



## Early diagnosis, symptoms and outcome

Read about DDRC's research projects on early diagnosis, symptoms and outcome.

## A brief case-finding instrument for dementia (BASIC)

The *Brief Assessment of Impaired Cognition* (BASIC) was developed in 2017 to 2018 as a brief and accurate case-finding instrument for dementia and cognitive impairment. Previous research indicates that combining cognitive tests with informant and self-report may improve accuracy in dementia case-finding. BASIC integrates these three sources of information.

The Danish College of General Practitioners recommends BASIC for assessment of patients with symptoms of dementia in general practice.

So far, BASIC has been validated in three larger studies. In 2018 to 2019 it was validated in five Danish memory clinics in patients aged 65 years or above. A total of 300 cases and 135 controls were included in the validation. Head-to-head comparison of the sensitivity and specificity of BASIC and MMSE showed that BASIC has significantly higher discriminant validity than MMSE.

In 2021 to 2022 BASIC was validated in 14 general practice clinics across Denmark involving 275 patients aged 70 years or above.

In 2023 to 2024 BASIC was validated in multicultural memory clinic samples across six European countries including Italy, Spain, Denmark, the Netherlands, France and the United Kingdom. The validation study involved 479 participants of which 169 had immigrant background.

BASIC is available in multiple languages. Please, contact Kasper Jørgensen for further information.

[Download the English version of BASIC](#)

[Video manual for BASIC](#) (in English)

The English version of BASIC is available as online supplemental material in [the International Journal of Geriatric Psychiatry](#). An [Excel scoring assistant](#) for BASIC is also available. The scoring assistant must be downloaded and saved before use.

BASIC may be used without restrictions for clinical and research purposes.

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### Publications

[Jørgensen K, Nielsen TR, Nielsen A, et al. Brief Assessment of Impaired Cognition \(BASIC\)-Validation of a new dementia case-finding instrument integrating cognitive assessment with patient and informant report. Int J Geriatr Psychiatry. 2019;34\(11\):1724-33.](#)

[Jørgensen K, Nielsen TR, Nielsen A, et al. Validation of the Brief Assessment of Impaired Cognition and the Brief Assessment of Impaired Cognition Questionnaire for identification of mild cognitive impairment in a memory clinic setting. Int J Geriatr Psychiatry. 2020;35\(9\):907-15.](#)

[Jørgensen K, Nielsen TR, Nielsen A, Waldoeff FB, Høgh P, Gotttrup H, et al. Validity of the Brief Assessment of Impaired Cognition case-finding instrument for identification of dementia subgroups and staging of dementia. Eur J Neurol. 2022;30\(3\):578-86.](#)

[Jørgensen K, Nielsen TR, Nielsen A, Oxhøj AB, Gerner SD, Waldoeff FB, et al. Diagnostic accuracy of the Brief Assessment of Impaired Cognition case-finding instrument in a general practice setting and comparison with other widely used brief cognitive tests-a cross-validation study. Eur J Neurol. 2024:e16418.](#)

[Rune Nielsen T, Jørgensen K, Canevelli M, Pomati S, Delgado-Alvarez A, Franzen S, et al. Validation of the Brief Assessment of Impaired Cognition and Brief Assessment of Impaired Cognition Questionnaire in a multicultural memory clinic sample across six European countries. J Alzheimers Dis. 2025](#)

[Matias-Guiu JA, Delgado-Alvarez A. Novel cognitive screening tests to address new clinical priorities and cultural diversity. Eur J Neurol. 2023;30\(4\):799-801.](#)



## A brief questionnaire for identification of cognitive impairment in community settings (BASIC-Q)

The Brief Assessment of Impaired Cognition Questionnaire (BASIC-Q) was developed and validated in 2018 to 2019. The rationale was to develop a questionnaire-based version of BASIC (BASIC-Q) for identification of cognitive impairment in community settings. Previous research indicates that combining brief cognitive assessment with informant and self-report may improve accuracy in dementia case-finding. BASIC-Q integrates assessment of orientation with informant and self-report.

BASIC-Q is used by primary healthcare professionals in the City of Copenhagen for assessment of older citizens with cognitive symptoms.

So far, BASIC-Q has been validated in four larger studies. In 2018 to 2019 it was validated in five Danish memory clinics in patients aged 65 years or above. A total of 300 cases and 135 controls were included in the validation.

In 2021 BASIC-Q was validated among 2,144 Chinese community-dwelling older adults aged 60-99 years.

In 2021 to 2022 BASIC-Q was validated in 14 general practice clinics across Denmark involving 275 patients aged 70 years or above.

