

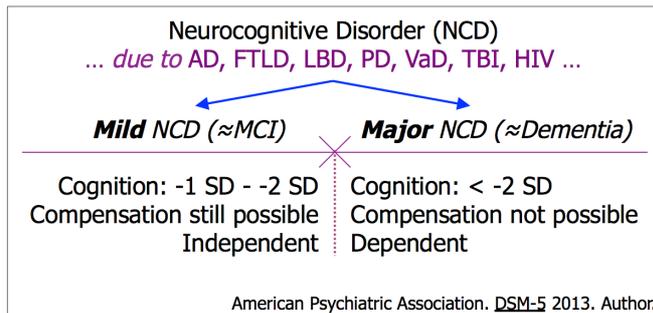
## Vorgehen gegen das Vergessen (Demenz)

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Over the last few years, a collaborative effort of six Memory Clinics in Switzerland resulted in the creation of a very efficient, and very short new screening tool of the general practitioners: the *BrainCheck* ([www.braincheck.ch](http://www.braincheck.ch)). The tool consists of three questions for the patient, the Clock Drawing Test and 7 questions for the family member. An optimized algorithm correctly classifies nearly 90% of patients requiring 'further evaluation' and individuals for whom 'watchful waiting' is indicated (Ehrensperger et al. *Alzheimer's Research & Therapy*, in press).

The diagnostic criteria for dementia in the 2013 edition of the Diagnostic and Statistical



Manual of Mental Disorders (DSM-5; see Figures) of the American Psychiatric Association include a number of important diagnostic improvements. First, the stigmatized term "dementia" is replaced with "neurocognitive disorder" (NCD). Second, the diagnosis of the syndrome is followed by the determination of its most likely etiology. Third, – probably not really an improvement – the distinction

between "dementia" and "mild cognitive impairment" is kept, but renamed as "major" and "mild" NCD. Obviously this distinction, which is based on (a) neuropsychological results, (b) the patient's ability to compensate for neuropsychological dysfunction, and (c) the patient's

state of independence is somewhat arbitrary. The most important, fourth improvement in the new diagnostic criteria constitutes a list specific of cognitive domains that require standardized assessment. Significantly, a memory impairment is no longer the *conditio sine qua non* for the diagnosis. Notably, the diagnostic criteria require the testing of social cognition for which standardized clinical tests are not yet commonly available.

### NCD: Cognitive Domains

- Learning and Memory
  - immediate m., recent m. [incl. free recall, cued recall, and recognition m.]
- Executive Abilities
  - planning, decision-making, working memory, responding to feedback/error correction, overriding habits, mental flexibility
- Language
  - expressive language [including naming, fluency, grammar and syntax] and receptive language
- Visuoconstructional-perceptual ability
  - construction, visual perception
- Complex Attention
  - sustained a., divided a., selective a., processing speed
- Social Cognition
  - recognition of emotions, theory of mind, behavioral regulation

The diagnosis of patients in the earliest stages of the disease, i.e. even before they exhibit cognitive problems, is the focus of biomarker research. However, the diagnostic accuracies (i.e. sensitivity and specificity) of biomarkers (e.g., specific protein alterations in the CSF) have so far disappointed. Other research includes promising projects aiming to better understand the earliest neuropsychological changes in the disease process. Although the preclinical identification of future patients is prerequisite to developing preventive measures, discussions on ethical consequences of preclinical diagnostic is warranted.

Cholinesterase inhibitors and memantine continue to represent the first line of treatment for major NCD due to Alzheimer's disease. The results of studies testing the efficacy of drugs that reduce or prevent amyloid deposition have unfortunately been rather disappointing. We still await the results of the potentially last few of such ongoing studies. Probably more interesting – but most likely also more difficult to conduct – are interventions, which influence the formation of neurofibrillary tangles. Phase 1 studies using this anti-tau strategy are underway.

In addition to pharmacological interventions we also need to improve and foster research aimed at developing new strategies to improve the psychosocial situation of patients and their loved ones.