PURPOSE AND PROCEDURE

The purpose of *Evidence-Based Medicine* is to alert clinicians to important advances in internal medicine, general and family practice, surgery, psychiatry, paediatrics, and obstetrics and gynaecology by selecting from the biomedical literature those original and review articles whose results are most likely to be both true and useful. These articles are summarised in value-added abstracts and commented on by clinical experts.

The procedures we follow as we attempt to achieve this purpose are:

1. Detecting, using prestated criteria, the best original and review articles on the cause, course, diagnosis, prevention, treatment, quality of care, or economics of disorders in the foregoing fields;
2. Introducing these articles with declarative titles and summarising them in structured abstracts that describe their objectives, methods, and results;
3. Adding brief, highly expert commentaries to place each of these summaries in its proper clinical health care context; and
4. Disseminating these summaries in a timely fashion to clinicians at every stage of their professional careers.

The American College of Physicians and the BMJ Publishing Group publish *Evidence-Based Medicine* bimonthly, under the editorship of Dr. R. Brian Haynes at McMaster University in Canada and Dr. David L. Sackett at the University of Oxford. The Health Information Research Unit of the Department of Clinical Epidemiology and Biostatistics at McMaster University hosts the editorial office for the service.

Journals are reviewed according to the following priority list, based on the proportion of articles that meet *Evidence-Based Medicine* criteria:

1. Core journals:

American Journal of Medicine
American Journal of Obstetrics and Gynecology
American Journal of Psychiatry
American Journal of Surgery
Annals of Internal Medicine
Annals of Surgery
Archives of Disease in Childhood
Archives of General Psychiatry
Archives of Internal Medicine
Archives of Pediatrics and Adolescent Medicine
Archives of Surgery
Arthritis and Rheumatism
BMJ
British Journal of General Practice
British Journal of Obstetrics and Gynaecology
British Journal of Surgery
Circulation
Clinical Pediatrics
Cochrane Library
Diabetes Care
Hypertension
JAMA
Journal of the American Board of Family Practice
Journal of the American College of Surgery
Journal of General Internal Medicine
Journal of Internal Medicine
Journal of Neurology, Neurosurgery and Psychiatry
Journal of Pediatrics
Journal of Vascular Surgery
Lancet
New England Journal of Medicine
Obstetrics and Gynecology
Pediatrics
Surgery

2. Journals for continuing review:

Acta Obstetricia et Gynecologica Scandinavica
Age and Ageing
American Journal of Cardiology
American Journal of Gastroenterology
American Journal of Public Health
American Journal of Respiratory and Critical Care Medicine
Annals of Emergency Medicine
Annals of Medicine
Archives of Family Medicine
Archives of Neurology
British Journal of Psychiatry
British Journal of Rheumatology
Canadian Medical Association Journal
Chest
Clinical and Investigative Medicine
Critical Care Medicine
Fertility and Sterility
Gastroenterology
Gut
Heart
Journal of the American College of Cardiology
Journal of the American Geriatric Society
Journal of Clinical Epidemiology
Journal of Family Practice
Journal of Infectious Diseases
Medical Care
Medical Journal of Australia
Neurology
Spine
Stroke
Thorax

This list is subject to modification based on the relative performance of each journal according to the criteria set out below; we also assess journals nominated by our readers.

Criteria for Review and Selection for Abstracting

1. General: All English-language original and review articles in an issue of a candidate journal are considered for abstracting if they concern topics important to the clinical practice of internal medicine, general and family practice, surgery, psychiatry, paediatrics, or obstetrics and gynaecology. Access to foreign-language journals is provided through the systematic reviews we abstract, especially those in the Cochrane Library, which summarises articles taken from over 800 journals in several languages.
2. Studies of prevention or treatment: random allocation of the participants to the different interventions; outcome measures of known or probable clinical importance for ≥ 80% of participants who entered the investigation; and an analysis consistent with the study design.
3. Studies of diagnosis: clearly identified comparison groups, at least one of which is free of the target disorder or derangement; either an objective diagnostic standard (e.g., machine-produced laboratory result) or a contemporary clinical diagnostic standard (e.g., a venogram for deep venous thrombosis) with demonstrably reproducible criteria for any subjectively interpreted component (e.g., report of better-than-chance agreement among interpreters); interpretation of the test without knowledge of the diagnostic standard result; interpretation of the diagnostic standard with

knowledge of the test result; and an analysis consistent with the study design.

