

This decision support tool is provided solely for guidance, does not replace a professional's judgment and can be adapted to institutional circumstances. The recommendations were developed using a systematic approach supported by the scientific literature and the knowledge and experience of Québec clinicians and experts. For further details, go to [iness.qc.ca](http://iness.qc.ca).

## Elements to consider during the process leading to the diagnosis

The diagnosis is based on the documented occurrence of cognitive impairment and/or the observation of a behavioural change which:

- ▶ Interferes with the patient's usual activities of daily living;
- ▶ Constitutes a decline from their previous level of functioning;
- ▶ Cannot be explained by a physical problem or a recognized psychiatric illness.

### About the patient

The patient's previous personality, skills and abilities should always be taken into consideration during the process leading to the diagnosis and for interpreting screening tool results.

### For health and social services professionals

- ▶ Any **health and social services professional** can **screen** for the signs of functional impairment, a cognitive decline or a behavioural disorder.
- ▶ Any **authorized professional** (e.g., an occupational therapist, a nurse, a physician, a neuropsychologist or a social worker) can objectively assess a functional impairment, cognitive functions or a behavioural disorder with screening tools.
- ▶ Only **occupational therapists** can draw conclusions regarding **the nature and extent** of a loss of functional autonomy in a person in whom NCDs or mental disorders have been diagnosed or evaluated by an authorized professional\*.
- ▶ Only **neuropsychologists and physicians** can draw conclusions regarding the **nature of observed NCDs and make the link**, if necessary, between the type of impairment and a suspected brain dysfunction.
- ▶ Only **physicians** can **make a diagnosis** concerning AD and other NCDs and communicate it to the patient and caregiver. The other professionals concerned, too, can communicate their results, in accordance with their area of practice.

## Clinical examination

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The clinical examination should include the following:

- ▶ An objective assessment of the reported or suspected impairments using screening tools;
- ▶ A thorough physical examination with emphasis on the neurological and cardiovascular systems and with the objective of checking the patient's vision, hearing and mobility (or other factors that can interfere with the use of psychometric screening tools);
- ▶ Paraclinical and complementary tests/examinations if necessary;
- ▶ A review of the patient's medications (prescription and nonprescription, natural products) and a verification of their therapeutic adherence;
- ▶ A review of the patient's medical and psychiatric history and relevant current medical conditions or other comorbidities;
- ▶ An evaluation of the patient's mental health and level of vigilance.

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### Confounding factors to be taken into consideration

The following situations or medical conditions can be the cause of the identified NCD or a source of exacerbation:

- ▶ An adverse effect of a drug or a combination of drugs, a new drug, a drug interaction or a cascade of adverse effects of several drugs;
- ▶ A mental health problem;
- ▶ A physical health problem (a metabolic or deficiency disorder, a systemic disorder<sup>1</sup>, sleep apnea, delirium);
- ▶ The abuse of certain substances (drugs or alcohol).

\* Reserved activity under Bill 21.

<sup>1</sup> A disorder that can affect several systems of the human body. Certain diseases, such as heart or respiratory failure and certain systemic infections or sexually transmitted and blood-borne infections (STBIs), can affect cognitive functions.

**Objective assessment of reported or suspected impairments using screening tools**

- ▶ For the precautions and recommendations concerning the use of screening tools, see the section **objective assessment using screening tools**.
- ▶ An informed choice can be facilitated by consulting the sections concerning the different screening tools.

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Any professional other than physician who suspects an NCD in a patient, especially when using screening tools, should refer the patient to a family physician for a more thorough evaluation.

**Paraclinical and complementary tests/examinations**

Blood work should be done before making an initial diagnosis, in order to identify any comorbidities that can impair cognitive functions. The items to be checked are as follows:

- ▶ Complete blood count;
- ▶ Blood glucose;
- ▶ Blood calcium;
- ▶ Vitamin B<sub>12</sub>;
- ▶ Thyroid-stimulating hormone (TSH);
- ▶ Renal function test (creatinine);
- ▶ Electrolytes.

