

## Uncertainty in general practice: a sure thing

Ruth M Armstrong and Martin B Van Der Weyden

*The quest for certainty blocks the search for meaning.  
Uncertainty is the very condition to impel man to unfurl his powers — Erich Fromm*

General practitioners are many things but, as much as anything else, they are masters of uncertainty. From the problems behind the names on the appointment schedule, to whether the patients will actually show up, how much time they'll need and what their expectations will be, GPs plunge daily into the great unknown.

They take their patients with them. In the cold light of the consulting room, undifferentiated symptoms and a myriad of clinical dead ends can make a mockery of the clean lines of evidence-based medicine — which, after all, is merely a means of quantifying our uncertainty. GPs are called to stand in the breach between their own (justified) uncertainty and their patients' wish for certainty.

So the current uncertainties about the future of general practice, the need to adapt, and the directions for change are probably things most GPs take in their stride. This bumper *General Practice* issue of the *MJA* looks at some of the areas of uncertainty and concern.

Workforce is a big issue. Many GPs are left wondering at the exodus from general practice and the tendency for existing GPs to subspecialise themselves out of the "general" part of their title. Joyce and McNeil (*page 102*) confirm the prevailing impression that, at least among Monash University graduates, fewer new doctors are making the decision to enter general practice. Couple this with the projection for a flat growth in the GP workforce over the next 10 years,<sup>1</sup> and the reason for all the uncertainty is obvious. The causes of the workforce shortage have been widely debated. More interesting is the debate surrounding how we should respond. How can we make general practice more efficient and effective?

Smart use of information technology (IT) is an obvious avenue. As demonstrated by McInness et al (*page 88*) and Henderson and colleagues (*page 84*), IT has been thoroughly pursued by the current cohort of GPs. More than 90% of general practices now use clinical software packages and about two-thirds keep at least some patient records electronically. But there are calls to make more use of computers. According to McInness et al, increasing the use of IT functions such as online decision support, registries of patients and progress notes will benefit patients, especially those with chronic conditions. Dowrick (*page 61*), a UK professor of primary care who has spent time considering strategies for dealing with chronic disease in Australia, echoes this sentiment:

General practice will have a key role to play, especially in the early detection of disease and in providing integration and continuity of care. Registers and recall systems for patients with chronic diseases will need to be set up, preferably in electronic form. The Australian Government's HealthConnect program, which enables health care providers to connect to business grade and advanced broadband arrangements, may provide a useful basis for efficient chronic disease care... Primary care teams will have to standardise medical procedures, provide information on local services and make links with patient self-management programs. These activities will need to be carefully coordinated for each patient.

Tse and McAvoy (*page 92*) and Bolton (*page 94*) remind us that we are still far from this IT utopia, but the computers are on GPs' desks, ready to be used for a variety of applications.

Computers are only as good as the information available to them, and another problem in Australia is the evidence base for general practice. GPs publish far less research than their specialist colleagues, are less likely to obtain competitive research grants, and do not contribute extensively to the evidence base of their discipline.<sup>2</sup> As noted by Yallop et al (*page 118*), "although improving patient care requires a sound evidence base, rigorously designed studies remain under-represented in primary care research". This deficiency is at odds with the definition of general practice as "an academic and scientific discipline with its own educational and research base and clinical activity".<sup>3</sup>

To its credit, in 2000 the Australian Government initiated a program to address this, with an injection of \$50 million over 5 years through the Primary Health Care Research, Evaluation and Development (PHCRED) Strategy. Its purpose was to increase the research capacity of general practice through annual non-competitive grants to academic departments of general practice or rural health; to encourage the development of people with proficiency in primary health care evaluation and research through research development programs; and to establish a flagship — the Australian Primary Health Care Research Institute. The report of an independent evaluation of the PHCRED Strategy became available in April 2005,<sup>4</sup> and in December 2005, the Australian Government committed a further \$60.4 million to Phase 2 of the PHCRED Strategy, to run from 2006 to 2009.<sup>5</sup> However, the evaluation of Phase 1 drew attention to a number of problems:

- involvement of practising GPs and GP registrars in PHCRED programs was minimal and not long term;
- an initial hesitancy to make decisions, implement components of the Strategy and elucidate appropriate outcome measures;
- a lack of depth and breadth in researcher training and development;
- a paucity of extensive research networks; and
- instances of suboptimal research relationships between universities and Divisions of General Practice.

