for the Flesch scores. The median length of the manuscripts increased by 2.6% and that of the abstracts by 4.2% during the processes. CONCLUSIONS--The peer review and editorial processes slightly improved the readability of original articles and their abstracts, but both remained difficult to read at publication. Better readability scores may improve readership.
722. Rochon PA, Gurwitz JH, Cheung CM, Hayes JA, Chalmers TC. Evaluating the quality of articles published in journal supplements compared with the quality of those published in the parent journal.
Jama 1994;272(2):108-13.
OBJECTIVES--To determine the relationship between the quality of articles and whether they were published in a supplement or in the parent journal. DATA SOURCES AND STUDY SELECTION--All randomized control trials of drug therapies in adults published in the American Journal of Cardiology, the American Journal of Medicine and the American Heart Journal from January 1990 and

obtained in November 1992 by means of a MEDLINE search. A total of 318 abstracts appeared to meet our inclusion criteria, and these articles were obtained and reviewed in further detail. An additional 76 were excluded. DATA EXTRACTION--Three reviewers who were "blinded" and thus unaware of supplement status independently assessed the quality of each of the remaining 242 articles according to a standard quality scoring system. DATA SYNTHESIS--Overall, 67 (27.7%) of the articles were published in journal supplements. Article quality scores ranged from 4.2% to 87.5%, with a mean (+/- SD) score of 37.2% +/- 13.1%. Quality scores were lower in articles published in journal supplements than in those published in the parent journal (t[240] = 2.61, P = .01). The mean quality score for articles published in journal supplements was 33.6% +/- 12.8% compared with a score of 38.5% +/- 13.1% for articles published in the parent journal. Supplement articles included in their final analysis a smaller proportion of the patients initially randomized (t[75] = 2.8, P = .007). CONCLUSION--Our findings suggest that randomized control trials published in journal supplements are generally of inferior quality compared with articles published in the parent journal. The review process surrounding the publication of journal supplements should be consistent with that of the parent journal.

728. Rogers B. Critically evaluating research studies.
Aaohn J 1995;43(1):54-5.

729. Rose J, Nilsson A. Sweden considers more oversight of research [news].
Science 1999;283(5409):1829.

740. Rowan M, Huston P. Qualitative research articles: information for authors and peer reviewers.
Cmaj 1997;157(10):1442-6.

747. Saidman LJ. Unresolved issues relating to peer review, industry support of research, and conflict of interest. [Editorial].
Anesthesiology. 1994;80(3):491-492.

748. Salasche SJ. How to "peer review" a medical journal manuscript [editorial].
Dermatol Surg 1997;23(6):423-8.
BACKGROUND: The accuracy, validity, and appropriateness of what gets published in the medical literature depends upon a pool of competent peer referees. However, the requisite skills needed to become such a peer are not taught at the residency training program level or subsequently by the journals themselves, who offer no training and little written instruction. OBJECTIVE: To outline a logical, orderly approach to the task of reviewing a "raw" medical manuscript. By breaking the overall endeavor down into smaller, step-by-step components, the novice reviewer should attain the direction and skills to complete a review with confidence. METHODS: Explore the role of the reviewer, discuss the philosophy of review, identify the key elements to look for when reading and rereading the manuscript, and outline a orderly approach to the decision making process. CONCLUSIONS: A "peer" is a physician with expertise on the subject under scrutiny who spends sufficient time and thought to fulfill two main obligations: to render an honest, unbiased decision on whether or not the manuscript should be published and, if it is acceptable, to help make it better. It is possible to perform the review process in a relatively simple, organized, and logical manner.

753. Scharschmidt BF, DeAmicis A, Bacchetti P, Held MJ. Chance, concurrence, and clustering. Analysis of reviewers' recommendations on 1,000 submissions to the Journal of Clinical Investigation.
J Clin Invest 1994;93(5):1877-80.

