

Meeting the needs of chronically ill people

Socioeconomic factors, disabilities, and comorbid conditions are obstacles

Papers pp 962, 968
See also
Primary care p 970

This special issue of the *BMJ* and this month's issue of the *Western Journal of Medicine* once again focus on the needs of patients with chronic illness, on the advances in clinical and behavioural management, and on the challenges of assuring that patients receive optimal care. Achieving such optimal care challenges both patients and their care givers. This is especially so in developing countries, which are facing rapid increases in the prevalences of major chronic diseases.

Evidence based care for many chronic illnesses requires increasingly complicated drug regimens, ongoing support of self management, and close monitoring. Articles in this week's *BMJ* describe modern management for coronary heart disease, diabetes, asthma, and anticoagulation therapy. They emphasise that achieving the best possible outcomes depends on competent self management and decision making by patients, as well as clinical treatments.

But audits and surveys of medical practice continue to attest to the difficulty of assuring that most patients receive such care.^{1,2} Many chronically ill patients have socioeconomic factors, disabilities, and comorbid conditions that make it harder for practitioners and practice systems to help them. In Western countries, people from ethnic minorities often receive poorer care and experience worse outcomes in chronic disease than the rest of the population. For example, Griffiths et al describe the variety of barriers to good care that probably contribute to the high rates of hospital admission for South Asian patients with asthma in East London (p 962).³ Many doctors and practice settings are poorly equipped to care for patients with disabilities and chronic illness. Cheng et al found that patients with multiple sclerosis and considerable disability were less likely to receive appropriate preventive care than those with less disability, despite their undiminished life expectancy (p 968).⁴ Comorbidity is a huge problem, providing further obstacles to high quality care. Nearly two thirds of Americans aged 65 or older have two or more chronic conditions, and one quarter have four or more conditions (Gerard Anderson, personal communication).

A recent study in Canada found that patients with diabetes, emphysema, and severe mental disorders were less likely than patients without these conditions to receive appropriate oestrogen replacement therapy, lipid lowering medications, or treatment for arthritis.⁵ Two papers in the companion theme issue of the *Western Journal of Medicine*^{6,7} discuss the frequent

co-occurrence of mental disorders and other chronic diseases, the negative health impacts of this interaction, and the difficulties of appropriate detection and treatment.

Given the importance of preventive care, managing comorbidity, and coordinating care, primary care will and should remain the best healthcare setting for most chronically ill patients. But treatments are advancing rapidly and becoming more complex, and it is essential that primary care has the necessary expertise to manage chronic diseases. Consistent evidence indicates that specialists are more knowledgeable about the management of conditions associated with their specialty and more likely to practise in accordance with guidelines.^{8,9} The challenge is to reach more patients with specialist expertise without massive translocations of care. Shared care arrangements hold real promise and deserve more intensive study.¹⁰

A recent report from the US Institute of Medicine on the "quality chasm" in health care concluded that "trying harder will not work, changing systems will."¹¹ The paper by Olivarius et al in this issue illustrates the point (p 970).¹¹ Representative Danish general practices significantly improved long term control of diabetes through a variety of educational interventions and prompts for the doctors and through structured care offering patients planned, quarterly consultations. These visits enabled patients and their doctors to set treatment goals aimed at reducing cardiovascular risk factors.

The system changes that improve care of diabetes are essentially the same as those found to improve care for other chronic conditions. Collectively, these changes equip healthcare teams with relevant data and skills and enable them to interact more productively, and they provide patients with the information, skills, and confidence to manage their health wisely. The chronic care model developed by the MacColl Institute for Healthcare Innovation,¹² an attempt to synthesise these concepts of system change, has been used in more than 300 healthcare organisations in the United States.

It has been almost two years since our first theme issue on the management of chronic diseases, and there has clearly been substantial progress since. We hope that our third theme issue, scheduled for October 2002, will present evidence of more widespread diffusion of these advances.

Edward H Wagner *director (guest editor of theme issue)*

MacColl Institute for Healthcare Innovation, Center for Health Studies, Group Health Cooperative of Puget Sound, Seattle, WA 98101-1448, USA (wagner.e@ghc.org)