The need for extensive and effective research networks has long been recognised in the United Kingdom and the Netherlands. Zwar and colleagues (*page 110*) argue compellingly for research networks in Australia, putting forward a hub-and-spoke model involving universities and Divisions of General Practice. Central to their plan are academic departments that already have a demonstrated strong role in capacity building; linkages to practice-based research networks through the Divisions of General Practice; and an adequately funded clinical research plan with appropriate remuneration of primary care practitioners for their participation in research. The key to the success of general practice research lies in the extensive involvement of GPs, including research involvement of GP registrars as a mandated part of their training, and the appropriateness of the research question. Indeed, the capacity of GPs' involvement to make or break a clinical research project is poignantly recounted by Yallop et al (*page 118*).

The time has come to test such a model in Australia. It should be open to competition, but restricted to a limited number of consortia

so certainty of “proof of principle” is obtained by the end of Phase 2 of the PHCRED Strategy. Linkages between universities and Divisions of General Practice will be critical to this model — an issue explored by Kalucy and colleagues (*page 114*). Finally, if we are to ensure success at the end of the current PHCRED cycle, oversight by a national advisory committee composed of appropriate stakeholders will be imperative.<sup>4</sup> Its absence in Phase 1 of the PHCRED Strategy is baffling.

Strong general practice is “patient centred, consistently of high quality, safe and accountable”.<sup>6</sup> In reality, this means using data to identify, learn from, and prevent error and system failure. In the interests of improving safety in Australian general practice, Makeham et al (*page 95*) used data reported anonymously by GPs to surmise that about one error is reported for every 1000 Medicare-billed patient encounters, and about two for every 1000 individual patients seen. With similar intent, Hutchinson and Watts (*page 99*) report on the acceptability of the complaints register component of the RACGP *Standards for general practices*. They found considerable variability in the use of complaints registers, but that GPs were not overwhelmingly adverse to their use. Both these studies indicate there is a healthy attitude to exploring indicators for safety in Australian general practice.

There are many indications in this special issue of the Journal that general practice will move beyond the current uncertainty to emerge transformed but strong. We asked Jackson (*page 125*), and Harris and Harris (*page 122*) to tell us what Australian general practice might be like in 2020. Both identified the need for a strategic approach to change, so that the GP’s role remains central in a society with changing needs, expectations and resources.

In the future, what will make a good GP? In Dorothy H Cohen’s book *The learning child*,<sup>7</sup> published in 1972, US educationalist Robert Havighurst is quoted as saying:

The modern world needs people with a complex identity who are intellectually autonomous and prepared to cope with uncertainty; who are able to tolerate ambiguity and not be driven by

fear into a rigid, single-solution approach to problems, who are rational, foresightful and who look for facts; who can draw inferences and can control their behavior in the light of foreseen consequences, who are altruistic and enjoy doing for others, and who understand social forces and trends.

We are products of the modern world. The scenery has changed. But a good GP will be what a good GP has always been — a master of uncertainty.

### Author details

Ruth M Armstrong, BMed, Deputy Editor  
 Martin B Van Der Weyden, MD, FRACP, FRCPA, Editor  
*The Medical Journal of Australia*, Sydney, NSW.  
 Correspondence: medjaust@ampco.com.au

