

# 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 author of the original article is given an opportunity to review the abstract and commentary before publication.

The procedures we follow to achieve this purpose are

- 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
- Introducing these articles with declarative titles and summarising them accurately in structured abstracts that describe their objectives, methods, results, and conclusions
- Adding brief, highly expert commentaries to place each of these summaries in its proper clinical and healthcare context
- Disseminating these summaries in a timely fashion.

## CRITERIA FOR REVIEW AND SELECTION FOR ABSTRACTING

### 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 from over 800 journals in several languages.

### Prevention or treatment; quality improvement

- Random allocation of participants to interventions
- Outcome measures of known or probable clinical importance for  $\geq 80\%$  of the participants who entered the investigation.

### Diagnosis

- Inclusion of a spectrum of participants, some (but not all) of whom have the disorder or derangement of interest
- Each participant must receive the new test and the diagnostic standard test
- Either an objective diagnostic standard or a contemporary clinical diagnostic standard with demonstrably reproducible criteria for any subjectively interpreted component
- Interpretation of the test without knowledge of the diagnostic standard result
- Interpretation of the diagnostic standard without knowledge of the test result.

### Prognosis

- An inception cohort of persons, all initially free of the outcome of interest
- Follow up of  $\geq 80\%$  of patients until the occurrence of either a major study end point or the end of the study.

### Causation

- Observations concerning the relation between exposures and putative clinical outcomes
- Prospective data collection with clearly identified comparison group(s) for those at risk for the outcome of interest (in descending order of preference from randomised controlled trials, quasi-randomised controlled trials, non-randomised controlled trials, cohort studies with case by case matching or statistical adjustment to create comparable groups, to nested case control studies)
- Masking of observers of outcomes to exposures (this criterion is assumed to be met if the outcome is objective).

### Economics of health care programmes or interventions

- The economic question must compare alternative courses of action in real or hypothetical patients
- 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 criteria for diagnosis, treatment, quality assurance, or review articles
- Results should be presented in terms of the incremental or additional costs and outcomes incurred and a sensitivity analysis should be done.

### Clinical prediction guides

- The guide must be generated in 1 set of patients (training set) and validated in an independent set of real not hypothetical patients (test set), and must pertain to treatment, diagnosis, prognosis, or causation.

### Differential diagnosis

- A cohort of patients who present with a similar, initially undiagnosed but reproducibly defined clinical problem
- Clinical setting is explicitly described
- Ascertainment of diagnosis for  $\geq 80\%$  of patients using a reproducible diagnostic workup strategy and follow up until patients are diagnosed or follow up of  $\geq 1$  month for acute disorders or  $\geq 1$  year for chronic or relapsing disorders.

### 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
- $\geq 1$  article included in the review must meet the above-noted criteria for treatment, diagnosis, prognosis, causation, quality improvement, or the economics of healthcare programmes.

*Evidence-Based Medicine* has a related journal, *ACP Journal Club*. It is generated using procedures identical to those used for *Evidence-Based Medicine* and is published by the American College of Physicians. Approximately one third 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*.