

Simulation Outside The Operating Suite

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Simulation offers much to those who teach and train doctors, nurses and paramedics. The environments of Intensive Care Medicine (ICM), Emergency Medicine and Anaesthesia are dynamic, complex and hazardous and require simulation to enhance and even accelerate training. While anaesthetists have pioneered the development and use of simulation for education, other areas of medicine have since caught up. This presentation will explore the use of simulation outside of anaesthesia.

Medical Schools: Australian medical schools have been slow to integrate simulation into their curriculum. In 2009 a survey of 8 medical schools showed that all now use simulation and standardised patients in their courses and all use these modalities for formative assessment of students. Years 2 (100%) and 3 (87%) were the most common period for simulation-enhanced education. All schools have access to whole-body simulators and 75% use screen-based computer simulation.

Intensive Care Medicine: High-fidelity simulators now allow medical and nursing educators to reproduce the complexity of the ICU. A 2009 survey showed that over 90% of ICUs use simulation for education; such as CPR (92%), Crisis Resource Management (CRM) (67%), communication (33%), and end-of-life training (8%). Only half have access to a simulation centre but 83% use whole-body simulators and 83% use empty beds for simulation-based training. An introductory ICM course utilising simulation is in development.

Other Areas: Emergency Medicine has also developed a similar course to the ANZCA-based EMAC course ("ACME"). Other courses that may be run at sim centres such as PHTLS (Pre-Hospital Trauma Life Support), ALS, MaCRM (Maternity CRM), CREWS (Rural Practitioner Upskilling Course) and PACRM (Paediatric CRM) typically use part-task trainers, medium/low-fidelity simulators and occasionally high-fidelity simulators or virtual-reality devices (thoracic medicine, gastroenterology courses).

Public support for use of simulation in healthcare: In a 2006 survey of 500 laypersons, 92% felt that doctors and nurses should practice CPR and life-saving treatments on plastic models but 80% did not support such training on anaesthetised animals.

Medical educators continue to integrate simulation into healthcare training, to prepare the next generation of educators to utilise simulation and perhaps to show improvements in patient care.

Healthcare educators are now facing new challenges: how can we integrate simulation into existing subspecialty training, how do we prepare the next generation of educators to best utilise simulation and how can we show improvements in patient care?