

Clinical Guidelines on the Use of Early Warning Scoring System (MEWS/NEWS2)

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CLINICAL GUIDELINE SUMMARY		
<p>This clinical guideline provide a standardise process of recording, scoring and responding to changes in routinely measured physiological parameters of deteriorating patients. The Early Warning Scoring System was founded on the premise that (a) early detection, (b) timeliness and (c) competency of the clinical response comprise a triad of determinants of clinical outcome in people with acute illness.</p> <p>To facilitate a standardised and unified approach to recording vital signs data, colour-coded clinical charts (Modified Early Warning score for mental health services and National Early Warning Score for community health services) are in use across the Trust to record routine clinical data and track a patient’s clinical condition. The purpose of this tracking system is to alert the clinical team to any untoward clinical deterioration and to monitor clinical recovery. The charts should determine the urgency and scale of the clinical response.</p>		
The Trust monitors the implementation of and compliance with this clinical Guideline in the following ways:		
Services	Applicable	Comments
Trustwide	✓	Inpatient settings
MH&LD	✓	
CHS	✓	

The Executive Director responsible for monitoring and reviewing this Clinical Guideline is the Executive Nurse

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**EPUT Clinical Guideline for the use of Early Warning Scoring System
(MEWS/NEWS2)**

1.0 INTRODUCTION

- 1.1 Essex Partnership University NHS Foundation Trust (EPUT) provides community health, mental health and learning disability services for a population of approximately 2.5 million people in a variety of settings ranging from in-patient wards to the patient's own home. A holistic approach is essential to all aspects of good physical and mental health care and this includes the active identification and management of physical health needs. Physiological observations are required for all patients as part of their baseline assessment.
- 1.2 In mental health and learning disability inpatients setting the **Modified Early Warning System (MEWS)** is used for initial assessment on admission and for continuous monitoring of physical observation throughout patients' stay in hospital / unit. Community Health Services (CHS) use **National Early Warning Score 2 (NEWS2)** which, like MEWS, is a track and trigger monitoring and escalation system based on a simple aggregated scoring system in which a score is allocated to physiological measurements.
- 1.3 MEWS escalation trigger point is lower than of NEWS2 however, by using MEWS in mental health and learning disability settings will ensure that patients who are acutely ill or at risk of physical deterioration receive prompt care and decisions to transfer to acute setting are made in a timely manner.
- 1.4 Clinical deterioration can occur at any stage of a patient's illness, although there will be certain periods during which a patient is more vulnerable. These periods of vulnerability occur at the onset of illness therefore patients who are at risk of deteriorating may be identified and treated before a serious adverse event occurs.

2.0 BACKGROUND

- **Modified Early Warning Score (MEWS)**

- 2.1 MEWS is an early warning scoring tool used to aid recognition of deteriorating patients, and is based on physiological parameters, which are taken when recording patient observation.
- 2.2 The observations incorporated in this scoring system should include: temperature, pulse, blood pressure and respiratory rate, with oxygen saturations, level of consciousness and first episode of confusion.

- 2.3 Triggers are based on routine observations and are sensitive enough to detect subtle changes in a patient's physiology, which will be reflected in a score should the patient's condition be improving or deteriorating (**Appendix 1**).

MEWS was originally developed with two specific aims:

- To facilitate timely recognition of patients with established or impending critical illness.
- To empower nurses and medical staff to facilitate timely review.

- 2.4 All patients have their observations measured and these are converted into a score.

- 2.5 The higher the score the more abnormal the observations. If any parameter scored 3 or a total score of 4, a doctor must be contacted.

- **National Early Warning System (NEWS) 2**

NEWS2 has now received formal endorsement from NHS England and NHS Improvement to become the early warning system for identifying acutely ill patients - including those with sepsis - in hospitals in England (Royal College of Physicians December 2017).

- 2.6 Community Health Services (CHS) inpatient settings in EPUT use NEWS2 (**Appendix 2**).

- 2.7 The NEWS2 is based on a simple aggregate scoring system in which a score is allocated to physiological measurements, already recorded in routine practice, when patients present to, or are being monitored in hospital.

- 2.8 There are six simple physiological parameters that form the basis of the scoring system: respiration rate; oxygen saturation; systolic blood pressure; pulse rate; level of consciousness or new confusion and temperature.

- 2.9 For guidance on how to complete NEWS, CHS must refer to the following Royal College of Physicians link:

<https://www.rcplondon.ac.uk/projects/outputs/national-early-warning-score-news-2>

3.0 SCOPE

- 3.1 The purpose of this document is to provide all staff with a clear framework for the identification and management of patients at risk of physiological deterioration. The framework will give a consistent approach across the Trust in the recognition and management of the deteriorating patient.

