

## COMMENT

# Comment on: Identification of barriers to the implementation of evidence-based practice for pre-hospital thrombolysis

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**Comment on: Identification of barriers to the implementation of evidence-based practice for pre-hospital thrombolysis**  
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## Dear Editor

I am writing in response to the article by Bloe et al (*Identification of barriers to the implementation of evidence-based practice for pre-hospital thrombolysis*)<sup>1</sup>. There is no doubt that the topic and the potential policy implications that may emanate from this study are of great public health significance. However, I am concerned that some of the statistical analysis and, therefore, the conclusions are problematic. I will outline these:

The authors have reported that: 'Irrespective of experience rural GPs who had previously administered pre-hospital thrombolysis reported higher confidence compared with GPs who had never given pre-hospital thrombolysis ( $7.5 \pm 1.7$  vs

$6.3 \pm 2.0$ ,  $p = 0.01$ ; Fig1)'. However, in actual fact,  $7.5 \pm 1.7$  vs  $6.3 \pm 2.0$  should result in  $p > 0.05$  and not  $p = 0.01$  as the authors reported. If we were just to take 7.5 and minus its standard deviation, we find that it overlaps with 6.3 and its standard deviation.

In Table 1, the self-reported confidence given as  $3.8 (\pm 2.4)$ ;  $7.0 (\pm 1.9)$  and  $6.2 (\pm 2.5)$  should not have a  $p$ -value of  $< 0.0001$ . If we were to calculate the one standard deviation limits of each of these values, we will have (1.4–6.2), (5.1–8.9) and (3.7–8.7). All these estimates are overlapping and will be much more so at the 95% confidence interval.

Finally, Figure 1, in fact, shows that the frequencies overlap and the  $p$ -value reported is likely to be erroneous.



In summary, I question the statistical analysis and the conclusions drawn from it.

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## Reference

1. Bloe C, Mair C, Call A, Fuller A, Menzies S, Leslie SJ. Identification of barriers to the implementation of evidence-based practice for pre-hospital thrombolysis. *Rural and Remote Health* **9**: 1100. (Online) 2009. Available: <http://www.rrh.org.au> (accessed 24 May 2009).