

Introduction

Dementia may be defined as a progressive and largely irreversible clinical syndrome that is characterized by global deterioration in intellectual function, behaviour and personality in the presence of normal consciousness and perception. Dementia is associated with complex needs and, especially in the later stages, high levels of dependency and morbidity.

Signs and symptoms can include:

- Memory loss, language impairment, disorientation, changes in personality, difficulty in carrying out daily activities, self-neglect
- Psychiatric symptoms - apathy, depression or psychosis
- Unusual behaviour - aggression, sleep disturbance or disinhibited sexual behaviour

Investigation and Diagnosis

A diagnosis of dementia should be made only after a comprehensive assessment, which should include:

- History taking.
- Cognitive and mental state examination.
- Physical examination and other appropriate investigations.
- Review of medication in order to identify and minimize use of drugs, including over-the-counter products that may adversely affect cognitive functioning.

A basic dementia screen should be performed at the time of presentation, usually within primary care. It should include:

- Routine haematology
- Biochemistry tests (electrolytes, calcium, glucose, renal and liver function)
- Thyroid function tests
- Serum vitamin B₁₂ and folate levels.

The role of the laboratory in dementia is primarily to exclude other conditions which may be the cause of or contribute to the declining mental function.

Test	Disorder (s)
FBC	Anaemia
ESR, CRP	Vasculitis
TSH	Hypothyroidism
Calcium	Hyper- or hypocalcaemia
Renal profile	Renal failure
Glucose	Diabetes
Vitamin B12 and serum folate	Vitamin deficiency
LFTs, clotting	Liver dysfunction
Urinalysis, MC&S	Delirium

- Syphilis serology or HIV testing should be considered when history suggests risk, or as indicated by clinical picture
- There is insufficient evidence to support use of beta amyloid and CSF Tau in dementia diagnosis. CSF analysis should not be performed as a routine investigation for dementia.
- CSF analysis may be useful where CJD is suspected (please contact the lab before specimen collection).
- Subtype diagnoses should be made by experts in the field.
- Genetic counselling and testing may be offered if a genetic cause is suspected.