

lower respiratory tract infections. *Eur Respir J* 2005;26:1138–80.

Standardised early warning scoring system

Editor – I have read with great interest the paper by Paterson *et al* (*Clin Med* May/June 2006 pp 281–4). The paper confirms our findings that a simple standardised early warning scoring system (SEWS) is able to summarise information about both mortality¹ and length of stay in hospital.² Interestingly, the prediction of length of hospital stay in our study³ was limited to patients below the age of 65 who are less dependent on discharge support.

I have some concerns regarding the scoring tool: SEWS is using a trigger of 4 points to alert clinicians. Due to the make-up of the score a barely conscious patient ('pain') with significant bradycardia (40 bpm) due to a brain haemorrhage would not trigger. This is due to the usage of alert/verbal/painful/unresponsive (AVPU) that in the described way underestimates risk¹ and the fact that a severe abnormality in just one parameter is unable to trigger.

In contrast to both our study³ and the MERIT⁴ study the authors suggest improved mortality. Unfortunately there is no indication whether the control and intervention group were matched by severity of illness (ie similar distribution of SEWS scores). A chance finding is also likely due to the high variation in hospital death per day and short sampling periods of eleven days.

In addition, improvements in mortality are more likely to be due to the response to SEWS rather than the tool. In a small and short study this response is easier to control than in longer studies. Data on compliance and mortality after three years now would therefore be of interest.

CHRIS SUBBE

Specialist Registrar in Thoracic and General Medicine
Advanced Trainee in Intensive Care Medicine
Wrexham Maelor Hospital

References

- 1 Subbe CP, Kruger M, Rutherford P, Gemmell L. Patients at risk: validation of a modified early warning score in medical admissions. *QJM* 2001;94:521–6.
- 2 Subbe CP, Falcus J, Rutherford P, Gemmell

L. Knowing the score. *Health Serv J* 2003;113:32–3.

- 3 Subbe CP, Davies RG, Williams E, Rutherford P, Gemmell L. Effect of introducing the modified early warning score on clinical outcomes, cardio-pulmonary arrests and intensive care utilisation in acute medical admissions. *Anaesthesia* 2003;58:797–802.
- 4 MERIT study investigators. Introduction of the medical emergency system: a cluster randomized controlled trial. *Lancet* 2005;365:2091–7.

In response to Subbe

We note the comments by Dr Subbe who helpfully supports our conclusions regarding standardised early warning scoring (SEWS), inpatient mortality and length of stay. We differ in having drawn on a single study executed within two months to assess the impact of SEWS and the associated education, emphasised in our discussion. We believe the explanation of SEWS and the scoring system is clear in the methodology and would highlight that we adopted a lower threshold for intervention (4 points), and shorter response time to allow a greater safety margin, rather than the score of 5 adopted in the modified early warning scoring system (MEWS).¹

With regard to the carefully constructed clinical example quoted, SEWS neither replaces nor negates the importance of the presenting history. Typically, antecedent events and observations secure the management of patients suffering intracerebral haemorrhage. Subbe suggests that under-scoring in this instance reflects the use of alert/verbal/painful/unresponsive (AVPU) for conscious level, but this is identical in MEWS. We can find no mention in the given reference that AVPU underestimates risk,¹ but merely reiterate that AVPU is used in current resuscitation training and therefore staff are familiar with this simple tool. It has been compared with Glasgow Coma Scale in other medical settings.² The differentiation in this example is the heart rate. A patient assessed using MEWS, with a heart rate of 40 sits on the cusp of 1 or 2 points and thus could also fail to trigger using the criteria described by Subbe.^{1,3} However, in this clinical example it is highly likely that other physiological parameters would be abnormal and SEWS has

the additional advantage of incorporating a further domain, oxygen saturations, an important predictor of outcome.⁴

We note the author's comments regarding the potential influence on mortality of introducing a system such as SEWS. There are three points to consider. First, the scores we report were recorded at point of entry to care, rather than during the evolution of care.³ We would suggest that even a few hours in the acute setting is sufficient for therapeutic interventions to favourably alter the weight of an early warning score recorded at an interval. Second, bearing in mind that medical emergencies are reliably predictable, important variation in case mix and illness severity is unlikely in the sampling period we describe. A recent publication from the same unit shows no change in outcome for common medical emergencies between mid-week and weekends.⁵ Third, the response to SEWS, building on the education that underpins it, is indeed what may best explain any effect on mortality, and in this we concur. The MERIT study used very different criteria, and in general to trigger, a patient requires greater physiological derangement.⁶ Indeed, the main conclusion from this study may well also be the importance of education and communication.

