

Australian General Practitioners' Use of Health Information

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A

INTRODUCTION

Over the past 30 years the health framework in which doctors and other healthcare professionals practise has changed relatively little in comparison with the enormous changes seen in transport, manufacturing, and telecommunications (Yellowlees & Brooks, 1999). In Australia, the health system, like others in developed countries worldwide, is deteriorating quickly. Productivity commission reports, parliamentary inquiries, and numerous academic papers describe the current waste and lack of focus on outcomes in our health system (Weyden & Armstrong, 2004), at a time when communities and dedicated health professionals are screaming for the resources to provide acceptable care for their communities (Jackson, 2005).

Portals are seen as feasible tools capable of influencing the outdated health framework to reflect the changed environment (Carbone & Burgess, 2006; Glenton, Paulsen, & Oxman, 2005; Martin & Sturmberg, 2005). In Australia, the technologies behind portals, and potential for health portals specifically, seem to be well understood and represented in the available literature (Sellitto & Burgess, 2005; Tatnall 2005; Tatnall, Burgess, & Singh 2004) as it is around the globe (Eysenbach, 2000; Kim, Thomas, Deering, & Maxfield, 1999; Milicevic & Cullen, 2005). However, less clear are the perceived needs of Australian general practitioners (GPs) and the issues that prevent or encourage the utilisation of these information system technologies. Not just the personal, but also the infrastructure and content needs of general practice and its patients.

However, before portal development and design can begin, it is important to find out what the needs are of general practitioners. This article aims at evaluating the available literature on the most basic online information needs of general practitioners in Australia. In particular, three *online* issues that appear to be of most importance to GPs: Internet access and use, *the content and perceptions of what GPs need*, and *their relationship with the Internet informed patient*. It is not the intention of this article to provide a generic model to deal with the technical issues.

BACKGROUND

The application of the best available evidence (in this article abbreviated as EBM—evidence based medicine) to clinically treat patients is of great importance to general practitioners; in addition, clinicians need evidence in a format that rapidly answers their questions (Alper, White, & Ge, 2005).

Traditionally, resources used are mainly textbooks, colleagues, and journal articles held in the office. Family practitioners make little use of medical libraries because of problems of access, lack of skill in using catalogues and databases, and difficulties in applying research literature to clinical situations (Cullen, 2002). In this context, it is estimated that, on average, it takes 17 years for evidence to be integrated into clinical practice (Balas et al., 2000).

At an international level, for example, a Canadian study by Davis, Ciurea, Flanagan, and Perrier (2004) summarises that “The gap between what doctors might do (based on evidence-based clinical practice guidelines) and what they actually do is wide, variable, and growing.” As well: “Doctors are inundated with new, often poorly evidence-based, and sometimes conflicting clinical information. This is particularly serious for the generalist with over 400,000 articles added to the biomedical literature each year” (Davis et al., 2004). Adding further pressure to the “gap” are workloads that have increased over the past decade: doctors are seeing more patients with acute and complex conditions. Canadian medical practitioners feel that they are on a “medical treadmill” working an average of 53.8 hours per week. Rural practitioners work even longer hours, offer more medical services, and perform more clinical procedures than their urban counterparts—thus facing an even greater need for up-to-date information (Davis et al., 2004). In the U.S., research has shown that physicians incorporate the latest medical evidence into their treatment decisions 50% of the time (McGlynn et al., 2003). This is mirrored in Australia as well, where current literature indicates that clinicians do not routinely use the available evidence to support clinical decisions. Several studies have shown that simply disseminating evidence, for example, in the form of practice guidelines, does not lead to increased use of that information to inform

clinical decisions. Clinicians apparently pursue answers to only a minority of their questions and, when they do so, they rely most heavily on colleagues for answers. Lack of easy access to up-to-date evidence is cited as a barrier to evidence-based practice by clinicians (Westbrook, J.I., Gosling, & Coiera, 2004).

THE AUSTRALIAN CONTEXT

This background section confirms that there are issues concerning EBM and the use of information systems to retrieve them at the Australian and International level; however, for the purpose of this article as outlined in the introduction, these will be delineated for the Australian context only.

