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ABLE – assessment based learning

■ Over the past decade the Australian health care system has moved rapidly toward a greater emphasis on medical care being provided within the community.¹ This trend can only continue as our population ages and levels of chronic and complex illness continue to rise. Primary care now includes:

- a higher proportion of general practitioners working in group practices supported by practice nurses and allied health professionals – both on site and in the community
- increased patient presentations for chronic and complex disease – often compounded by mental health and social issues, and
- more hospital in the home, early discharge and similar programmes enabling shared management of sicker patients in the community.

These changes mean that the already comprehensive core skills of general practice have further expanded, added to which is an increased need for rapid and effective acquisition of new skills throughout a professional lifetime. Initial assessment of core competences at the point of entry into unsupervised general practice is already a statutory requirement. However, the assessment of ongoing capabilities and performance (a measure of professional standards in practice and public accountability) requires quite different approaches to professional education and assessment.

Challenges

How do we adapt to the new demands on general practice? And how do we best help GPs to maintain and extend their skills to provide patients with appropriate care and excellent personal health experiences?

The challenges of changing education and assessment requirements have been compounded by the changing nature of the general practice workforce, with increasing numbers of international medical graduates entering general practice, with variable understanding or experience of the Australian primary care system.

The complexities of clinical practice

Primary medical care is provided in very diverse environments that define patient needs and expectations as well as a doctor's actual, expected and potential scope of practice.²

The GP's learning needs are determined by the information explosion, a diversity of clinical environments and the public's increasing expectations of accountability. General practitioners must therefore have the capacity to adapt to these challenges.

Their resulting learning needs however may be difficult to meet in full due to: workforce and workload pressures, constrained local educational infrastructure, inadequate characterisation of the practice population and therefore its health needs, and importantly, every GP's limited ability to judge accurately his/her own learning needs.

Thus the profession is confronted with competing but co-existing and connected agendas. Such a situation is best understood through a complex adaptive systems (CAS) model. A CAS consists of many different components that interact in a nonlinear way. These interactions occur at many different levels, and influence each other through feedback loops. Interactions are not determined by the characteristics of the components themselves, but rather by the patterns of their interactions: these are the defining characteristic of such a system. Inevitably, complex adaptive systems are dynamic in that they change over time – based on the flow of energy, information and adaption.³

A framework solution

The Royal Australian College of General Practitioners (RACGP) has long recognised the challenges of changing general practice realities. Their quality framework,^{4,5} developed in 2005, illustrates the complexity of linked system interactions – from health policy formulation through to individual physiology, that go to make up quality care and the patient's experience of health.⁶ Continuing formal and informal discussions among many committed members of the discipline have helped to crystallise the main issues facing the profession in terms of ongoing assessment and targeted education, leading to a potential solution.

ABLE

The ABLE (Assessment Based LEarning) system represents a possible multidimensional framework solution in which required skills and gained experiences are continually revised to achieve ongoing capable performance. It is intended to offer a context sensitive, integrated and flexible approach to meeting the challenge of demonstrating capability in the face of changing practice and primary health care environments.

ABLE principles

ABLE is geared toward enhancing the capabilities of the established practitioner – progressively building on the competencies of the new graduate at point of entry into unsupervised general practice.

Capability refers to possessing, and being able to combine the necessary knowledge, skills and resources to act and react anticipatorily in the primary health care environment. Performance can be to the full level of one's capabilities. However observed performance, for many reasons, eg. environmental limitations or fatigue, may not reflect one's capabilities. Capability and performance are distinct from, and broader than, competence, which refers to the ability to demonstrate performance of specific tasks against a given standard.

Assessment and learning are not two different entities, rather they are a continuum of the same process – enhancing one's capabilities (or capacity) to act professionally and effectively in uncertain situations. The process of reaching one's full capability is based on gaining foundational knowledge and skills throughout medical school and postgraduate training, and then developing higher order skills through experiences in practice and ongoing professional development in the postvocational period.

Achieving and maintaining full capability is only possible by progressively identifying capacity learning gaps and closing them. How best to do this must be determined by individual preferences and opportunities, and may take many different forms. However, we contend that the primary measure of success is common to all: has the quality of the patient's health experience (which incorporates as one indicator biomedical health outcome measures) changed as a result of the care interaction?

