letters to the editor

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Simple clinical score

Editor – The article validating the 'simple clinical score' by Subbe, Jishi and Hibbs (*Clin Med* Aug 2010 pp 352–7) was very interesting. However, I have a few questions relating to it:

1 There is no mention of missing data. Were there no missing data (either for predictive parameters or outcomes)? If so, the data collectors are to be congratulated as this is extremely unusual.
2 Would it be possible to confirm that the mortality data do not include any deaths that occurred after discharge?
3 The methods section states that 'the collected data were used to establish receiver operator characteristic curves'. However, I was not able to see any such curves in the article.
4 I may be out of date, but interobserver variability used to be described in terms of a kappa score. There is no mention of a kappa score for interobserver variability. Is this because kappa scores are now considered obsolete?

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Risk scoring for acute admissions

Editor – For older patients there may be a simpler and more relevant basis for assessing risk of death and another important adverse outcome – institutionalisation – than the simple clinical score described by Subbe and colleagues (*Clin Med* Aug 2010 pp 352–7). Functional status has been shown to be the most important predictor of outcome and length of stay in patients aged over 65.[1,2]

Two series of 200 consecutive admissions, predominantly acute, under my care, were assessed using the Rankin scale during the first week of admission. The presence of four acute illness markers – AIMs – (hypoxia, hypotension, hyper/hypothermia and depressed conscious level) on admission was noted, along with whether the admission was due to fracture, acquired neurological deficit or any geriatric giants – immobility, falls, confusion or incontinence – (FANGGs).[3] Patients were followed till death, discharge or 90 days, at which time patients were regarded as institutionalised.

There were 122 men, mean age 80, and 278 women, mean age 85. Men were more likely to die than women (25% *v* 15%). Risk of death increased from zero with Rankin score 0–43% at score 5, and from 14% with no AIMs to 77% with two or more. The effect of AIMs was only seen at Rankin grades 4 or 5, at which the risks of death were doubled from 23 to 45%, and from 31 to 62% respectively. The risk of institutional care rose from 14% with no FANGGs to 31% with one and 56% with two or more but only among those with a Rankin score of 3 or more. Length of stay correlated with Rankin grade and the presence of FANGGs. All differences on univariate analysis were unlikely to be due to chance ($p<0.05$, chi-squared test).

While these results were obtained from patients selected for geriatric care and under one consultant, they could be the basis of a simple case-mix system, based on functional status and modulated by sex and AIMs for mortality and FANGGs for risk of institutional care and length of stay. This should be explored in a different setting.

The study was approved by South Birmingham Local Ethics Committee.

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References

1 Campbell SE, Seymour DG, Primrose WR *et al.* A systematic review of factors affecting outcome in older medical patients admitted to hospital. *Age Ageing* 2004;33:110–15.
2 Campbell SE, Seymour DG, Primrose WR *et al.* A multi-centre European study of factors affecting the discharge destination of older people admitted to hospital: analysis of in-hospital data from the ACMEplus project. *Age Ageing* 2005;34:467–75.
3 Dunstan EJ. Modified admission case-mix for the elderly. *Age Ageing* 2001;30:531–2.

In response

We would like to thank the editor for the opportunity to reply to the interest generated by our paper on benchmarking of acute admissions units. We would also like to use the opportunity to thank Dr J Kellett, who developed the simple clinical score (SCS), and generously advised us on this project and the preparation of the manuscript.

The comments made are extremely valid:

1 Data were collected prospectively on a daily basis, including weekends. We used two methods to achieve best possible data capture: the daily take lists used by admitting doctors on the acute medical unit and the hospital administration system. There is a chance that patients could have been admitted directly to general wards thus bypassing the take. We cannot adjust for this. Additionally we checked against weekly lists of patients who died from the patient administration system to make sure that no patient with fatal outcomes was missed. The patient administration system captures out-of-hospital death, though with a possible delay. We cannot account for deaths post-discharge that were not entered into this system, but believe that the number would be small.