Evaluating the Early Warning System (EWS)

This poster contains the findings of a literature review evaluation of the EWS. The EWS is used in hospitals across New Zealand to detect patient deterioration and ensure early intervention. Points are allocated to routine vital signs (temperature, blood pressure, heart rate, respiratory rate etc). The score guides staff to know when to increase observations or request a medical review (Psirides, 2015)

Literature review question

Is the EWS effective in detecting clinical deterioration in adult patients on the general hospital ward?

Clinical issue

More acutely ill adult patients are being managed on general wards due to lack of beds in critical care areas. Suboptimal monitoring of vital signs exists, EWS scores are often miscalculated and nurses are not always able to interpret abnormal values (Andrews & Waterman, 2005)

Evidence

The EWS, combined with rapid response, can reduce the incidence of cardiac arrests and adverse outcomes. Gaps in charting and nursing knowledge delay detection of clinical deterioration (Johnstone, Rattray & Myers, 2007)

Implications

The EWS empowers nurses with quantifiable evidence of patient deterioration which enables the doctor to prioritize care / workload. The majority of patients can be managed effectively on the general ward (Subbe, Kruger, Rutherford & Gemmel, 2001)

Recommendations

- Educate and train undergraduate and postgraduate nurses to be competent users of EWS
- Increase awareness of the value of accurate EWS recording and rapid response to trigger scores

Recommendations

- Ensure nursing staff can provide clear, concise communication of clinical deterioration to the doctor, patient and their family
- Ensure nursing staff are competent in performing life-sustaining actions in the case of an adverse event until the arrival of emergency assistance

Recommendations

- Review implementation of EWS on the ward to determine its effectiveness
- Offer ongoing education, such as refresher courses, online learning or simulation exercises (National Clinical Effectiveness Committee, 2014)

Conclusion

The acuity of patients on general wards has increased whilst access to beds in critical care areas has decreased. Early identification of deteriorating patients is necessary to reduce patient mortality and save lives. The EWS is a method that can reliably detect clinical deterioration early and provide an appropriate response. It is recommended that nursing staff on general wards are provided with ongoing education to ensure successful implementation and continuing competency in the use of EWS (National Clinical Effectiveness Committee, 2014)

References

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Rationale

The accurate measurement and interpretation of vital signs and the Early Warning System (EWS) is taught in nursing schools as a fundamental part of the patient assessment process that contributes to patient well-being (Rose & Clarke, 2010). On the hospital ward, it is clear to observe that this skill is an essential part of the daily nursing routine. However, it is evident that observation charts are often inconsistently filled out and the EWS score is frequently not recorded. This led to an interest in the value and purpose of the EWS. A poster (rather than a submission) was chosen as the method of communicating the literature review findings as it is an effective way of summarising and communicating the main themes of research in a visually attractive way. Posters are one way of disseminating information to a wide audience including peers, health care professionals and policy makers. Sharing clinical knowledge contributes to, and advances, professional nursing practice (University of Dublin Trinity College, 2014).

PECOT model

The PECOT model was used to formulate the research question that became the basis of the literature review: "Does use of the Early Warning System increase the detection of deterioration in adult patients on the general hospital ward?" PECOT is an acronym for Population, Exposure, Comparison, Outcome and Time that helps to create clinical questions for research (Whitehead, 2013). As shown in Table 1, the PECOT acronym dissects the question into its elemental parts.

Table 1

Using the Elements of PECOT to Restructure the Question

PECOT category	**Information relating to question**	**Explanation**
Population	Adult patients on general wards	Patient acuity on general wards is increasing as a consequence of a lack of beds and resources in critical care areas
Exposure	Use of early warning system	Articles will be reviewed that describe the clinical effectiveness of the early warning system
Comparison	Not applicable	No comparison is necessary as the focus of this essay will be the effectiveness of the early warning system
Outcome	Detection of deterioration	The evidence for the clinical effectiveness of the EWS will be reviewed
Time	During patient stay on the general ward	This is the period of time when the health of the patient may deteriorate and could be detected by the nurse

References

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