

## **Medical Education in the 21<sup>st</sup> Century**

The complexity of healthcare systems and delivery coupled with advancement in medical treatment continues to challenge healthcare professionals. The way we interact and learn has changed considerably due to increasing use of technology in our daily life. When faced with a knowledge deficit we no longer head to the library and search through printed textbooks and journals. Online access to the latest medical knowledge and research is readily available at our finger tips, without the constraints of geographic location or time of day. To train the next generation of healthcare professionals and teams, we need to utilise the benefits of modern technology whilst recognising its limitations.

## **Burnout and the Intensivist**

### *Look after yourself and each other*

In recent years, there has been increasing realisation, acceptance and focus on burnout of healthcare professionals. Burnout is defined as the condition where professionals 'lose all concerns, all emotional feeling for the people they work with, and come to treat them in a detached or even dehumanised way'. A recent survey showed that Intensivists are at the highest risk of burnout and least happy compared to other medical specialties.

Unsurprisingly, burnout has been associated with morbidity and mortality affecting the individual, organisation and ultimately patient. The factors which contribute to burnout can be divided into personal characteristics, the ICU environment and organisational factors. To continue delivering high quality patient-centred care, proactive steps need to be considered. Tools are available for practising clinicians to improve well-being, increase resilience, and reduce risk of burnout.

## **Point-of-care ultrasound – what's on the horizon?**

The use of ultrasound has expanded beyond the remit of our radiology colleagues. The ability to diagnose, monitor and make treatment decisions by the bedside is becoming a powerful tool in the armament of the Intensivists. Echocardiography, lung, abdominal and vascular ultrasonography has become almost ubiquitous in a modern intensive care unit. With further advancement in ultrasound technology, the potential for ultrasound-guided therapy on the ICU is rapidly expanding; higher frequency probes with greater spatial resolution, contrast-enhanced ultrasonography, 3D probes and images are just some of the recent technological advancements. The question is not whether ultrasound should be used by non-radiologists, but rather how to define standards for training and education to ensure safe and efficient use of POCUS in critical care.

*With great power comes great responsibility*