Patient safety in acute care: Going around in circles? A discussion paper

Abstract

Aim – To discuss why adult patients continue to unnecessarily die.

Background - Healthcare professionals are failing to recognise signs of physiological deterioration. As a result adult patients are unnecessarily dying. This is despite international healthcare policy requiring healthcare professionals are appropriately trained to recognise the deteriorating adult patient.

Design – A discussion paper

Data sources – Centred upon UK health policy but with reference to international practice, this discussion paper reflects upon our experiences whilst being supported by relevant literature and theory.

Implications for nursing – Significant, albeit timely changes are proposed. These include publication of key performance patient metrics and evidence of staff attaining competence at recognition of the deteriorating adult ward patient.

Conclusion – Change is urgently required. Healthcare professionals, healthcare organisations and international governments must prevent unnecessary deaths arising within acute hospitals.

Key Phrases

- Adult patients are dying unnecessarily upon general hospital wards
- Nurses are failing to recognise sings of physiological deterioration
- International healthcare policy demands nurses are appropriately trained
- Changes must be made if patients are not to continue dying unnecessarily
- Healthcare professionals, hospitals and international governments are just some of the core change agents

Introduction

For the past 15 years international governments have been recommending changes are made to healthcare practices so patient deterioration is identified and treatment initiated at the earliest opportunity (Nolan & Soar 2015). Despite multiple attempts at treating a diagnosis of unrecognised patient deterioration, previously proposed recommendations appear to not be working - death rates are rising (Palese *et al.* 2014). Inability to recognise or identify patient deterioration is termed 'failure to rescue' and has led to not only professional and political scrutiny (Bunkenborg 2014) but to calls for change from the media and public (NHS England 2014b). This discussion paper seeks to end yet more of the same repeat recommendations -

instead arguing for radical ideas to be implemented. To illustrate why seismic change is imperative, a review of some key government policies (Table 1) will be presented, their impact evaluated and new approaches suggested to prevent patients dying unnecessarily. This discussion paper is not a literature review, but based on our collective experiences and whilst being UK policy centric is supported by the wider literature which appertains to this topic.

Background

Worldwide the NHS is held up as a beacon of healthcare (Leonard 2012). Political attention consequently often focuses upon healthcare provision during election campaigns or following a succession to office (Whitehouse.Gov 2010). However, healthcare is not only orchestrated by politicians. It is broadly argued that the media is all-powerful, and albeit superficially, in-charge (Gilens and Page 2014). This influential force cannot be ignored, particularly when current professional approaches to addressing increased rates of unexpected death in hospitals is being challenged (King's Fund 2015). Whilst politicians and hospital managers commonly support change if faced with a concerning situation, short-term fixes do not often represent best long-term strategy (NHS European Office 2015). Consequently, promoting longer term change can be beneficial (Dodds 2015). One example valued by the electorate is publication of patient outcome data (National Audit Office 2014). This underlies an international political will in healthcare – patient choice (Medical Council of New Zealand 2012, Department of Health (DH) 2013a). Irrespective of rhetoric what patients seek is simple – timely and safe healthcare (Purdy 2010). These outcomes are proving challenging to deliver professionally and politically but the underpinning reason(s) are unclear (WHO 2010).

In promoting timely and safe healthcare the media has endorsed the approach of critical care provision regarding high nurse-to-patient ratios (Coakley 2013). Capacity in critical care is nevertheless finite despite exponential growth internationally (Wallace *et al.* 2015). Impacting upon capacity are issues of advancing surgical techniques, equipment development and the growth of care bundles which have resulted in evermore patients requiring semi-planned step-ups into critical care (Downs and Isbell 2014). These are all positives, for both politicians and patients' alike, but with growth comes consequences. Headlines of patients having to be flown from Scotland to Sweden to access Intensive care beds (Carrell 2009), transferred within critical care networks in Canada or across provincial borders in Australia are some recent examples (UK Gov 2014). Critical care transfers also carry risk and are disruptive to patients, families and staff (Intensive Care Society 2011). Importantly, there are occasions when inter-hospital transfer is necessary. Global events like Ebola demonstrate that patients must, on occasions, be moved across borders to access specialist facilities (Wolf *et al.* 2014).

