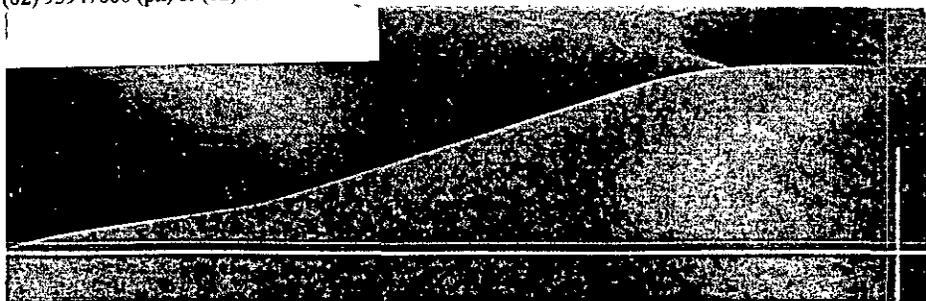




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## Are GPs using clinical practice guidelines?

Danielle Mazza, Sarah J Russell

*Danielle Mazza, MD, FRACGP, formerly National Director of Quality Assurance & Continuing Education, RACGP. Sarah J Russell, PhD, BA (Hons), is Research Consultant, Royal Australian College of General Practitioners, Victoria.*

**OBJECTIVE** The aim of this study was to investigate aspects of general practitioners' current use of clinical practice guidelines (CPGs) in daily general practice. *Design:* Face to face, semistructured interviews. *Setting:* General practices in rural and metropolitan Australia. *Participants:* 25 GPs. *Main outcome measures:* General practitioners' knowledge about CPGs; their recent use and reasons for using them; how GPs used them; where they stored them and which attributes of CPGs they considered to be most, and least, useful.

**RESULTS** Each GP interviewed was able to name at least one 'guideline' that they knew about. The most commonly used was a therapeutic guideline with 'prescribing' being the most common reason for accessing a guideline. Most GPs stored guidelines in their consulting room, reading them when they felt they needed to; some also used them during the consultation and showed them to patients. General practitioners used CPGs to assist in making therapeutic decisions more frequently than when deciding when and whether to implement preventive measures.

**CONCLUSIONS** The main finding from this study is that GPs are not in the main following, or accessing, the CPGs that have been developed. Strategies are required to create a culture in which evidence based guidelines are used and valued within general practice. Such a culture in which the processes of development, dissemination, implementation and evaluation of CPGs are well established, may take 5–10 years to achieve.

*Received 22 February 2001; accepted after revision 30 May 2001*

The introduction of clinical practice guidelines (CPGs) in general practice has been based on the assumption that a supportive culture exists among Australian GPs for evidence based medicine and guidelines.<sup>1</sup> There is, however, a growing recognition that there are some fundamental, unresolved issues surrounding their use in general practice.<sup>2,3</sup> Clinical practice guidelines are 'systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances'.<sup>4</sup>

Recent research has shown that GPs may be positive about evidence based medicine and CPGs without necessarily using them in their consultations.<sup>5</sup> Studies show a disparity between GPs' attitudes and their actual uptake of guidelines in daily practice.<sup>1,5–10</sup> It has been shown that

accepting CPGs in principle and using them in practice are two entirely different concepts.<sup>10</sup> In Australia, for example, hospital training, medical textbooks and popular media are still regarded as more influential than CPGs in determining day to day clinical practice.<sup>1</sup>

Secondly, a plethora of CPGs is currently available. As they are often produced by different groups, recommendations may be conflicting, which may make it difficult for GPs to decide which ones to use. In addition, CPGs are of variable standard, appear in diverse forms (journals, mailouts, internet) and under various guises (diagnostic, management, descriptive, therapeutic and checklists).

General practitioners are therefore caught in an information paradox — overwhelmed with information, yet unable to

find the knowledge when they need it.<sup>12</sup> Information pertaining to common ailments is often the easiest to locate, though less likely to be needed<sup>13</sup> while information concerning rarer conditions is often harder to find. Clinical practice guidelines that do not physically fit into the GP's storage system are likely to be stored in out of the way places, making them difficult to access when needed.<sup>13</sup>

The aim of this study was to investigate aspects of GPs' current use of CPGs in daily general practice. We were interested in:

- GPs' knowledge about CPGs
- their recent use of CPGs
- reasons for use and how they use them
- where they store them and
- which attributes are considered to be most, and least, useful.

