

She describes the personal care of an elderly woman with multiple pathologies and her eventual death after a relationship of 14 years, including many home visits.¹² Keeping her notes on computer involved repeated suppression of automatic warnings as disease-orientated norms were necessarily compromised.

Of course the human side of practice is very much alive. Join any group of GPs in these days of QOF and you will still hear a fund of stories about individual patients and their curiosities. This is one of the most rewarding parts of our work. Yet seeing a succession of people over long consulting hours and being fresh for each individual remains very taxing, and ticking the QOF boxes makes this even more so.

The expert patient may be perceived as another potential challenge to our ability to keep time and get through the day. As Elwyn reminds us, we are tempted to direct our well-honed communication skills in an authoritarian way to 'gather the low hanging fruit' and end the consultation as soon as we can.⁹ One problem of the increasing number of 'control visits' for aspects of ongoing care under QOF is the opportunity for patients to raise other issues that may never have motivated them to seek a new consultation. These wants sometimes feel limitless and cost time. When patients were encouraged to list all their wants on paper before their consultation in a recent study, the result was indeed longer consultations — by up to 27%.¹³

So, in spite of any temporarily increased pecuniary wealth,¹⁴ QOF is associated with unremitting pressure on scarce consulting time. Evidence that relationship continuity (encouraging and

allowing patients to consult with their chosen professional to develop a therapeutic relationship) leads directly to better health outcome measures remains elusive. But evidence that both patients and professionals feel better with relationship continuity continues to grow. It is at last recognised specifically in the recent White Paper,¹⁵ although we need to think much more carefully about whether our patients would best be helped by incentivising financially what we should better do for our professional satisfaction.

Just how hard some patients have to work to get to see their chosen clinician is shown in another recent longitudinal study.¹⁶ So, right now we should be training our teams (receptionists as well as clinicians) to specifically encourage relationship continuity whenever possible. This will help us all cope with the pressure and even enjoy it!

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REFERENCES

1. Buszewicz M, Pistrang N, Barker C, et al. Patients' experiences of GP consultations for psychological problems: a qualitative study. *Br J Gen Pract* 2006; **56**: 496–503.
2. Von Bültzingslöwen I, Eliasson G, Sarvimäki A, et al. Patients' views on interpersonal continuity in primary care: a sense of security based on four core foundations. *Fam Pract* 2006; **23**: 210–219.
3. Alazri MH, Neal RD, Heywood P, Leese B. Patients' experiences of continuity in type 2 diabetes: a focus group study in primary care. *Br J Gen Pract* 2006; **56**: 488–195.
4. Pereira Gray D. The key to personal care. *J R Coll Gen Pract* 1979; **29**: 666–678.
5. Pereira Gray D. Forty-seven minutes a year for the patient. *Br J Gen Pract* 1998; **48**: 1816–1817.
6. Guthrie B, Wyke S. Personal continuity and access in UK general practice: a qualitative study of

general practitioners' and patients' perceptions of when and how they matter. *BMC Fam Pract* 2006; **7**: 11. <http://www.biomedcentral.com/1471-2296/7/11> (accessed 1 Jun 2006).

7. Gulliford M, Naithani S, Morgan M. *Continuity of care in type 2 diabetes: patients' professionals' and carers' experiences and health outcomes*. Draft final report. London NCCSDO 2006 (SDO/14/2002) http://www.sdo.lshtm.ac.uk/pdf/continuity_gulliford_finalreport.pdf (accessed 1 Jun 2006).
8. Schers H, Bor H, van den Bosch W, Grol R. GPs' attitudes to personal continuity. *Br J Gen Pract* 2006; **56**: 536–540.
9. Elwyn G. Idealistic, impractical, impossible? Shared decision making in the real world. *Br J Gen Pract* 2006; **56**: 403–4.
10. McGregor S, Campbell M. Never mid the quality-count the points: the effectiveness of the nGMS contract. *Br J Gen Pract* 2006; **56**: 464–465.
11. Tudor Hart J. *A new kind of doctor: the general practitioner's part in the health of the community*. London: Merlin Press, 1988.
12. Jelley DM. Which patients with which needs are leading the patient-led NHS? *BMJ* 2006; **332**: 1221.
13. Middleton JF, McKinley RK, Gillies CL. Effect of patient completed agenda forms and doctors' education about the agenda on the outcome of consultations: randomised controlled trial. *BMJ* 2006; **332**: 1238–1241.
14. Gravel E. Safety in numbers. *Br J Gen Pract* 2006; **56**: 474.
15. Secretary of State for Health. *Our health, our care, our say: a new direction for community services*. Cm6737. London: HMSO, 2006. http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/en?CONTENT_ID=4127453&chk=NXIecj (accessed 3 Jun 2006).
16. Baker R, Freeman G, Boulton M, et al. *Continuity of care: patients' and carers' views and choices in their use of primary care services*. London: NHS Service Delivery and Organisation R&D Programme, 2005: 77–114. http://www.sdo.lshtm.ac.uk/pdf/continuityofcare_baker-finaledited1.pdf (accessed 4 Jun 2006).

