Editorials

What's behind the NEWS?

National Early Warning Scores in primary care

WHAT'S THE NEWS?

Everyone is talking about the NEWS — National Early Warning Scores.[1] GPs will have noticed that ambulance call handlers are now routinely asking health professionals for a patient's NEWS,[2] and some areas are encouraging routine use of this scoring system in the community.[3] So why has this happened and what is the evidence to support its use in the community? Should GPs be adopting NEWS or NEWS2 (an updated version that puts a greater emphasis on new onset confusion and recognises alternative oxygen saturations for people with respiratory failure) as part of their usual practice?

Early warning scores (EWS), most recently NEWS2, have been used in hospitals for several years. In secondary care settings, they are primarily used by members of the team recording routine physiological observations in order to identify patients who are deteriorating clinically. The universal use of a common scoring system allows clinical information to be communicated efficiently across departments, clinical settings, and between clinical colleagues. Its usefulness as a common language, combined with the drive to identify sepsis early, have contributed to the widespread adoption and acceptance of NEWS2 in secondary care.

THE EVIDENCE

Given the widespread use and acceptance in hospitals, it is only natural to consider whether it would also be helpful to use NEWS2 in the community. If paramedics, GPs, district nurses, and nursing home staff were all using the same system, then the benefits of this 'common language' in communicating physiological risk should help to identify those patients at greatest risk of deterioration and allow the prioritisation of resources accordingly. In this issue of the *BJGP*, Pullyblank *et al* report on the system-wide adoption of a common EWS across health settings in the West of England.[4] Their evidence appears to indicate that the use of NEWS2 in the community contributed to reductions in mortality among patients admitted with suspicion of sepsis without increasing admissions. Also in this issue of the *BJGP*, Scott *et al* found that when NEWS was calculated at the point of referral, higher NEWS correlated with faster conveyancing time by ambulance, faster clinical review, and poorer clinical outcomes.[5] These findings suggest that the use of NEWS in primary care, at the point of referral to acute care, seems to correlate with clinical acuity.

Pullyblank *et al*'s article suggests that NEWS identifies those patients in general practice who are most unwell, and, in providing a common language, may improve communication and care.[4] But is this enough to support widespread adoption? There are, perhaps, some other aspects to the NEWS story that require some further thought.

First, we must consider those patients who are not referred to hospital. General practice has been famously referred to as the 'risk sink' of the NHS.[6] GPs, by necessity, hold onto clinical risk in the community. Potentially preventable deaths from sepsis are tragic, but can never be completely avoidable unless every feverish patient seen in general practice is referred to hospital. Treading a line between referring excessively (so that secondary care is overwhelmed) and identifying those patients who can be managed at home or in a care home (without overwhelming community services) is a responsibility that every GP understands. An EWS may augment decision making and help us identify patients who require rapid hospital admission, but we can't yet say whether this helps with triage of those patients at an early stage in their illness. We know that for those who have higher scores it helps to access rapid transport and assessment; however, it's not clear if high scores should, or will, override clinical judgement and prompt admission, or whether lower scores will lead to false reassurance in the face of gut feeling and clinical uncertainty.

In Scott *et al*'s article, examining the use of NEWS in the community and related clinical outcomes, it was found that around 20% of patients referred to hospital by GPs had a NEWS of ≥5 (the usual threshold for raising clinical concern).[5] The corresponding figure for referrals from out-of-hours (OOH) primary care is much lower (6.9%).[7] The research is currently unable to explain the reasons for this difference, although it has been proposed that 'tolerance of risk' is an important factor in referral decisions in OOH care.[8] It may be that the capacity to tolerate risk is lower in OOH care where there is reduced opportunity to follow up patients and more limited alternatives to admission. Interestingly, in the OOH study, where NEWS was not calculated at the time, over two-thirds of patients with a NEWS of ≥5 were not referred to hospital.[7] The corresponding in-hours figure, and the outcomes of these patients, are currently unknown quantities.

If an EWS is to be adopted as routine practice, it is important to understand who should be calculating it and why. In the research undertaken by Pullyblank *et al* in the West of England,[4] it appears that NEWS was being calculated and used after the decision to refer and by non-GPs. It was being used to prioritise resources and to focus clinical attention. This seems like a successful strategy on the basis of the evidence presented; however, if NEWS becomes integrated into general practice it needs to have clear boundaries or there

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is a risk it will interfere with, rather than augment, clinical decision making.

NEWS AND DECISION MAKING

Decision making is a complex business, and the decision to refer a patient is often not straightforward. No score can communicate the gut feeling of an experienced clinician. The risk of summarising clinical observations into a simple score is that it may become a cognitive shortcut in decision making. Greig *et al*, in a third article in this issue, indicate that checklists can be popular and useful in certain circumstances, but only if designed and tested properly.[9] Clinicians, like everyone else, are cognitively miserly: '*... people are limited in their capacity to process information, so they take shortcuts whenever they can.*'[10] These shortcuts, or heuristics, serve us well in many situations, but when they fail they lead to biases and these biases are a leading cause of medical error.[11] Systematising NEWS risks introducing a cognitive shortcut whether it is intended or not.

Finally, clinicians will be aware of, and probably influenced by, the fact that a high documented NEWS will provide a clear nudge towards admission that may prove irresistible to the retrospective gaze of a clinical negligence lawyer. Currently in general practice, no specific actions are linked to NEWS thresholds, and very little research has been done to look at the positive and negative predictive values for this undifferentiated pre-hospital population. This is at odds with how NEWS is used elsewhere in the system. A NEWS of 5 or 7 mandates a pre-specified response from staff in hospitals and ambulance services, and failure to take appropriate action may be grounds for a medical negligence claim.[12] It is foreseeable that 'thresholds for action' will either formally or informally creep into general practice along with an accompanying fear of failure to act. So before we accept NEWS as part of routine practice in primary care, let's ensure we pause, think, and avoid a cognitive cul-de-sac.

Referral decisions are complex and the simplicity of NEWS is tempting; however, before supporting NEWS it needs to be established that this tool will provide safer care than communicating a full set of clinical observations to someone who can calculate NEWS if their decision making requires it. Furthermore, have the potential risks of oversimplifying referral decisions among cognitively overloaded clinicians been adequately considered? General practice needs to think beyond the NEWS headlines and carefully consider and evaluate whether the benefits outweigh the risks before travelling the one-way path of widespread adoption.

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