



Organisational capacity and chronic disease care

An Australian general practice perspective

Judith Proudfoot

PhD, MA, GradDip(SpEd), BEd(Hons), is Senior Research Fellow, Centre for Primary Health Care and Equity, School of Public Health and Community Medicine, University of New South Wales. j.proudfoot@unsw.edu.au

Fernando Infante

MBBS, MPH, is Research Associate, Centre for Primary Health Care and Equity, School of Public Health and Community Medicine, University of New South Wales.

Christine Holton

BA(Acc), DipT(Com), GDAcc, GDPH, is Research Fellow, Discipline of General Practice, School of Population Health and Clinical Practice, University of Adelaide, South Australia.

Gawaine Powell-Davies

MHP, BA(Hons), is CEO, Centre for Primary Health Care and Equity, School of Public Health and Community Medicine, University of New South Wales.

Tanya Bubner

BSSc, GradCertHSM, is Research Associate, Discipline of General Practice, School of Population Health and Clinical Practice, University of Adelaide, South Australia.

Justin Beilby

MBBS, MD, MPH, FRACGP, is Executive Dean, Faculty of Health Sciences, Department of General Practice, University of Adelaide, South Australia.

Mark Harris

MBBS, FRACGP, MD, is Professor of General Practice and Director of Research, Centre for Primary Health Care and Equity, School of Public Health and Community Medicine, University of New South Wales.

Although we are rapidly improving our understanding of how to manage patients with chronic illness in Australian general practice,¹⁻³ many patients are still receiving suboptimal care. General practices have limited organisational capacity to provide the structured care that is required for managing chronic conditions: regular monitoring, decision support, patient recall, supporting patient self management, team work, and information management.^{4,5} This requires a shift away from episodic, acute models.⁶ Overseas research has shown that areas such as team work, clinical information systems, decision support, linkages and leadership are also important in managing chronic illness,⁷ but we do not know which of these are most important in Australia.

The introduction of the Enhanced Primary Care and Chronic Disease initiatives aim to change the organisational environment of general practice and the system of incentives in which it operates. Additional resources are provided by other initiatives, such as the introduction of More Allied Health Services in rural areas and the Better Access to Mental Health Care Initiative. The standards and practice accreditation program of The Royal Australian College of General Practitioners (RACGP) provides guidelines for effective practice functioning, and divisions of general practice supply capacity building support for practices.

These approaches have not been coordinated and uptake has been variable, with some initiatives confined to rural areas. Capacity building has also been limited by the Medical Benefits Scheme, which until recently has only covered services delivered by general practitioners.

The authors consulted experts in Australian general practice and surveyed a group of patients with chronic illness about the primary organisational factors necessary for managing chronic conditions in Australian general practice.

Method

Consultation with key stakeholders

We conducted telephone interviews with representatives from the following peak organisations: the RACGP, state

based organisations, the divisions of general practice Building on Quality Project, university departments of general practice, the Australian Government Department of Health and Ageing, and the General Practice Partnership Advisory Council. Interviewees were selected on the basis of their role and expertise in Australian general practice.

We asked these stakeholders to indicate the factors (ie. organisational systems, processes, ways of working, resources) they associated with sustained high quality chronic disease care. They then rated each factor on a 0–9 scale according to its importance, the degree to which the factor exists across Australian general practice ('currency'), and how difficult it would be to achieve across Australian general practice ('difficulty').

Survey of patients with chronic illness

Patients were recruited in chronological order as they presented for consultation in 10 general practices of varying geographic location, size and governance in New South Wales and South Australia. Eligible patients included those aged 18–85 years with a diagnosis of type 2 diabetes, moderate to severe asthma, and/or ischaemic heart disease/hypertension.

Patients were invited to complete the General Practice Assessment Survey (GPAS),⁸ a 33 item questionnaire addressing 10 areas of care they receive from their general practice. Possible range of scores on all scales is 0–100. The authors were especially interested in the four scales associated with the organisational capacity of practices: access, practice nursing, continuity of care and referral.

This study was approved by the Human Research Ethics Committees of the University of New South Wales and the University of Adelaide.

Results

Consultation with key stakeholders

Telephone interviews of 20 minutes duration were conducted with 26 key experts, of whom 11 (42%) were women and 16 (61%) were GPs.

