How common are cognitive symptoms in patients with MS?

Cognitive symptoms are prevalent in MS, with an estimated **40-70%** of individuals demonstrating objective deficits on neuropsychological testing. A majority of patients exhibit mild symptoms. However, some patients experience moderate to severe cognitive symptoms, particularly in the context of progressive variants of MS, increased age, and other medical and mental health comorbidities (e.g., diabetes, depression). Cognitive symptoms often emerge early in the disease course, persist over time, and interfere with daily function (e.g., occupation) and quality of life.

**TYPES OF COGNITIVE SYMPTOMS**

- Impairment in domain(s) of cognitive function:
  - Information processing speed
  - Learning and memory
  - Attention
  - Language skills
  - Executive function (e.g., problem solving, planning/organization, inhibition)
  - Visuospatial skills
  - Fine motor function

**CLINICAL WARNING SIGNS**

- Patient self-reported difficulty with thinking skills
- Providers observed difficulty with thinking skills
- Difficulty recalling recent information
- Problems focusing, disorganization
- Word-finding difficulties
- Difficulty with medication adherence, attending appointments, and/or following treatment recommendations

How are cognitive symptoms formally evaluated?

If cognitive symptoms persist after treatment of modifiable factors and/or interfere with daily function, refer for **neuropsychological evaluation**. This gold standard workup involves comprehensive evaluation of cognitive domains listed previously, assessment of mood and daily function, and clinical interview and record review. Although many brief instruments are available, no single measure has been shown to consistently provide accurate diagnostic information.
What do you do if you suspect your patient has cognitive symptoms?

- Inquire about onset/course of symptoms, any medical or psychosocial precipitants, and recent changes or problems with thinking skills.

- Administer a brief, objective measure of cognition (e.g., MoCA, SDMT). If there is evidence of impairment on this measure and/or a patient is endorsing significant cognitive symptoms, consider referral for further evaluation.

- Optimize DMT regimen.

- Target modifiable etiologies:
  - Optimize poorly controlled blood pressure & other cardiovascular risk factors
  - Address underlying depression, substance use/abuse, or other mental health issues
  - Try to minimize use of medications with negative cognitive side effects (e.g., oxybutynin, topiramate).

- Suggest relevant lifestyle modifications such as good sleep hygiene and exercise.

- Encourage patients to utilize compensatory strategies such as notetaking or using a calendar.

- Write down any critical information that patients need to know about their medical care and, if warranted, ask that a support person come with them to appointments if there are critical treatment decisions or complex regimens to follow.

- If cognitive symptoms persist and/or significantly interfere with a patient’s daily function, refer for comprehensive neuropsychological assessment and for cognitive rehabilitation.

Consider referral for cognitive rehabilitation - structured treatment with a qualified provider to identify strategies to compensate for and cope with cognitive symptoms.