- **Internet Use:** Back in 1999, Young and Ward (1999) conducted a study to determine GP awareness, use of the Cochrane Library (a well known medical database), and access to the Internet in New South Wales where of 134 respondents (43%) had access to the Internet either at home or at work; 42 (14%) were "online" at their workplace. Seventy (22%) were aware of the Cochrane Library, although only 20 (6%) had access to it, and 13 (4%) had ever used it (Young et al., 1999). More recently, the introduction of broadband incentives for general practice (DoHA, 2005) by the Federal Government should impact greatly on these past figures; however, it would take a couple of years to really measure the impact of these incentives on general practices. At the moment, the uptake is increasing rapidly (GPDV, 2005).
- **EBM Use and Perception:** In 2002, a study of South Australian rural and remote general practitioners' (GPs) view of EBM reported that 84% of practicing GPs viewed it positively and 94% reported practicing it (Taylor, Wilkinson, Blue, & JT, 2002). However, in contrast, a study by Monash University School of Rural Health indicated that for rural GPs some of the technologies at the time available are of little perceived use to the GPs (GPDV, 2005; Robinson, 2003). More recent studies by the Centre for Health Informatics, University of New South Wales in particular, reveal that retrieval and information systems had a positive impact on clinicians' use of EBM (Westbrook et al., 2004; Westbrook, Coiera, & Gosling, 2005; Westbrook, Gosling, & Coiera, 2005). These studies also found that social and cultural factors were found to be better discriminators of high and low evidence use than technical factors (Gosling, Westbrook, & Coiera, 2003). However, some of these studies are hospital based and do not necessarily represent the situation in general practice. Westbrook et al. (2004) also remind us of the

difficulties to measure the impact that online access to evidence has on clinical practice, where some of these studies have relied primarily on self-reports of clinicians (Westbrook et al., 2004). These findings are also supported by other Australian studies (Magrabi, Coiera, Westbrook, Gosling, & Vickland, 2005). These issues appear to be on a par with similar overseas studies in Canada, New Zealand, and the U.S. (Alper et al., 2005; Andrews, Pearce, Ireson, & Love, 2005; Casebeer, Bennett, Kristofco, & Carillo, 2002; Cullen, 2002; Davis et al., 2004; Gorman, Yao, & Seshadri, 2004; GPDV, 2005; Schwartz et al., 2003).

- **The Informed/Misinformed Patient:** Among the worldwide push, driving the health agenda is the growing awareness of the need to equalise relationships between health professionals and lay people (Coulter, 1999). These trends can be seen in all developed countries and are partly the result of an effort to cut healthcare costs by improving patients' abilities to help themselves and make informed choices. This coincides with the desire of most consumers to assume more responsibility for their health and the pressures of costs on health systems, the emphasis on the health of populations and on prevention, and the growing desire of health professionals to realise the potential of patients and their families (Eysenbach, Sa, & Diepgen, 1999).

The prevalence of health information seeking is increasing worldwide. In Europe, 38.5% of Europeans seek health information online (Milicevic et al., 2005). In the U.S., a study reported that 52 million Americans access health or medical information on the Web (Fox & Fallows 2003). In New Zealand, it has been reported that up to 10% of patients bring information from the Internet to consultations (Cullen, 2002).

While the use of the Internet can increase patients knowledge about their health conditions, they are often too overwhelmed by the information available on the Internet to make an informed decision about their own care. Hype around Internet use by patients appears to exceed the reality of Internet use (Hart, Phil, Henwood, & Wyatt, 2004; Milicevic et al., 2005; Thompson & Brailer, 2004). Furthermore, Hart et al's (2004) qualitative study suggests that use of the Internet is contributing to subtle changes in the relationship between health care practitioners and their patients, rather than effecting the dramatic transformation some people envisage for it (Hart et al., 2004). However, some studies have suggested an apparent conflict between some patients expectations and evidence (Taylor et al., 2002). In Australia, the trends appear to be similar but no major dedicated studies to understand this phenomenon seems to have been recently undertaken.

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