- 3.2 The guideline allows the Trust to adhere to Department of Health recommendations NCEPOD 2005, 'Optimising Early Warning Scoring Systems', NICE 2007, Clinical Guideline 50 'Acutely Ill Patients in Hospital' and Patient Safety First 2008, 'Reducing Harm from Deterioration'.

- 3.3 The guideline includes all patients where a decision has been made to admit the patient to hospital.

- 3.4 The guideline applies to all health care professionals who measure, record and act on the findings of patient physiological observations.
- 3.5 This guideline is to be read and used in conjunction with the Trust CPR policy and procedure (CLP14).

4.0 ROLES AND RESPONSIBILITIES

- 4.1 **The Trust Board** is responsible for ensuring:
- That the principles of this clinical guideline and other associated policies are implemented across the organisation;
 - The necessary financial resources.
- 4.2 **The Executive Nurse** will ensure that:
- This clinical guideline is embedded within clinical practice;
 - This reviewed and updated regularly, in accordance with recommended best practice and national guidance.
- 4.3 **The Senior Operational Managers** will ensure that:
- All MEWS/NEWS2 are audited and reported on a regular basis to the Resuscitation & Deteriorating Patient Group.
- 4.4 **The Trust's Resuscitation and Deteriorating Patient Group:**
- Advise the Trust on all aspects of issues relating to the Deteriorating Patient.
 - Provide assurance to the Trust Board via the Clinical Governance and Quality Sub-Committee that clear standards for the Deteriorating Patient are in place and monitored effectively.
 - Monitor programmes of work in relation to the Deteriorating Patient through regular review of training and implementation of MEWS;
 - Review incidents requiring deteriorating patient to ensure standards are adhered to and to identify any wider learning for dissemination across the Trust;
- 4.5 **The Trust's Workforce Development Team:**
- Will ensure the provision of training and education to meet identified needs.
 - **Enhanced Emergency Skills (EES)** incorporates the components of Immediate Life Support (ILS) with additional training requirements in emergency skills, as required by the individual clinical services within EPUT.
- 4.6 **Matrons** are responsible for:
- Maintaining an overview of the effectiveness of care through the review of audit findings.
 - Supporting ward managers and staff in the implementation of this guideline.
 - Monitoring the implementation and compliance of this guideline.
 - Ensuring staff access training in line with their roles and responsibilities.

4.7 **Ward Managers** are responsible for:

- Implementing this guideline within their clinical area.
- Ensure all their staff understand their accountability and responsibility in relation to complying with this guideline.
- Ensure staff have the knowledge, skills and competence commensurate with their role and responsibilities to assess the acutely ill patient within their clinical area.

4.8 **All staff** are responsible for practicing in accordance with the clinical guidance set out in this guideline.

5.0 THE PROCESS OF COMPLETING THE CHART

5.1 The Early Warning Scoring System (EWSS) should be used on all inpatients or when a decision has been made to admit.

5.2 Vital signs are monitored in mental health by the Modified Early Warning Score (MEWS) see Appendix 1.

5.3 **Community Health Services (CHS)** use National Early Warning Score 2 (NEWS2) see Appendix 2 which, like MEWS, is based on a simple aggregated scoring system in which a score is allocated to physiological measurements.

5.4 The procedure for monitoring vital signs using NEWS2 is outlined on the following Royal College of Physicians:
<https://www.rcplondon.ac.uk/projects/outputs/national-early-warning-score-news-2>. CHS in EPUT must follow guidance set by the Royal College of Physicians.

5.5 Staff caring for patients and using the EWSS should have competencies in monitoring, measurement and interpretation of observations and respond promptly to the acutely ill patient appropriate to the level of care they are providing.

5.5 Training and assessment is provided as required by individual clinical services to ensure staff have these competencies.

5.6 **In mental health services, Enhanced Emergency Skills (EES)** training incorporates the components of Immediate Life Support and of MEWS chart with additional training requirements in emergency skills, as required by the individual clinical services within EPUT.