The following systems were highlighted as most

important for quality chronic disease care: information management and data exchange; practice governance and business management; team functioning; quality improvement and evaluation processes; and linkages with

community resources (Table 1). Currency ratings varied from 5.6 (physical infrastructure appropriate for chronic care) to 3.2 (staffing and practice nurses). Division and external support was rated as being the easiest organisational

factor to implement (2.8); the most difficult were new payment systems for practices (7.2) and changing the practice's mindset to be more appropriate for the management of patients with chronic conditions (5.1).

Table 1. Results of key stakeholder consultations

Rank	Organisational factors	Frequency (%)	Mean rating out of maximum of 9 (SD)		
			Importance	Currency*	Difficulty
1	IT/IM systems Recall/reminders, disease registers, decision support systems, clinical protocols, good knowledge management including storage and dissemination	29 (17)	8.3 (1.0)	4.1 (1.9)	4.4 (2.2)
2	Practice governance and management Good practice and business management, financially viable, understanding the business of general practice, good administrative systems and time management	17 (11)	7.5 (2.2)	3.1 (2.1)	3.6 (2.6)
3	Multidisciplinary team approach Clearly defined roles, contribution of each role recognised, practice meetings, receptionists take on new roles, GP as coordinator or primary health care system	16 (10)	7.9 (0.8)	3.7 (1.9)	4 (1.7)
4	Staff training and education All staff including GPs have good skills and knowledge, trained personnel at front desk, GPs learn from referrals, needs based training, access to good continuing professional development	14 (9)	8.3 (1.0)	4.8 (1.3)	3.3 (1.2)
4	Quality improvement and evaluation processes Quality champions to lead process, coordination with other sources of quality, eg. RACGP, drug companies, universities, feedback from patients	14 (9)	8.3 (0.8)	3 (2.0)	3.8 (2.4)
6	Integration with other health professionals and services Availability of services, user friendly directories	13 (8)	7.8 (1.5)	3.8 (1.7)	4.6 (2.4)
7	Staffing Practice nurses with emphasis on chronic disease management, GP as team leader	12 (7)	7.9 (0.9)	3.2 (1.5)	4 (1.8)
7	Clinical support systems Standards for codes and classifications, evidence based templates, protocols and processes for chronic disease management	12 (7)	7.9 (0.7)	3.9 (1.7)	4.4 (2.1)
9	Cultural mindset appropriate for patient centredness and longitudinal care Right attitude toward information management, motivation and wellbeing to perform good chronic care	10 (6)	7.7 (1.2)	4.5 (1.8)	5.1 (2.1)
10	Physical infrastructure appropriate for chronic care Good quality facilities and equipment	7 (4)	6.9 (1.7)	5.6 (1.6)	3.1 (2.0)
11	Patient education Access to good materials, broken into steps, materials handed out by GP during consultation, community education programs, patient self management	6 (4)	7.3 (1.3)	4.2 (1.5)	3 (0.9)
11	Divisional and external support State based organisation support to divisions and practices	6 (4)	7.8 (1.9)	4.8 (0.8)	2.8 (1.9)
13	New payment systems for practices At regional level, capitated system	5 (3)	7.6 (1.3)	4 (3.6)	7.2 (1.9)

* Currency = extent to which this currently exists in Australian general practice

Survey of patients with chronic illness

We approached 475 eligible patients who consented to undertake the survey, of whom 452 patients (mean age 65 years, 51% female) returned questionnaires.

Most respondents (81%) attended practices whose staff included a practice nurse, yet only 64% knew that their practice had a nurse and only 50% had seen the nurse in the past 12 months. Satisfaction with nursing care among these patients was high (mean 82; standard deviation [SD] 16).

Patient reports of access to care were variable: 97% indicated that the practice's opening hours were good to excellent; 81% reported they could make a same day urgent appointment, however only 40% could obtain a same day appointment with a specific GP; and 35% reported waiting ≤ 10 minutes in the waiting room.

In terms of continuity of care, 62% of respondents indicated they always saw the same GP, and respondents were satisfied with this situation (mean 84; SD 18).

The lowest patient rating was with regard to referrals. Although 95% of patients reported that their GP had referred them to a specialist when needed, satisfaction with referral was lower (mean 73; SD 31).

Discussion

Despite initiatives at national, state and divisions of general practice levels in Australia, our results suggest that more attention needs to be given to a number of organisational capacities for improved chronic disease care in Australian general practice.

Practice governance and business management

Practice governance and business management has previously been shown to attract mixed reactions from GPs,⁹ some of whom believe that business systems are not integral to chronic disease care. However, patients in this study rated their access to care poorly in terms of practice waiting time and the availability of same day appointments with a specific GP. Key stakeholders indicated that a practice needs to apply strategic planning, sound business management, good patient systems and service delivery if it is to be financially viable, efficient and accessible to its patients, as well as providing a good work

environment for its staff. Regular analysis and performance evaluation was also emphasised.

