New prognostic model for traumatic brain injury

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In a research article published in this week's *PLoS Medicine* Ewout Steyerberg (of the University Medical Center Rotterdam) and colleagues describe the development and validation of new prognostic models for traumatic brain injury.

Reviewing patient characteristics from 8,509 patients in the IMPACT database – a database that combines patient data from eight randomised controlled clinical trials and three observational studies in traumatic brain injury – they define a core prognostic model based on three clinical predictors: age, motor component of Glasgow coma score (GCS), and pupillary reactivity. They also develop an extended version of the model and a laboratory model, which includes haemoglobin and glucose measurement.

In a related Perspective article, Peter Andrews and Neil Young of the University of Edinburgh, who were not involved with the research, argue that this model and other prognostic models for traumatic brain injury will be useful for "clinical decision making and the counselling of patients' relatives, but it must be remembered that their outcomes apply to populations—and so great caution is needed if applying them to individual patients."

Citation: Steyerberg EW, Mushkudiani N, Perel P, Butcher I, Lu J, et al. (2008) Predicting outcome after traumatic brain injury: Development and international validation of prognostic scores based on admission characteristics. PLoS Med 5(8): e165. doi:10.1371/journal.pmed.0050165

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