

# Identifying and preventing harm from deterioration in patients



This study will discuss what a nurse needs to know in relation to identifying and preventing harm from deterioration in patients in a hospital ward setting. A review of current literature will be carried out in order to find the best available evidence on the subject. The key issues arising from the literature will be critically analysed to provide a balanced and objective consideration of the strengths and limitations of current practice in relation to the recognition and communication of patient deterioration. Finally the study will use the evidence to attempt to make recommendations for practice in this area and discuss the nurse's role in the development of the new practices which could enhance the management of patient deterioration and ultimately ensure safer care for patients.

## **Rationale for Subject Choice**

As a student nurse about to become a registered and accountable practitioner, one of my main concerns is that I have the knowledge and skills to recognise deterioration in the condition of my patients and the ability to communicate my concerns effectively to ensure they are seen promptly by a more senior clinician and any further decline is prevented. Therefore my rationale for choosing to study this topic was to try to find evidence which would support me in contributing to safer care of acutely ill patients.

## **Background**

The increasing complexity of healthcare, an ageing population and shorter length of stay, means that hospital patients today need a higher level of care than ever before. Therefore, it is essential that hospital staff are equipped to recognise and manage deterioration (Department of Health 2009). Many patients who experience cardiopulmonary arrest show signs of deterioration

<https://assignbuster.com/identifying-and-preventing-harm-from-deterioration-in-patients/>

for more than 24 hours before arrest, and it has been estimated that approximately 23, 000 in-hospital cardiac arrests in the United Kingdom (UK) could be avoided each year with better care (Smith et al 2006). Furthermore, evidence has shown that delays in recognising deterioration or inappropriate management can result in late treatment, avoidable admissions to intensive care and in some cases, unnecessary deaths National Confidential Enquiry into Patient Outcome and Death (NCEPOD) (2005) National Patient Safety Agency (NPSA) (2007) (2007a). These studies highlighted the magnitude of the problem in the UK, they showed that hospital staff do not understand the disturbances in physiology affecting the sick patient, they frequently ignore signs of clinical deterioration and lack skills in the implementation of oxygen therapy, assessment of respiration and management of fluid balance NPSA (2007) (2007a). NCEPOD (2005) reported that approximately 50% of ward based patients receive substandard care prior to Intensive Care Unit (ICU) admission, and 21-41% of ICU admissions are potentially avoidable. Analysis of 425 deaths that occurred in general acute hospitals in England showed that 64 deaths occurred as a result of patient deterioration not being recognised due to observations not being undertaken for a prolonged period leading to changes in vital signs not being detected, and delay in patients receiving medical attention even when deterioration was detected (NPSA 2007). Despite considerable economic investment there is continued evidence of suboptimal care and the Department of Health (DoH) (2009) have acknowledged that the recognition and management of acutely ill patients need attention. They say there are many factors influencing a patient's ability to receive appropriate and timely care including the failure to seek advice, poor communication between professional groups, and a lack

<https://assignbuster.com/identifying-and-preventing-harm-from-deterioration-in-patients/>

of clinical supervision for staff in training (DoH 2009). The following literature review will attempt to find evidence of the factors which contribute to sub optimal treatment of deterioration.

## **Literature Review**

A literature search was undertaken using the electronic databases CINAHL, ESCBO host, Internurse, Medline, Science Direct and Swetswise through the Liverpool John Moores University search engine, and also the British Nursing Index via Ovid using the Royal College of Nursing search engine. The keywords used were: deterioration, hospital deterioration, communication of deterioration and early warning systems. A total of thirteen articles were found to be of use, two of these were published outside the UK (Australia and Italy) however after reading them it was decided that the evidence was relevant and they were deemed appropriate for use. As the study developed a further search was performed using the terms deterioration tools, communication tools, SBAR and RSVP communication tool two articles from this subsequent search were used in this study. Additionally and as mentioned above useful references were also sought from the Department of Health, the National Patient Safety Agency, the National Confidential Enquiry into Patient Outcomes and Death, and the National Institute of Clinical Excellence. The search revealed the topic had been fairly well researched, especially in recent years and the articles seemed to have stemmed from the reports by NPSA (2007) (2007a) and NICE (2007). Smith (2010) recently proposed a Chain of Prevention to assist hospitals in structuring their care processes to prevent and detect patient deterioration and cardiac arrest. The five rings of the chain represent staff education, monitoring, recognition, the

call for help and the response and it was found that the themes of education, and recognition were well documented in the literature.

