## When to Refer

## **Neuropsychological Evaluations**

Full neuropsychological evaluations should be considered if:

- The annual cognitive screen is positive
- There is a 4-point or 10% drop on SDMT
- There is a 0.5 SD drop on any cognitive screening instrument
- There are performance problems at work, home or school
- The patient is applying for SSDI or SSI because of cognitive symptoms
- The patient wants or needs strategies or tools to manage existing cognitive symptoms

## Children

In addition to the parameters listed above, for children, full neuropsychological assessments should be considered if there are performance changes or problems at school or home.



# **Discussion Points**

## **When Speaking With Your Patients**

## **Reasons for Screening**

"Up to 65% of people with MS will experience changes in cognition, such as difficulty remembering or thinking of the right words."

"Cognitive changes can occur early, even before your diagnosis has been confirmed."

"Cognitive change is one of the primary reasons that individuals with MS leave the workforce."

"Cognitive wellness is essential to your quality of life. We will work with you to address any current or future cognitive challenges."

## **The Process**

"We will use a short screening tool (e.g., SDMT) to assess your cognition. We will repeat this test on a yearly basis, or more frequently, if you report any changes or problems at work or home."

#### **Next Steps**

"If you screen positive, we will refer you for a more in-depth evaluation. The cognition specialist will be able to summarize your strengths and provide strategies for addressing cognitive challenges."

Reviewed by the National Multiple Sclerosis Society Cognitive Assessment Recommendations Committee: Ralph Benedict, PhD; Kathleen Costello, MS, ANP-BC, MSCN; Lori Kostich, MS, CCC-SLP; Nicholas LaRocca, PhD; John De Luca, PhD; Jeffrey Wilken, PhD



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# Multiple Sclerosis **Cognitive Screening** Recommendations

Authors: Meghan Beier PhD; Abbey Hughes PhD; Elizabeth S. Gromisch PhD; Rosalind Kalb, PhD

For more information, see the primary manuscript: ncbi.nlm.nih.gov/pubmed/23459569



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# **Screening Tools**

## **How to Assess**

The National MS Society recommends screening to identify people who need more extensive evaluation and intervention.

## Symbol Digit Modalities Test (SDMT)\*

Recommended as the best rapid assessment tool in clinical practice with adults. Robust predictor of employment. Sensitive to change in mental status. Recommended by the MS Outcome Assessments Consortium as a cognitive outcome measure in clinical trials. Valid for ages 8 and older.

- Time to administer: 5 minutes
- How to obtain: wpspublish.com
- Cost: \$66 for pack of 25 test forms

#### Processing Speed Test (PST): Cogeval: Biogen Inc.

Self-administered iPad<sup>®</sup>-based tool like the SDMT. A single study was highly correlated with the SDMT and cerebral T2 lesion load. Valid for adults.

- Time to administer: 5 minutes
- How to obtain: iTunes<sup>®</sup>
- Cost: Free

\*Gold standard

## **Computerized Speed Cognitive Test (CSCT)**

Reliable in people with MS and healthy controls. Similar—but not identical to—and highly correlated with SDMT. Valid for adults.

- Time to administer: 5 minutes
- How to obtain: Contact Dr. Bruno Brochet (bruno.brochet@chu-bordeaux.fr) or Dr. Aurelie Ruet (aurelie.ruet@chubordeaux.fr)
- Cost: Free

## Multiple Sclerosis Neuropsychological Screening Questionnaire (MSNQ)

Patient and informant self-report questionnaire. Correlates with emotional distress rather than cognitive performance. Informant version is more reliable. Should be used in conjunction with an objective cognitive measure. Valid for adults.

- Time to administer: 5 minutes
- How to obtain: Contact Ralph H. B. Benedict, PhD, ABPP-CN (benedict@buffalo.edu)
- Cost: \$500 unlimited usage

## **Brief Assessment Batteries**

- BICAMS 15 minutes, proprietary
- MS-COG 20 minutes, proprietary
- MACFIMS 90 minutes, proprietary



# Guidelines

## Assessment Recommendations

**BASELINE SCREENING** with SDMT or other validated tool for:

- All adults and children (8 years old+) diagnosed with MS
- Adults with RIS, CIS or evidence of early gray matter damage
- Any patient who reports change in cognitive functioning, poor vocational performance reviews or whose care providers/partners express concern

**ANNUAL RE-ASSESSMENT** with the same instrument for all adults and children (8 years old+) diagnosed with MS

• Routine monitoring of academic and behavioral changes for all children

#### ANNUAL DEPRESSION SCREENING

to identify mood changes that may be impacting cognition

- All adults and children diagnosed with MS
- Beck Depression Inventory Fast Screen (BDI-FS); purchase from Pearson; valid for adults
- Hospital Anxiety and Depression Scale (HADS); questionnaire is licensed by GL Assessment; valid for adults
- Age-appropriate screening tool for children