In 2023 to 2024 BASIC-Q was validated in multicultural memory clinic samples across six European countries including Italy, Spain, Denmark, the Netherlands, France and the United Kingdom. The validation study involved 479 participants of which 169 had immigrant background.

BASIC-Q is available in multiple languages. Please, contact Kasper Jørgensen for further information.

[The BASIC-Q record form in English is available here](#)

[The BASIC-Q manual in English is available here](#)

[Video manual for BASIC-Q](#) (in English)

The English version of BASIC-Q is available as online supplemental material in [the International Journal of Geriatric Psychiatry](#). An Excel scoring sheet for BASIC-Q is also available.

BASIC-Q may be used without restrictions for clinical and research purposes.

### Contact

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#### Publications

[Jørgensen K, Nielsen TR, Nielsen A, Waldorff FB, Waldemar G. Brief Assessment of Impaired Cognition Questionnaire \(BASIC-Q\)-Development and validation of a new tool for identification of cognitive impairment in community settings. Int J Geriatr Psychiatry. 2020;35\(7\):693-701](#)

[Jørgensen K, Nielsen TR, Nielsen A, Waldorff FB, Waldemar G. Validation of the Brief Assessment of Impaired Cognition and the Brief Assessment of Impaired Cognition Questionnaire for identification of mild cognitive impairment in a memory clinic setting. Int J Geriatr Psychiatry. 2020;35\(8\):907-15](#)

[Oxboll A-B, Jørgensen K, Nielsen TR, Christiansen SD, Nielsen A, Waldorff FB, et al. Diagnostic accuracy of BASIC-Q for detection of cognitive impairment in a primary care setting – a cross-validation study. BMC Geriatr. 2024](#)

[Rune Nielsen T, Jørgensen K, Canevelli M, Pomati S, Delgado-Alvarez A, Franzen S, et al. Validation of the Brief Assessment of Impaired Cognition and Brief Assessment of Impaired Cognition Questionnaire in a multicultural memory clinic sample across six European countries. J Alzheimers Dis. 2025](#)



[Li S, Cui G, Jorgensen K, Cheng Z, Li Z, Xu H. Psychometric Properties and Measurement Invariance of the Chinese Version of the Brief Assessment of Impaired Cognition Questionnaire in Community-Dwelling Older Adults. Front Public Health. 2022;10:908827](#)

## Identification and diagnostic evaluation of possible dementia in general practice (the HUSK-study)

The aim of the HUSK – study was to investigate the rate of diagnostic evaluation of dementia for patients in whom a suspicion of dementia was raised, and to investigate reasons why a diagnostic evaluation was not always performed.

In the study participated 17 practices comprising a total of 24 GPs in the central district of Copenhagen. Patients aged 65 years or older consulting their GP, regardless of reason for the encounter, were asked to participate in the study. In total 793 patients were included in the cohort in 2002. The cohort have been followed in the Danish national health registries in the years after inclusion.

### Contact

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### Publications

[Quaade AS, Davidsen AS, Siersma V et al. Subjective memory complaints and future depression in primary care patients: A four-year follow-up study. General hospital psychiatry. 2018;55:4-9.](#)

[Nielsen AB, Siersma V, Waldemar G, Waldorff FB. Poor self-rated health did not increase risk of permanent nursing placement or mortality in people with mild Alzheimer's disease. BMC geriatrics. 2016;16:87.](#)

[Bentzen S, Kragstrup J, Siersma V et al. Alcohol consumption and mortality in patients with mild Alzheimer's disease: a prospective cohort study. BMJ open. 2015;5\(12\):e007851.](#)

[Nielsen AB, Siersma V, Waldemar G, Waldorff FB. The predictive value of self-rated health in the presence of subjective memory complaints on permanent nursing home placement in elderly primary care patients over 4-year follow-up. Age and ageing. 2014;43\(1\):50-7.](#)

[Siersma V, Waldemar G, Waldorff FB. Subjective memory complaints in primary care patients and death from all causes: a four-year follow-up. Scandinavian journal of primary health care. 2013;31\(1\):7-12.](#)

[Waldorff FB, Siersma V, Vogel A, Waldemar G. Subjective memory complaints in general practice predicts future dementia: a 4-year follow-up study. Int J Geriatr Psychiatry. 2012 Nov;27\(11\):1180-8.](#)

[Waldorff FB, Siersma V, Waldemar G. Association between subjective memory complaints and nursing home placement: a four-year follow-up. Int J Geriatr Psychiatry. 2009;24\(6\):602-9.](#)

[Waldorff FB, Siersma V, Waldemar G. Association between subjective memory complaints and health care utilisation: a three-year follow up. BMC geriatrics. 2009;9:43.](#)