755. Schiff H. Inner sanctum [letter; comment].
Science 1999;284(5414):589,591.

759. Schulman K, Sulmasy DP, Roney D. Ethics, economics, and the publication policies of major medical journals.
Jama 1994;272(2):154-6.
OBJECTIVE--To evaluate aspects of the publication process that may affect the quality of the literature in clinical economics and biomedical ethics, and to learn about the policies of medical journals regarding disclosure of relationships between investigators and research sponsors. DESIGN--Mail survey. PARTICIPANTS--Editors in chief of 15 major medical journals. RESULTS--Twelve editors responded to the survey. Ten reported having statisticians among their editors, while only two had health economists and none had ethicists. Clinicians in the specialty field were almost always the primary reviewers of submissions, while methodologists (statisticians, health economists, or ethicists) were involved less frequently. Journals reported little knowledge of the training of their reviewers in these fields. While nine journals requested disclosure of the financial relationship between author and sponsor, only one inquired whether the sponsor's written approval was required prior to manuscript submission, and only one knew whether there was an independent steering committee for the study. CONCLUSIONS--These findings suggest that the peer review process can be strengthened to improve the quality of the medical literature in clinical economics and biomedical ethics. Journal editors also need to better understand the terms of research sponsorship agreements.
764. Seglen PO. Citations and journal impact factors: questionable indicators of research quality [see comments].
Allergy 1997;52(11):1050-6.
775. Shuster JJ. Publishing clinical trials and dealing with external comparisons [editorial].
Control Clin Trials 1998;19(3):269-70.
This brief note is designed to provide research teams that are involved with the publication of clinical trials in peer-reviewed medical journals with a reference for the rebuttal of referees' criticism that your results are in some way inferior overall to those of others. In these reviewers' eyes, a trial that shows less benefit than other trials has no public health benefit, and hence they recommend rejection. In fact, such policies lead to publication bias, the systematic overestimation of benefits of therapy in the published literature.
776. Shusterman C. A review by your peers.
Am Laund Dig. 1982;47(5):6-8.
779. Silagy CA. An analysis of review articles published in primary care journals.
Fam Pract 1993;10(3):337-41.
Review articles play an important role in synthesizing primary research for dissemination to clinicians. In a previous study it was found that many review articles appearing in leading peer-reviewed general medical journals are not prepared systematically. Given that review articles feature prominently in primary care journals, this study assessed the extent to which review articles published in the seven main primary care journals during 1991 had been assembled using a systematic and scientific approach. A total of 28 review articles were identified covering a wide range of subject areas. However, when standard criteria were used to assess their methodological rigour, only 25% of the articles had a total score of more than 8 points (out of a possible 16). The validity of any conclusions or recommendations made in a poorly assembled review need to be carefully examined. Improving the methodological standards by which reviews are assembled in primary care journals should be seen as both a challenge and a priority.

783. Simonsen RJ. Peer review--it should mean something [editorial].
Quintessence Int 1996;27(8):509.
790. Smith R. Promoting research into peer review [editorial] [see comments].
Bmj 1994;309(6948):143-4.
791. Smith R, Rennie D. And now, evidence based editing [editorial].
Bmj 1995;311(7009):826.
795. Smith R. Opening up BMJ peer review [editorial; comment].
Bmj 1999;318(7175):4-5.
798. Soskolne CL. Epidemiological research, interest groups, and the review process.
Journal of Public Health Policy. 1985;6(2):173-184.
802. Spala M. [Review--evaluation--peer review. Suggestions for beginning reviewers].
Sb Lek 1997;98(2):155-61.
810. Stephenson J. Medical journals turn gaze inward to examine process of peer review [news].
Jama 1997;278(17):1389-91.
811. Sterk PJ, Larsson K, Naeije R, Costabel U. Publishing collaborative studies between academics and industry [editorial; comment].
Eur Respir J 1997;10(11):2441-2.
813. Stern PN. In-house peer review: the writing support group [editorial].
Health Care Women Int 1998;19(3):177-8.
814. Sternberg RJ. Striving for creativity [letter; comment].
Science 1996;272(5270):1857-8.
815. Sternberg EM. Intimidation of researchers by special-interest groups [letter; comment].
N Engl J Med 1997;337(18):1316; discussion 1316-7.
818. Stewart WW, Feder N. The integrity of the scientific literature.
Nature. 1987;325(6101):207-214.
John Darsee was found to have fabricated much of the data that formed the basis of over 100 articles that he coauthored with 47 researchers at the medical schools of Harvard and Emory universities. Stewart and Feder analyzed these publications to investigate the vigilance of scientific referees, journal editors, and Darsee's coauthors in meeting accepted publication standards. They characterize their findings as revealing two types of frequently occurring lapses. Type A lapses--such as the presence of errors or inconsistencies, failure to obtain relevant data, and honorary authorship--may simply reflect carelessness. More serious Type B lapses include misleading statements or citations and failure to acknowledge sources of data or to respond appropriately to charges of fraud. The authors discuss reasons for these lapses and recommend a random study of published papers to ascertain the extent of such poor publishing practices. (KIE abstract).
823. Suter EA. Guns in the medical literature--a failure of peer review [see comments].
J Med Assoc Ga 1994;83(3):133-48.
Errors of fact, design, and interpretation abound in the medical literature on guns and violence. The peer review process has failed to prevent publication of the errors of politicized, results-oriented research. Most of the data on guns and violence are available in the criminologic, legal, and social sciences literature, yet such data escape acknowledgment or analysis of the medical literature. Lobbyists and other partisans continue to promulgate the fallacies that cloud the public debate and impede the