Teamwork

Our experts felt that teamwork needed to be organised, involving clear roles and responsibilities, enhanced roles for practice nurses, delegation of tasks by GPs, effective leadership, a good team climate, and efficient communication systems. Staff training and education were also considered important. Patient data indicated a need to raise awareness about multidisciplinary team care and the role of the practice nurse, confirming previous work.¹⁰

IM/IT systems support

Although most divisions of general practice provide information management/information technology (IM/IT) systems support,¹¹ more capability, including efficient systems for appointments, register/recall/reminders and decision support, is required.

Key stakeholders also identified quality improvement and evaluation as a priority.

Links with other organisations

Both key stakeholders and participating patients thought practices needed to strengthen links with other providers and organisations in order to improve referrals, shared care and community access. These themes are consistent with patterns in overseas research.^{5,12,13} The Chronic Care Model, validated in a number of studies in the USA, describes four components of health care organisation considered critical for the delivery of good chronic disease care: self management support, delivery system design, decision support, and clinical information systems.⁷ These components interact with community resources and policies and rely on informed patients and prepared, proactive practice teams. In the United Kingdom, longer consultation times and good team work were found to be essential for delivering high quality chronic disease care,⁵ while a recent meta-review found IT systems for reminders and decision support, team work (including expanded roles for non-GP staff) and integrated care with other providers to be central to good patient care.¹³ A large, ongoing cross sectional study investigating the effect of these factors may shed more light

on the quality of chronic disease care in Australian general practice.

Implications for general practice

- Effective practice organisation is important for good chronic disease care.
- Australia has a number of initiatives to enhance the organisational capacity of general practices, but these need focus and coordination.
- Key capacities for quality patient care are: IM/IT systems, practice management and business processes, multidisciplinary team work, quality improvement processes, and practice linkages with other services.

Conflict of interest: none declared.

References

1. Carter S, Bonney M, Flack J, Burns J, Powell Davies PG, Harris MF. National Divisions Diabetes Program. Quality of care and health outcomes – collated CARDIAB data. Sydney: Centre for General Practice Integration Studies, School of Community Medicine, UNSW, 2000.
2. Briganti EM, Shaw JE, Chadban SJ, et al. Untreated hypertension among Australian adults: the 1999–2000 Australian Diabetes, Obesity and Lifestyle Study (AusDiab). *Med J Aust* 2003;179:135–9.
3. Senes S, Britt H. A general practice view of cardiovascular disease and diabetes in Australia. Canberra: Australian Institute of Health and Welfare; 2001. AIHW Cat No. CVD 17 (Cardiovascular Disease Series No. 18).
4. Wagner EH. Chronic disease management: what will it take to improve care for chronic illness? *Eff Clin Pract* 1998;1:2–4.
5. Campbell SM, Hann M, Hacker J, et al. Identifying predictors of high quality care in English general practice: observational study. *BMJ* 2001;323:784–7.
6. World Health Organisation. Innovative care for chronic conditions. Geneva: WHO, 2001.
7. Bodenheimer T, Wagner EH, Grumbach K. Improving care for patients with chronic illness. *JAMA* 2002;288:1775–9.
8. Ramsay J, Campbell JL, Schroter S, Green J, Roland M. The General Practice Assessment Survey (GPAS): tests of data quality and measurement properties. *Fam Pract* 2000;17:372–9.
9. Oldroyd J, Proudfoot J, Infante FA, et al. Providing health-care for people with chronic illness: the views of Australian GPs. *Med J Aust* 2003;179:30–3.
10. Infante FA, Proudfoot JG, Powell Davies G, et al. How people with chronic illnesses view their care in general practice: a qualitative study. *Med J Aust* 2004;181:70–3.
11. Hordacre AL, Keane M, Kalucy E, Moretti C. Making the connections: report of the 2004–2005 annual survey of divisions of general practice. Adelaide: Primary Health Care Research & Information Service, Flinders University Department of General Practice, Australian Government Department of Health and Ageing, 2006.
12. Wagner EH. Meeting the needs of chronically ill people. *BMJ* 2001;323:945–6.
13. Wensing M, Wollersheim H, Grol R. Organisational interventions to implement improvements in patient care: a structured review of reviews. *Implement Sci* 2006;1 doi: 10.1186/1748-5908-1-2.