

Poster-Präsentation II: Intensivmedizin
Different Assessment Tools for ICU Delirium.
Which score to use?

**A. Luetz¹, A. Heymann¹, J. Burmeister¹, F. Radtke¹,
A. Heinz² und C. Spies¹**

¹ Campus Virchow-Klinikum und Campus Charité Mitte Berlin

² Charité - Universitätsmedizin Berlin, Campus Charite Mitte Berlin

Purpose: ICU delirium is associated with higher mortality, prolonged duration of ICU stay and greater healthcare costs. Currently there are several assessment tools for the detection of delirium available. The aim of this study was to compare the validity of available instruments for detection and assessment of delirium in ICU patients.

Methods: During the study period from February to May 2007, 156 patients were included. Enrollment criteria included patients with a surgical intervention followed by an ICU stay of at least 24 hours. Exclusion criteria defined a priori included a history of severe dementia, psychosis, non German-speaking patients and inability to communicate due to severe hearing loss or brain injury. Trained staff members performed daily, independent CAM-ICU, Nu-

DESC and DDS ratings. These evaluations were compared against the reference standard, a delirium expert (blinded to the study) who used delirium criteria from the Diagnostic and Statistical Manual of Mental Disorders (fourth edition). Statistics: Chi-square test and McNemar's test.

Results: Sixty-three out of 156 patients (40%) were identified as delirious by the reference standard at some point during the study interval. Using the CAM-ICU and the Nu-DESC we measured comparable sensitivities (CAM-ICU 81%, Nu-DESC 83%). However the specificity of the CAM-ICU was significant higher (96% vs. 81%, $p < 0.01$). In contrast the DDS showed only poor sensitivity (30%) whereas the specificity was significant higher compared to the Nu-DESC (DDS 91%, Nu-DESC 81%, $p < 0.05$).

Conclusion: The CAM-ICU showed the best validity when used by nurses and physicians to identify delirium in ICU patients. The Nu-DESC might be an alternative tool for detection of ICU delirium. The DDS should not be used as a screening tool. As a consequence of our findings, we suggest a CAM-ICU-based algorithm for management of delirium screening in the ICU. ■