Despite strong will, an ongoing failure to identify patient deterioration is inherently prevalent, needs reducing (National Confidential Enquiry into Patient Outcome and Death 2012) and is termed 'failure to rescue' (Jones *et al.* 2011a). Failure to rescue leads to increases in: service demand; patient length-of-stay; cost – both to individual patients and wider economic status; besets the likelihood of patients suffering more clinical problems and reflects poorly on healthcare providers and professionals (Beaumont 2012). To address these issues, an in-depth understanding of healthcare delivery is warranted.

<u>Discussion</u>

Policies to Improve Recognition of Deterioration

In the UK failure to rescue first grew in significance following publication of the McQuillan (1998) report. This report reviewed the care received in two hospitals by 100 consecutive patients classified as 'seriously-ill' and in so doing followed their intensive care pathway. The principal outcome was evidence of sub-optimal care resulting in increased morbidity, mortality and longer intensive care stays. Specifically - junior doctors were found to be failing to recognise incumbent signs of patient deterioration, or if presented with a patient that had deteriorated, performed inadequate systematic assessments of the Airway, Breathing and Circulation.

Two key UK documents also identified that failures exist in identifying patient deterioration: Critical to Success (Audit Commission 1999) and Comprehensive Critical Care (DH 2000a). Critical to Success (1999), a self-reported study, surveyed availability in all hospitals of beds and staffing and confirmed not only that failure to rescue existed but three key human factors contributed: failure to identify or act upon dangerous physiological signs; a reticence by junior doctors to seek timely senior support; and lack of communication. Without doubt the McQuillian (1998) and Audit Commission (1999) reports bore similarities, but also arguably helped open an international door, showing failure to rescue is a worldwide phenomenon. Failure to rescue reports have since been published in America (Aiken *et al.* 2002), Australia (Armstrong 2009) and South Africa (Uys & KIopper 2013). Caution interpreting terminology is needed. 'Failure to rescue' is a widely used term, now encompassing all adverse outcomes in healthcare settings (Morse 2006). However, whilst terminology may evolve, it remains that critically-ill ward patients are continuing to die unnecessarily (Stewart *et al.* 2009).

In an attempt to reverse these failings the UK Government published Comprehensive Critical Care (DH 2000a). This policy drew upon the findings of Critical to Success (Audit Commission 1999) and compiled by an expert group, remains the only UK government paper specifically relating to critical care. This report detailed a number of important outcomes. These included grading of patients into levels (Table 2), provision of a 24/7 critical care outreach service, use of early warning scores and most striking, the construct of 'critical care without walls'. This construct sought to dispel the idea that patients with high dependency nursing needs could only be cared for in designated areas such as High Dependency Units. Consequently, all ward-based nursing staff needed to be trained and competent to provide high dependency nursing skills. Comprehensive Critical Care termed this provision Level 2 care (Table 1) (DH 2000a).

The introduction of 'critical care without walls' had further ramifications (DH 2000a). To implement this vision a recommendation was made that 50% of ward nurses had to be trained and capable to provide Level 2 care by March 2002, increasing to 100% of ward nurses by March 2004 (DH 2000a). For various reasons these goals were unrealistic. No consideration was seemingly given to which or what competencies nurses required; no mechanisms were in place to assess or maintain these new skills; there was no identification of actual or potential training providers; and no indication of how or what fiscal arrangements were to be provided to meet not only necessary staff training, but future nurse training and provision of bedside care (DH 2000a). Such lack of detail could be negatively construed, particularly as this occurred at a time when hospitals had no records of how many staff already had the requisite knowledge or skills to competently care for Level 2 patients (Lakanmaa *et al.* 2014), but positively this situation enabled training needs to be identified.

