Enhanced specificity of prognosis in severe head injury.

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Abstract

Data from 523 patients admitted to the Medical College of Virginia with severe head injury and known 6-month outcomes were analyzed in order to determine the optimal combination of early-available prognostic factors. Twenty-one prognostic indicators noted in the emergency room at admission were used to predict outcomes into four categories: good, moderately disabled, severely disabled, or vegetative/dead. A combination of the patient's age (in years), the best motor response (graded in the usual six-point scale), and pupillary response (in both eyes) was found to be the most accurate indicator. The model correctly predicted outcome into one of the four outcome categories in 78% of cases ("specifically accurate predictions"). If predictions into an outcome category adjacent to the actual outcome were accepted, this model was accurate in 90% of cases ("grossly accurate predictions"). A set of three simple graphs based on this model can be used for rapid early estimation of probable outcome in a severely head-injured patient at admission.

PMID: 3404236 [PubMed - indexed for MEDLINE]