## **Nurse Education**

Preston and Flynn (2010) say in order to avoid unrecognised patient deterioration and therefore enhance patient safety nurses must review their knowledge and skills in measuring the physiological parameters of temperature, blood pressure, blood glucose levels, oxygen saturation levels, and neurological function, and in particular identified the respiratory rate as a particularly sensitive indicator of clinical decline. In addition nurses also need to recognise the significance of physiological compensatory mechanisms that are activated in clinical deterioration, so they can report their findings accurately and with confidence to doctors and senior staff. Steen (2010) agrees that nurses require the knowledge and skills to be able to provide critical care in the general ward setting, as accurate assessment using a systematic approach can aid timely detection and intervention and can help to stabilise the individual's condition preventing organ dysfunction, multi organ failure and further deterioration, thus reducing morbidity and mortality rates and admission to ICU. However, Odell, Victor and Oliver (2009) feel that recognising deterioration of a ward patient and referring to critical care teams is a highly complex process, requiring skill, experience, and confidence. Preston and Flynn (2010) suggest that nurses can be helped to develop these skills by attending the Advanced Life Threatening Events Recognition and Treatment (ALERT) course, they considered the possibility of nurses undertaking the ALERT course whilst a student, they say this will help newly qualified nurses to promote their skills, abilities and rationale for

recognizing and responding to patient deterioration. They also recommend the further development of acute illness simulation programmes in both pre and post registration courses to help nurses to become more confident and expert in responding and reporting acute illness to medical and more senior staff. They say what is needed is a closer collaboration between education and health service partners to deliver these programmes and competent clinical 'teaching' staff to facilitate these simulated exercises in a safe environment that utilises accurate patient scenarios, equipment and charts that are currently used in practice (Preston and Flynn 2009).

## **Monitoring**

Accurate monitoring of patient condition featured highly in the literature. The NPSA (2007) revealed that in 14 of the 64 incident reports they studied, no observations had been made for a prolonged period before the patient died therefore vital signs such as blood pressure, pulse and respirations were not detected. But the literature revealed the crucial importance of regular observations in the recognition of deteriorating patients. Preston and Flynn (2010) said doing the observations is crucial for detecting early signs of deterioration in acute care as closely monitoring changes in physiological observations can identify abnormalities before a serious adverse event occurs. Early identification is important to reduce mortality, morbidity, length of stay in hospital and associated healthcare costs (NICE 2007). Preston and Flynn (2010) also stipulated that close supervision of unqualified nursing staff 'doing the observations' in acute care should be a high priority and should follow both the NICE (2007) guidelines and recommendations from the NSPA (2007) (2007a). However following an observation of care by Morris

(2010) an issue was identified where observations were incomplete, with recording of respiratory rate and oxygen saturations omitted and although an early warning score chart had been used, a score had not been recorded (Morris 2010).

## **Recognition**

The importance of nurses utilising an early warning system was highlighted. Cei, Bartolomei and Mumoli (2009) say using the Modified Early Warning Score (MEWS) when recording patient observations is a simple but highly useful tool to predict a worse in-hospital outcome and aid identification of patients at risk of clinical adverse events such as cardiac arrest, sepsis and raised intracranial pressure. Nonetheless a study by Donohue and Endacott (2010) revealed that participants did not look for trends in the MEWS data and few used MEWS data in the manner it was intended i. e. it was used to confirm whether the patient met the trigger criteria, rather than as a routine component of assessment, the study found that MEWS was used infrequently, used too late and not employed to communicate patient deterioration. Mohammed, Hayton, Clements, Smith, and Prytherch (2009) felt the significant advantage of an early warning or track and trigger system like MEWS was that they use a visual scale that gives a score if a physiological recording enters a colour zone. But they found that there are disadvantages to using these systems in practice if nurses add up the scores incorrectly. In their study (Mohammed et al 2009) found that calculating scores could be improved by using a handheld computer and this approach was more accurate, efficient and acceptable to nurses than using the traditional pen and paper methods in acute care. The Department of Health

(2009) say early warning systems play a key role in the detection of deteriorating patients; however, clinicians need to be aware that in some clinical situations these systems will not reflect clinical urgency (Department of Health 2009) and effective assessment skills must be employed.

## **Call for Help and Response**

The NPSA (2007) report revealed that in 30 of the 64 incident reports they audited, despite recording vital signs, the importance of the clinical deterioration had not been recognised and/or no action had been taken other than the recording of observations (NPSA 2007). This could be due to ineffective communication of the deterioration. The literature review showed that communication of deterioration was a more recently well documented subject. Steen (2010) Tait (2010) feel that a vital component of the management of the acutely ill patient is the ability to communicate clearly and precisely with all members of the multidisciplinary team to aid timely and appropriate help and intervention for the patient. Still there is much evidence of communication breakdown between disciplines, Beaumont (2008) states communication between medical and nursing staff can be problematic, nurses may not communicate clearly enough and struggle to convey information in a manner that would convince doctors of the urgency of the situation, sometimes there is failure by doctors to perceive, understand or accept the source of nurses' clinical and professional judgement, less experienced nursing staff might not feel comfortable or confident to call more senior staff because they fear doing the wrong thing or crossing occupational and hierarchical boundaries. These problems can result in conflict between professional groups as they attempt to work



towards positive outcomes and may prevent patients from receiving assistance and support when required (Beaumont 2008). Endacott, Kidd, Chaboyer and Edington (2007) agree that formal divisions of labour and professional boundaries can cause gaps or discontinuities in patient care and feel communication between clinicians must improve. Donahue and Endacott (2010) say the failure of nurses to recruit senior support to deal with acutely ill patients is a contributing factor to the sub-optimal care of critically ill patient, it may be due to a lack of experience or knowledge on the part of the doctor but may equally be due to the nurses inability to articulate the seriousness of the situation. Their data identified that nurses have an awareness of the need for a succinct story but they continue to make calls for assistance with little relevant information (Donohue and Endacott 2010).