Irrespective of unmet skill needs, fiscal arrangements, or training; following announcement that patients requiring Level 2 care could be cared for upon general wards, their numbers increased (Hurst 2005). To assist ward nurses to provide Level 2 care, Critical Care Nurse Consultant posts blossomed (Fairley and Closs 2006). These were new posts, heralded by Tony Blair as a mechanism to keep senior nurses on the clinical frontline (Sturdy 2004). Approved by the DH (1999), they comprised of four facets: leadership and consultancy; training and development; practice and service development; and education (Guest *et al.* 2001). This development was timely – coinciding with publication of New Labour's flagship policy: The NHS Plan (DH 2000b). Amongst many of this policy's requirements was that all staff had to be able to 'respond effectively to the individual needs of patients' (DH 2000b, 86). In keeping with earlier government policy no specifics of what this statement meant were provided. However, whilst not explicit there is an implied need to at least recognise patient deterioration. The NHS Plan was also the first policy that came with a financial commitment to critical care, but in so doing necessitated a 30% rise in High Dependency Bed provision by 2003 (DH 2000b), an outcome which also runs parallel to the need for all ward nurses to be trained and competent to provide Level 2 care (DH 2000a).

With an increasing requirement to manage Level 2 patients within the ward setting, a need to identify the necessary skills to care for these patients became imperative. Quality Critical Care, published by the Emergency Care Team (2005) received DH support. Despite embracing the concept of new ways of working, including the formation of critical care outreach teams and promoting provision of skilled workforces capable of undertaking extended roles, no specific competencies to be obtained were provided (Emergency Care Team 2005). The requirements stated therefore differ little from those within Comprehensive Critical Care (DH 2000a). To invigorate this situation, the National Outreach Forum sought to re-emphasize another objective also previously highlighted – use of early warning scores in practice (National Confidential Enquiry into Patient Outcome and Death 2005).

Emphasizing implementation of an early warning score was particularly timely. A National Patient Safety Agency report, published in 2007, had retrospectively reported upon the reasons for patient deaths during 2005. As a consequence of this report the National Institute for Health and Care Excellence (NICE) published guidelines requiring healthcare staff to be competent in caring for the patient who deteriorated and who needed Level 2 care and at monitoring, measuring, interpreting and quickly responding to patient's physiological needs. These requirements simultaneously reflected the outcomes the DH (2000a) and Institute for Innovation and Improvement (NHS 2007) sought.

Seven years following publication of Comprehensive Critical Care (DH 2000a) and despite a plethora of policy, the same political dogma was still being vaunted. Throughout all policies, political emphasis was placed on qualified staff having the training and ability to recognize the deteriorating patient. Organizationally and professionally during this period there were attempts at changing the status quo. For example, most hospitals introduced a form of early warning scoring and nurses received training on their hospital chosen tool (Quarterman *et al.* 2004). Concomitantly this occurred during a period in which the numbers of pre-registration students significantly increased as was highlighted and planned for within the NHS Plan (DH 2000b). This provided another opportunity for large numbers of nurses to be trained and to become competent both to use early warning scores and to identify deteriorating patients.

A move attempting to embrace this situation was further laid out by Lord Darzi (DH 2008). Darzi (DH 2008) stated if excellent care is to occur, a need exists to not only identify skills required but to ensure these are underpinned by educational programs. To this end all newly qualified nurses were to also receive protected periods of preceptorship from senior nurses

(DH 2008). This approach was hoped to assist nurses not only moving themselves along the novice to expert trajectory (Gobet & Chassy 2007), but to facilitate an opportunity to develop skills in managing deteriorating patients in a supported environment (Purling and King 2012).

Competency Framework

A competency framework for recognition of the deteriorating patient was finally published by the DH in 2009. This embraced the government's response to NICE (2007) and is confluent with all former policy statements. Acknowledgment continued that some nurses were not able to identify patient deterioration, despite educational courses like The Acute Life-Threatening Events Recognition and Treatment (ALERT™ 2015) and Care of the Critically Ill Surgical Patient (CCriSP) existing during the intervening period (Royal College of Surgeons 2015). Despite this, publication of the required competencies necessitated a new focus upon care provision – teamwork. All members, both qualified and unqualified were now required to be competent undertaking 'accurate recording and documentation of vital signs on adult wards' (DH 2009, 7). This is a vital acknowledgement as undoubtedly, unqualified staff often record the patient's observations as highlighted within the Cavendish Review (2013). Despite this time lag from meeting the needs of Comprehensive Critical Care (DH 2000a), countries such as Australia have also only recently adopted competency based care for recognizing critically ill patients (Australian Commission on Safety and Quality in Health Care 2014). However, it also rightly remains for qualified nurses to check their patient's observations and undertake any due assessments in a timely manner (NMC 2015a). The true power of this DH (2009) report is recognition inaccurate documentation of vital signs had even been arising, particularly as this issue has surfaced in later studies such as that by De Meester *et al*. (2013). The impact of this cannot be underestimated. In 2007, 66 patients nationally died as a direct result of failure to rescue (National Patient Safety Association 2007).