- 1 Institute of Medicine. *Crossing the quality chasm: a new health system for the 21st century*. Washington, DC: National Academy Press, 2001.
- 2 Campbell SM, Hann M, Hacker J, Burns C, Oliver D, Thapar A, Mead N, Safran DG, Roland MO. Identifying predictors of high quality care in English general practice: observational study. *BMJ* 2001;323:784.
- 3 Griffiths C, Kaur G, Gantley M, Feder G, Hillier S, Goddard J, et al. Influences on hospital admission for asthma in south Asian and white adults: qualitative interview study. *BMJ* 2001;323:962-6.
- 4 Cheng E, Myers L, Wolf S, Shatin D, Cui XP, Ellison G, et al. Mobility impairments and use of preventive services in women with multiple sclerosis: observational study. *BMJ* 2001;323:968-9.
- 5 Redelmeier DA, Tan SH, Booth GL. The treatment of unrelated disorders in patients with chronic medical diseases. *N Engl J Med* 1998;338:1516-20.
- 6 Simon GE. Treating depression in patients with chronic disease. *West J Med* 2001;175:292-3.
- 7 Osborn DPJ. The poor physical health of people with mental illness. *West J Med* 2001;175:329-32.
- 8 Harrold LR, Field TS, Gurwitz JH. Knowledge, patterns of care, and outcomes of care for generalists and specialists. *J Gen Intern Med* 1999;14:499-511.
- 9 Donohoe MT. Comparing generalist and specialty care: discrepancies, deficiencies, and excesses. *Arch Intern Med* 1998;158:1596-1608.
- 10 Kvamme OJ, Olesen F, Samuelson M. Improving the interface between primary and secondary care: a statement from the European Working Party on Quality in Family Practice (EQUIP). *Qual Health Care* 2001;10:33-9.
- 11 Olivarius NdE, Beck-Nielsen H, Andreassen AH, Hørdér M, Pedersen PA. Randomised controlled trial of structured personal care of type 2 diabetes mellitus. *BMJ* 2001;323:970-5.
- 12 Wagner EH, Glasgow RE, Davis C, Bonomi AE, Provost L, McCulloch D. Quality improvement in chronic illness care: a collaborative approach. *Jt Comm J Qual Improv* 2001;27:63-80.

The management of diabetes

Moving beyond registration, recall, and regular review

Over the past 30 years care of diabetes has been in the vanguard of the change in the management of chronic diseases from specialties based in hospital outpatient clinics to a more primary care led service. The specialist versus generalist debate is sterile; there is greater variation in outcomes within than between traditional disciplinary boundaries. Effective delivery of care to people with diabetes over this period has depended on the three Rs of management of chronic diseases—registration, recall, and regular review.¹

A well conducted trial from Danish general practice published in this issue (p 970) underlines this and supports the findings of a subsequent Cochrane review that multifaceted interventions to improve the performance of practitioners, and organisational interventions to improve recall and review, can enhance the care of diabetes.²⁻³ Three hundred and twelve practices were randomised to intervention and routine care groups. In the intervention group 243 general practitioners (practice nurses are scarce in Denmark) were given leaflets for patients, guidelines, annual seminars, and feedback and were prompted to review patients and encouraged to set and subsequently revise realistic treatment goals. In common with many previously successful schemes they were exposed to a charismatic opinion leader. Six years after diagnosis all the main outcomes were the same or better for patients with type 2 diabetes in the intervention group. Differences in glycosylated haemoglobin and systolic blood pressure (0.5% and 5 mm Hg respectively) achieved statistical significance and equate to reductions in risk of myocardial infarction of 7% and 5.5%, and of microvascular complications of 18.5% and 6.5% respectively.^{4,5} Actual observed risk reductions for these endpoints were 26% and 11.8% respectively. Additional interventions to improve care of diabetes in the community that might have increased the size of the effect include patient education and support for self management, changes in delivery systems such as enhancement of the involvement of nurses, and additional decision support for practitioners.³

In this open pragmatic trial losses to follow up were minimised (10%), but the diagnosis of diabetes (therefore entry to the trial) and anthropometric and clinical assessment were made by the general practitioners

without concealment of allocation. The patients in each group, however, were similar at baseline and the biochemical and clinical outcomes appeared consistent, which reassures somewhat against significant bias.

Comparisons with the UK Prospective Diabetes Study are difficult—the Danish cohort were much further along the disease trajectory (12 years older and of considerably greater weight, blood pressure, glucose, creatinine, and cholesterol levels). This may account for the observed, somewhat sobering, 33% mortality over the first six years from diagnosis. Furthermore, different assays for glycosylated haemoglobin were used (the reference range was 1% higher in Denmark). Nevertheless, it is encouraging that the management of the inexorable progression of diabetes by centrally supported family doctors in mainly small and single handed practices apparently approximated that of the intensive specialist led arm of the UK Prospective Diabetes Study.

The six year follow up exceeds that of previous trials of care of diabetes by general practitioners but some uncertainty persists. The intervention increased primary care consultations but reduced outpatient attendance, such that the overall effect on health service and patient costs remains unclear. The new patients with type 2 diabetes were a representative sample, but the 25% sample of motivated general practitioners with an average list size of 1150 patients were not. It is unlikely that all primary care teams can achieve the intensive management of multiple risk factors required to achieve the benefits quantified in trials in type 1 and 2 diabetes, particularly against a background of rising prevalence even without screening for undiagnosed disease.^{6,7} Indeed there is good evidence that standards of care fall well short of this.⁸ Unfortunately, the prevalence of diabetes is rising fastest in countries with poorly resourced primary care and limited prescribing budgets and therefore least prepared for the challenge.

Of course we should be concerned about the patients who do not receive adequate follow up who fare so poorly; about inequality of access that remains a significant barrier to health improvement in many health systems; and about the application of existing knowledge concerning management of diabetes.⁹ But perhaps the most intriguing uncertainties are concerned with mechanism. Once an effective system

Primary Care p 970

BMJ 2001;323:946-7