Michael Ehrensperger, Stefan Bläsi, & Andreas Monsch   -   selected references

1 Ehrensperger, M. M., Berres, M., Taylor, K. I., & Monsch, A. U. (2010). Early detection of Alzheimer's disease with a total score of the German CERAD. *Journal of the International Neuropsychological Society, 16,* 910-920.
Notes: The goal of the present study was to evaluate the diagnostic discriminability of three different global scores for the German version of the Consortium to Establish a Registry on Alzheimer's Disease-Neuropsychological Assessment Battery (CERAD-NAB). The CERAD-NAB was administered to 1100 healthy control participants [NC; Mini-Mental State Examination (MMSE) mean = 28.9] and 352 patients with very mild Alzheimer's disease (AD; MMSE mean = 26.1) at baseline and subsets of participants at follow-up an average of 2.4 (NC) and 1.2 (AD) years later. We calculated the following global scores: Chandler et al.'s (2005) score (summed raw scores), logistic regression on principal components analysis scores (PCA-LR), and logistic regression on demographically corrected CERAD-NAB variables (LR). Correct classification rates (CCR) were compared with areas under the receiver operating characteristics curves (AUC). The CCR of the LR score (AUC = .976) exceeded that of the PCA-LR, while the PCA-LR (AUC = .968) and Chandler (AUC = .968) scores performed comparably. Retest data improved the CCR of the PCA-LR and Chandler (trend) scores. Thus, for the German CERAD-NAB, Chandler et al.'s total score provided an effective global measure of cognitive functioning, whereby the inclusion of retest data tended to improve correct classification of individual cases
Department of Geriatrics, University Hospital Basel, Basel, Switzerland.
ehrenspergerm@uhbs.ch

2 Blasi, S., Zehnder, A. E., Berres, M., Taylor, K. I., Spiegel, R., & Monsch, A. U. (2009). Norms for change in episodic memory as a prerequisite for the diagnosis of mild cognitive impairment (MCI). *Neuropsychology, 23,* 189-200.
Notes: The new diagnostic criteria for mild cognitive impairment (MCI) from the International Working Group on Mild Cognitive Impairment (Winblad et al., 2004, p. 243) list "evidence of decline over time in objective cognitive tasks" as one diagnostic sign, implying the repeated neuropsychological testing. This study aimed to compare different assessment methods of longitudinal change based on the performances of 366 cognitively healthy participants (237 men, 129 women) examined with a German version of the California Verbal Learning Test (Delis, Kramer, Kaplan, & Ober, 1987) at baseline and 2 years later. Age, education, gender, and baseline performance were taken into account. Results revealed marked practice effects after 2 years. Normal ranges for change that controls for practice effects and regression to the mean proved to be superior to other reliable change indexes. This new method allows for more valid interpretation of change in neuropsychological functioning and thus diagnosis of MCI
Memory Clinic-Neuropsychology Center, University Hospital, Basel, Switzerland

3 Blasi, S., Brubacher, D., Zehnder, A. E., Monsch, A. U., Berres, M., & Spiegel, R. (2005). Assessment of everyday behavior in Alzheimer's disease patients: its significance for diagnostics and prediction of disease progression. *Am.J.Alzheimers.Dis.Other Demen., 20,* 151-158.
Notes: Memory Clinic-Neuropsychology Center, University Hospital, Basel, Switzerland
In addition to cognitive decline, current diagnostic criteria for Alzheimer's disease (AD) require evidence of impaired social and/or occupational functioning. The Nurses' Observation Scale for Geriatric Patients (NOSGER) is used to rate the frequency of disturbances in everyday behaviors and, although not specifically developed for this purpose, is often applied for diagnostic purposes. The NOSGER assesses six dimensions: Memory, Instrumental Activities of Daily Living (IADLs), Self-Care (ADL), Mood, Social Behavior, and Disturbing Behavior. The goals of this study were 1) to establish normative data for the NOSGER as a function of demographic variables (i.e., age, years of education, and gender) in healthy elderly subjects; 2) to obtain cutoff values distinguishing healthy elderly subjects from probable AD patients with mild dementia; and 3) to describe the natural course of behavioral changes occurring in mild

AD according to the NOSGER dimensions. NOSGER data of 445 normal controls [NCs, 376 men, 69 women; Mini-Mental Status Examination (MMSE) = 28.8 +/- 1.17] and 217 probable AD patients with mild dementia (97 men, 120 women; MMSE = 26.1 +/- 1.59) from the Memory Clinic of Basel, Switzerland, were analyzed. Cutoff scores for distinguishing between average NCs and mildly demented AD patients ranged between 7 and 9 for different NOSGER dimensions. Formulae to obtain demographically adjusted and z-transformed NOSGER dimension and MMSE scores for assessment of individual cases were determined. NCs were best distinguished from patients in the NOSGER dimension Mood, followed by Memory, ADLs, Social Behavior, and Disturbing Behavior. Linear courses of behavioral deterioration were found-in four NOSGER dimensions (Memory, IADLs, Mood, and Social Behavior) in these mildly demented patients. No quadratic course was found for any of the NOSGER dimensions. The NOSGER revealed good discriminatory power in those behavioral dimensions affected in early stages of AD and is suitable for monitoring behavioral changes as a function of disease progression. Its use in combination with the MMSE for dementia screening purposes is recommended