development of effective strategies to reduce violence in our society. This article examines a representative sample of politicized and incompetent research.

824. Sutherland HJ, Meslin EM, da Cunha R, Till JE. Judging clinical research questions: what criteria are used?
Soc Sci Med 1993;37(12):1427-30.
The research question is a crucial aspect of every study. Criteria for the evaluation of the merit of the study question or hypothesis have received surprisingly little attention. A set of non-methodological criteria derived from interviews with 40 researchers (clinical investigators and laboratory scientists) is presented. For both types of researcher, the terms that best described the nature of the criteria included potential impact, justification, feasibility, track record, innovation, intuitive response, aesthetics and politics. The latter three criteria are notably subjective; however all the criteria have an element of non-objectivity. There may well be a reluctance to openly acknowledge that crucial choices about what scientific questions should be explored involve criteria which are themselves not 'objective', and indeed, not even 'scientific'.

826. Swartz K. Peer-reviewed journals and quality [editorial].
Inquiry 1999;36(2):119-21.

827. Sweitzer BJ, Cullen DJ. How well does a journal's peer review process function? A survey of authors' opinions.
Jama 1994;272(2):152-3.
OBJECTIVE--To evaluate the authors' satisfaction or dissatisfaction with the peer review process of the Journal of Clinical Anesthesia. DESIGN--Anonymous questionnaires were sent to authors to survey their opinions about specific aspects of the peer review process. Authors were grouped by status of their manuscripts: AR (accept with revision), RR (reject but may resubmit), and RO (reject outright). PARTICIPANTS--Authors of unsolicited manuscripts submitted in 1991 to 1992. MAIN OUTCOME MEASURES--Factors that determine authors' satisfaction with the relevancy and benefit of peer review of their manuscript. RESULTS--Significantly more authors of AR manuscripts responded to our survey than did authors of rejected manuscripts and viewed the review process more favorably. Authors of AR manuscripts were more satisfied with specific aspects of the review process, which led to improvement in their manuscripts. More authors of RR manuscripts believed that our review process improved subsequent manuscript preparation than did authors of accepted manuscripts. CONCLUSIONS--The surveying of authors, important clients of the peer review process, should guide change necessary to better serve our authors and improve peer review.

834. Thomas SP. The long journey to publication: some thoughts on the journal review process [editorial].
Issues Ment Health Nurs 1998;19(5):415-8.

844. Tonks A. Reviewers chosen by authors [editorial].
Bmj 1995;311(6999):210.

846. Tregoning S. There are three main ways by which a professional journal can review manuscripts [editorial].
Contemp Nurse 1993;2(3):101.

847. Tregoning S. Manuscript reviewing: too long a concealed form of scholarship [letter; comment].
Nurs Inq 1997;4(3):208.

