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The identification of the role and competencies of the graduate nurse in recognising and responding to the deteriorating patient in an acute ward environment: A mixed methods study

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THE UNIVERSITY OF  
**NOTRE DAME**  
A U S T R A L I A

The identification of the role and competencies of the graduate nurse in recognising and responding to the deteriorating patient in an acute ward environment: A mixed methods study

A thesis submitted in fulfilment of the requirements for the degree of

Doctor of Philosophy

School of Nursing and Midwifery

The University of Notre Dame Australia, Fremantle

**2018**

**Steven Peter Hardman**

Candidates number

20103899

## Declaration

I declare that this thesis is an account of my research, and contains as its main content work that has not been previously submitted for an award of degree, or diploma in any university or other institution. To the best of my knowledge, this thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

Signed

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke extending to the right.

Steven Peter Hardman

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My PhD journey has been a long road, one which I would not have been able to complete without the help of many people. I wish to thank those who have provided help, support and guidance throughout my study.

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Steve

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## Glossary of Terms

Key terms utilised within this thesis include:

**Acuity:** the level of severity of an illness. This is one of the parameters considered in patient classification systems that are designed to serve as guidelines for allocation of nursing staff, to justify staffing decisions, and to aid in long-range projection of staffing and budget.

**Acute health care facility:** A hospital or other health care facility providing health care services to patients for short periods of acute illness, injury or recovery.

**Acute illness:** any illness characterized by signs and symptoms of rapid onset and short duration. It may be severe and impair normal functioning.

**ACSQHC:** Australian Commission on Safety and Quality in Health Care.

**Advance care directive:** Instructions that consent to, or refuse the future use of specified medical treatments (also known as a health care directive, advance plan or other similar term).

**Advanced life support:** The preservation or restoration of life by the establishment and/or maintenance of airway, breathing and circulation using invasive techniques such as defibrillation, advanced airway management, intravenous access and drug therapy.

**Adverse drug reaction:** A drug response that is noxious and unintended, and which occurs at doses normally used or tested in humans for the prophylaxis, diagnosis or therapy of disease, or for the modification of physiological function.<sup>4</sup>

**Adverse event:** An incident in which harm resulted to a person receiving health care.

**Attending medical officer or team:** The treating doctor or team with primary responsibility for caring for the patient.

**Chain of response (COR):** outlined by the Department of Health, UK (2009), discussed several roles along a continuum from escalation, including the role of: the alerter; the recorder; the recogniser; the primary responder; the secondary responder; and the tertiary responder. Reflected the need for escalating levels of intervention in the care of the deteriorating ward patient.

**Clinical communication:** An exchange of information that occurs between treating clinicians. Communication can be formal (when a message conforms to a predetermined structure for example in a health record or stored electronic data) or informal (when the structure of the message is determined solely by the relevant parties; for example a face-to-face or telephone conversation).<sup>10</sup>

**Clinical deterioration:** the progressive decline in the physiological state of the patient leading to a homeostatic imbalance and organ dysfunction.

**Clinical handover:** The transfer of professional responsibility and accountability for some or all aspects of care for a patient, or group of patients, to another person or professional group on a temporary or permanent basis.<sup>12</sup>

**Competency-based training:** An approach to training that places emphasis on what a person can do in the workplace as a result of training completion.

**Comorbidity:** Two or more diseases or conditions occurring at the same time, such as depression and anxiety.

**Critically ill patient:** defined as those patients who are at high risk for actual or potential life-threatening health problems. The more critically ill the patient is, the

more likely he or she is to be highly vulnerable, unstable and complex, thereby requiring intense and vigilant nursing care.

**Definitive disposition:** The location, such as a ward or hospital, to which the patient will be transferred after initial stabilisation.

**Definitive care:** The clinical care required to maintain the stabilisation achieved and, where possible, to restore the patient to health.

**Deteriorating patient:** a patient experiencing progressive decline in the physiological status leading to homeostatic imbalance and potential organ dysfunction.

**Emergency assistance:** Clinical advice or assistance provided when the patient's condition has deteriorated severely. This assistance is provided as part of the rapid response system, and is additional to the care provided by the attending medical officer or team.