4 Monsch, A. U., Ermini-Funfschilling, D., Mulligan, R., Meier, D., Juillerat, A. C., Michel, J. P. et al. (1998). Memory Clinics in Switzerland. Collaborative Group of Swiss Memory Clinics. *Annales de Medecine Interne (Paris), 149,* 221-227.
Notes: Memory Clinic, Geriatric University Hospital, CH-4031 Basel, Switzerland
Currently, eleven Memory Clinics (MC) in Switzerland offer their services to patients, caregivers and family doctors. Their primary goal is the early diagnosis and management of dementia in elderly outpatients. Special emphasis is put on the detection of reversible causes of dementing disorders. Diagnoses and medical, pharmacological, neuropsychological and social treatment recommendations are established in a multidisciplinary consensus conference and communicated back to the referring physicians. The psychosocial therapies and supportive activities include counseling, memory training for patients, neuropsychological rehabilitation, caregiver groups, relaxation and biofeedback training, day care centers, Alzheimer's Tanzcafe, and special vacations for dementia patients. These activities vary from MC to MC according to the availability of resources. Research activities are an integral part of all MCs and range from the attempt to identify preclinical markers of Alzheimer's disease to studies of neuropathological correlates of cognitive disturbances. Moreover, patients are encouraged to participate in studies investigating new medications. MCs play an important role in the education and training of health care professionals and in raising awareness and support in the general population

5 Monsch, A. U., Bondi, M. W., Salmon, D. P., Butters, N., Thal, L. J., Hansen, L. A. et al. (1995). Clinical validity of the Mattis Dementia Rating Scale in detecting Dementia of the Alzheimer type. A double cross- validation and application to a community-dwelling sample. *Archives of Neurology, 52,* 899-904.
Notes: Department of Psychiatry, University of California, San Diego School of Medicine, USA
OBJECTIVE: To assess the clinical validity of the Dementia Rating Scale (DRS) in detecting patients with dementia of the Alzheimer type (DAT). BACKGROUND: The DRS is widely used to evaluate cognitive functioning in older adults. Adequate normative data are unavailable; studies addressing the clinical validity of the DRS are limited by small sample sizes. DESIGN AND METHODS: Administered the DRS to 254 outpatients with DAT and 105 healthy elderly subjects. Performed (1) multiple regressions of demographic factors on the DRS and its subscales; (2) derivation of optimal DRS cutoff scores using receiver operating characteristic curves; (3) double cross-validation with stepwise logistic regressions; and (4) application of results to a community-dwelling sample. RESULTS: Age- and education-adjusted DRS scores were computed. The optimal DRS cutoff score for DAT of 129 or less revealed a sensitivity of 98% and a specificity of 97%. The logistic regressions resulted in a combination of the Memory and Initiation/Perseveration subscales that correctly classified 98% of all subjects, 92% of a subsample of 76 patients with mild DAT, and 100% of the 51 patients with autopsy-confirmed DAT. The resultant equation was then applied to a community- dwelling sample (238 healthy elderly subjects and 44 patients with DAT): 91% of patients and 93% of normal subjects were correctly classified. Of an additional 77 individuals with questionable DAT, 43 were classified as

demented and 34 were classified as nondemented. CONCLUSIONS: The DRS is a clinically valid psychometric test for the detection of DAT. The Memory and Initiation/Perseveration subscales are its best discriminative indexes for an abbreviated version

6 Monsch, A. U., Bondi, M. W., Butters, N., Salmon, D. P., Katzman, R., & Thal, L. J. (1992). Comparisons of verbal fluency tasks in the detection of dementia of the Alzheimer type. *Archives of Neurology, 49,* 1253-1258.
Notes: Department of Veterans Affairs Medical Center, San Diego, CA 92161 The performances of 89 patients with dementia of the Alzheimer type (DAT) and 53 demographically matched elderly normal control subjects were compared on four verbal fluency measures (category, letter, first names, and supermarket fluency). Receiver operating characteristic curves were plotted to determine each fluency tasks' sensitivity (ie, true-positive rate) and specificity (ie, true-negative rate). Category fluency demonstrated the greatest degree of discrimination between patients with DAT and normal control subjects (sensitivity, 100%; specificity, 92.5%); letter fluency was the least accurate (sensitivity, 89%; specificity, 85%). Separation of patients with DAT by gender revealed similar findings. In further analyses with a subgroup of 21 mildly impaired patients with DAT, category fluency lost none of its discriminative capabilities, whereas all other fluency measures showed marked reductions in discriminability. We conclude that this superiority of category fluency is due to its dependence on the structure of semantic knowledge, which deteriorates in the early stages of DAT