

## Competency Based Medical Education

2022

Competency Based Medical Education (CBME) is an internationally recognised and endorsed framework that is utilised throughout Australia and comparable international jurisdictions. Competency Based Medical Education is an educational model and framework fit for the needs and complexities of the 21<sup>st</sup> century. The AMA supports the usage of CBME within Australian medical curricula when blended with traditional medical education approaches and delivered with appropriately qualified trainee supervisors. The AMA recognises that competency based medical education needs to be more than a 'tick and flick' exercise. Both trainees and trainee supervisors must be supported to deliver effective educational outcomes and ensure patient safety.

### Background

There are broadly two elements that characterise CBME, they are: a focus on specific areas of competence; and a program which is largely free from a constrained time spent training.<sup>i</sup> CBME places the learner at the centre of the educational process and allows for meaningful experiences and regular feedback between the learner and teacher.<sup>ii</sup> Internationally, postgraduate medical training programs have embraced CBME ensuring assessments encompass achievable outcomes based on patient and community needs.<sup>iii</sup> CBME is distinct from time-based education as it is not the length of education that determines a readiness for independent practice, rather the attainment of competencies.

Supporting CBME frameworks are entrustable professional activities (EPAs). EPAs bridge the gap between theory-based education and the practical application of skills.<sup>iv</sup> They are observable and measurable holistic tasks or units of work regularly undertaken by health professionals that can be undertaken independently by a trainee after being approved by a supervisor.<sup>v</sup> EPAs are included within Australian curricula and often include items such as 'clinically assess patients, incorporating interview, examination, and formulation of a differential diagnosis and management plan'.<sup>vi</sup> EPAs when integrated within CBME frameworks allow for the high-quality provision of medical education while enabling and ensuring patient and consumer safety.<sup>vii</sup>

Early criticisms and perceptions of CBME have been broadly anchored in a belief that the framework is "reductionist and behaviourist."<sup>viii</sup> However, CBME frameworks have evolved and matured with contemporary CBME programs incorporating the context the trainee is working in, and the complexity required and expected of trainees.<sup>ix</sup>

### CBME

In Australia, CBME has been successfully integrated into medical curricula. The Australian Curriculum Framework for Junior Doctors which was released by the Confederation of Postgraduate Medical Education Councils in October 2006 involved elements of CBME within prevocational training in Australia.<sup>x</sup> The program focused on the three core learning areas of clinical management, communication and professionalism.<sup>xi</sup>

Currently Australian medical colleges use CBME frameworks to assess, train and accredit medical trainees. The RACP's New Basic Training Program is a hybrid of time and competency-based training.<sup>xii</sup> It requires trainees to undergo three years of full-time clinical experience and training using competencies, knowledge guides and entrustable professional activities. Similarly, the RACGP's curriculum has shifted from a time-based framework to a competency-based and time variable program.<sup>xiii</sup>

AMA encourages greater use of CBME to support trainee wellbeing by reducing the instances of one-off high stakes barrier exams. Meaningfully integrating clinical exercise and multiple modal exams can ensure medical trainees receive high quality education, protect consumer safety and progress to independent practice.

### CBME in the international context

CBME is successfully employed in comparable international jurisdictions such as Canada, the United States and the United Kingdom. Canada has utilised CBME since the early 1990s initially with the Royal College of Physicians and Surgeons' CanMEDS Framework.<sup>xiv</sup> CanMEDS has evolved since the early 2010s to now encompass the current educational model of Competency by Design. Similarly in the United States, CBME approaches have been employed and developed in medical education since 1999 through the US' Accreditation Council for Graduate Medical Education's (ACGME) initial six Core Competencies. ACGME now use a milestones systems based on a CBME framework; it is currently in its second iteration.<sup>xv</sup> The United Kingdom's program utilising CBME models is the Outcomes for Graduates program beginning in 2018.<sup>xvi</sup> Previously the UK's CBME framework was through the Tomorrow's Doctors program first developed in 1993 and in use until 2018.

### Challenges

While the AMA supports the integration of CBME into contemporary educational frameworks, the success of CBME is largely dependent on the quality, availability, and competency of trainee supervisors. Employers must ensure all supervisors are appropriately resourced and trained to deliver guidance to trainees and are able to communicate feedback respectfully and effectively to trainees. Supervisors are mentors to trainees and employers must be accountable for the actions and outcomes of trainees and supervisors. Supervisors must also be given the ability to meaningfully teach and provide feedback to trainees through employers providing regular protected teaching time.

The AMA urges educational institutions to ensure trainee supervisors are able to support trainees from culturally and linguistically diverse backgrounds. Some trainees from diverse backgrounds may find actively seeking approval or sign off from a supervisor challenging. Trainee supervisors should know the cultural and linguistic profiles of their trainee and have the skills and attitudes to support their learning.

Key components of traditional medical educational models such as time fixed education should complement and strengthen CBME. CBME must not be treated as a 'check the box/tick and flick' exercise and must be meaningful opportunities for trainees that resemble clinical conditions. Attainment of competencies must be achieved within a set timeframe standardised through college programs.

### Summary of recommendations

CBME is a productive tool for supporting medical trainees that is fit for purpose and reflects modern needs. The success of CBME largely depends on educational institutions ensuring that trainee supervisors are appropriately resourced, trained and prepared, supervisors and trainees have access to dedicated teaching and training time, and that CBME programs are complemented by traditional medical education tools such as time confined programs.

