The College of Intensive Care Medicine provides the training and certification of ICM specialists in Australia and New Zealand. After an extensive review and revision of its training programme, the College has launched the new curriculum effective from 2014. By improving the quality of ICM training the quality of intensive care delivered to our patients may be improved.

Intensive care services for the 28 million residents of Australia and New Zealand (ANZ) are provided largely in public hospitals, and access to intensive care admission has no direct financial cost to the patient. While very limited private intensive care services are available in New Zealand, confined largely to elective post-operative care, Australia has a more developed private system, funding for which comes from both private insurance and the state funded Medicare system. Intensive Care organisation is based upon 'closed' units in which the Intensive Care Medicine (ICM) specialist takes responsibility for the patient care for the duration of the ICU stay, with support and consultation with specialists of other disciplines. This article's focus is upon ICM training in the ANZ health systems.
The intensive care medical community in ANZ is served by two non-competing bi-national organisations, the Australian and New Zealand Intensive Care Society (ANZICS) and the College of Intensive Care Medicine (CICM) of Australia and New Zealand. Both work co-operatively towards improving ICM, and, while there is considerable role overlap, the College takes responsibility for the training, certification and continuing professional development of ICM specialists.

Historically, two distinct ICM training pathways existed in ANZ, the training requirements of the Royal Australasian College of Physicians (RACP) differing from that required by the Australian and New Zealand College of Anaesthesia (ANZCA). The foundation in 2002 by the RACP and ANZCA of a Joint Faculty of Intensive Care Medicine (JFICM) produced a single structure and a unified pathway for general ICM training. This subsequently allowed the formation of a stand-alone College in 2009, an international first for ICM (van Heerden 2009). In 2010 CICM took over the function of JFICM. There are currently 939 CICM Fellows and over 650 trainees, with an average annual output of 60 new Fellows. About 80% of new fellows are employed in ICM and 70% of these are practising full time ICM (Venkatesh and Freebairn 2013).

The ICM training programme, from its inception to the formation of the college, was an iterative process, with introduction of the formal project, regular formal in-training assessment, basic and advanced training, and the requirement to complete a series of formal clinical assessments prior to the examination over the last two decades. In 2011 the CICM underwent an accreditation conducted jointly by the Australian Medical Council and the Medical Council of New Zealand (College of Intensive Care Medicine 2011). Their recommendations provided impetus for a comprehensive review of the training processes CICM employed, and to map the curriculum to the various assessment processes. Recognition that while the total duration of training was unchanged, work hour restrictions were limiting clinical exposure, and the desire to employ more robust educational techniques than a simple apprenticeship model with experiential learning and a high stakes examination were also incentives for the review (Van der Vleuten and Schuwirth 2005). In 2014 a new curriculum was launched by CICM (College of Intensive Care Medicine 2014). Simultaneously, the CICM has introduced a criterion based trainee selection process, and changes to the primary examination exemptions. As CICM policy is not to disadvantage trainees, trainees enrolled prior to 2014 will continue their prescribed training.

The new CICM training is a minimum six year programme, starting once 12 months of general hospital experience is completed. It includes 42 months in specific ICU training, divided into three stages: Foundation Training of 6 months; Core Training of 24 months (after first part Examination) and the final Transition Year of 12 months. One year of both anaesthesia and one year of medicine, divided into ‘acute’ medical and ‘longitudinal care’ components are also required.

The 103 CICM accredited core-training hospitals are regularly inspected and assessed for training quality and case mix by CICM. The programme aims to produce high quality specialists with a broad range of general ICM experience. To help achieve this, trainees will need three months rural hospital experience and at least six months paediatric exposure, clinical placements in ICU, where the case mix includes sufficient trauma, cardiothoracic and neurosurgery ICM, and a transition year aimed towards developing the non-clinical characteristics of a medical specialist and to promote clinical autonomy.

Generally, all core intensive care training needs to be prospectively approved. Trainees can, and are encouraged to, undertake simultaneous supervised dual training in CICM and another specialty, rather than rely upon retrospective recognition of prior learning.

