

## DIFFERENTIATING BETWEEN MCI AND EARLY DEMENTIA WITH A NEW, COMPUTERIZED NEUROCOGNITIVE SCREENING BATTERY

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The concept of Mild Cognitive Impairment (MCI) has generated a great deal of research from both clinical and research perspectives. However, there has been controversy regarding the precise definition of the concept and its implementation in various clinical settings.

**SUBJECTS:** Patients at the NC Neuropsychiatry Clinics clinically diagnosed with MCI (N=36) or mild dementia (N=53), and 89 matched normal controls.

**METHODS:** "CNS Vital Signs" is a PC-based neurocognitive screening battery, comprised of seven familiar neuropsychological tests: The test battery is self-administered on an ordinary PC, and takes 30 minutes. The tests in the "Vital Signs" battery are highly reliable (test-retest,  $r = 0.45-0.85$ ).

**RESULTS:** Test performance on the test battery differed among the three groups in tests of memory, psychomotor speed, reaction time, cognitive flexibility and complex attention. Cluster analysis was performed to validate the clinical differentiation between MCI and MD. Cluster analysis generated two groups which corresponded to the clinical designations with 65% agreement.

**CONCLUSION:** These data validate the concept of MCI, as distinct from MD, and demonstrate the utility of computerized testing to enhance the diagnostic process. Diagnosis of MCI and MD, however, is a clinical exercise, that must take into consideration the patients' premorbid status, especially their level of education

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