**Escalation protocol:** The protocol that sets out the organisational response required for different levels of abnormal physiological measurements or other observed deterioration. The protocol applies to the care of all patients at all times.

**Early Warning Score (EWS):** a guide used to quickly determine the severity of illness of a patient based on their vital signs.

**Graduate registered nurse (GRN):** a nurse who is a recent graduate (within the last two years) of an accredited school of nursing, and is registered with an appropriate Nursing and Midwifery Board and licenced to practice.

**Hospital:** A healthcare facility licensed by the respective regulator as a hospital or declared as a hospital.



**Monitoring plan:** A written plan that documents the type and frequency of observations to be recorded.

**Morbidity:** refers to ill health in an individual and to levels of ill health in a population or group.

**Mortality:** death

**Patient:** A person receiving health care. Synonyms for ‘patient’ include consumer and client.

**Rapid response system (RRS):** Formal hospital systems to support staff to promptly and reliably recognise patients who are clinically deteriorating, and to respond appropriately to stabilise the patient. The system often includes a “track and trigger” arm alongside a medical emergency team.

**Risk:** The chance of something happening that will have a negative impact. It is measured by consequences and likelihood.

**Serious adverse events:** events in which harm resulted to a person receiving health care or untoward occurrences that resulted in life threatening events or death.

**Suboptimal care:** defined as delayed or inappropriate management of the deteriorating patient including significant delays in diagnosis, treatment and referral of the acutely unwell or deteriorating patients, inadequate or incomplete physical assessment and inappropriate or delayed clinical management

**Track and trigger systems:** Physiological ‘track and trigger’ systems rely on periodic observation of selected basic physiological signs (‘tracking’) with predetermined calling or response criteria (‘trigger’) for requesting the attendance of staff who have specific competencies in the management of acute illness and/or critical care.

**Treatment-limiting decisions:** Decisions that involve the reduction, withdrawal or withholding of life-sustaining treatment. These may include ‘no cardiopulmonary resuscitation’ (CPR), ‘not for resuscitation’ and ‘do not resuscitate’ orders.

## **Abstract**

### **The identification of the role and competencies of the graduate nurse in recognising and responding to the deteriorating patient in an acute ward environment: A mixed method study.**

Patients' physiological condition can be unstable for prolonged periods before transfer to critical care units. Thus, it is imperative that ward based nurses are able to recognise, respond and initially manage patients with a deteriorating condition. Unfortunately, warning signs of physiological decline are often missed, or ignored by both experienced and newly graduated registered nurses. Complex systems and processes to recognise and respond to clinical deterioration have been developed to try to prevent, or mitigate the risk of this occurrence. These systems and processes have, however, stopped short of allocating roles and specifying the required competencies needed by health care professionals, including newly graduated registered nurses. This study aimed to investigate the key elements of the role undertaken by the graduate registered nurse in recognising and responding to the deteriorating ward patient.

**Method:** The study employed a partially mixed method explanatory design with four phases. Initially a two part online quantitative questionnaire tool was developed, tested and distributed to over 900 graduate registered nurses. The intent was to firstly explore the role newly graduated nurses in the management of the deteriorating ward patient and the factors impacting on the role. Secondly, it was aimed at investigating the clinical competencies used and the level of intervention nurses provided. Following analysis of the quantitative data, a qualitative phase utilising focus groups provided further clarification of the graduate nurses' role, and factors impacting on the role.

**Findings:** Seventy-nine competencies were identified and utilised by the majority of graduate nurses. The most relevant related to the recognition of deterioration in the ward patient, the assessment and monitoring of vital organ function and the need to call for help. Several factors impacted the graduate nurses'

role including: the need to gain permission to act; confidence; knowledge; negative emotions; lack of clarity; and ward support. Numerous ways of improving capabilities and performance were suggested. These included; the need for clearly defined competency statements; competency based assessment; organisational role delineation; mentorship; specialised multidisciplinary training; and improvements in undergraduate and post-graduate education.

**Conclusion:** This study was the first to investigate the role of the graduate registered nurse and the acute care competencies utilised in managing the deteriorating patient from both a quantitative and qualitative perspective. To effectively enable graduates to provide safe, timely management: hierarchical barriers need to be removed, support given for clinical competency standards to be utilised, and specialist education provided.