**Table 1. Demographics of study group**

- 7 GPs aged 30–39 (3 female, 4 male)
- 10 GPs aged 40–49 (3 female, 7 male)
- 6 GPs aged 50–59 (4 female, 2 male)
- 1 GP aged 60–69 (male)
- 1 GP aged 70–79 (male)

**Table 2. GPs answer to the question: 'What CPGs do you know about?'**

- therapeutic guidelines
- antibiotic guidelines
- breast cancer
- immunisation
- pap smear
- colon cancer
- cardiovascular
- lipids
- travel health
- hypertension
- neurology
- heart
- osteoporosis
- sexually transmitted diseases
- dementia
- mental health
- endocrinology
- mammography
- prostate
- falls in the elderly
- meningitis
- smoking cessation
- iron deficiency
- aged care
- MIMS
- Kimberly public health
- Murtagh's *Practice Tips*
- Pharmaceutical Benefits Scheme

## Method

This study involved face to face semi-structured interviews with 25 GPs (eight from WA, eight from Victoria, nine from NSW) which were carried out by the research units of the RACGP. General practitioners were deliberately selected to obtain a broad coverage of age, gender, locality (rural, urban) and type of practice (solo or large, computerised or noncomputerised). General practitioners may or may not have been members of the RACGP and were paid \$100 each to participate in the study.

The interviewers arranged a half hour visit with GPs explaining that they merely wanted to gather information, rather than to examine their practice or undertake an audit. During the first part of the practice visit, researchers asked GPs a series of predetermined questions related to their use of CPGs in their daily practices. During the second part of the interview, the researchers presented four brief scenarios to the GPs. The four clinical scenarios were used specifically because Australian CPGs exist in these areas. After each scenario, GPs were asked a clinical question. After answering the question, the GPs were then asked to

articulate how they came to that answer (ie. which information sources were used to answer the clinical questions).

Data was analysed descriptively using frequency tables.

## Results

### Demographics

The cohort consisted of 10 female and 15 male GPs, with a range of demographic age groups (*Table 1*). Thirteen GPs worked in rural practices (four solo, six medium, three large) while 12 GPs worked in urban practices (six solo, three medium, three large).

### Knowledge of CPGs

Each GP was able to name at least one 'guideline' with 15 GPs able to name five or more. The most commonly mentioned 'guidelines' were therapeutic guidelines (n=31), with antibiotic guideline (n=21), breast cancer (n=9) and immunisation (n=9). Other topics are listed in *Table 2*.

### Use of CPGs in clinical practice

Twenty-three of the 25 GPs stated they had used a guideline recently: four used a guideline during the past 24 hours, eight during the past week, seven during the past month and four during the past six months.

The most commonly used CPG was a therapeutic guideline, with 10 GPs stating that they had recently used the antibiotics guidelines. Others recently utilised were immunisation, lipids, breast cancer, diabetes, antenatal and hypertension.

The most commonly cited reason for using a CPG was 'prescribing' (n=7). Other reasons for using a CPG recently are given in *Table 3*.

Of the 23 GPs who had used a CPG recently, most read them when they needed to (n=18), though five GPs felt that CPGs informed their practice as they remembered them. One GP read the CPG after the patient had left the consulting rooms, while eight GPs read and talked about the CPG with the patient during the consultation. In one case, the patient requested that the GP consult with the CPG; in another, the GP photocopied the CPG for the patient.

### Attributes of CPGs

The attributes of a CPG reported by GPs as useful or not useful are given in *Table 4*.