The ABLE framework presents a 'mental model of the real world'⁷ challenges facing GPs, and is underpinned by three key principles:

- a focus on the capabilities required to enable the delivery of care that achieves the best possible health experience for each individual patient, through
- the application of progressive, capability related assessment methodologies individualised according to skill level and practice context, and linked to

- options for responsive professional development activities across the GP's professional lifespan.

Translating the principles into practice

Achieving ABLE goals will require purpose designed software that can:

- establish individual practitioner and practice case mix and context
- match validated capability focussed assessment tools according to individual practitioner and practice case mix and context
- define differing levels of achievement (from deficiency needing remediation through to advanced capability) across the established spectrum of content areas, and
- identify relevant professional development options which are consistent with best educational approaches and incorporate reassessment where indicated.

This is an achievable task as our current assessment methodologies already go well beyond assessment of competencies to assessing capabilities, and have proven utility in predicting clinical performance.^{8,9} For example, the 'written' assessment processes of the applied knowledge test (AKT) provide clinical cases that test the application of basic biomedical, diagnostic and therapeutic knowledge.¹⁰ The key feature problems (KFP) test clinical reasoning skills,¹¹ and more recently, the script concordance test (SCT) assesses the ability to solve ill defined problems, ie. tests reasoning in the context of uncertainty.¹² Multimedia technologies will enable extension of assessment processes to include realistic simulation studies.

These methodologies are all highly time efficient in terms of test taking and providing feedback. However, in the postvocational setting, the aim is on progressive testing of knowledge, skills and practice behaviours relevant to individual practice circumstances and local community needs. The aim of such testing is to identify relevant gaps and to provide specific feedback combined with remedial options that are closely linked to personal learning style preferences.

The software platform required to implement a testing feedback platform of this sophistication will be capable of:

- linking practice context and case mix (provide aggregated data on practice and community profile, specific interest areas, self assessment of strength and weaknesses)
- selecting an initial set of questions across the matrix of general practice at the level of minimally acceptable standards, and
- following initial analysis of the skill level from the initial question set, select a second set of questions across the matrix of general practice, practice and community profile, and specific interests that adaptively challenge, and establish, the test taker's various skill levels (from deficiency through to advanced capability)

- providing detailed performance feedback with strength and weaknesses in line with practice requirements, and
- offering tailored learning resources relevant to remediation of the test taker's deficiencies.

In essence, what is proposed is a professionally managed QA&CPD system which utilises an integrated testing-learning platform to enhance professional capacity, independence and standing while demonstrating public accountability through outcome measured ongoing professional development. Such a rigorous and robust system – developed, used and endorsed by the profession itself – should also provide safeguards against the imposition of externally controlled and potentially far less appropriate revalidation systems, and inform the widely varying approaches considered internationally.^{13,14}

In addition, the ABL framework will strengthen the core attributes and values of general practice⁶ and ultimately provide a major component toward recognising the advanced professional standing for those GPs who, over time, have demonstrated a high level of primary health care capability. We envisage that the development of portfolio approaches linked to valid assessment tools will allow the RACGP to formally recognise the mastery of general practice/primary care, ie. the provision of first contact, continuous, comprehensive and coordinated care.^{15,16}

Figure 1 illustrates the dimensions of the ABL framework. The two axes represent the developmental stages towards capability

and the progression through the life stages of a GP. Each life stage is associated with markers indicating the achievement of a particular level of expertise. The area covered by these axes shows the assessment tools currently available and indicates the directions and scope for future developments.

Outcomes

The ABL model promotes a supported, guided and self directed life long learning framework that aims to achieve and maintain capable patient care. The systematic pursuit, assessment and demonstrating of personal enhancement of skills and performance over time will lead to the mastery of general practice/primary care combined with its recognition by the health care system and society at large.

Conflict of interest: the authors are members of various RACGP committees and declare that the views expressed in this paper are their own, intended to broaden discussion, and do in no way reflect current endorsed RACGP policy.

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Figure 1. The ABL framework

