



Early identification of dementia with IQCODE in secondary care

A Cochrane review reported that the Informant Questionnaire on Cognitive Decline in the Elderly (IQCODE) test could be used to identify risk of dementia in older people presenting to secondary care, although this tool was less effective in specialist memory settings than in general hospital settings.

Overview:

- A Cochrane review reported that the IQCODE test was effective at identifying older people in hospitals who are at risk of dementia.
- The questionnaire could be useful to assess people admitted to acute general wards where an 'informant', who knows the person being assessed well, is available.
- IQCODE is not a diagnostic tool – people identified as possibly having dementia need to be assessed in greater detail in a memory clinic.

Background: Around 40% of older hospital inpatients have dementia, but only around half of these people will have been diagnosed ([Sampson et al. 2009](#)).

IQCODE identifies changes in a person's function that may indicate early cognitive impairment. People identified as at risk of dementia by this questionnaire are then referred to specialist services for formal assessment. The tool is completed by an 'informant' who knows the person being screened well.



Current advice: The NICE guideline on [dementia](#) (currently [being updated](#)) recommends that primary healthcare staff should consider referring people who show signs of mild cognitive impairment to memory assessment services to aid early identification of dementia. People who undertake health checks for high-risk groups, such as those who have had a stroke and those with neurological conditions such as Parkinson's disease, should be aware of the possibility of dementia.

A diagnosis of dementia should be made only after a comprehensive assessment, which should include cognitive and mental state examination. As part of this assessment, formal cognitive testing should be undertaken using a standardised instrument. The Mini Mental State Examination (MMSE) has been frequently used for this purpose, but a number of alternatives are now available, such as the

6-item Cognitive Impairment Test (6-CIT), the General Practitioner Assessment of Cognition (GPCOG) and the 7-Minute Screen.

The NICE pathway on [dementia](#) brings together all related NICE guidance and associated products on the condition in a set of interactive topic-based diagrams.

New evidence: A Cochrane review by [Harrison et al. \(2015\)](#) investigated the diagnostic accuracy of the IQCODE for detection of dementia in adults presenting to secondary care services.

The review sought studies that used IQCODE in people who had been referred to a general hospital clinic or ward for a medical condition or to specialist memory services for perceived memory problems. Studies had to include subsequent clinical assessment for all-cause (undifferentiated) dementia using any recognised diagnostic criteria ('gold standard' diagnostic strategy).

A total of 13 studies in 8 countries were identified, which had 2745 participants. Around half (51%) of these people were diagnosed with dementia. Pooled analysis of these data showed that IQCODE was good at correctly identifying people with dementia (sensitivity=0.91, 95% confidence interval [CI] 0.86 to 0.94), but less good at identifying healthy people who did not have dementia (specificity=0.66, 95% CI 0.56 to 0.75).

No differences in accuracy were found between the 26-item version of IQCODE and the 16-item version, or on the basis of which score was used as the diagnostic threshold. However, the test was significantly less accurate in specialised dementia or memory services than in more general secondary care settings ($p=0.019$), with a higher specificity in general settings.

The authors concluded that IQCODE may be a useful tool for identifying older adults who have features suggestive of new-onset cognitive decline and require specialist assessment. In particular, it could be used to rule out dementia in older adults who present to a general hospital setting.

Strengths of this review include that grey literature and reference lists were searched, studies that were not written in English were included, and authors were successfully contacted for further information or source data. However, the studies included in this analysis were highly heterogeneous, all were at risk of bias, and many did not report sufficient detail of their methods or findings.

Commentary by Dr Mark Kinirons, Consultant Physician and Trust Clinical Lead for Dementia, St Thomas' Hospital, London:

"This interesting meta-analysis of studies on IQCODE suggests that the questionnaire could be used in the assessment of memory loss in an acute general setting when there is a reliable informant. However, this is the crux in many cases – unavailability of reliable informant. Where they exist, use of IQCODE is powerful in progressing a person to a proper diagnosis. Crucially though, IQCODE is not a diagnostic tool. People identified as possibly having dementia need to be assessed in greater detail in a memory clinic, where a more in-depth work up is undertaken.

"There are some shortcomings that are pertinent to the use of IQCODE. More and more acute admissions to general hospitals are due to acute medical illnesses that cloud a diagnosis of dementia. Many people admitted do not have relatives nearby who are in close observational contact, thus limiting the applicability of IQCODE. Also, IQCODE cannot be used reliably in a very busy acute setting because of time constraints.

"An England-wide requirement to recognise and respond to memory issues that have affected functioning over past 12 months was set up in 2011 through a Commissioning for Quality and Innovation (CQUINs) indicator. This approach has run since then and is now mainstream. It does not seem that IQCODE has been used to achieve compliance with this indicator, probably because it is too clunky. Most organisations have used more familiar well-established tools, most of which are not better than IQCODE.

“IQCODE is a useful tool, and this review demonstrates its utility in acute general wards where there is sufficient time to identify and discuss with informants. An assessment with IQCODE must be linked to a response to the recognition of a need. Ideally, a ‘positive’ IQCODE score should trigger a GP review of the case and then referral to a memory service, as agreed with the affected person.”

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