Utilization management: a medical responsibility

Adam L. Linton, MB, FRCP, FRCPC
David K. Peachey, MD

Increasing costs for medical care are generating confrontation across Canada among provincial governments, medical associations, hospitals and medical schools. Some provincial governments have simply imposed limits on spending or on numbers of physicians; others have attempted to preserve a facade of concern about the quality of care while acting primarily on behalf of fiscal constraint. Health care providers have often opposed these restraints, usually in support of good patient care; this opposition can be difficult for governments publicly dedicated to universal access: they will be increasingly exposed to public pressure, which is often justifiable.

The medical profession has found it fairly easy ethically to take this tack, but medical groups have not produced many positive approaches to the financial dilemma that society faces. Although it is not necessarily true that the present expenditure on health care in Canada is the maximum, few would deny that the cost of what can be done might exceed the proportion that society will decide to allocate. Rationing of health care resources must be addressed by society and its elected representatives, not covertly delegated to hospitals or physicians. The medical profession does, however, have an absolute responsibility to maximize the effectiveness of health care so that scarce resources are not wasted. It is in this area that we have so far performed poorly.

Other countries are far ahead of Canada in supervising the expenditure of health care dollars. The sophisticated health care control systems that exist in Britain and the United States can provide both guidance and warnings. In those countries rising costs led to the enforcement of external controls: direct government supervision in Britain and review processes and fiscal control by third-party payers in the United States, often administered by nonphysicians or physicians removed from the mainstream of patient care. Likely utilization control will be imposed in Canada very soon unless the profession behaves responsibly by designing and introducing improved management systems that will reduce waste yet remain "physician friendly" and thus avoid the extreme intrusion of supervised care seen in the United States.

From the Ontario Medical Association, Toronto, and the Department of Medicine, University of Western Ontario, London

Reprint requests to: Dr. Adam L. Linton, Department of Medicine, Victoria Hospital Corporation, London, Ont. N6A 4G5

The need for improved effectiveness

Review and analysis of medical care are being intensified in many countries, partly because of increasing costs but also because of unanswered questions about medical practice. Evidence has suggested that proof of the effectiveness of many procedures and techniques is questionable or entirely lacking.[1] Research into costs and benefits of new technology has often been sketchy and poorly designed, and procedures may be performed for inappropriate indications.[2] In the United States laboratory investigations and imaging procedures are widely misused, with major cost implications.[3]

Much of the concern in the United States about the quality of medical care (a major stimulus to externally imposed supervision of care) arose from the recognition of widespread variations in physicians' practices that were not accounted for by differences in disease incidence.[4] Although the rates for various procedures can vary up to 20-fold, this is not the case with such conditions as fractured hip and myocardial infarction, for which there is little disagreement or uncertainty about correct practice. Many have therefore assumed that the high rates of practice reflect physician-driven provision of unnecessary care. Nevertheless, it is also possible that areas with low procedure rates may reflect underservicing. Recent studies have suggested that variations in rates occur primarily

← For prescribing information see page 348

because a scientific consensus on the correct use of many procedures and technologies has not been established and because studies of treatment outcomes remain rare.[5]

To define quality of medical care remains a perilous exercise; studies of outcome, technical process, access, integration of care and reliability may help us to identify appropriate and more effective patterns of practice.

All of these concerns have as much impact on quality of care as they do on escalating costs. Therefore, for reasons of fiscal responsibility and of improving the provision of care the medical profession must now take the lead in addressing these concerns. We have been reluctant to embrace programs of evaluation or supervision of medical care, because they can be seen as a challenge to the physician's traditional authority; it should now be recognized that management of resources will occur with or without us. Physician autonomy will be preserved only if doctors develop the system.

