MORBIDITY/MORTALITY ABSTRACTION – FINDING SUITABLE ARTICLES

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For medical directors, keeping up with the medical literature means not only staying clinically abreast of developments in medicine, but also appraising morbidity and mortality data for their insurance implications. One of the obstacles to morbidity and mortality data analysis, whether formal (morbidity abstract preparation) or informal (simply estimating risk or general prognosis), is the absence of tools which facilitate critiquing articles or quickly judging their suitability for such purposes.

Advice to clinicians on how to critically read medical literature and how to distinguish “good” articles (worth spending time and effort on) from less valuable ones (deserving of only casual attention) is available from a variety of sources (see references below). Advice to medical directors on how best to judge the quality and suitability of articles for insurance applications is addressed in such places as Dr. Singer’s Advanced Mortality Methodology Workshop, but is less readily available to the average medical director.

The Committee on Mortality and Morbidity of ALIMDA; the ALIMDA Research Center; the Center for Medico-Actuarial Statistics of the MIB; the Board of Insurance Medicine; and other bodies within our industry have been interested in promoting quantitative methods as they apply to insurance medicine, and in simplifying the medical director’s risk assessment and prognostic activities. This article notes some of the issues involved in assessing the merit of medical articles for medical director use and offers two examples of “checklist” approaches to ascertaining that merit. The checklists are a preliminary attempt to define key information in an organized fashion, and it is hoped that further modifications and revisions will eventually result in a variety of practical tools for the working medical director.

Upon identifying a condition of interest in a medical study, the medical director will judge the pertinence of the information to his or her work by some yardsticks of relevancy and usefulness. We will typically be interested in information which either clarifies vague risks or better differentiates classes of severity, or information which contributes to knowledge about prognosis or outcome (e.g., treated vs. untreated; new treatment vs. traditional treatment; etc.). In other words, the initial relevance of the information has to do with the degree to which it extends or refines existing knowledge of risk or outcome.

The utility of the findings will also depend on such factors as the generalizability and definitiveness of the findings. In general, there is value inherent in articles which provide data on the likelihood of condition “X” leading to event or outcome “Z” in “Y” years (where X = a risk factor, diagnosis, exam/lab findings, history, or some other variable of interest; and Z = medical expense, complications, morbidity, disability, or death) depending on the work-focus of the medical director.

If the sample is representative of populations of interest, and if the selection criteria studied are at all replicable to applicants or insureds, then the findings may be applicable to our day-to-day work. Whether a result is interesting but only preliminary, or conclusive and compelling, will depend on its pertinence and the adequacy or currency of the data. After qualitatively judging the suitability of an article or report, based on its pertinence and the adequacy or currency of existing sources, a quick survey of the quality of the data is desirable. This entails judging the level of detail of the observation; relating this to some yardstick of expected experience for the purpose of deriving mortality ratios or other comparators; and estimating whether the differences are meaningful (e.g., whether the lower confidence limit differs appreciably from 1.0 [100% or standard]). This is where a checklist might be handy.

Checklist A attempts to identify some of the key variables (the minimum required for analysis and the optimal level of detail, if available) that an article should contain.

The potential value of an article to a medical director will also depend on the size of the experience reported and whether satisfactory prior data are available. For example, while a medical director who is contemplating doing a mortality abstract might generally look for a study reporting a sizable mortality experience (greater than 100 deaths, say), he might be equally interested in reporting a follow-up study involving fewer deaths (0-25) if existing mortality sources were negligible. Also, if good prior studies do exist, but the new information updates the old or renders the observations more current, then the study likely has practical value.

After qualitatively judging the suitability of an article or report, based on its pertinence and the adequacy or currency of existing sources, a quick survey of the quality of the data is desirable. This entails judging the level of detail of the observed experience; relating this to some yardstick of expected experience for the purpose of deriving mortality ratios or other comparators; and estimating whether the differences are meaningful (e.g., whether the lower confidence limit differs appreciably from 1.0 [100% or standard]). This is where a checklist might be handy.

Checklist A attempts to identify some of the key variables (the minimum required for analysis and the optimal level of detail, if available) that an article should contain.
Even for "rough or approximate" estimates of comparative morbidity or mortality, these are the types of variables (especially the minimum ones) that would hopefully be present in the article of interest.

A checklist more specifically geared to identifying those articles suitable for formal mortality abstraction might look more like Checklist B.

These checklists may not be definitive instruments in their present forms, but they represent an initial attempt to provide tools for surveying and critiquing relevant medical literature. Input and suggestions from practicing medical directors would be welcome. Ultimately a number of different such instruments geared to the different types of work medical directors engage and consult in could be developed.

Appreciation is expressed to the members of the Committee on Mortality and Morbidity of ALIMDA and to Richard B. Singer, MD, for their ideas and contributions.

REFERENCES