Structural **neuroimaging** (brain MRI [magnetic resonance imaging] or CT scan) may be useful for the differential diagnosis in patients who exhibit a cognitive decline with any of the following\*:

- ▶ Age < 60 years;
- ▶ A rapid (a few months), unexplained deterioration in the cognitive faculties or functional autonomy status;
- ▶ A recent severe head injury;
- ▶ Unexplained neurological manifestations or focal abnormalities on neurological examination;
- ▶ A history of cancer (especially one that gives rise to brain metastases);
- ▶ Anticoagulant use or a history of coagulation disorders;
- ▶ A gait disorder or urinary incontinence during the early stages of the decline;
- ▶ Cognitive symptoms or an unusual or atypical clinical presentation.

Tests to be ordered only **if needed** and in light of the clinical context:

- ▶ Liver profile, alanine aminotransferase (ALT) level;
- ▶ Serological tests for syphilis and the human immunodeficiency virus (HIV);
- ▶ A folate level.

\* A **brain MRI (magnetic resonance imaging)** or **CT scan** should be performed if the presence of an unexpected **cerebrovascular disease** is likely to lead to changes to the patient's clinical management.

**Medication review**

- ▶ Check the medications (prescription and nonprescription, natural products) with the patient or caregiver with regard to:
  - Any recent change to or addition of drugs; and
  - The possibility of:
    - A drug interaction;
    - An adverse effect;
    - A drug cascade.

**Note:** It is advisable to consult INESSS's usage guide on the pharmacological treatment of AD and mixed dementia (**OUG Tx**) and, if in doubt, to talk to a pharmacist, who is more qualified to assess the consequences of any change to the patient's drug profile.

**✓ Review of medical and psychiatric history, comorbidities and relevant current medical conditions**

Certain medical conditions are associated with an increased risk of developing AD or an NCD. See “Screening - Starting the process” for a detailed list.



**Referral to specialized services (e.g., a memory clinic)**

<p><b>✓ Patient's characteristics or specific needs</b></p>	<p><b>Specialized services</b></p>
<p>If the nature and extent of the loss of functional autonomy need to be determined</p>	<p>Occupational therapist</p>
<p>If any of the following apply to the patient:</p> <ul style="list-style-type: none"> <li>• An atypical presentation: early age, a family history suggesting a genetic disorder, a predominance of disorders other than those of memory (gnosis, language, behaviour, a personality change, praxis, etc.);</li> <li>• Strong clinical suspicion or a recurring complaint, but with results that do not reach the diagnostic thresholds with the screening tools used;</li> <li>• The cause and exact nature of the NCDs need to be determined;</li> <li>• Uncertainty persists regarding the diagnosis after an initial evaluation and a follow-up.</li> </ul>	<p>Neuropsychologist or physician specializing in NCDs</p>
<p>If the patient has a behavioural disorder or mental health problems that interfere with or complicate the process leading to the diagnosis</p>	<p>Local teams specializing in the behavioural and psychological symptoms of dementia (BPSD) or in mental health</p>
<p>If the cause and extent of a speech and/or language impairment need to be determined</p>	<p>Speech-language pathologist</p>
<p>If the patient has a visual or hearing impairment that interferes with the process leading to the diagnosis</p>	<p>Optometrist, ophthalmologist or audiologist (if necessary)</p>

**Diagnosis**

If, **despite** the memory complaint, the initial evaluation shows that the cognitive functions, the performance of the activities of daily living and the instrumental activities of daily living, and the clinical context (no mood or behavioural disorders) are normal



Do a follow-up within **6 to 12 months**, depending on the context, or earlier if there is a specific need for a **second evaluation**



If the **diagnosis is clear**



Disclose the diagnosis



Do a follow-up and take the appropriate steps



If the **diagnosis is uncertain**



Refer the patient and caregiver to the appropriate specialized services