

A better way of estimating blood loss

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Research suggests that there may be a better way of measuring blood loss due to trauma than the current method, finds an article in BioMed Central's open access journal *Critical Care*. The study shows that base deficit (BD) is a better indicator of hypovolemic shock than the Advanced Trauma Life Support (ATLS) classification, which uses a combination of heart rate, systolic blood pressure and the Glasgow Coma Scale.

Using data from the TraumaRegister DGU® 16,305 patients injured between 2002 and 2010 were classified according to BD and then assessed for demographics, injury characteristics, and transfusion and fluid requirements. Severity of injury, length of stay in ICU or in hospital, morbidity and mortality were all linked to BD. Increase in BD category was associated with worse hypotension, needing more blood, [intubation](#) and mechanical breathing.

When validated to the current ATLS classification BD was more accurate at predicting the patients who needed blood products, and the need for massive transfusions. BD was also better at predicting who was at highest risk of death.

More information: Renaissance of base deficit for the initial assessment of trauma patients: a base deficit-based classification for hypovolemic shock developed on data from 16,305 patients derived from the TraumaRegister DGU Manuel Mutschler, Ulrike Nienaber, Thomas Brockamp, Arasch Wafaisade, Tobias Fabian, Thomas Paffrath, Bertil Bouillon, Marc Maegele and TraumaRegister DGU *Critical Care*

(in press)

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