Whilst the UK situation might appear bleak, our counterparts in Australia consistently had been demonstrating advances in ability to recognise deteriorating patients (Jones *et al.* 2011b). The specific reason for incongruence is likely to be multifactorial, but approaches to patient care delivery were different (Jolley *et al.* 2007). One example includes early implementation of medical emergency teams (MET) to assess and manage the deteriorating patient - not just at time of cardiac arrest (DeVita *et al*. 2004). Earlier escalation though has demonstrated mixed outcomes. Implementation of a MET team has been shown to reduce the need for cardiac arrest calls to be made and importantly has positively impacted upon death rates as well (Buist *et al.* 2007). However, such findings in larger studies have not achieved such positive outcomes e.g. the Medical Early Response Intervention and Therapy (MERIT) study (Hillman *et al*. 2005). An overall benefit to occur is recognition that implementation of a MET team has demonstrated a specific need for varied care level provision exists.

This leads to reminiscent scenes regarding the initial introduction of care 'levels' in the UK (DH 2000a) (Table 2), but also to questions as to why death rates in the UK continue to rise? Simultaneously the UK government distances itself from issues of implementation, advocating in the strongest terms a move from central control towards local quality assurance processes (Timmins 2012). Subsequently, local commissioners were, and continue to be charged with meeting all centrally derived outcomes such as staff education (Shircore 2009).

To provide assistance to commissioners, five domains previously identified by Lord Darzi (DH 2008) were emphasized. One such domain - 'helping people to recover from episodes of ill health or following injury'- required commissioners to measure 'emergency admissions for acute conditions that should not usually require hospital admission' (DH 2010, 21). Such an outcome measure might appear to have little resemblance to recognition of the deteriorating in-patient. However, if provision of training to outpatient nurses arose, as these nurses will

conceivably encounter a deteriorating patient (Otsui & Moriyama 2011), wider extrapolation of any training could simultaneously occur. Caution for hopefulness of such extrapolation is warranted. This outcome measure was to be deemed a proxy to capture data for avoidable deterioration (DH 2010). This became evermore acute in the Outcomes Framework 2012/2013 as this metric was no longer even being measured (DH 2011).

Whilst direct measurement was also not re-instated in the Outcomes Framework 2014/2015 (DH 2013b), at least failure to detect deterioration formed a retrospective measure of patient safety. This was achieved by measuring the numbers of patients who died or suffered severe harm (DH 2013c). To achieve this measure use of previous NICE (2007) guidelines and also subsequent tool development was proposed. However, despite attempting to improve overall outcomes for deteriorating patients, the latest report merely highlights need for improvement in detection if a direct impact on patient safety is to occur (DH 2014a).

The Future?

Despite no apparent improvement in the recognition of deteriorating patients, multiple bodies have sought change. These include the WHO; international governments; NICE; education providers; and professional bodies (Figure 1). Various approaches have been adopted. In the UK these include flexible nursing to match patient acuity and embedding the 6Cs (care, compassion, competence, commitment, communication and courage) (Cummings and Bennett 2012). In Australia new observation charts have been introduced focusing upon the importance of respiratory rate measurements (Jones 2010) and in America a growing body of work is occurring around telemedicine as alternatives to rapid response teams (American Telemedicine Association 2013). These changes aside most pertinent perhaps remains nurse's personal professional commitment to practice. All nurses have a professional duty of care and professional responsibility to improve their knowledge if deficits are known (NMC 2015b). Failure to rescue could consequently also lie with the individual practitioner.

The concept of professional responsibility from inception of training was taken up in an independent report by Berwick (2013). This report promoted 'mastery of quality and patient safety [as] part of initial preparation' (Berwick 2013, 5). To back this an explicit move was made towards practitioners taking responsibility for their learning needs and acquiring skills which enabled safe practice to be assured. This should be embedded for nurses, as triennially nurses are required to inform their regulator that they have undertaken all necessary training to perform their role (NMC 2015b). This process will albeit change to revalidation at the end of 2015, but the principle is not dissimilar and occurs alongside the new Code (NMC 2015a).

