## THE LITERATURE OF MEDICINE

## **Reviews and Notes**

Books, computer software, audiovisual programs, and other material reviewed or briefly noted in this section have been selected for their probable interest to readers. Not all items submitted by publishers are necessarily represented here, but a listing of almost all items received can be found in the advertising pages of each issue. The "order phone" numbers can be used to place orders directly with publishers. A complete, cumulative listing of all items received for consideration for review can be found in "The Literature of Medicine" in "ACP Information," found in the "Libraries" section of ACP Online, the CompuServe forum available to College members.

# Improving Clinical Practice: Total Quality Management and the Physician

D Blumenthal and AC Scheck; eds. 310 pages. San Francisco: Jossey-Bass; 1995. \$35.95. ISBN 0787800931. Order phone 415-433-1767.

Before reading this book. I was under the impression that total quality management, continuous quality improvement, and other new names for what we used to call quality assurance were methods dreamed up by hospital administrators and regulatory agencies to confuse and control physicians. The authors of this book on improving clinical practice report that my opinion is shared by most physicians. After having read the book, I still believe that total quality management, continuous quality improvement, and so on are usually used by administrators to control and manipulate physician behavior. On the other hand, the authors have convinced me that this need not be the case.

Many practicing and academic physicians are currently involved with committees or organizations that monitor the quality of medical care. The most positive aspect of this book is that, after reading sections of it, one may be able to ferret out some valuable techniques for improving patient care from among the smoke, mirrors, and jargon that appear to permeate what we have traditionally referred to as quality assurance activities.

This small book suffers from the ills of multiauthor works. Some chapters are useful, and others appear to be irrelevant fluff or fillers. There are important messages that one can take home. The authors have convinced me that continuous quality improvement has the potential to enhance the scientific bases of the daily practice of medicine. The methods described go back to W. Edward Demming and his now 50-year-old approach to improving industrial production. Perhaps facetiously, the authors talk about type 3 and type 4 error. Type 3 error is "solving the wrong problem," and type 4 error is "mistaking the problem for the solution." These are nightmares with which we all live; the authors try to help us avoid them. The first few chapters are poignant. It is pointed out that we need to measure total care and outcomes and to be wary of one element of the medical care system "suboptimizing" itself but not supporting the end result. The methods seem painfully simple after one reads the first 100 pages: Identify a cohort of similar patients, set priorities for outcomes, identify the steps in the process of care, and use measurement and analytic techniques to define variations in out-

This book does not report anything new and different. It does

offer a concise, easily understood way for persons with only a basic knowledge of medical care and quality improvement techniques to achieve some fluency in the methods that are going to become part of our everyday existence. If we understand them, maybe we can make them work for us and truly improve medical care. If one is going to sit on a hospital or medical group committee charged with improving the quality of medical care, the few hours one spends absorbing the salient points of this book are well worth the effort. With all of the new clinical information that the practicing physician needs to ingest, spending time to understand quality management may be too much to ask, but the time spent in this area is bound to increase, and more and more physicians will become involved.

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### Medical Software

Reference Manager: Bibliography Management Software Version 6.01. Carlsbad, CA: Research Information Systems; 1994. Single-user price, \$349.00; optional capture module \$149.00. Order phone 619-438-5526. Requires Microsoft Windows 3.1 and 2MB RAM. Also available for Macintosh (version 2.08), which requires System 4.2 or higher and 1MB RAM.

Bibliographic software packages perform two important tasks that are indispensable for researchers and clinicians. First, they create, store, and maintain bibliographic databases consisting of references that can be typed in or downloaded from a commercial vendor of bibliographic data (such as Grateful Med, Paperchase, or a CD-ROM-based MEDLINE system). Second, they generate a perfectly punctuated and styled citation list, ready to be attached to a manuscript or grant proposal, that can be formatted to the precise specifications of any given journal.

Among the numerous packages on the market, Reference Manager is an excellent choice because of its well-designed, clear interface and exceptionally smooth operation. The package is user-friendly, fast (even with large databases), and simple to learn. Within minutes, an experienced computer user can start operating the software. Both the help utility and the manual are clear and self-explanatory.

The package provides many pre-designed journal formats. If one wants to resubmit a rejected manuscript to another journal, the burden of changing the style of the reference list is entirely eliminated, because the package quickly reformats the references to the new journal's specifications. The formatted bibliographic output can be generated as a file compatible with any of several popular word processing programs. In this way, attributes such as boldface, italics, superscripting, and underlining are preserved when the bibliography is attached to the manuscript.

The main and probably the only significant disadvantage of this package is its price, which is high for many end-users. A minor drawback is the license agreement, which allows the user to create only one database larger than 200 references alongside

multiple small databases (the main database may contain as many as 65 000 references). This means that several researchers (such as residents in a department) cannot maintain individual database files. The package owner may, however, install the single database on several computers (such as those at work and at home). Reference Manager is also available as a Macintosh package identical to the Windows version; this allows the user to move the database from one system to the other. Research Information Systems provides, besides standard technical support by telephone and fax, an Internet support option. The site at http://www.risinc.com gave valuable introductory information and the option of downloading a free demo of the package.

