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THE PERFORMANCES OF THE GLASGOW COMA SCALE, THE REVISED TRAUMA SCORE, THE TRIAGE REVISED TRAUMA SCORES AND THE KAMPALA TRAUMA SCORE IN PREDICTING MORTALITY IN THE ACCIDENT AND EMERGENCY WARD OF A TEACHING HOSPITAL IN NIGERIA

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Background Countries with no formal prehospital care system have a high inter-hospital referral rate with patients being referred late to tertiary hospitals. Objective is to determine which of the four trauma scores is most useful in predicting mortality and to determine the optimal cut-off point for predicting mortality for each score.

Methodology In a prospective study, all patients with severe trauma (ISS>16) presenting in the Accident and Emergency were included in the study. The scores were calculated using standard methodologies. Their ability to discriminate between survivors and non-survivors in the casualty was compared using the receiver operative characteristic (ROC) curves.

Results There were 12 (6.5%) deaths among the 186 patients included in the study. The area under the curve (AUC) of each of the scores were: Kampala Trauma Score (KTS)=0.914, Revised Trauma Score (RTS)=0.883, the Triage Revised Trauma Scores (tRTS)=0.881 and Glasgow coma scale (CGS)=0.880. Pairwise comparison of the scores did not show any significant difference in the performances of the scores. The various optimal cut-off point for discriminating between survivors and non-survivors for the scores were: KTS=12, RTS=5.7, tRTS=9 and GCS=9.

Conclusion While the KTS and the RTS performed better than the CGS in predicting mortality in the casualty, this performance was not statistically significant. We therefore suggest that, because of its widespread usage and ease of use, the CGS should be used by hospitals in deciding which patient to refer to tertiary hospitals. Patients with CGS scores of ≤ 9 should be transferred to tertiary centres; and those already in tertiary centres should be admitted to the ICU for special care