### Storage of CPGs

From the 25 GPs who had identified CPGs, 19 GPs stored these in their con-

**Table 3. Reasons for the recent use and useful attributes of a CPGs**

*Reasons for recent use:*

- to support treatment decisions
- to show patients best possible care
- for information
- to refresh memory
- because the patient presented with unusual symptoms
- for general reading or to keep up-to-date
- habit
- because 'it arrived in the mail so I read it'

*Useful attributes:*

- quick, concise, relevant reference that is easy to access
- able to show, and modify with, patients
- up-to-date
- best practice
- revision, reminder, reassuring
- helpful for unfamiliar problem
- expedite decision making
- didactic, definite, clear and factual
- easier than reading journals
- authoritative

sulting rooms, while two stored them in a central area outside their consulting room. Clinical practice guidelines were stored in a variety of places including a bag, bookcase, filing cabinet, desk drawer, computer, and on (or under) desk. The most common place was on a shelf near the desk (n=12). Three GPs who had been able to identify specific CPGs did not keep copies in their surgery. One GP acknowledged that he threw CPGs in the bin.

**Table 4. Attributes of CPGs that are not useful**

- poor index
- not up-to-date
- prescriptive, rigid
- no allowances in CPG for individual variants
- not specific (ie. too general)
- emphasise cost reduction
- complex, complicate: 'If I can't understand it, what is the point?'
- experts who write them are distanced from general practice
- too many different ones on same topic
- long, too much information, too wordy
- poorly presented
- not evidence based
- time consuming, not enough time to read them
- difficult to access
- already aware of information
- prefer to read literature
- conflicts with reading
- difficulty applying CPGs
- not good for unusual situations
- patients do not accept recommendation on guideline
- controversies about management should be debated in the literature, not in conflicting CPGs

**Outcomes from the clinical scenarios**

**Immunisation**

In this case a mother brings a 10 month old baby into the surgery to inquire about hepatitis B immunisation. Fourteen GPs recommended the vaccination, six stated that they would assess risk -- two recommended that the mother wait until the child is older (one suggested 10 years old, another 12 years old), one advised the

mother to wait for a subsidised program, one would only administer the vaccination if the child was Aboriginal and another would have administered the vaccination if the mother wanted it.

**Diabetes**

In this case, a 55 year old woman with NIDDM comes into the GP surgery and says: 'You referred me to see the eye doctor last year. My eyes were fine but she told me to come back, but I can't remember when.' When should she next go? One GP answered 'yesterday', one recommended six months, 15 recommended one year, two recommended 1-2 years and six recommended two years.

**Chlamydia**

General practitioners were asked which antibiotics they would prescribe if a 21 year old woman returned to the surgery and was informed that she had chlamydia. In this case 12 GPs would prescribe azithromycin, seven doxycycline, one would prescribe mysteclin and five did not know and needed to refer to the antibiotic guidelines.

**Prostate specific antigen (PSA) testing**

In this case a 60 year old man presents to the surgery with urinary symptoms of dribbling, frequency, difficulty initiating urination. His mate at the bowling club has told him about a test called PSA. He asks to have this test. The GPs were asked if they would arrange for a PSA. Eighteen GPs said they would, although four said they would first try to discourage the patient. Five GPs said they may arrange a PSA, but would examine the patient first and two would not arrange a PSA unless the patient really wanted it.

In all of the case scenarios described above, GPs were asked to nominate the method they used to come to a decision. These are listed in *Table 5*.

**Table 5. Methods used by the GPs to make decisions regarding the clinical scenarios**

Method used to make decision	Immunisation	Diabetes	Chlamydia	PSA
Specialist	-	9	-	4
Current practice	-	2	-	2
Past experience and knowledge	8	6	4	3
Reading	-	3	-	3
Guideline	5	6	12	3
CME	2	2	2	4
Anecdotal, 'feel' it is the best time	2	-	-	-
Practice nurse	2	-	-	-
Patient request	-	-	-	2
Wanting best practice for patient	-	-	-	1
Media	-	-	-	1
Useful screening for prostatic cancer	-	-	-	1
Not sure	1	-	-	1
Drug rep	-	-	2	-
Medical Director	-	-	1	-
Trial and error	-	-	1	-

### Limitations of the study

With such a small sample, it is not possible to generalise or investigate a correlation between uptake of CPGs and age, gender, locality of practice, size of practice and type of practice. Nonetheless, the results from this study provide a sense of some of the underlying attitudes of CPGs among bag-carrying GPs. To further investigate the use of CPGs in clinical practice, a larger study, using both qualitative and quantitative methods, is required.