In addition to the time based training requirements, the trainees must complete a suite of prescribed online learning packages with associated assessments, and several face-to-face courses. (e.g. echocardiography). These courses have a described curriculum, allowing multiple course providers to develop...
courses with appropriate content that can be accredited for training. For example, the BASIC course meets the criteria for, and is accredited as a ‘foundation course’ for CICM; this does not prevent another provider developing an alternative course that would meet the described objectives (Douglas et al. 2010).

The first dedicated Intensive Care examination in the world was possibly the ‘Fellowship Examination’ conducted by the Section of Intensive Care of the Faculty of Anaesthetists of the Royal Australasian College of Surgeons in 1979 (Harrison and Clarke 1993). This body eventually evolved to become the CICM. At that time ICM practice was barely twenty years old, and practitioners were providing most ICU, with no formal ICM training, on a part-time basis. The principal advocate of the examination was the late Professor G.A.(Don) Harrison, who considered formal assessment of the many specific skills and areas of knowledge required to practise as an intensive care specialist essential for the foundation of ICM as a separate specialty (Harrison and Clarke 1993; Lee et al. 2009). The presence of organised high stakes exit examination stimulated the development of the ICM training programme. Today, the longevity of the examination and common training pathway for ICM means that the majority of ANZ ICM physicians has passed the examination (Lee et al. 2009).

The ICM primary examination, which assesses the basic science components of ICM practice, was first held in 2007. Trainees enrolled prior to 2014 could claim a primary exemption by completion of one of a number of other ANZ Colleges’ examinations. However, marked differences exist in syllabus content and the breadth and depth of these other examinations, compared with the CICM Primary. New CICM trainees will therefore need to complete the CICM Primary examination, or complete fellowship of another approved acute specialty college.

The examination remains crucial to identify trainees’ level of understanding and core knowledge, and as an audit of the other programme assessment processes. Examination is a powerful driver of learning, but the examination can become all encompassing. Formative assessments that offer feedback are also a major positive influence on learning (Norcini and Burch 2007). Instead of relying solely upon a high stakes examination, a more comprehensive assessment programme utilising multiple complementary methods has been devised, including clinical competency assessments for specific procedures (e.g. percutaneous tracheostomy) and eight formal observed clinical encounters, to assess trainees’ ability to conduct clinical assessments and formulate management plans. Trainee progression (from novice to fellowship level) in the seven domains of medical practice, based upon the CanMeds Framework, is evaluated using a web-based in-training evaluation report (Royal College of Physicians and Surgeons of Canada 2005). Feedback is provided during each attachment through regular formative and summative interviews with college appointed supervisors of training. The aim is to encourage trainee behaviour consistent with good ICM practice, rather than focus activities on ‘passing the exam’.

While the CICM training programme is accredited to produce ICM specialists for the ANZ health work force, a large proportion of CICM trainees are overseas graduates. Over half of the candidates presenting to the CICM Fellowship examination are international medical graduates (Lee et al. 2009). These doctors come to ANZ with the intention of undertaking ICM training, or having been appointed to one of the previously abundant ICU service positions, enjoyed ICM practice and entered the training scheme. Post fellowship many stay, but over 20% of CICM Fellows currently practise outside Australia (Freebairn 2013). The drive by the ANZ governments for medical workforce self-sufficiency has increased graduate numbers from local medical schools. Placement in ANZ hospitals of these new doctors has dramatically decreased the training opportunities for overseas doctors. The CICM remains committed to providing comprehensive training in Hong Kong, and training for more limited periods in CICM accredited hospitals in Singapore, India, United Kingdom, Ireland and Canada.

While the new Curriculum is implemented there is no doubt that the CICM programme will require ‘tweaking’ to ensure its currency and relevance to clinical practice. Within the current framework courses, assessments and online packages can all be adjusted as required. The ANZ ICM pioneers were the vanguard of robust ICM training systems. We hope that these refinements, aimed at improving the standard of ICM consultant practice, will further add to the quality of intensive care delivered to our patients.

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