4. Studies of prognosis: an inception cohort of persons, all initially free of the outcome of interest; follow-up of ≥ 80% of patients until the occurrence of either a major study end point or the end of the study; and an analysis consistent with the study design.

5. Studies of causation: a clearly identified comparison group for those at risk for, or having, the outcome of interest (whether from randomised, quasi-randomised, or nonrandomised controlled trials; cohort analytic studies with case-by-case matching or statistical adjustment to create comparable groups; or case–control studies); masking of observers of outcomes to exposures (this criterion is assumed to be met if the outcome is objective [e.g., all-cause mortality or an objective test]); observers of exposures masked to outcomes for case–control studies or masking of subjects to exposure for all other study designs; and an analysis consistent with the study design.

6. Studies of quality improvement and continuing education: random allocation of participants or units to comparison groups; a follow-up of ≥ 80% of participants; outcome measures of known or probable clinical or educational importance; and an analysis consistent with the study design.

7. Studies of the economics of health care programs or interventions: The economic question must compare alternative courses of action; the alternative diagnostic or therapeutic services or quality improvement strategies must be compared on the basis of both the outcomes they produce (effectiveness) and the resources they consume (costs); evidence of effectiveness must come from a study (or studies) that meets journal criteria for diagnosis, treatment, quality improvement, or review articles; results must be presented in terms of the incremental or additional costs and outcomes incurred and realised by one intervention over another; and a sensitivity analysis must be done where there is uncertainty or imprecision in the estimates or measurements.

8. Clinical prediction guides: The guide must be generated in 1 set of patients (training set) and validated in an independent set of patients (test set), and must also meet the above-noted criteria for treatment, diagnosis, prognosis, or causation.

9. Systematic reviews: The clinical topic being reviewed must be clearly stated; there must be a description of how the evidence on this topic was tracked down, from what sources, and with what inclusion and exclusion criteria; and ≥ 1 article included in the review must meet the above-noted criteria for treatment, diagnosis, prognosis, causation, quality improvement, or the economics of health care programs.

Because our goal is to abstract only the very best literature, consistent with a reasonable number of articles making it through the quality and usefulness filters, we hope to strengthen these criteria with time. When there is not enough space to publish abstracts and commentaries for all of the articles that meet our current review criteria, we will raise the quality filters. In the interval, priority will be given to articles of highest relevance to clinical practice.

Evidence-Based Medicine has a related journal, *ACP Journal Club*, in which abstracts are restricted to internal medicine. It is generated using procedures identical to those used for *Evidence-Based Medicine* and is published by the American College of Physicians. Approximately half of the abstracts in *ACP Journal Club* are published in *Evidence-Based Medicine*, and the abstracts not published are listed, by their declarative titles, in the section titled Additional Articles Abstracted in *ACP Journal Club*.

Abstracts in *Evidence-Based Medicine* conform to the published standards for more informative abstracts (1), with the following modifications: Abstracts can be up to 425 words in length, and each abstract is reviewed by an expert in the content area. This expert also provides a commentary, in which he or she provides the contexts of previous knowledge and clinical practice within which the results of the abstracted study will be applied, points out any important methodological problems that affect the interpretation of the study results, and offers recommendations for the clinical application of the study findings. The author of the original article is given an opportunity to review the abstract and commentary before publication.

Reference

1. **Haynes RB, Mulrow CD, Huth EJ, Altman DG, Gardner MJ.** More informative abstracts revisited. Ann Intern Med. 1990;113:69-76.