### Discussion

Although there is a need for caution in the generalisability of results due to the small sample size, the main finding from this study is that GPs are not in the main following, or accessing, the existing CPGs. This suggests that CPGs are yet to make a strong impact on reducing variation in clinical management in Australian general practice.

There are, however, some exceptions, most notably the commercially developed *Therapeutic Guidelines*. In the four clinical scenarios, only the antibiotic scenario ranked the guideline as the most common method used by GPs in clinical decision making. General practitioners' preference for *Therapeutic Guidelines* may provide some insights into the format of CPGs that GPs find useful and the strategies that have proven to be successful in promoting the uptake of CPGs. These are:

- a clear topic area (eg. antibiotics)
- easy to use index
- simple information that is easy to implement during the consultation
- no controversy in information presented
- well targeted promotion of product.

Therapeutic decisions seem, from this study, to be more amenable to guideline usage whereas more complex decisions such as when to screen or institute preventive action is less so.

This study also found that many GPs still do not understand exactly what constitutes a CPG. This lack of clarity in the definition of CPG was evident when *MIMS*, the PBS and Murtagh's *Practice Tips* were listed by GPs as 'guidelines' that they knew about. While *MIMS*, the PBS and Murtagh's *Practice Tips* are practical and useful sources of information, they are not CPGs. A lack of understanding of the nature of CPGs among GPs is also reflected by the fact that no GP mentioned 'evidence based' when describing useful attributes of CPGs.

This study identified an urgent need for new knowledge about how CPGs can be packaged and delivered to maximise their acceptance by GPs. Both the overseas literature and current study indicate a clear preference among GPs for CPGs to be brief, clear, up to date, relevant and easy to access. The demand for straightforward and succinct CPGs, however, creates a tension. Oversimplification may damage the perceived quality of the CPG.<sup>12</sup> There are concerns that standardised checklists and summaries of 'best practices' may lead to 'cookbook medicine'.

### Conclusion

This study indicates that the optimism about CPGs to effect change in general practice is not shared by all GPs. In particular, there is a lack of understanding among GPs regarding the principles underpinning the usage of CPGs in general practice. This study suggests a lack of success in implementing CPGs into general practice highlighting the need for further research to be undertaken into the range of factors that influence GPs' decisions to use, or not to use, CPGs.

Despite the positive responses to evidence based CPGs that have been elicited from self administered surveys, and the enthusiasm for evidence based

practice that is reported in the academic literature, there is growing recognition that bag-carrying Australian GPs have not embraced CPGs in their daily practice. A reluctance to use CPGs may suggest GPs' fundamental philosophical objections to using evidence based CPGs, lack of trust in the process of developing CPGs, or it may suggest ineffective implementation strategies. Without further qualitative research, it is not possible to draw strong conclusions.

It is generally agreed that if GPs are to accept CPG, they must have confidence in their reliability, validity and applicability to general practice. Given that CPGs are often developed at the national level by experts far removed from general practice, CPGs may seem irrelevant unless the CPG is adapted for local practice.

If GPs fail to use CPGs to enhance their clinical decision making in daily practice, CPGs will rarely change practice, let alone enhance quality of care and consumer outcomes. It is, therefore, recommended that strategies are required to create a culture in which evidence based CPGs are used and valued within general practice. Such a culture in which the processes of development, dissemination, implementation and evaluation of CPGs are well established may take 5-10 years to achieve.

### Acknowledgments

The authors wish to acknowledge the work of the RACGP Research Units in undertaking the practice visits and the assistance of Professors Charles Bridges-Webb, Chris Silagy, Jeanette Ward, Chris Del Mar and Jeremy Anderson who were on the steering committee of the project of which this study was a part. The General Practice Branch of the Department of Health and Aged Care funded the project.

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### Implications of this study for the GP

- There is a lack of understanding about the exact nature of CPGs amongst GPs.
- CPGs are yet to make a strong impact on reducing variation in clinical management in Australian general practice.
- GPs find therapeutic decisions very amenable to guideline usage.
- Strategies are required to create a culture in which evidence based CPGs are used and valued within general practice.

### Correspondence

Dr Daniel Mazza  
C/- QA&CE  
RACGP  
1 Palmerston Crescent  
South Melbourne Vic 3205