

Abstract

Background: Due to the absence of a valid instrument to aid in the detection of delirium in Hong Kong, the aim of this study was to investigate the effectiveness of the Confusion Assessment Method Diagnostic Algorithm (CAM algorithm) and the bilingual version of the Nursing Delirium Screening Scale (NU-DESC) among the elderly in a convalescent in-patient setting.

Methods: Between January and March 2007, 100 geriatric patients newly admitted to a convalescent in-patient unit were assessed by a non-psychiatrically trained physician and ward nurses using the CAM algorithm and a bilingual version of NU-DESC, respectively. The two instruments were compared against the gold standard, the DSM-IV based diagnosis performed by a psychiatrist, who also rated the delirium severity using the Delirium Rating Scale-Revised-98 (DRS-R-98) in a cross-sectional design. Receiver operating characteristic curve (ROC) was used in conjunction with sensitivity and specificity measures to assess the performance of the tools.

Results: The prevalence of delirium was 25%. The CAM had a sensitivity of 0.76 and a specificity of 1. The ROC curve of the NU-DESC showed a sensitivity of 0.96 and a specificity of 0.79 at the optimal cut-off of >0 . Neither underlying dementia nor the severity of delirium symptoms affected the validity of either instrument. The average time required for NU-DESC administration was one minute per shift, and that for CAM administration was ten minutes.

Conclusion and implication: The bilingual version of the NU-DESC is a sensitive screening tool, and the CAM algorithm is an accurate diagnostic instrument for detection of delirium in geriatric inpatients. A three-stage “filter-approach”, which combines a multidisciplinary effort, is proposed for optimal identification of delirium in the busy clinical setting.

Keywords: delirium, detection, CAM algorithm, NU-DESC, geriatric