Response to Letter by Clawson et al

Response:

We thank Dr Clawson and colleagues for their letter. Clearly, the Priority Dispatch Corporation leadership cares strongly about the performance of their proprietary product and we applaud their efforts to improve it.

We believe their critical evaluation of our study is misdirected. As stated in our “Methods” section, we reported data collected in 2005 on Version 11.1 of the Medical Priority Dispatch System (MPDS).1 Dr Clawson and colleagues argue that the suboptimal performance we documented was due either to poor implementation of the MPDS by the Los Angeles dispatch system or defects in the instrument that have been corrected by subsequent revisions through Version 12.0 but do not provide any data to support this point of view.

The available data challenge their position. After the submission of our study, 2 additional studies have been published consonant with ours. A study from the United Kingdom examined the performance of MPDS Version 11.1 in stroke identification and found virtually the same sensitivity (48% versus 41%) and positive predictive value (49% versus 45%) as we did.2 A study from San Diego, cited by Clawson and colleagues, examined later MPDS Version 11.2.3 Unlike the Los Angeles and the UK studies, which had systematic identification of all final diagnosis stroke cases at the receiving hospitals, the San Diego study had incomplete final case identification, precluding a reliable estimate of sensitivity. However, their methods did permit a valid analysis of positive predictive value, and they found a positive predictive value that was actually nominally worse, not better, than that found in either the UK or Los Angeles studies (42% versus 49% versus 45%).

Clearly, suboptimal performance appears to be a property of recent successive iterations of the MPDS itself, not the emergency medical services system in which it is implemented. Moreover, our content analysis of the current, unvalidated MPDS Version 12.0 stroke algorithm suggests that the revisions are unlikely to remedy, and may even exacerbate, the problems documented with past versions, because the key criterion of motor deficits is now given even less weight than before.

Given the challenging nature of stroke identification in the field, we urge the Priority Dispatch Corporation leadership, when preparing future instrument revisions, to work closely with experts in stroke and neuroemergency care such as the Foundation for Education and Research in Neurological Emergencies and the American Heart Association Stroke Council Emergency Neuroscience Committee. The MPDS is an advanced and sophisticated system that plays a critical role in dispatch worldwide and prehospital providers, physicians, and patients with stroke can only benefit from its further improvement.

Disclosures

None.

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