

NEWS2: supporting the physician's role in leading on the deteriorating patient

Matt Inada-Kim is a consultant acute physician at Hampshire Hospitals NHS Foundation Trust, and clinical lead for deterioration & sepsis in Wessex Patient Safety Collaborative. He argues that the next great advance in healthcare will not be a cure, but a change in the way we work as a system.

The mismanagement of deterioration is the most common area of systemic failure in avoidable patient death across the NHS and poor communication is the leading root cause of adverse events in healthcare.

90% of cardiac arrests are preceded by a deterioration in vital signs.¹ When a deteriorating patient's worsening condition is not clear to clinical staff, it can lead to serious problems, complications, and death.

The National Early Warning Score (NEWS) is the best available system for assessing physiological risk in deteriorating patients² and is already in use in 80% of hospitals and nearly all ambulance trusts in England. The single warning score offers a unified language to describe and communicate the physiological risk of sick patients, and can be used by all healthcare professionals in all settings.

NEWS is a validated tool in acute care, comprising physiological measurements scored 0–3, depending on the fluctuation from normal: respiration rate, oxygen saturations, systolic blood pressure, heart rate, temperature and level of consciousness (defined by AVPU); the higher the total score, the sicker the patient.

The updated NEWS

Major updates in the updated NEWS2 include:

- > an oxygen saturation sub-chart for those with confirmed hypercapnia (where oxygen saturations of 88–92% are accepted as normal) to better tailor the prescription of oxygen.
- > the addition of New Confusion (or delirium) to the level of consciousness score.
- > the reinforcement of the value of aggregate scores versus single parameter extreme recordings.

NHS England, NHS Improvement and the RCP issued a Patient Safety Alert earlier this year,

mandating the implementation of NEWS2 in all acute and ambulance settings, and to remove poorer validated scoring systems. To support this, NEWS2 champions have been established in every acute trust, supported by Patient Safety Collaboratives in the 15 regions across England.

NEWS is useful in assessing all potentially unwell patients, but is not a 'test' and should never be used in isolation, but rather as an adjunct to assist clinical decision-making and at care interfaces when communicating and tracking patients' risk over time and across the care pathway. NEWS has not yet been validated across community settings, but neither has the system it potentially replaces: a subjective, non-standardised system of communication and referrals which frequently led to patients being transferred across care boundaries unaccompanied by any observations.

Deterioration measurement

Most hospitals in England have admissions clerking and post-take ward round proformas to standardise documentation. These checklist the key elements of assessment, decision-making, investigation results, facilitate multiprofessional communication and prompt senior clinicians to reliably document decisions eg length of stay, escalation plans. This level of standardisation of admissions across most trusts has increased over recent years and has, perhaps, contributed to the overall reduction in mortality rates in short stay patients.

However, a similarly standardised approach to patients that significantly deteriorate and die is lacking. This is an area we need to influence, and there should be reliable documentation of recognition, communication and response.

There should be 'forms' to ensure that nursing and medical staff are prompted to do the right things, send the right tests and have the right conversations. This should also enable the measurement of timeliness of response and

enable organisational intelligence over staffing adequacy, competence and reassurance that the correct processes are happening for patients most at risk of death. Discussions are underway to develop a national measurement for processes in deterioration linked to NEWS2.

Pathway for deteriorating patients

Separating the pathways for sepsis from other causes of deterioration is harmful, and patients with elevated NEWS without sepsis must be managed as aggressively as those with suspected sepsis. It is vital that clinicians, national/regional bodies and organisations understand this and link sepsis improvement programmes to those focused on the management of deteriorating patients.

NEWS2 and the *NHS England Sepsis Implementation Guidance for Adults* have shown the way for a potential combined 'all cause deterioration' pathway to minimise the risks of a more detached, blinkered approach. Both state that an aggregate NEWS ≥ 5 identifies adult hospital patients who are severely ill with likely organ dysfunction, and who require urgent assessment by a senior clinical decision-maker, who should apply clinical judgment to start appropriate treatment.

Consider involving yourself in organisational/regional deterioration improvement efforts. Encourage colleagues to use NEWS2 at referral, when discussing/presenting patients and during handover. Physicians care for over 80% of emergency admissions, and a deterioration in medical conditions is responsible for the vast majority of hospital deaths. The potential influence that physician engagement, leadership and NEWS2 in hospitals and the wider pathway could be profound and lead to radical improvement across the NHS. ■

References

- 1 Kellett J, Sebat F. Make vital signs great again – a call for action. *Eur J Intern Med* 2017;45:13–19.
- 2 Redfern OC, Smith GB, Prytherch DR *et al*. A comparison of the quick Sequential (Sepsis-Related) Organ Failure Assessment Score and the National Early Warning Score in non-ICU patients with/without infection. *Crit Care Med* DOI:10.1097/CCM.0000000000003359