### References

- Joyce CM, McNeil JJ, Stoelwinder JU. More doctors, but not enough: Australian medical workforce supply 2001–2012. *Med J Aust* 2006; 184: 441–446.
- Askew DA, Glasziou PP, Del Mar CB. Research output of Australian general practice: a comparison with medicine, surgery and public health. *Med J Aust* 2001; 175: 77–80.
- World Organization of Family Doctors. European definition of general practice/family medicine. Wonca Europe, 2002. Available at: <http://www.euract.org/html/pap04102.shtml> (accessed Jun 2006).
- Oceania Health Consulting. Evaluation of the Primary Health Care Research, Evaluation and Development Strategy. Canberra: Australian Government Department of Health and Ageing, 2005. Available at: [http://www.phcris.org.au/phcred/evaluation\\_report.php](http://www.phcris.org.au/phcred/evaluation_report.php) (accessed Jun 2006).
- Primary Health Care Research, Evaluation and Development Strategy. Phase 2 (2006–2009). Strategic plan. Canberra: Australian Government Department of Health and Ageing, 2005. Available at: [http://www.phcris.org.au/phcred/strategic\\_plan.php](http://www.phcris.org.au/phcred/strategic_plan.php) (accessed Jun 2006).
- Lakhani M, Baker M. Good general practitioners will continue to be essential. *BMJ* 2006; 332: 41–43.
- Havighurst R, quoted in Cohen DH. *The learning child* (1972). The Columbia world of quotations. 1996. Available at: <http://www.bartleby.com/66/64/27064.html> (accessed Jun 2006). □

The role of uncertainty in life. Uncertainty is all around us, never more so than today. Whether it concerns a global pandemic, the economy, or your finances, health, and relationships, much of what lies ahead in life remains uncertain. Yet as human beings, we crave security. Uncertainty is often centered on worries about the future and all the bad things you can anticipate happening. It can leave you feeling hopeless and depressed about the days ahead, exaggerate the scope of the problems you face, and even paralyze you from taking action to overcome a problem. One of the surest ways to avoid worrying about the future is to focus on the present. Instead of trying to predict what might happen, switch your attention to what's happening right now. Uncertainty occurs when details of circumstances are ambiguous, intricate, unpredictable, or probabilistic; when the individual finds information or knowledge inaccessible, conflicting or unstable. Uncertainty often is described as an anxiety-producing cognitive state to manage through information-seeking behaviors (Berger & Bradac, 1982; Gudykunst, 1995; Kuhlthau, 2004). Van Manen (2008) depicted uncertainty as an aversive and disturbing experience. However, some studies highlight the inherency and significance of uncertainty in life, illustrating it as a natural rhythm to life (Mishel, 1990) or a fundamental characteristic of complex systems (Merry, 1995).

## Section 2: Uncertainty

### 2.1 Uncertainty in analog instruments. 2.2 Uncertainty in digital instruments 2.3 Using the manufacturer's specs to find uncertainty. 2.4 Using significant figure notation to describe uncertainty 2.5 Uncertainty caused by random error.

Sometimes the words error and uncertainty are used interchangeably. We use the term error to mean the difference between a measured value and the true or actual value. Here's an example. Let's say you'd like to measure the number of people attending a concert, standing side by side in an auditorium. Imagine that you have no means of counting every person, so you come up with a clever idea. You notice that the floor is covered with large tiles and you see that each tile has about three people standing on it. Uncertainty : n. believing that a future and/or past subset(s) has less than a 100% probability of existing which may not be zero probability or absolute certainty and/or not believing that one is completely right about a subset(s). We are frequently uncertain whether something is true or whether something existed in the past or will exist in the future. What is seldom asked is what is the probability of the uncertainty? Call it a fear of uncertainty or a desire for certainty. They both can lead to purposeful behavior designed to achieve a goal(s). Many new goals have some uncertainty but unless you try to achieve them with purposeful effort the probability of achieving them is zero if you don't try at all. Uncertainty and doubt are frequently one and the same thing. If you are sure or not sure about something, you can use below phrases and expressions to express your Certainty/Uncertainty. <http://basicenglishspeaking.com/wp-content/uploads/2016/audio/ce/E-11.mp3>. Asking for Certainty: Are you sure? Are you sure about it? Are you certain about it? Do you think it is true? Do you think so? How sure are you? Expressing Certainty: Yes, I am certain. I'm a hundred percent certain. I'm absolutely sure. I have no doubt about it. I'm sure about it.