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Probability of Survival Scores in Different Trauma Registries: A Systematic Review

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Abstract

Introduction: A mixed score to predict the probability of survival has a key role in the modern trauma systems. The aim of the current studies is to summarize the current knowledge about estimation of survival in major trauma patients, in different trauma registries.

Method: Systematic review of the literature using electronic search in the PubMed/Medline, Web of Science Core Collection and EBSCO databases. We have used as a MeSH or truncated words a combination of “trauma”, “probability of survival”, and “mixed scores”. The search strategy in PubMed was: “((((trauma(MeSH Major Topic)) OR injury(Title/Abstract)) AND score (Title/Abstract)) AND survival) AND registry (Title/Abstract))))”. We used as a language selection only English language literature.

Results: There is no consensus between the major trauma registries, regarding probability of survival estimation in major trauma patients. The German (RISC II), United Kingdom (PS Model 14) trauma registries scores are based of the largest population, with demographics updated to the nowadays European injury pattern. The revised TRISS, resulting from the USA National Trauma Database, seems to be inaccurate for trauma systems managing predominantly blunt injuries.

Conclusions: The probability of survival should be evaluated in all major trauma patients, with a score derived from a population which reproduce the current demographics.Only a careful audit of the unpredicted deaths may continuously improve our care for severely injured patients.

Key words: trauma scores, probability of survival, trauma registry