

## Symposium on Postoperative Quality of Recovery

Alan Merry<sup>1</sup>, David Wilkinson<sup>2</sup> and Colin Royse<sup>3</sup>

1. *University of Auckland and Auckland City Hospital.*

2. *St. Bartholomew's Hospital, London, United Kingdom*

3. *University of Melbourne and Royal Melbourne Hospital*

A symposium on quality of recovery will identify whether early recovery indicators are predictive of longer-term recovery and morbidity. A new scale to assess recovery over multiple time periods has been developed – Post-operative Quality of Recovery Scale (PQRS) <sup>1</sup>. The development and feasibility of the PQRS and data from a 701 patient cohort will be presented to illustrate how recovery can be measured.

Subjective evaluation of patients in the first thirty minutes after surgery may be misleading, with undue emphasis on appearances. For example, residual neuromuscular blockade is easy to miss, but has recently been identified in up to 30% of patients in the PACU of a major New Zealand hospital, and there is no reason to believe these findings are atypical<sup>2</sup>. The focus should be on long term outcomes, and on objective means of predicting these.

Quality of recovery is a complex and multi-dimensional issue that has been poorly addressed by the anaesthetic community. Typically anaesthetists and surgeons focus on morbidity or adverse experience of the patients to highlight problems, rather than tracking quality indicators of recovery. The PQRS is a scale designed to assess quality of recovery over multiple time periods relevant to patient care from early after emergence to long term. This project has been supported by an unrestricted research grant from Baxter Healthcare. The complexity of recovery was divided into 6 domains: Physiological, Nociceptive, Emotive, return to activities of daily living (ADL), Patient Satisfaction and Cognitive Recovery. Cognitive recovery is assessed by a battery of 5 neurocognitive tests. Recovery is defined as “return to baseline or better”, and indicates a return to normal or previous function. The tool has been initially designed as a research tool, but sufficiently simple that it takes <10min to perform and can be performed by staff with minimal training. The process of development and validation will be described.

Validation data have been obtained from multiple centres world-wide. The tool has been shown to be feasible and easy to use in multiple languages, different age groups and countries. Mean completion time was 4.8 (SD 2.8) min. Recovery improved over time. Physiological recovery was complete in 34% of subjects by 40 minutes, but many patients had not recovered by the third postoperative day. Complete recovery in all domains was obtained in 11% of cases, but by domains was: 48.7% Nociceptive, 81.8% Emotive, 68.8% Activities of Daily Living, and only 33.5% Cognitive. Overall, 95.8% of patient's reported they were “satisfied or totally satisfied” with their anaesthetic care.

1. Royse C, Newman S, Stygall J, et. al. PQRS. *Anesthesiology* in press.

2. Yip PC, Hannan, AJD, Cameron D, et. al. *AIC* 2010;38:91-95