- 5.7 All patients should have:
- Physiological observations recorded at the time of their admission or initial assessment.
 - A clear written monitoring plan that specifies which physiological observations should be recorded and how often. The plan should take account of the:
 - Patients diagnosis
 - Presence of co-morbidities
 - Agreed treatment plan.
- 5.8 Physiological observations should be recorded and acted upon by staff that have been trained to undertake these procedures and understand their clinical relevance.
- 5.9 As a minimum, the following physiological observations should be recorded at the initial assessment and as part of routine monitoring:
- Heart rate
 - Respiratory rate
 - Blood pressure
 - Level of consciousness (using ACVPU)
 - Temperature
 - Oxygen saturations
- Each** set of observations **must** be accompanied by a calculated MEWS/NEWS2 score and include the initials of the staff member undertaking those observations.
- 5.10 The frequency of observations should be increased or decreased as indicated by clinical need, by the doctor or nurse responsible for the patient. This should be documented both on the observation chart and in the patient record/notes.
- 5.11 The frequency of observations should be increased if abnormal physiology is detected, as indicated on the chart.
- 5.12 The escalation procedure for patients identified as being at risk of clinical deterioration should be triggered by either physiological track of a single parameter of 3 and/or the total score of 4 and above or clinical concern of the MEWS.
- 5.13 For **NEWS**, CHS in EPUT must follow guidance set by the Royal College of Physicians via the following link:
<https://www.rcplondon.ac.uk/projects/outputs/national-early-warning-score-news-2>
- 5.14 The trigger threshold for implementing the escalation procedure is clearly stated at the front of the MEWS Observation chart.
- 5.15 An escalation procedure for patients identified as being at risk of clinical deterioration is an integral part of the observation chart and is detailed in.

- 5.16 When a patient's MEWS score or clinical condition requires action, the **Situation, Background, Assessment, Recommendation (SBAR)** reporting system is used to ensure effective communication to recognise and prevent further deterioration of physically unwell patient.
- 5.17 Once the escalation procedure has been initiated, the patient must be seen within 30 minutes.
- 5.18 With a total MEWS score of **1 and above**, the nurse in charge of the ward area must be informed as soon as possible. It is their responsibility to decide whether the patient needs the frequency of their observations increased. They also need to consider if increasing clinical care may be required.
- 5.18 With MEWS **single parameter of 3** or **total MEWS score of 4**, the medical team responsible for the care of that patient must be informed urgently. The identified doctor is required to attend urgently.
- 5.19 For **NEWS2**, CHS in EPUT must follow guidance set by the Royal College of Physicians via the following link:
<https://www.rcplondon.ac.uk/projects/outputs/national-early-warning-score-news-2>
- 5.20 If the patient's condition becomes life-threatening, a call should be made immediately on 999.
- 5.21 All patients with a MEWS of ≥ 4 (or 3 in one parameter) **MUST** always be highlighted as part of the handover process for both nursing and medical staff.
- 5.22 All patients being transferred to a new ward area with a MEWS ≥ 4 must have been reviewed by a Doctor and must have a clearly documented robust plan of care.
- 5.23 Whilst use of the early warning score system facilitates the assessment, early recognition and response to the deteriorating patient, it should not deter clinicians from exercising their clinical judgement.
- 5.24 The MEWS chart and its efficacy in relation to track and trigger processes should be reviewed on an annual basis to ensure the tools are fit for purpose and meet local needs. For **NEWS2**, CHS in EPUT must follow guidance set by the Royal College of Physicians.

6.0 ADJUSTING THE MEWS PARAMETERS

- 6.1 Patients with conditions such as Atrial Fibrillation or Chronic Obstructive Pulmonary Disease (COPD) often have abnormal physiological observations, which are outside 'normal' parameters and do not compromise the patient or cause distress; however they may trigger the MEWS score.

- 6.2 Also, in some circumstances, a patient may continue to trigger the MEWS, despite appropriate treatment being in place. In this situation it may be appropriate to alter specific parameters, within levels applicable to the patient's condition. This will highlight changes in the patient's physical state, should an acute event occur.
- 6.3 **Alterations to MEWS parameters** may only be completed by a **doctor**.
- 6.4 The doctor may adjust these parameters, which could, in turn, alter the trigger and the call-out cascade of MEWS.
- 6.5 Where the MEWS parameter is reset:
- The level should ensure sufficient sensitivity to alert nursing and medical teams to further deterioration.
 - The adjusted parameters and MEWS score should be documented in the patient's records along with a clear treatment plan.
 - Reset parameters for pre-existing medical conditions should be reviewed at least every 24 hours.
 - The patient should be closely monitored and any increase above the new parameter level must be reported immediately to the medical team.
 - The date, time and value of reset parameter should be documented on the observation chart to ensure that it is reviewed at least every 24 hours.
 - The resetting of the parameter threshold should be on an individual patient basis and should not pass onto possible subsequent readmissions without reassessment.
 - All patients with parameters reset must be communicated to the Ward Manager or most senior nurse on duty and in handover meetings.

7.0 COMPLIANCE AND MONITORING

- 7.1 Matrons and ward managers will monitor the implementation and compliance of this guideline.
- 7.2 MEWS compliance will be audited on an annual basis and is incorporated within the Trust audit dashboard. The Practice Development team is responsible for completion and submission of the audit to the nursing directorate. Any areas of concern will require an action plan to be formulated and communications to all appropriate services.
- 7.3 The audit of compliance in relation to MEWS/NEWS2 will be fed back to ward managers / matrons and presented to the patient safety committee and other relevant forums.

END