

The Blantyre coma scale (BCS) is used to assess children with severe falciparum malaria, particularly as a criterion for cerebral malaria, but it has not been formally validated. We compared the BCS to the Adelaide coma scale (ACS), for Kenyan children with severe malaria. We examined the interobserver agreement between 3 observers in the assessment of coma scales on 17 children by measuring the proportion of agreement (PA), disagreement rate (DR) and fixed sample size (n). We assessed the sensitivity and specificity of the scales in detecting events (seizures and hypoglycemia) in 240 children during admission and the usefulness of the scales in predicting outcome. There was considerable disagreement between observers in the assessment of both scales (BCS: PA = 0.55, DR = 0.09 and $n = 0.27$; ACS: PA = 0.36, DR = 0.31, and $n = 0.31$), particularly with the verbal component of the BCS ($n = 0.02$). Compared to the ACS, the BCS was more specific (0.85 for BCS and 0.80 for ACS), but less sensitive (0.2560.69 vs. 0.3860.88 respectively) in detecting events and was a worse predictor of neurological sequelae. The BCS provided a better overall assessment of a child's incapacity from falciparum malaria, but the ACS was more useful in assessing neurological disturbances.