

Advances in managing chronic disease

Research, performance measurement, and quality improvement are key

hronic diseases have been around as long as humans. But now, in most industrialised nations and in many developing countries, they predominate among the leading causes of death. For many years public health practitioners have recognised the increasing burden of chronic illness.²

Just as chronic disease control has developed into a distinct discipline in public health, so chronic disease management is beginning to develop its own identity as an important component of health care. No longer is each chronic illness—asthma, diabetes, arthritis, etc—being considered in isolation. Awareness is increasing that similar strategies can be equally effective in treating many different conditions. In recognition of the maturing field, this issue of the <code>BMJ</code>—and the February issue of its sister journal, the <code>Western Journal of Medicine—is devoted to chronic disease management.</code>

Three essential ingredients are required for continued progress in chronic disease management: research, performance measurement, and quality improvement. Research on innovative methods to treat people with chronic illness should be high on the agenda of organisations that fund health research. The Robert Wood Johnson Foundation, a leading American philanthropic institution, has already designated chronic disease care as one of its major priorities (www.rwjf.org), and its programme emphasises the commonalities of effective strategies across diseases.3 Yet funding alone is not enough: the research must be of high quality. On p 537 Jadad et al report that 40 of 50 systematic reviews and meta-analyses on the treatment of asthma had "serious methodological flaws that limit their value to guide decisions."4

Including treatment of chronic disease in performance measurement tools will help show the quality of care, stimulate improvement efforts, and evaluate the effectiveness of those efforts. Managed care organisations that consistently monitor and report on quality have shown significant improvements in quality.⁵ The Health Plan Employer Data and Information Set (HEDIS)-the principal tool used for evaluating managed care in the United States—has several measures relating to the treatment of cardiovascular disease, mental illness, and diabetes. They show that serious shortfalls remain. HEDIS data for 1998, covering over 70 million Americans, show that 59% of diabetic patients did not have an eye examination during the past year, 46% of people taking antidepressant drugs had inadequate medication management, and 41% of people admitted to hospital for an acute cardiovascular event did not

receive cholesterol screening after discharge.⁵ Such inadequacies are not unique to the US.

Quality improvement activities for major chronic diseases have intensified as performance indicators reveal deficiencies and as research provides tested models. This research is beginning to clarify the changes in the organisation of care required to achieve better outcomes and lower costs. These changes include greater emphasis on supporting patients in managing their own illness, more explicit delegation by the primary care doctor of tasks in patient management, optimising drug management, and more intensive follow up. Several papers published in the *BMJ* and *WJM* theme issues address those shifts.

Many of these papers remind us that we must never lose focus on the person who has the disease. For treatment to be successful, patients must be well informed about their disease (p 572),⁶ know where they can access treatment (p 589),⁷ and have greater control over their treatment. For example, Williams et al studied how access to care affects the quality and cost of care for patients with inflammatory bowel disease. In a randomised trial they compared open access to care (whenever patients had problems) with routine booked appointments and found that the former delivers the same quality of care as routine appointments, is preferred by patients and general practitioners, and uses similar healthcare resources (p 544).⁸

Patients must be involved as partners in their care (pp 526, 572),^{6 9} and the emotional dimensions of their disease must be recognised and addressed.¹⁰ Indeed, one study suggests that reassurance that does not acknowledge patients' own fears and difficulties may be counterproductive (p 541).¹¹

Who should deliver care to chronically ill people? One of us argues elsewhere in this issue that multidisciplinary primary care teams that include nurses and pharmacists can improve the quality of care (p 569). Two other papers describe the sharing of responsibility for chronic illness care between primary care and commercial disease management vendors in the US and the United Kingdom; the authors conclude that for-profit disease management shows promise in improving care but may have adverse consequences including fragmentation of care, diversion of funding from care giving, and improper use of patient data (pp 563, 566). The same distribution of the control of the contro

Other papers address the kind of treatment that should be provided. Simon et al compared two interventions to improve treatment of depression in primary care: feedback to doctors about patient visits,

BMJ 2000;320:525-6

medication, and treatment recommendations versus systematic telephone follow up of patients and care management (p 550).15 Systematic follow up and care management significantly improved adherence to treatment guidelines and outcomes at modest cost.

Most of the papers in this issue similarly highlight the importance of careful follow up to optimise therapy, support self care, and detect exacerbations early. The paper by Williams et al supports the removal of barriers to patient access,8 and that by Simon et al15 confirms reports¹⁶ that follow up can be done by non-medical team members using the telephone.

As is clear from these papers, chronic disease management has evolved into a unique field of inquiry and an essential component of quality improvement efforts in health care. But it is equally clear that serious shortcomings exist in the care received by many people with chronic conditions. We will continue to use the pages of our journals and websites (www.bmj-.com and www.ewjm.com) to disseminate research and serve as a forum for discussion and debate on this topic.