Utilization management

This difficult topic is not made easier by the semantic confusion that surrounds it. Utilization review (UR) is perhaps the best known component of utilization management (UM) and has been defined as "the scrutiny of services delivered by a health care practitioner to determine whether those services were medically necessary and appropriate".[6] This is very close to a recent definition of utilization analysis (UA): "the evaluation of the mix and volume of health care provided to ascertain the appropriateness of care provided".[7] Moreover, any of the three terms can be applied to epidemiologic studies of provision of services to large numbers of patients,[8] as in a province or individual hospitals.[9] In addition, if utilization studies and controls are intended to reduce variations in procedure rates they will have to address the underevaluated areas of medical practice that promote regional variations. UM will have to assess specific interventions, including all new and many old technologies; the difficulty of these endeavours is foreshadowed by the scientific, legal, ethical and fiscal issues raised by the introduction of low-osmolarity contrast media in radiology.[10]

Despite the difficulties, the medical profession must take the lead in improving the effectiveness and appropriateness of medical interventions. Flawed information and poor interpretation by physicians of the mass of data now available reflect the enormously increased complexity of medical knowledge. This has not been the profession's fault, but it will be if we do not continually seek to improve quality of care through physician-supervised data collection and analysis.

The Centre for Health Economics and Policy Analysis (CHEPA), McMaster University, Hamilton, Ont., has proposed that UA "be regarded as the application of feedback regulation to the health care system".[11] The concept of measurement/comparison/response is a usable one, although there are difficulties in including the response phase in a process called analysis.[12] We propose that all activities (measurement, comparison, development of standards, feedback response and monitoring of effect) be included under the umbrella of UM. UR could then be restricted to measurement and evaluation and UA to the determination of the effectiveness and appropriateness of care and to the synthesis and assessment of data on techniques, procedures and drugs. Utilization improvement could be used to designate the response phase of UM.

Utilization review

This is the most extensively developed aspect of UM, particularly in the United States, where its introduction was driven by third-party payers and where it is seen as fiscally effective, although anecdotal evidence has suggested that quality of care may have been compromised.[13] The following are examples of common UR techniques.

- Screening criteria: limitation of the number of times a service can be provided for a patient each year
- Preadmission (preservice) review
- Concurrent review: evaluation of need to extend hospital stay
- High-cost case management: survey of individual cases by assessor
- Second surgical opinion programs

As imposed by external agencies, each of these processes has flaws. Screening criteria, if set too low, may result in denial of payment for legitimate services, and preadmission review may delay needed treatment; the criteria required for admission are difficult to design, unresponsive to social or humanitarian considerations and expensive to implement. Studies of individual high-cost or surgical cases may interfere deeply with the physician–patient relationship and may cause the patient to be uncertain about the need for treatment. Clearly, if UR is to be developed physician groups must design it with these problems in mind. The American Medical Association (AMA) supports the development of UR programs that demonstrate increased efficiency and an overriding commitment to the provision of high-quality care.[14]

Utilization analysis

The second phase of UM deals with evaluation of the effectiveness and appropriateness of care provided. In this field information is badly lacking, and what is available is not properly used. High-quality, computer-readable data are required from hospitals to allow quantitation of work done and comparison of costs. Similar data can be collected on drug usage, functioning of nursing

homes, variations in utilization rates and specific procedures. From such data guidelines can be derived to identify inefficient elements and possible solutions. Without such information scarce resources cannot be fairly allocated.

Another aspect of UA involves the improved evaluation of procedures, drugs and techniques, including all new procedures and many established ones whose real place has not yet been accurately determined.

The development of yardsticks against which medical practice can be measured is one of the most controversial aspects of UA. Without these yardsticks we cannot hope to evaluate and compare hospitals, and we will have great difficulty in collecting and synthesizing the data needed to identify efficient and appropriate provision of care. With them we will be able to reduce waste, promote better medicine and provide protection in medicolegal matters. Opponents of the concept talk of "imposed standards" and point to the risk of promoting "cookbook medicine"; these are real hazards if the control system is imposed from outside the profession, whether by government, hospitals or third-party payers. We agree with Dr. James Todd, of the AMA, who stated that the performance of UM by the profession was not a threat to professional flexibility but the only guarantee of it (personal communication, 1988). The profession must develop its own flexible, physician-friendly guidelines aimed at improved care, as the American College of Physicians has done with its Clinical Efficacy Assessment Project.[15]

Utilization improvement

The essential final step of the feedback loop proposed by CHEPA is the response to modify or correct the problem. The response might be directed at health care providers, hospitals or clinics, government or the public, since any of these groups may contribute to a utilization problem. Education plays a critical role, but so might financial incentives or structural change. Action taken on the basis of UR or UA remains rare, and the difficulties this will pose should not be underestimated. It is possible that credible and sustainable policies developed from UR may offend any of the large groups with vested interests in health care: governments, drug manufacturers, hospitals, physicians, nurses, other health care providers, imposers of legal constraints, interest groups and even the public.