849. Tuckett D. Evaluating psychoanalytic papers. Towards the development of common editorial

standards.
Int J Psychoanal 1998;79(Pt 3):431-48.
Psychoanalysis has insecure foundations. Many of its core theories and therapeutic principles are contested from both within and without the discipline. While it often has little difficulty embracing new ideas it has terrible trouble rejecting old ones. Typically those within the discipline have dealt with this situation by destructive rationalisation, denial, splitting and idealization. Foremost is the tendency to multiply schools and paradigms and to rely on rhetoric and argument by authority. It is argued that to counter such inevitably destructive processes we need to find a way of improving constructive engagement with each other and to achieve a discipline that can grow on the secure foundations of gradually accumulating knowledge. Giving examples, the author describes the ongoing development of a methodology for evaluating psychoanalytic papers according to a common standard. It is proposed that it is possible to conduct reasoned international and cross-cultural peer review. This means that we can in principle evaluate and reach agreement as to the merit of psychoanalytic papers even though their authors may have backgrounds in profoundly different local style and local traditions of argument. Moreover, it is suggested, this can be done without creating the monster of an internationally homogenised style that would numb creativity and original thought.
850. Umakantha N. Beyond the language barrier [letter; comment].
Nature 1997;385(6619):764.
857. van Rooyen S, Black N, Godlee F. Development of the review quality instrument (RQI) for assessing peer reviews of manuscripts.
J Clin Epidemiol 1999;52(7):625-9.
Research on the value of peer review is limited by the lack of a validated instrument to measure the quality of reviews. The aim of this study was to develop a simple, reliable, and valid scale that could be used in studies of peer review. A Review Quality Instrument (RQI) that assesses the extent to which a reviewer has commented on five aspects of a manuscript (importance of the research question, originality of the paper, strengths and weaknesses of the method, presentation, interpretation of results) and on two aspects of the review (constructiveness and substantiation of comments) was devised and tested. Its internal consistency was high (Cronbach's alpha 0.84). The mean total score (based on the seven items each scored on a 5-point Likert scale from 1 to 5) had good test-retest (Kw = 1.00) and inter-rater (Kw = 0.83) reliability. There was no evidence of floor or ceiling effects, construct validity was evident, and the respondent burden was acceptable (2-10 minutes). Although improvements to the RQI should be pursued, the instrument can be recommended for use in the study of peer review.
858. van Rooyen S, Godlee F, Evans S, Black N, Smith R. Effect of open peer review on quality of reviews and on reviewers' recommendations: a randomised trial [see comments].
Bmj 1999;318(7175):23-7.
OBJECTIVES: To examine the effect on peer review of asking reviewers to have their identity revealed to the authors of the paper. DESIGN: Randomised trial. Consecutive eligible papers were sent to two reviewers who were randomised to have their identity revealed to the authors or to remain anonymous. Editors and authors were blind to the intervention. MAIN OUTCOME MEASURES: The quality of the reviews was independently rated by two editors and the corresponding author using a validated instrument. Additional outcomes were the time taken to complete the review and the recommendation regarding publication. A questionnaire survey was undertaken of the authors of a cohort of manuscripts submitted for publication to find out their views on open peer review. RESULTS: Two editors'

assessments were obtained for 113 out of 125 manuscripts, and the corresponding author's assessment was obtained for 105. Reviewers randomised to be asked to be identified were 12% (95% confidence interval 0.2% to 24%) more likely to decline to review than reviewers randomised to remain anonymous (35% v 23%). There was no significant difference in quality (scored on a scale of 1 to 5) between anonymous reviewers (3.06 (SD 0.72)) and identified reviewers (3.09 (0.68)) (P=0.68, 95% confidence interval for difference - 0.19 to 0.12), and no significant difference in the recommendation regarding publication or time taken to review the paper. The editors' quality score for reviews (3.05 (SD 0.70)) was significantly higher than that of authors (2.90 (0.87)) (P<0.005, 95%confidence interval for difference - 0.26 to - 0.03). Most authors were in favour of open peer review. CONCLUSIONS: Asking reviewers to consent to being identified to the author had no important effect on the quality of the review, the recommendation regarding publication, or the time taken to review, but it significantly increased the likelihood of reviewers declining to review.
860. Vanchieri C. Peer review put to the test: credibility at stake [news].
J Natl Cancer Inst 1993;85(20):1632-3.
861. Vandenbroucke JP. Can the quality of peer review be measured? [editorial; comment].
J Clin Epidemiol 1994;47(7):821-2.
868. Versprille A. The expression "proof" is often misused by reviewers and authors [letter].
Intensive Care Med 1997;23(1):131-2.
879. Wain-Hobson S. Peer reviewers could do much better [letter] [see comments].
Nature 1997;385(6615):384.
891. Wessely S, Brugha T, Cowen P, Smith L, Paykel E. Do authors know who refereed their paper? A questionnaire survey.
Bmj 1996;313(7066):1185.
895. Whatling P. Having non-medical readers of papers on internet will enhance peer review [letter; comment].
Bmj 1999;318(7191):1144-5.
896. White MC. The peer review process of the Journal [editorial].
Am J Infect Control 1993;21(6):279-82.
The manuscript review process is a critical part of the dissemination of new science. This article reviews the components of the process, including editorial screening, peer review, and final author review of manuscripts, and notes the persons involved in each stage of the process. The editorial review process is an evolving science, and Journal policies and procedures are revised as this science gains new insights.