[Waldorff FB, Rishoj S, Waldemar G. If you don't ask \(about memory\), they probably won't tell. The Journal of family practice. 2008;57\(1\):41-4.](#)

[Waldorff FB, Rishoj S, Waldemar G. Identification and diagnostic evaluation of possible dementia in general practice. A prospective study. Scandinavian journal of primary health care. 2005;23\(4\):221-6.](#)

## Earliest memory symptoms in Alzheimer's disease (MYSELF)

Subjective Memory Symptoms in the Earliest Clinical Phases of Alzheimer's Disease (MYSELF) is a ongoing project focusing on possible impairments in personal memory (autobiographical memory) and sense of identity in the earliest phases of Alzheimer's disease (AD). Patients with amnesic Mild Cognitive Impairment due to AD, mild AD dementia and Subjective Cognitive Decline are included.

The project is supported by Alzheimerforskningsfonden (Danish Alzheimer Research Fund) and is a collaboration between researchers at DDRC and at Department of Psychology, University of Copenhagen.

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#### Publications

[A Bruus, G Waldemar, A Vogel. Impairment of Episodic-Specific Autobiographical Memory in Individuals with Subjective Cognitive Decline and in Patients with Prodromal or Mild Alzheimer's Disease. Journal of Alzheimer's Disease 2021 84 \(4\), 1485-1496](#)

[A Bruus, G Waldemar, A Vogel. Subjective Complaints are Similar in Subjective Cognitive Decline and Early-Stage Alzheimer's Disease when Assessed in a Memory Clinic Setting. Journal of Geriatric Psychiatry and Neurology 2023, 08919887231164352](#)

[A Vogel, A Bruus, G Waldemar. Developing a Danish version of the LASSI-L test - reliability and predictive value in patients with mild cognitive impairment, mild dementia due to AD and subjective cognitive decline. Aging Neuropsychol Cogn 2022; 12:1-13](#)

## Quality of life in dementia

A variety of assessment tools have developed to examine the Quality of Life in persons with dementia. From 2009 to 2012 different Quality of Life scales were investigated in Danish cohorts. The purpose of these studies was to assess the validity of different Quality of Life measures and to investigate the longitudinal trajectories of Quality of Life in persons with mild Alzheimer's disease as rated by patients and proxies.

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#### Publications

[Vogel A, Bhattacharya S, Waldorff FB, et al. Proxy rated Quality of life in Alzheimer's disease - a 3 year longitudinal study. International Psychogeriatrics. 2012;24:82-89.](#)

[Bhattacharya S, Vogel A, Hansen MH, et al. Generic and Disease Specific Measures of Quality of Life in Patients With Mild Alzheimer's Disease. Dementia and Geriatric Cognitive Disorders. 2010;30:327-333.](#)

## Early cognitive deficits in dementia – validating neuropsychological tools

Neuropsychological dysfunction in the earliest phases of dementia diseases (especially Alzheimer's disease) has been a highly prioritized area of research in DDRC.

Several projects aiming at describing cognitive changes in Mild Cognitive Impairment and early stage Alzheimer's disease have been conducted with the overarching aim to develop and validate cognitive tests for diagnosing and monitoring change in neurodegenerative dementia disease. Many of these tests have been implemented as routine tools in everyday practice in Danish memory clinics.

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#### Publications

[RK Hendel, MNN Helleberg, LE Hjermand, JE Nielsen, A Vogel. On the association between apathy and deficits of social cognition and executive functions in Huntington's disease. Journal of the International Neuropsychological Society 2022. doi: 10.1017/S135561772200036](#)

[SP Ringkøbing, IU Larsen, K Jørgensen, T Vinther-Jensen, A Vogel. Cognitive Screening Tests in Huntington Gene Mutation Carriers: Examining the Validity of the Mini-Mental State Examination and the Montreal Cognitive Assessment. Journal of Huntington's disease 2020, 9, 59-68](#)

[A Vogel, J Stokholm, K Jørgensen. Normative data for eight verbal fluency measures in older Danish adults. Aging, Neuropsychology and Cognition 2020, 27, 114-124](#)

[A Vogel, C Møllergaard, G Waldemar, KS Frederiksen. Impaired performances on the category cued memory test in mild Alzheimer's disease and dementia with Lewy bodies: A comparative validity study. Applied Neuropsychology 2022](#)

[A Vogel, K Jørgensen, IU Larsen. Normative data for Emotion Hexagon test and frequency of impairment in behavioral variant frontotemporal dementia, Alzheimer's disease and Huntington's disease. Applied Neuropsychology 2022, 127-132](#)

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