National Early Warning Score

Louise Murphy RGN BSc
Developed by Morgan et al in 1997, The National Early Warning Score is a bedside track and trigger scoring system used by staff to calculate a total early warning score (EWS) from routinely collected observations. It aims to indicate early signs of deterioration in patients’ conditions and prompts more timely medical review and treatment of patients (HSE 2013).
The NEWS, like many existing EWS systems, is based on a simple scoring system in which a score is allocated to physiological measurements already undertaken when patients present to, or are being monitored in hospital. Six simple physiological parameters form the basis of the scoring system:

1. respiratory rate
2. oxygen saturations
3. temperature
4. systolic blood pressure
5. pulse rate
6. level of consciousness.

A score is allocated to each as they are measured, the magnitude of the score reflecting how extreme the parameter varies from the norm. The score is then aggregated. The score is uplifted for people requiring oxygen. It is important to emphasise that these parameters are already routinely measured in hospitals and recorded on the clinical chart.
The importance of early detection of patient deterioration, and activating a medical response in acute hospitals, has prompted health services in Canada, Australia and the UK to implement early warning score systems. Although there are many types of such systems, they share a common function as a bedside tool to assess basic physiological parameters and to identify patients ‘at risk’ or critically ill with associated escalation and medical team activation protocols (Patterson et al. 2011).
In Ireland, The Acute Medicine Programme in 2011 established a NEWS project workforce to develop and nationally agree and implement one NEWS system in the Irish healthcare system. This was endorsed by the National Clinical Effectiveness Committee (NCEC).

In 2011 the EWS was national implemented in response to a policy initiative and patient safety programme from the Health Service Executive (HSE) (Health Service Executive 2011). NEWS was launched in 2013.

The NEWS in the Irish healthcare system is based on international evidence incorporating the VitalPAC TM Early Warning Score (ViEWS) parameters (HSE 2009)
So why do we need NEWS!!!!!!
Missing the obvious!!
Purpose of NEWS

1. Categorization of patients’ SEVERITY of illness
2. EARLY detection of patient deterioration
3. Use of a structured COMMUNICATION tool (ISBAR)
4. Promote an early medical review, prompted by specific TRIGGER points
5. Use a definitive ESCALATION plan
Early Detection
Early Intervention
Common Language between Health Professionals
Directs nurses to necessary action
Directs nurse to frequency of observation
Allows health professionals to prioritise patient care
Framework for urgent medical review i.e. built in escalation protocol
Allows standardisation of patient care.
Standardization and minimization of variables in practice are important elements in reducing risks for patients.

- One NEWS
- One National Patient Observation Chart
- One Communication Tool
- One multi-disciplinary education programme
- One quality assured national clinical guideline which met the criteria of the NCEC (National Clinical Effectiveness Committee)
National Clinical Guidelines

National-Early-Warning-Score

1. NEWS Full Report (update 2014)
2. NEWS Summary (update 2014)
3. Other supporting documents

National Clinical Effectiveness Committee (NCEC) Feb 2013 same update Aug 2015

Acute illness in adults in hospital: recognising and responding to deterioration
NICE guidelines [CG50]
Advantages

- Patient safety first
- Optimize patient care
- Better management of healthcare resources
- Improve patient healthcare outcomes
- Reduce ITU admission and hospital length of stay
- Reduced morbidity and mortality
- Reduce healthcare cost
What the research says!!

- The 'sensitivity and specificity' of EWS allow's the tool to discriminate patients at risk of combined outcomes of cardiac arrest, unanticipated intensive care unit (ITU) admission or even death within 24 hours of a EWS value.  
  
  Petersen et al. (2014).

- The true benefit of the EWS is its ability to allow nurses and doctors recognise deteriorating patients who can have their outcomes changed with a timely intervention.  
  
  Prytherch et al. (2010).

- EWS performance is superior to all other predecessors including PARS and DTEWS.

- EWS can predict patient mortality.  
  
  Smith et al. (2013).
According to McQuillan et al., at least 39% of acute emergency patients admitted to the ITU are referred late in the clinical course of the illness. Major causes of ‘suboptimal care’ prior to transfer from the ward in their study included failure of organisation, lack of knowledge, failure to appreciate clinical urgency, lack of supervision and failure to seek advice.

WHAT THE RESEARCH SAYS!!

- Ludikhuize et al. (2012) study found that, Nurse are failing to detect deteriorating patients. **Netherlands**

- Abbott et al. (2015) identified, High rate of **inaccurate calculation** of patients EWS, therefore patients are mismanaged. **UK**

- Abbott et al. (2015) **Poor compliance** with NEWS escalation protocol and ISBAR use. **UK**

- Kolic et al. (2015) **Miscommunication** between nurses & doctors resulting in poor healthcare outcomes for patients. **UK**

*Non-compliance with NEWS means Poor patient healthcare outcomes and high health-service cost.*
No Rapid Response Team, or SHO/ Reg available to responded within the required time particularly at nights and weekends i.e. document parameters.

Lack of training and education, among nurses & doctors.

The sensitivity and specificity of NEWS means increase workload for nurses.

Staff desensitisation & alarm fatigue result in non-compliance of NEWS system.

Behaviour/ cultural change.

Inexperience/ lack of clinical knowledge among health professionals
EWS, NEWS, PEWS, MEWS, ViEWS

What NEWS can’t see!!!
Hypercapnia
Head injuries
Spinal Cord Injuries
etc.
The majority of patient adverse events occur on medical-surgical nursing wards and medical-surgical nurses are frequently the first healthcare professionals to identify signs and symptoms of clinical deterioration and initiate life-saving interventions.

(Cohn et al. 2004, Peters & Boyde 2007),
ADVERSE EVENTS

‘nurse’s attitudes towards patient care and the standard of care given to patients is suboptimal at nights and weekends’

(Kolic et al. 2015).

‘Staff desensitisation, alarm fatigue and non-compliance was commonly found when adverse events occurred’

(Petersen et al. 2014)
The NCEPOD 2005 report identified that many patient receive suboptimal care before ICU admission either because of non-recognition of the severity of the problem or inappropriate treatment.

Furthermore identifying that delayed recognition and implementation of appropriate management for acutely deteriorating patients as being key contributors to patient morbidity and mortality (Cullinane et al, 2005).
PATIENT SAFETY: MOVING FORWARD

• NEWS COMPLIANCE, Recognizing when a patient’s condition is deteriorating.

• EDUCATION, Promote nursing knowledge through regular education including National guidelines, NCEC, Empirical Research etc.

• AWARENESS, Evaluate and address gaps in service through local audits.
As nurses, the potential to save lives through the NEWS compliance is enormous, according to Surviving Sepsis Campaign (2016) we could save 400,000 lives if we treat only half of the eligible patients with the Surviving Sepsis Campaign Bundles which are identified by the NEWS.

http://www.survivingsepsis.org/About-SSC
‘It must never be lost sight of what observation is for. It is not for the sake of piling up miscellaneous information or curious facts, but for the sake of saving life and increasing health and comfort’

(Florence Nightingale 1859)


REFERENCES


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