Ronald M Davis North American editor, BMJ (rdavis1@hfhs.org)

Edward G Wagner director

Sandy MacColl Institute for Healthcare Innovation, Group Health Cooperative of Puget Sound, Seattle, WA 98191, USA

Trish Groves primary care editor, BMJ

RMD and EGW receive grant funding from the Robert Wood Johnson Foundation; the foundation has provided grant support to Tobacco Control, which is published by the BMJ

Publishing Group; and the BMI has requested funding from the foundation to support enhanced dissemination of information on chronic disease care through the journal and its website.

- 1 Murray CJL, Lopez AD, eds. The global burden of disease: a comprehensive assessment of mortality and disability from diseases, injuries, and risk factors in 1990 and projected to 2020. Boston, MA: Harvard University Press, 1996.
- Brownson RC, Remington PL, Davis JR. Chronic disease epidemiology and control. Washington, DC: American Public Health Association, 1993.
- Wagner EH, Davis C, Schaefer J, VonKorff M, Austin B. A survey of leading chronic disease management programs: are they consistent with the literature? *Managed Care Quarterly* 1999;7:56-66.

 Jadad AR, Moher M, Browman GP, Booker L, Sigouin C, Fuentes M, et al.
- Systematic reviews and meta-analyses on treatment of asthma: critical evaluation. BMJ 2000;320:537-40.
- National Committee for Quality Assurance. The state of managed care quality—1999. Washington, DC: National Committee for Quality Assurance, 1999. www.ncqa.org/pages/communications/news/somcqrel.html
- Clark NM, Gong M. Management of chronic disease by practitioners and patients: are we teaching the wrong things? *BMJ* 2000;320:572-5.
- Windsor R. Facing the challenges of long term care. BMJ 2000;320:589.
- Williams JG, Cheung WY, Russell IT, Cohen DR, Longo M, Lervy B. Open access follow up for inflammatory bowel disease: pragmatic randomised trial and cost effectiveness study. BMJ 2000;320:544-8.
- Holman H, Lorig K. Patients as partners in managing chronic disease. BMJ 2000;320:526-7.
- 10 Turner J, Kelly B. Emotional dimensions of chronic disease. West J Med $2000;\!172:\!124\!\cdot\!8.$
- 11 Donovan JL, Blake DR. Qualitative study of interpretation of reassurance among patients attending rheumatology clinics: "just a touch of arthritis, doctor?" BMJ 2000;320:541-4.
- 12 Wagner EH. The role of patient care teams in chronic disease management. BMJ 2000;320:569-71.
- 13 Bodenheimer T. Disease management in the American market. BMJ 2000;320:563-6.
- 14 Greenhalgh T, Herxheimer A, Isaacs AJ, Beaman M, Morris J, Farrow S. Commercial partnerships in chronic disease management: proceeding with caution. BMJ 2000;320:566-8.
- 15 Simon GE, VonKorff M, Rutter C, Wagner E. Randomised trial of monitoring, feedback, and management of care by telephone to improve treat-
- ment of depression in primary care. *BMJ* 2000;320:550-4.

 16 VonKorff M, Gruman J, Schaefer J, Curry SJ, Wagner EH. Collaborative management of chronic illness. Ann Intern Med 1997;127:1097-102.

Patients as partners in managing chronic disease

Partnership is a prerequisite for effective and efficient health care

hen acute disease was the primary cause of illness patients were generally inexperienced and passive recipients of medical care. Now that chronic disease has become the principal medical problem the patient must become a partner in the process, contributing at almost every decision or action level. This is not just because patients deserve to be partners in their own health care (which, of course, they do) but also because health care can be delivered more effectively and efficiently if patients are full partners in the process.

Today in the United States chronic disease is the major cause of disability, is the main reason why people seek health care, and consumes 70% of healthcare spending. The differences between acute and chronic diseases are seen in the box on the BMI's website. With acute disease, the treatment aims at return to normal. With chronic disease, the patient's life is irreversibly changed. Neither the disease nor its consequences are static. They interact to create illness patterns requiring continuous and complex management. Furthermore, variations in patterns of illness and treatments with uncertain outcomes create uncertainty about prognosis. The key to effective management is understanding the different trends in the illness patterns and their

pace. The goal is not cure but maintenance of pleasurable and independent living.

In most cases doctors cannot accurately detect the trends themselves. The patient knows them better, and provides information and preferences that are complementary to the doctor's professional knowledge. In general, the patient provides the individual information and the doctor the general information, and both are necessary for effective management.

The present healthcare system arose in response to acute disease. During the past 50 years, as the prevalence of chronic disease has risen, acute care practices have proved increasingly inefficient and ineffective.12 Uninvolved patients, unnecessary hospital admission, expensive but indecisive technologies, and useless accumulation of clinical data all drove health expenditures higher and higher without evidence of commensurate improvement in health status.

In general, the contradiction between acute care practices and chronic disease problems has been ignored by policymakers in favour of a focus on organisational and financial reform. The reforms—exemplified by managed care—are generally based on an industrial model in which health care is perceived as a production process and the patient as a customer. As a customer, the

General practice Education and debate

BMJ 2000;320:526-7

website *e*xtra

Box of differences between acute and chronic diseases appears on the BMJ's website

www.bmj.com