As stated above suboptimal communication between health professionals has been recognised as a significant causative factor in incidents compromising patient safety and the use of a structured method of communication has been suggested to improve the quality of information exchange (Marshall, Harrison and Flanagan 2009). A number of communication tools are available; some hospitals use the SBAR (situation, background, assessment, recommendation) tool to structure conversations between members of the multidisciplinary team, which uses standardised questions to prompt the conveyor of information to share the necessary details (Steen 2010). In a simulated clinical scenario Marshall et al (2009) described the positive effect of this method on students' ability to communicate clear telephone referrals. However, Featherstone, Chalmers and Smith (2008) feel that SBAR is not a memorable acronym and they

prefer the use of the RSVP (Reason, Story, Vital Signs, Plan) system used in the ALERT course as framework for the communication of deterioration, the authors say SBAR does not easily slip off the tongue, and RSVP is much easier to remember in an emergency. They say the reason for the call can be explained in clear simple language, and the story gives a time line of important events, they feel nurses will be familiar with a narrative style of communication and are used to giving a brief summary as part of the handover process. The vital signs must be given in figures, and can include the early warning score, or summarized in words that convey the deterioration effectively and the plan for the patient should be outlined by the caller or expected from the receiver (Featherstone et al 2008). Smith (2010) says the use of standardised method of communication, such as the RSVP system will improve communication about patient decline.

## **Recommendations for Practice**

Constant change within the National Health Service is essential to advance care quality and ensure the provision patient focused care that is evidenced based. Ensuring the latest and best available evidence is put into practice is a crucial way of ensuring that people get the treatments and services that are the most effective and will have the best health outcomes, it ensures that the public funding that supports the NHS is used wisely and that the treatments and services offered are cost effective, and both of these factors lead to the provision of clinically effective care. Everyone involved in healthcare provision must ensure quality is enhanced and must be willing to change current practices for the benefit of patients. Nurses have a professional responsibility to keep up to date with changes and

developments within their field and to deliver care based on the best available evidence or best practice (Nursing and Midwifery Council 2008). Larrabee's (2009) Model for Evidence Based Practice Change suggests that there are six steps towards implementing change in practice, firstly practitioners should assess need for change in practice, and this study has found evidence which clearly points to the need for changes in practice in order to reduce avoidable harm to patients. The next steps of Larabee's Model (2009) are to locate the best evidence, and critically analyse the evidence, and from the evidence found in this study it is evident there are several recommendations for changes in practice which would help nurses in acute care to develop their skills in recognising and reporting deterioration. To keep the Chain of Prevention suggested by Smith (2010) strong he suggests that staff education, monitoring, recognition, the call for help and the response must all be robust in order to prevent harm from unrecognised and unassisted illness. Recommendations to enhance these areas would be to ensure that the recognition of life threatening illness is taught from an early stage in a nurses career by attending the ALERT course earlier in their training and by the teaching of patient scenarios in the clinical area and facilitated by staff who are trained in critical care. With regards to the call for help and the response rings of the Chain of Prevention (Smith 2010), it has been shown that the use of communication tools help nurses to get an earlier response when calling for assistance, so it seems sensible to implement the standard use of a communication tool in acute care when communicating deterioration. The next step in Larabee's Model for Change (2009) is to design the practice change, and it is recommended that use of the RSVP communication tool (see appendix) should become hospital

<https://assignbuster.com/identifying-and-preventing-harm-from-deterioration-in-patients/>

protocol when calling for assistance; this is because it is easy to remember and it is used as part of the ALERT course which many acute care nurses have attended. Nurses should receive training on the use of this tool and it should be displayed near the telephone in every acute area. In order to implement and evaluate this change, which are the next steps in the Model (Larabee 2009) a nurse should firstly let people know about it, this can be done by using various means of communication i. e. trust intranet, ward meetings, discussion with senior nursing staff and managers. They must then get people to take on the change by involving enthusiastic team members and organising a pilot test of the use of the RSVP tool. Crucially the rate in which more senior practitioners respond must be audited find out if the tool is working in practice and if not why not, is more information or training required is the tool not displayed clearly enough. The final step of the Model for Change (Larabee 2009) is to integrate and maintain the change in practice, to do this a nurse must ensure all new staff are trained to use the system and continuously evaluate its use to ensure it is working in practice.

## **Conclusion**

This study has highlighted the evidence base and resources available to support nurses in contributing to safer care of acutely ill patients it has found that in order to facilitate accurate detection of changes in condition, nurses working in acute care must acknowledge the importance of observations and early warning systems in the identification of patients at risk of adverse events and ensure patients are assessed using a sound knowledge of physiological compensatory mechanisms, to enhance this knowledge they should attend an ALERT course, the evidence pointed to nurses attending

these courses early in their career and that clinical scenarios could also help increase their knowledge of acute illness. It was found that communication tools help nurses when calling for senior assistance and the implementation of a standard tool within acute hospital settings could help to prevent harm from deterioration.