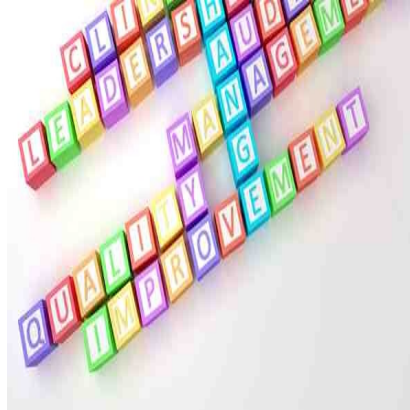




## ISICEM15: Quality in the ICU has Many Facets



Quality in the ICU in its many facets was the focus of a session at the International Symposium on Intensive Care and Emergency Medicine in Brussels this week.

Early mobilisation is the norm in the ICU nowadays, but if you do not have enough physiotherapists, then which staff can assist? Jean-Michel Constantin (Clermont-Ferrand, France) spoke about how his institution was able to implement early mobilisation by using the nurse team.

They realised that they would need an algorithm to manage early mobilisation administered by nurses. At his institution they have developed an algorithm written with the physiotherapists and nurses. At each stage nurses know what they can do and what they have to do. The algorithm is underlined with safety and autonomy in mind.

Intensivists know that quality matters, but successful quality improvement programmes require better understanding of human factors, according to Stephen Brett (London, UK). Humans behave in a non-linear manner, and typically undervalue successes. There are two types of decision-making processes, deductive (rule-based reasoning) and heuristics or 'mental models'. Mental models are susceptible to bias due to prior experiences, inaccurate understanding of key issues and baseline neglect, which is when we ignore all information in front of us, because we have scarred ourselves mentally with failures. Deductive reasoning can often fail to override mental models.

Brett commended the paper by [Angus and Mohan](#) on intensive care unit freakonomics and decision making in the intensive care unit that advocated applying behavioural psychology to understand and improve decision making by physicians in the ICU.

Quoting [Werner and Asch](#), who wrote about clinical concerns about clinical performance measurement "Performance measures focus physicians' attention narrowly on compliance with those measures rather than more broadly on the needs of the individual patient. Because performance measures are evaluated at the level of the indicator, they may crowd out quality at the level of the patient that is equally important but that cannot be easily measured"

Brett recommended the study by [Fackler et al.](#) published in Critical Care in 2009, which was an exploratory study of critical care physician cognitive task analysis.

They identified five broad categories of cognitive activities: pattern recognition; uncertainty management; strategic vs. tactical thinking; team coordination and maintenance of common ground; and creation and transfer

of meaning through stories. Brett emphasised the importance of story in a patient's episode of care, finding out the background, what happened to them before and in the ICU.

At his own organisation, Imperial College Healthcare NHS Trust, Tom Reader and Gheeta Reddy are conducting a study on the development of expert decision making in critical care. Themes picked up in the initial analysis include individual factors, such as experience, lack of knowledge about the patient, lack of expertise and environmental factors such as local hospital norms, lack of decision-making power and organisational limitations. They are also investigating organisational stress and risk through scenario-based interviews.

Brett concluded that filling professionals' heads as sole means of education is likely to be incomplete at best. Experience is personal, so mental models are inherently unpredictable. "Externals" are hard to anticipate completely, but may be identified and acknowledged. Do we try and engineer out human nature - or embrace it as part of use and work with it?

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