

## COMMENT

# Comment on: Improving trauma care in rural Iran by training existing treatment chains

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## Dear Editor

Recently an Iranian research team reported good treatment results of a rural chain-of-survival for land mine victims<sup>1</sup>. The authors rightly point to a potential weakness in their study: the physiological severity indicator, which was used as the main outcome measure in the study (Physiological Severity Score, PSS) is a proxy indicator, a simplification of the 'gold standard' for trauma severity scoring, the Revised Trauma Score (RTS)<sup>2</sup>.

We strongly believe that a simple diagnostic index is better than a complex index if both are accurate, especially where trauma life support is provided in chaotic settings. Therefore, our research center has extensively validated the accuracy of the PSS in rural trauma systems in Iraq and South-East Asia – and found that the PSS does as well as the more sophisticated RTS<sup>3,4</sup>.

The study outcome from Iran may be yet another confirmation that 'simple is better'. However, our Iranian colleagues did not scrutinize the accuracy of the main outcome measure. We therefore kindly ask the team to make two simple validations of PSS accuracy:

1. Physiological severity correlates with anatomical severity. How good is the correlation ( $R^2$ ) between the PSS (physiological severity) and the Injury Severity Score (ISS, anatomical severity) in the Iranian data set?
2. Physiological severity is a risk factor for trauma death. How well did the PSS predict the actual trauma mortality (receiver operating characteristics, area-under-curve estimates), on-site fatalities excluded?



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## References

1. Nafissi N, Saghafinia M, Balochi K. Improving trauma care in rural Iran by training existing treatment chains. *Rural and Remote Health* 2008; **8**: 881. Available [www.rrh.org.au](http://www.rrh.org.au) (Accessed 1 April 2009).
2. Champion HR, Copes WS, Sacco WJ, Lawnick MM, Keast SL,

Bain LW Jr et al. The Major Trauma Outcome Study: establishing national norms for trauma care. *Journal of Trauma* 1990; **30**: 1356-1365.

3. Husum H, Gilbert M, Wisborg T, Van Heng Y, Murad M. Rural prehospital trauma systems improve trauma outcome in low-income countries: a prospective study from North Iraq and Cambodia. *Journal of Trauma* 2003; **54**: 1188-1196.
  4. Husum H, Gilbert M, Wisborg T, Heng YV, Murad M. Respiratory rate as prehospital triage tool in rural trauma. *Journal of Trauma* 2003; **55**: 466-470.
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