UM in Canada

Despite the increasing conflict over health care costs and the maintenance of quality of care, UM in Canada remains fragmentary and ineffective. Utilization issues have been raised in many provinces in fee negotiations, and several provinces now have committees or task forces studying various aspects of utilization, including drug use, technology and use of hospital facilities. Medical review committees of provincial licensing authorities audit practices and review physician claims data.[7] Most hospitals have some form of audit or utilization review committee, but they vary widely in scope and effectiveness. No clear mandate for UM has been imposed on hospital boards through legislation, and confusion exists over the roles of board members and of administration and medical staff.[16]

In many provinces data from hospitals are collected and analysed by the Hospital Medical Records Institute (HMRI). The full value of this data has not yet been realized, and many hospitals are unable to use it at all. HMRI has also ventured into the field of medical audit, publishing criteria and audit packages that have been of some assistance, particularly to smaller hospitals. Standards for UR have been established by the Canadian Council on Hospital Accreditation but deal largely with administrative and housekeeping matters rather than clinical practice. There are virtually no established systems to supervise the introduction of new technology, which is driven into general use by pressure from the public, the medical profession, the drug industry and the media.

In Ontario if health care costs account for 33% of the provincial budget the medical profession must expect increasingly close scrutiny. This is emphasized by the fact that in virtually all provinces the escalating acrimony between government and medical societies will be seen by government as an increasing political risk. The Ontario minister of health has made several pronouncements embracing various aspects of UM. Hospitals in Ontario are actively collaborating with government to develop new methods for funding and for performing increased audit activities and impact analysis for medical staff appointments and to produce utilization standards. Improvements in data collection from hospitals using "resource intensity weights" provide the opportunity to use fiscal evaluation to influence patterns of practice. Health care economists and a number of health care consulting firms in Canada are actively trying to improve data collection and to implement various forms of UR.

It is the stated policy of the Ontario Medical Association to defend the existing excellent health care system in Ontario. If we assume a positive stand on UM we will be seen as taking a responsible position on health care costs rather than simply clamouring for more money. Improved data on the effectiveness of care will improve medical practice, and UM will not simply reduce costs automatically; it is entirely possible that improved data and analysis will bring to light deficiencies in the health care system. Positive action on UM may reduce confrontation with governments and will at least place the profession at the table in subsequent discussions. Improved utilization data will force

governments to tackle real issues and will reduce their ability to pass the responsibility for costs to the medical profession. Physician-developed health care protocols will provide medicolegal protection in an increasingly complex world, and participation by medical societies in these developments will prevent UM from becoming a "witch-hunt" for outliers. The choice facing physicians is no longer one of whether or not we should participate in UM but rather who will design and control the management system.

References

1. Eddy DM, Billings J: The quality of medical evidence: implications for quality of care. *Health Aff (Millwood)* 1988; 7 (1): 19-32
2. Cooper LS, Chalmers TC, McCally M et al: The poor quality of early evaluations of magnetic resonance imaging. *JAMA* 1988; 259: 3277-3280
3. Griner PF, Glaser RJ: Misuse of laboratory tests and diagnostic procedures. *N Engl J Med* 1982; 307: 1336-1339
4. Feinglass J: Variations in physician practice and covert rationing. *Theor Med* 1987; 8: 31-45
5. Wennberg JE: The paradox of appropriate care. *JAMA* 1987; 258: 2568-2569
6. *Annual Report to Congress*, Physician Payment Review Commission, Washington, Mar 1988: 193
7. Rachlis M, Fooks C: Utilization analysis: current initiatives across Canada. In *Proceedings of the First Annual Health Policy Conference*, Centre for Health Economics and Policy Analysis, McMaster University, Hamilton, Ont, 1988: 71-97
8. Roos NP, Roos LL: High and low surgical rates: risk factors for area residents. *Am J Public Health* 1981; 71: 591-600
9. Dubois RW, Rogers WH, Moxley JH et al: Hospital inpatient mortality: Is it a predictor of quality? *N Engl J Med* 1987; 317: 1674-1680
10. Goel V, Deber RB, Detsky AS: Nonionic contrast media: economic analysis and health policy development. *Can Med Assoc J* 1989; 140: 389-395
11. Anderson G, Lomas J: The development of utilization analysis: how, why and where it's going. In *Proceedings of the First Annual Health Policy Conference*, Centre for Health Economics and Policy Analysis, McMaster University, Hamilton, Ont, 1988: 5-40
12. Barer M: Comment on the development of utilization analysis: how, why and where it's going. Ibid: 41-52
13. Feldstein PJ, Wickizer TM, Wheeler JRC: Private cost containment. The effects of utilization review programs on health care use and expenditures. *N Engl J Med* 1988; 318: 1310-1314
14. Bristow LR: *Statement of the American Medical Association to the Institute of Medicine Committee on Utilization Management by Third Parties*, June 6, 1988
15. *Clinical Efficacy Assessment Project Procedural Manual*, American College of Physicians, Philadelphia, 1986
16. Suttie B: The future of utilization analysis. In *Proceedings of the First Annual Health Policy Conference*, Centre for Health Economics and Policy Analysis, McMaster University, Hamilton, Ont, 1988: 223-272

