Starting the process

It is essential to screen for the signs of functional impairment from the outset and to interview the patient and a family member (or friend). A family member’s (or friend’s) involvement should be a priority.

Diagnostic approach

Only in patients with symptoms or warning signs suggestive of a cognitive decline signaled by:

- A complaint concerning a cognitive change (memory or another cognitive function);
- An impairment or an unusual difficulty reported by family members;
- Clinical suspicion in patients at greater risk for developing AD or an NCD.

Interventions

<table>
<thead>
<tr>
<th>Screening</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examining the complaint and checking with a family member.</td>
<td>x</td>
</tr>
<tr>
<td>A focused clinical examination of the patient.</td>
<td></td>
</tr>
<tr>
<td>An objective assessment of the functional impairment with the patient and a family member using effective screening tools.</td>
<td>x</td>
</tr>
<tr>
<td>An objective assessment of the patient’s cognitive functions using effective screening tools.</td>
<td>x</td>
</tr>
<tr>
<td>An objective assessment of the behavioural and psychological symptoms of dementia (BPSD) with the patient and a family member using effective screening tools.</td>
<td></td>
</tr>
<tr>
<td>Laboratory tests.</td>
<td></td>
</tr>
</tbody>
</table>

Note: The overall evaluation leading to the diagnosis can be carried out over one or more visits.

About the patient

Regardless of their ability to take care of themselves:

- The patient is the first one to receive the information;
- They* should remain the focus of the screening and the process leading to the diagnosis;
- They should give verbal consent, which is to be documented in their record and checked prior to screening if there is clinical suspicion, even if they have not expressed a memory complaint.

*Singular “they” is used in this document to render it gender-neutral.

For health and social services professionals

It is advisable to:

- Adjust your practice:
  - To each patient’s needs (sociocultural diversity, beliefs, language, ethnic origin, etc.);
  - To each patient’s sensory limitations (hearing and/or visual impairment);
- Designate, with the patient, a caregiver who could occasionally accompany them to subsequent visits.
### Medical conditions associated with a high risk for developing an NCD

Be vigilant for the following medical conditions, which may be associated with an increased risk of developing AD or an NCD:

- A history of stroke or transient ischemic attack (TIA);
- A family history of NCDs;
- A lifetime history of major depressive disorder;
- Nonstabilized sleep apnea;
- A nonstabilized metabolic or cardiovascular morbidity;
- A recent episode of delirium;
- A first major psychiatric episode at an advanced age (psychosis, depression, mania);
- A recent head injury;
- Parkinson's disease;
- A mild NCD.

### Symptoms and warning signs

Warning signs are an indication of a significant decline from the patient’s previous level of functioning and usual abilities:

1. They can appear gradually over several years;
2. They are listed here for illustrative purposes only; and
3. They cannot be used alone as a diagnostic tool.

<table>
<thead>
<tr>
<th>Warning sign</th>
<th>Example of everyday manifestations</th>
</tr>
</thead>
</table>
| Memory changes (amnesia)                                                     | ▶ Difficulty learning and retaining new information.  
▶ Forgetting important information (recent conversations, scheduled or past events, appointments, birthdays), repetitive speech. |
| Loss of functional autonomy in the instrumental activities of daily living (IADL)/activities of daily living (ADL) | ▶ Deterioration or change in the ability to function independently (daily tasks, managing medications), being a decline from the previous level of functioning. |
| Problems organizing, planning and reasoning (executive functions)            | ▶ Difficulty adjusting to new things or change.  
▶ Changes in the ability to organize and plan complex tasks.  
▶ Impaired judgment and difficulty making decisions. |
| Impaired visual recognition (agnosia)                                        | ▶ Difficulty recognizing objects in the home, images or people they know (family members, celebrities) that cannot be explained by defective vision. |
| Language and speech disorders (aphasia)                                      | ▶ Difficulty expressing themselves (word-finding hesitations, word substitutions or the use of deformed words, incomplete or incomprehensible sentences).  
▶ Changes in spelling or handwriting skills (shape of letters).  
▶ Decreased ability to understand instructions, follow conversations, read or understand texts. |
| Impaired ability to perform a motor activity, despite intact motor capabilities (apraxia) | ▶ Difficulty planning complex tasks; unusual slowness or difficulty coordinating movements for performing daily tasks (use of everyday objects, getting dressed or drawing). |
| Personality, behaviour and mood changes                                      | ▶ See the complete list of BPSD on the next page. |

### For health and social services professionals

- If the patient or a caregiver reports a cognitive complaint, provide reassurance by telling them that the symptoms do not necessarily imply AD or another NCD.
- If there is clinical suspicion or if the patient has a medical condition associated with an increased risk of AD or another NCD, ask the patient or caregiver questions in order to identify any other warning signs.
- Explain to the patient or caregiver that a more thorough evaluation will be done and that different tools will be used to determine the nature and cause of the symptoms.
Initial suspicion of an NCD arises at the hospital

If an NCD is suspected at the hospital in the context of a decompensated acute medical condition, the physician, in conjunction with the care team, should reassess the patient’s cognitive and functional status after their medical condition has been stabilized, in order to confirm the diagnosis.

List of the most commonly observed BPSD

The examination of patients with AD or another NCD should include identifying BPSD and other neuropsychiatric symptoms associated with these disorders.

The earliest BPSD in AD

- **Apathy/indifference***
  Loss of or decrease in motivation affecting behaviour, thoughts and emotions

- **Depression***
  Sadness, crying, despair, a feeling of powerlessness, low self-esteem, guilt

- **Anxiety***
  A feeling of an imminent, undetermined danger. An internal state characterized by:
  - Thoughts (apprehension, various worries);
  - Emotions (anxiety, fear);
  - Physical sensations (muscle tension, shortness of breath, sweating, gastrointestinal discomfort, headaches);
  - Behaviours (avoidance, repetitive requests, excessive dependence, agitation).

- **Irritability***
  Irritability of mood, low tolerance threshold

- **Aggression*/agitation***
  Verbal (shouting, screaming, talking constantly) and physical (throwing things, spitting, pinching, scratching) agitation, with or without aggression

Classification of BPSD

- **Affective and emotional disorders**
  - Depression
  - Anxiety
  - Apathy
  - Irritability
  - Emotional lability
  - Exaltation of mood (euphoria*)

- **Behavioural disorders**
  - Wandering
  - Repetitive vocalizations
  - Repetitive or stereotyped movements*
  - Aggressive disinhibition
  - Sexual disinhibition
  - Gluttony
  - Utilization behaviours
  - Imitation behaviours

- **Psychotic disorders**
  - Hallucinations*
  - Delusions*
  - Identification disorders

- **Neurovegetative disorders**
  - Sleep (night wandering, sundowning, sleep-wake cycle reversal)*
  - Inappropriate eating behaviours and hyperorality

* 12 behavioural disorders that can be identified with the short version of the Neuropsychiatric Inventory (NPI-R).

For health and social services professionals

- The NPI-R can be used to quickly identify 12 of the most commonly observed types of behavioural disorders in AD and to guide the discussion between the professional, patient and caregiver.
- The objective assessment of depressive symptoms in NCD patients should include a face-to-face interview with the patient and their family members (together or individually) using a questionnaire such as the Patient Health Questionnaire (PHQ-9).
- Using specific scales to evaluate the other BPSD is not recommended in primary care. Patients with behavioural disorders should be referred to local teams specializing in BPSD or mental health.