The granting of individual responsibility, within government supported papers, was a further new directional turn. This approach was initially difficult to encapsulate, as ownership was multilayered. Trust Boards and leaders are still required to maintain overall responsibility for ensuring patient acuity needs can be met and are manageable by the staff employed. To embed this approach, professional regulators, such as the NMC, were required to ensure education provision met registrants needs (Berwick 2013). This outcome complimented direction of government policy towards local control. Furthermore, for commissioners a move towards individual responsibility and ownership was attractive. Emphasizing this approach was the Government demanding NHS Commissioning Boards provided sufficient trained staff; developed and competent to meet the health needs of their patients (DH 2014b).

Implications for Nursing

With individual responsibility forming part of the expectations of various professional bodies (General Medical Council 2015; NMC 2015a), yet in-patient death rates remaining high, it is now timely to propose what far reaching changes are needed. We believe there are six. These

are: RAG ratings; patient panels; enhancement of Care Quality Commission/Monitor input; telemedicine; simulation; and maintenance of foundation trust status. These proposals are, we believe, attainable, coalesce with approaches embedded in current practice and do not require significant financial outlay. This last matter is also mitigated for as international governments are providing financial assistance to improve patient care (DH 2014c, Australian Institute of Health and Welfare 2015, Centers for Disease Control and Prevention 2015).

These six proposals are determined, rigorous and could hold healthcare providers to account to ensure the highest standards of care provision for this vulnerable patient group. To explore what these might look like we will begin with RAG ratings. Hospitals could publish numbers of patients that require unplanned admission to Level 2 or 3 areas as well as those readmitted within a 48hr period following discharge. This information is collected already by hospitals, to enhance critical care provision, but results are internally held. Externally reporting these figures might alert patients to quality of care available and help hospitals develop stronger programs of training for their staff. Ratings would need to be stringent, improved upon or maintained and be both comparable and benchmarked against similar healthcare providers.

Patient expert panels could be used to assess why patients deteriorated. This could include involvement in review of deteriorated patients care journeys. Importantly the public value involvement in local healthcare (Keogh 2013) and bringing together local service users and healthcare professionals to explore failings could enhance confidence in healthcare systems. There would also need to be clear accountability structures embedded for all parties involved.

Monitor or the Care Quality Commission, dependent upon Foundation Trust status within the UK, could also embrace these findings within their reports. Corporate image is important and any poor demonstration of care outcomes might be the vital lever to enhancing care provision (Watson and Kitchen 2013). In achieving a good RAG rating hospitals could also be moved towards attaining Foundation trust status, if not already achieved. Similarly, foundation trusts could lose this status if their RAG ratings were not maintained or sufficiently improved upon.

Training in recognition of the deteriorating patient must be made mandatory for staff. Attainment must be assured as part of staff member's performance development reviews. Utilizing this approach will ensure local conduct and capability pathways are instigated to manage staff members exhibiting poor performance. Hospitals must similarly embrace new technologies and ways of delivering education, including simulation. Looking to the future telemedicine is the last goal hospitals should strive to achieve (American Telemedicine Association 2013), thereby bringing senior clinicians to a deteriorating patient's bedside 24/7.

Conclusion

Successive government policy has identified the need for training and competence. Apparent, but not explicit, is a growing acknowledgement by government that a knowledge deficit exists regarding recognition of the deteriorating patient. Responsibility for addressing this issue has moved along a trajectory – government to local commissioners to now individual practitioner (DH 2014b, NHS England 2014a). Irrespective of who holds 'responsibility', there remains one key but unanswered question. How long will politicians continue travelling in circles and not dictate or demand robust outcomes for recognizing and treating patient deterioration? Patients deserve this. Nurses must demand this. It is clear politicians will place hot spotlights upon future NHS performance and staff capability. Yet, whilst patients needing planned critical care are likely to be safe, more chilling is how many patients who should not need critical care will have to end up receiving this level of care or worse, be missed and die?

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