The challenge for all involved in delivering acute healthcare is to provide prompt and effective treatment to improve patient safety and healthcare outcomes. Updated and validated scoring systems are likely to remain an essential part of the clinical armamentarium.

DEREK BELL

Professor of Acute Medicine
Imperial College,
Chelsea and Westminster Campus, London

RUTH PATERSON

Practice Development Nurse
Department of Acute Medicine
Western General Hospital, Edinburgh

DONALD MACLEOD

Consultant Physician and Clinical Lead in Medicine
Departments of Acute Medicine and Cardiology
Western General Hospital, Edinburgh

References

- 1 Subbe CP, Kruger M, Rutherford P, Gemmell L. Patients at risk: Validation of a modified early warning score in medical admissions. *QJM* 2001;94:521–6.
- 2 Kelly CA, Upex A, Bateman DN. Comparison of conscious level assessment

- in the poisoned patient using the alert/verbal/painful/unresponsive scale and the Glasgow coma scale. *Am Emerg Med* 2004;44:108–13.
- 3 Subbe CP, Davies RG, Williams E, Rutherford P, Gemmell L. Effect of introducing the modified early warning score on clinical outcomes, cardio-pulmonary arrests and intensive care utilisation in acute medical admissions. *Anaesthesia* 2003;58:797–802.
 - 4 Buist M, Bernard S, Nguyen TV, Moore G, Anderson J. Association between clinically abnormal observations and in-hospital mortality: a prospective study. *Resuscitation* 2004;62:137–41.
 - 5 Schmulewitz L, Proudford A, Bell D. The impact of weekends on outcome for emergency patients. *Clin Med* 2005;5: 621–5.
 - 6 MERIT Study Investigators. Introduction of the medical emergency system: a cluster randomised controlled trial. *Lancet* 2005;365:2091–7.

■ CONVERSATIONS WITH CHARLES

Clinical freedom, patient autonomy and NICE

The National Institute for Health and Clinical Excellence (NICE) has a difficult job to do in assessing effectiveness of treatments. This can only be made more difficult if individual patients, or doctors treating them, challenge these decisions. The extent to which they should do so has profound ethical and practical implications. I asked Charles when such challenges were legitimate and got an unequivocal response.

‘Never!’ was his reply, but anticipating my surprise he continued, ‘I am taking a narrow view of the question, but nevertheless the one that applies to the majority of cases.’

‘In doing so, what assumptions are you making?’ I asked.

‘I am assuming that NICE has given clear guidelines excluding the treatment requested. The patient has accepted treatment within the NHS. The doctor is working in the same system and is seeking not to follow that guidance during the treatment of that specific patient.’

‘But that restricts their autonomy and clinical freedom!’ I replied.

‘Even in these days of the cult of the individual, autonomy can never be absolute. We still have criminal laws and civil laws which restrict our freedom, more of the latter than ever before! The individual must have the humility to defer to the collective good at the expense of his autonomy. The

necessary rationing within the NHS is a prime example. Both patient and doctor implicitly accept this when treatment is within the NHS.’

‘But Charles, the doctor’s duty is to do the best for his patient!’ I protested.

‘Yes, but within the system in which he works. He does not provide the resources, nor does the patient directly. Both should remember NICE’s assessment is as thorough as it can be. Individual lobbying often presents relative benefit as absolute thus exaggerating the potential value in the mind of the patient, causing great distress when the treatment is withheld.’

‘Recently the Court of Appeal disagreed with you, Charles,’ I responded.

‘Not if you read the judgment carefully, Coe. The grounds on which the woman succeeded in challenging the decision to withhold treatment were not that NICE was wrong in their guidance but that the provider was inconsistent in their application.’

‘What difference does that make, Charles?’

‘The Court found that the provider was inconsistent in not allowing the therapy to the appellant whilst allowing it to women with small children. If the treatment was worthwhile for the latter, why not for the former? To withhold on those grounds was against her human rights.

Clin Med
2006;6:425–6