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#### Surgery

Surgical Management of Cerebrovascular Disease RE Zierler; ed. 514 pages. New York: McGraw-Hill; 1994. \$80.00. ISBN 007072792-9. Order phone 800-262-4729.

This book is by 24 surgeons, 5 neurologists, 1 internist, 1 radiologist, and 1 pathologist. A more appropriate title would be Surgical Management of Extracranial Cerebrovascular Disease, because more than 450 of the well-written and illustrated pages deal with the cervical portion of the cerebral circulation. For example, the basilar artery is not indexed, the vertebral artery is given 14 lines, the vertebrobasilar system is given 24 lines, and the carotid artery is given 127 lines of indexing. Slightly more than half a page is devoted to intracranial berry aneurysms and multi-infarction dementia.

This book is a must for vascular surgeons and is divided into five parts. The first part is 76 pages in length and is devoted to anatomy and pathophysiology. The section on the mechanisms of cerebral ischemia is outstanding and brings into focus the similarities between atherosclerotic plaque disruption in the coronary circulation and the carotid arteries. The next edition of this book should include the recent observations that atherosclerosis in the aortic arch is another potential source of emboli to the brain.

Part two, "Clinical Manifestations," is divided into four subsections. The first two cover the traditional phenomena of the carotid and vertebrobasilar arterial systems. Epidemiology and natural history come next, and the subsections that address these topics include a satisfactory portrayal of risk factors. Clinical evaluation of the patient with cerebrovascular disease is covered in the fourth subsection and is both poorly organized and incomplete. The neurovascular examination is not described. An algorithm for the diagnostic evaluation of a patient with neurologic symptoms lists electroencephalography as the second most important test (computed tomographic scanning is first), but text on the same page states that "electroencephalography (EEG) is no longer routinely done." The statement is correct; the algorithm is incorrect.

Part three is titled "Diagnostic Evaluation and includes a description of methods of imaging the cerebral circulation and brain. Indirect noninvasive tests, duplex scanning, transcranial Doppler ultrasonography, computed tomography, and magnetic resonance imaging are thoroughly covered. Some material about cerebral angiography concludes this part of the book. A page is devoted to intravenous digital subtraction angiography, although the authors conclude that "... it has been largely abandoned as a substitute for preoperative selective catheter angiography." "Diagnostic Evaluation" does not discuss the various examinations of the heart and blood that often provide answers to the pathogenesis of a transient ischemic attack or an ischemic cerebral infarction.

Part four is titled "Therapeutic Approaches and Randomized Clinical Trials." Of the 103 pages in this section, 14 are about antithrombotic medical therapies to prevent stroke and 89 are about surgery. Readers who work with patients with multiple cerebrovascular problems know that fewer than 10% of all patients are candidates for vascular surgery and that this percentage will dwindle as new antithrombotic and thrombolytic therapies become available. Some of the indications for surgery will change. I have long believed that a carotid ulcerated atherosclerotic lesion actively producing emboli to the ipsilateral eye and hemisphere, even though it causes less than 70% stenosis, should be treated with endarterectomy, assuming a perioperative morbidity-mortality of less than 5%. Almost one third of part four is about carotid endarterectomy without arteriography. I suspect that the vascular surgeons' attitude toward visualizing the anatomic structure of the intracranial vasculature with arteriography has developed because the patients these surgeons treat are preselected and thus do not represent the potpourri of abnormalities present in the total population of patients with cerebrovascular problems.

The last part of the book takes up 158 pages and is about surgical management. This extensive section is well done and will be technically helpful to neurovascular surgeons. "To shunt or not to shunt" and "to patch or not to patch" continue to be important questions that stir up debate. The description of the primary arteriotomy closure and patch angioplasty closure mentions that "all vessels are flushed by sequential removal of all vascular clamps." This procedure should be described in detail, because the removal of all debris (potential emboli) is one of the most important parts of a carotid endarterectomy. All agree that technical perfection is mandatory.

An important issue in determining the incidence of perioperative neurologic events (morbidity) is the quality of the neurologic examinations done before and after surgery. To get an accurate assessment of the patient's brain function before and after surgery, the vascular surgeon should work closely with personnel who specialize in such assessments. Minor defects in cognition or motor skills are often missed by inexperienced examiners. The book does not mention this. The last nine pages are about tumors of the carotid body. The carotid body and the carotid sinus are carefully distinguished. I was pleased that this subject was included; one seldom finds it dealt with so well.

This book is about the surgery of the extracranial portion of the cerebral arterial circulation by vascular surgeons and is very well done. The potential purchaser should know that the subject is a limited one.

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