NATIONAL EARLY WARNING SCORING (NEWS) Supporting information

This guideline has been prepared with reference to the following:

NICE, Sepsis: recognition, diagnosis and early management, 2024, London, NICE

https://www.nice.org.uk/guidance/NG51

NICE. National Early Warning Score systems that alert to deteriorating adult patients in hospital. 2020, London, NICE

https://www.nice.org.uk/advice/mib205

Department of Health Ireland. National early warning system. 2020. Dublin. Department of Health Ireland

https://www.gov.ie/en/collection/cc5faa-national-early-warning-score-news/

Royal College of Physicians. National Early Warning Score (NEWS) 2. 2017. London. RCP

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

Dougherty L & Lister S. The Royal Marsden Manual of Clinical Nursing Procedures, Professional Edition. 2015. Chichester. Wiley-Blackwell

McGinley A, Pearse RM. A national early warning score for acutely ill patients. BMJ. 2012;345:e5310

https://www.bmj.com/content/345/bmj.e5310.long

NICE. Acutely ill adults in hospital: recognising and responding to deterioration. 2007. London. NICE

http://www.nice.org.uk/guidance/cg50

Is NEWS a useful aid to clinical judgement?

A 2021 systematic review assessed the predictive power of NEWS for risk of mortality and hospital ward or intensive care unit (ICU) admission (Arévalo-Buitrago, 2021). The meta-analysis of 4 studies using the NEWS scale showed that it had good predictive power for mortality: the area under the curve (AUC) of the receiver operating characteristic was 0.88 (95% CI, 0.87 to 0.89) at 24 hours and 0.86 (95% CI 0.84 to 0.88) at 48 hours. The AUC for inhospital mortality was 0.77 (95% CI 0.74 to 0.80). The authors concluded that the NEWS score had adequate power for predicting risk of hospital ward and ICU admission.

A 2017 review evaluated the relative usefulness of a range of early warning scores in predicting intensive care (ICU) admission and mortality for patients in the emergency department and acute medical unit (Nannan Panday, 2017). For mortality prediction NEWS was the most accurate score in the general emergency department population and in those with respiratory distress. Mortality in Emergency Department Sepsis score (MEDS) had the best accuracy in patients with an infection or sepsis. ICU admission was best predicted with NEWS, however in patients with an infection or sepsis Modified Early Warning Score (MEWS) yielded better results for this outcome.

Arévalo-Buitrago P, Morales-Cané I, Luque EO et al. Predictive power of early-warning scores used in hospital emergency departments: a systematic review and meta-analysis. Emergencias. 2021;33:374-81

Nannan Panday RS, Minderhoud TC, Alam N et al. Prognostic value of early warning scores in the emergency department (ED) and acute medical unit (AMU): A narrative review. Eur J Intern Med. 2017;45:20-31

Evidence Level: I

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