Upcoming Meetings

continued from page 280

Sept. 24-27, 1989: Institute for the Prevention of Child Abuse 4th National Conference — Focus on Child Abuse: Facing the Challenges Together
Airport Hilton, Toronto
Dorothy Malcolm or Evelyn Petryniak, Institute for the Prevention of Child Abuse, 25 Spadina Rd., Toronto, Ont. M5R 2S9; (416) 921-3151, FAX (416) 921-4997

Sept. 25-26, 1989: Focus on Patient Assessment
Novotel Hotel, Mississauga, Ont.
Maggie Swithenbank, program manager, Conference and Seminar Services, Humber College Professional Services, 205 Humber College Blvd., Etobicoke, Ont. M9W 5L7, (416) 675-5077, FAX (416) 675-0135; or Gwen Villamere, chairperson, Continuing Education in Nursing, (416) 249-8301

Sept. 28-29, 1989: International Symposium on Drug Safety (sponsored by the Health Protection Branch, Department of National Health and Welfare)
Ottawa Congress Centre
G. Tom Herbert, Canadian Pharmaceutical Association, 1785 Alta Vista Dr., Ottawa, Ont. K1G 3Y6; (613) 523-7877, FAX (613) 523-0445

Sept. 28-Oct. 1, 1989: Emergency Medicine/Interact: Conference on Prehospital and Emergency Room Care
Winnipeg Convention Centre
Department of Continuing Medical Education, University of Manitoba, S105-750 Bannatyne Ave., Winnipeg, Man. R3E 0W3; (204) 788-6660

Oct. 1-5, 1989: Association of Canadian Medical Colleges, Association of Canadian Teaching Hospitals and Canadian Association for Medical Education Joint Annual Meeting
Westin Hotel, Winnipeg
Janet Watt-Lafleur, Association of Canadian Medical Colleges, 1006-151 Slater St., Ottawa, Ont. K1P 5N1; (613) 237-0070, FAX (613) 563-9745

Oct. 2, 1989: 4th Annual Conference on Physician Manpower
Westin Hotel, Winnipeg
Janet Watt-Lafleur, Association of Canadian Medical Colleges, 1006-151 Slater St., Ottawa, Ont. K1P 5N1; (613) 237-0070, FAX (613) 563-9745

Oct. 2-6, 1989: 31st Annual Radiation Protection Course
Chalk River Nuclear Laboratories, Chalk River, Ont.
Mrs. D.J. TerMarsch, course coordinator, Physics and Health Sciences, Atomic Energy of Canada Limited, Chalk River Nuclear Laboratories, Chalk River, Ont. K0J 1J0; (613) 584-3311, ext. 4729

Oct. 3-5, 1989: Occupational Medical Association of Canada Annual Meeting and Scientific Sessions
Halifax Sheraton Hotel
Dr. John Prentice, program chairman, 1989 OMAC Meeting, 1505 Barrington St., Halifax, NS B3J 2W3; (902) 421-5587, FAX (902) 421-4033

Le 6-8 oct 1989: Congrès de l'Association québécoise des pharmaciens propriétaires
Hotel Bonaventure, Montréal
Yvon Clement, 1031 rue St-Denis, Montréal, PQ H2X 3H9; (514) 842-0515

continued on page 299