

**Lessons to be learnt:  
Evaluating aspects of patient safety culture  
and quality improvement within an  
intensive care unit**

Stacey J Panozzo  
B.Sc. Hons

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## Abstract

Patient safety is of particular importance within intensive care units (ICUs), where critically ill, vulnerable patients receive complex multidisciplinary care. Prior research has indicated that improving patient safety and reducing errors within healthcare requires a focus on systems and organisational culture issues. This thesis was concerned with three studies. One focused on assessing the patient safety culture and two on quality improvement initiatives within an intensive care unit (ICU) of a large teaching hospital.

The first study involved a survey of ICU consultant, registrar and nursing staff regarding aspects of safety culture. This was conducted using an existing Hospital Survey on Patient Safety Culture. Of the twelve patient safety culture composites assessed, eight had scores lower than 50%, highlighting these as areas for improvement. Overall, while the survey results revealed that teamwork within the ICU was considered a strength, event reporting and patient care handovers and transitions were both considered areas with potential for improvement.

The second study focused on the evaluation of a change initiative designed to improve the handover of patient clinical information in the ICU. This study involved a survey and interviews with consultant, registrar and nursing staff before and after the introduction of a Patient Management, Plan and Progress (PMPP) document. Examination of the survey responses involved both quantitative and qualitative analysis; respondent interview transcripts were analysed using thematic analysis. The results of this study revealed resistance to, and criticisms of, the introduction of the PMPP document; the initiative failed and use of the document was discontinued.

The second initiative concerned an evaluation of the impact of a hospital-wide document on improving documentation of withdrawal of patient treatment within the ICU. This involved both quantitative and qualitative analysis, with a patient medical record audit of decisions to withdraw patient treatment within the ICU before and after the introduction of an Advance Care Plan (ACP) document. ICU consultant, registrar and nursing staff were interviewed regarding the process of withdrawal of patient treatment within the ICU. Interview transcripts were analysed using a

modified grounded theory approach. Results revealed that the attempt to improve the documentation of withdrawal of treatment within the ICU failed, with the ACP document remaining unused in 89% of cases and incomplete in the remaining 11%. Also, documentation of decision-making and of the process within the medical records did not improve. Before-introduction findings revealed that only 26% of medical records met the pre-existing requirements for treatment withdrawal in the ICU, and after-introduction findings revealed that only 19% of medical records audited met the requirements of the ACP document. After-audit findings also revealed significant and inappropriate increases in the involvement of an ICU registrar both as primary and secondary decision-makers. In spite of an increased awareness of ICU staff concerning the importance of improving documentation, the medical record audit revealed less compliance with the standards required for documentation. Possible reasons for the document remaining essentially unused, as revealed from interviews with staff, included: previous criticisms by the coroner when they failed to complete a similar formalised document properly; perceived logistical issues associated with obtaining required staff signatures; disagreement concerning who should be involved in documenting the withdrawal of treatment process; and the existence of an ICU subculture of practice that, in one particular aspect of documentation, was not consistent with established hospital and ICU protocol and documentation requirements.

The final chapter of this thesis considered implications of the results of the studies for the planning, development, implementation and evaluation of improvement programs within the ICU setting. The results were considered within the context of organisational change management theory and research, including factors that have been found to be critical in the success or failure of change programs, such as resistance to change, the involvement of key stakeholders in the change process, leadership, communication and organisational culture. It is suggested that management consultants with organisational change expertise in the planning, development, implementation and evaluation of such programs should be involved in future quality improvement initiatives.

## Declaration

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university of other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text.

I give my consent to this copy of my thesis, when deposited in the University Library, being available for loan and photocopying.

Signed: \_\_\_\_\_

Dated: \_\_\_\_\_

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