Effective medical education programs will incorporate the following elements of competency-based training:

- provide the necessary time, experience, patient contact, supervision, teaching (including the opportunity to teach as well as be taught) and mentoring to ensure the development of the higher order cognitive skills required of doctors through the integration of knowledge and the application of skills over a broad spectrum of scenarios
- use an appropriate combination of formative and summative assessment methods to ensure ongoing feedback to trainees for their learning and development
- ensure that 'hands on' clinical experience through a range of high-quality training placements/opportunities remains central to the education program but work with emerging technologies to enhance training and service delivery
- ensure that this 'hands on' clinical experience is provided by doctors who are themselves responsible for delivering day-to-day patient care
- respect that the development of competencies must occur in context, where day-to-day patient care occurs, and focus efforts on bolstering capacity in these settings (simulation and alternative settings are a useful adjunct but cannot replace core hands on clinical experience)

- respect the limitations of CBME and multi-disciplinary training.

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<sup>i</sup> O, Cate. 2017. “Competency-Based Postgraduate Medical Education: Past, Present and Future.” *GMS Journal for Medical Education* 34 (5).

<sup>ii</sup> NEJM Knowledge+ Team. 2017. “What is Competency-Based Medical Education?” *NEJM Knowledge+*. 15 June. Accessed 2022. <https://knowledgeplus.nejm.org/blog/what-is-competency-based-medical-education/>.

<sup>iii</sup> Royal Australasian College of Physicians. 2020. “Competency-Based Medical Education (CBME).” *RACP*. [https://www.racp.edu.au/docs/default-source/trainees/advanced-training/curricula-renewal/advanced-training-curricula-renewal-competency-based-medical-education-at-a-glance.pdf?sfvrsn=9ffbc11a\\_6](https://www.racp.edu.au/docs/default-source/trainees/advanced-training/curricula-renewal/advanced-training-curricula-renewal-competency-based-medical-education-at-a-glance.pdf?sfvrsn=9ffbc11a_6).

<sup>iv</sup> Valentine, N, J Wignes, J Benson, S Clota, and L Schuwirth. 2019. “Entrustable professional activities for workplace assessment of general practice trainees.” *Medical Journal of Australia* 210 (8): 354-359.

<sup>v</sup> Ibid

<sup>vi</sup> Royal Australasian College of Physicians. 2017. “Basic Training Curriculum - Basic Training Entrustable Professional Activities Adult Internal Medicine and Paediatrics & Child Health.” *RACP*. [https://www.racp.edu.au/docs/default-source/default-document-library/entrustable-professional-activities-for-basic-trainees-in-adult-internal-medicine-and-paediatrics-child-health.pdf?sfvrsn=16dc0d1a\\_4](https://www.racp.edu.au/docs/default-source/default-document-library/entrustable-professional-activities-for-basic-trainees-in-adult-internal-medicine-and-paediatrics-child-health.pdf?sfvrsn=16dc0d1a_4).

<sup>vii</sup> Valentine, N, J Wignes, J Benson, S Clota, and L Schuwirth. 2019. “Entrustable professional activities for workplace assessment of general practice trainees.” *Medical Journal of Australia* 210 (8): 354-359.

<sup>viii</sup> Leung, W. 2002. “Learning in practice competency based medical training: The baby is thrown out with the bathwater.” *BMJ* 325.

<sup>ix</sup> Royal Australian College of General Practitioners. 2018. “Curriculum for Australian General Practice.” *RACGP*. Accessed 2022. <https://www.racgp.org.au/FSDEDEV/media/documents/Education/Curriculum/Curriculum-AGP-User-s-Guide.pdf>.

<sup>x</sup> Graham, I, A Gleason, G Keogh, and D Paltridge. 2007. “Australian Curriculum Framework for Junior Doctors.” *Medical Journal of Australia* 186 (7): S14-S19.

<sup>xi</sup> Confederation of Postgraduate Medical Education Councils. 2012. “Australian Curriculum Framework for Junior Doctors Version 3.1.” *CPMEC*. [http://www.cpmec.org.au/files/27112017\\_watermark.pdf](http://www.cpmec.org.au/files/27112017_watermark.pdf).

<sup>xii</sup> Royal Australasian College of Physicians. 2020. “New Basic Training Program.” *RACP*. Accessed 2022. <https://www.racp.edu.au/trainees/basic-training/curricula-renewal/new-basic-training-program>.

<sup>xiii</sup> Royal Australian College of General Practitioners. 2018. “Curriculum for Australian General Practice.” *RACGP*. Accessed 2022. <https://www.racgp.org.au/FSDEDEV/media/documents/Education/Curriculum/Curriculum-AGP-User-s-Guide.pdf>.

<sup>xiv</sup> Royal College of Physicians and Surgeons of Canada. 2022. “About CanMEDS.” *RCPSC*. Accessed 2022. <https://www.royalcollege.ca/rcsite/canmeds/about-canmeds-e>.

<sup>xv</sup> Accreditation Council for Graduate Medical Education. 2022. “Milestones 2.0 Completed Specialties and Subspecialties and Effective Dates.” *ACGME*. Accessed 2022. <https://www.acgme.org/what-we-do/accreditation/milestones/overview/>.

<sup>xvi</sup> General Medical Council. 2020. “Outcomes for Graduates.” *GMC*. 25 February. Accessed 2022. <https://www.gmc-uk.org/education/standards-guidance-and-curricula/standards-and-outcomes/outcomes-for-graduates/outcomes-for-graduates>.