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Polypharmacy, appropriate and inappropriate

I have seen it asserted that 'polydactyly' is an inappropriate word, because it means many digits (fingers or toes), and

we all have many digits. This analysis is superficial. The Greek word πολύς (polus) had several meanings, such as many,

mighty, long, and wide. The English prefix poly- usually takes the first of these meanings; polymyalgia means pain in

many muscles, polyneuropathy disease of many nerves. However, *πολύς* could also mean too much or too many. We all have many red blood cells, so polycythaemia means having too many; someone who drinks too much has polydipsia; and polydactyly means too many fingers or toes. But there is one word in which both meanings are possible — polypharmacy, the prescribing of either many drugs or too many drugs. The term is usually used in the second of these senses, and pejoratively. But polypharmacy can be beneficial, and by itself is not the real problem — the problem is whether each drug has been prescribed appropriately or inappropriately, both individually and in the context of the whole prescription.^{1,2}

There are many conditions in which the combined use of three or more drugs is beneficial and appropriate. Diabetes mellitus is often treated with several drugs at once.³ In tuberculosis we combine three or four different drugs, to prevent the emergence of resistant mycobacteria. We use three drugs to eradicate *Helicobacter pylori* from the stomach and three or four in the HAART regimen used to treat AIDS. A striking example of potentially beneficial polypharmacy is the 'Polypill', with six proposed ingredients — aspirin, a statin, and folic acid, plus three antihypertensive drugs.⁴ The antihypertensive drugs are recommended in half the usual doses, reducing the risks of adverse effects, which are distinct for the different types of drugs, while multiplying the therapeutic benefit, since all lower the blood pressure. It has been claimed, from predictions based on a large amount of published evidence, that if everyone over 55 years old took the 'Polypill', the burden of heart attacks and strokes in the population would be reduced by over 80%.⁴ The risk of any adverse effect is an estimated 17% and of an adverse effect serious enough to warrant withdrawal 1–2%; aspirin is the major contributor to these figures, and those unable to tolerate it could beneficially take the other five ingredients with little risk.

On the other hand, inappropriate polypharmacy is common and is associated with an increased risk of

adverse drug reactions and interactions. For example, if a patient takes eight medicines, each of which carries an independent 5% chance of an adverse drug reaction, the overall risk of an adverse reaction is 34%, and there are 28 potential drug–drug interactions, taking only pairs of drugs into account.

In this issue of the Journal, a group from the Netherlands (GPs, community and clinical pharmacists, and geratologists) report their findings in a survey of 102 elderly patients in primary care, each of whom was taking four medicines or more (755 medicines in all).⁵ In 96 patients they detected 457 instances of inappropriate prescribing that they considered to be clinically important or potentially so. In about 60% of these the medicine was not useful, had been used in the wrong dose or for the wrong duration, or was not judged appropriate for use in elderly people.

Inappropriate prescribing was not the only problem. There were also many instances of inappropriate non-prescribing, and in 23% of the patients they were considered to be important. They included failure to give aspirin to patients with ischaemic heart disease or an ACE inhibitor to patients with cardiac failure — failure, indeed, all round.

There are some problems with this study. For example, of the 10 categories of inappropriateness that the authors defined, two were contradictory. One included, '*medicine[s] used for treatment of a side-effect caused by another medicine, [for example] omeprazole for treatment of stomach problems probably caused by ketoprofen ...*', but another was, '*omission of drug therapy that is indicated for the treatment or prevention of a condition, [for example] lack of prescribing a laxative to a patient using an opiate*'. Furthermore, the clinical importance attributed to inappropriate prescribing was in some cases doubtful. For example, the authors assert that co-prescription of digoxin and diuretics should not cause problems if potassium concentrations are checked regularly; however, one cannot check the potassium often enough to ensure avoiding a harmful interaction (for example, if the patient one day takes the

wrong dose of diuretic). A major problem of monitoring for adverse effects is that things are more likely to go wrong between tests.

However, the results of this study remind us that it is important to review our patients' medications regularly, whether they are young or old, in order to determine how appropriate they are, especially (although not only) if they are taking many drugs. How regularly such reviews should be performed is the potential subject of another study.

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Conflict of interest

The author has stated that there are none.

REFERENCES

1. Aronson JK. In defence of polypharmacy. *Br J Clin Pharmacol* 2004; **57**: 119–120.
2. Aronson JK. Rational prescribing, appropriate prescribing. *Br J Clin Pharmacol* 2004; **57**: 229–230.
3. Standl E, Fuchtenbusch M. The role of oral antidiabetic agents: why and when to use an early-phase insulin secretion agent in Type II diabetes mellitus. *Diabetologia* 2003; **46**(Suppl 1): M30–M36.
4. Wald NJ, Law MR. A strategy to reduce cardiovascular disease by more than 80%. *BMJ* 2003; **326**: 1419–1423.
5. Denneboom W, Dautzenberg MGH, Grol R, De Smet PAGM. Analysis of polypharmacy in older patients in primary care using a multidisciplinary expert panel *Br J Gen Pract* 2006; **56**: 504–510.

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