

MEDICAL POLICY

SUBJECT: COGNITIVE REHABILITATION

EFFECTIVE DATE: 03/28/02

**REVISED DATE: 08/28/03, 08/26/04, 08/25/05, 08/31/06,
08/23/07, 08/28/08, 08/27/09, 08/26/10,
08/25/11, 08/23/12, 08/22/13, 08/28/14,
08/27/15, 08/25/16, 08/25/17, 06/28/18**

POLICY NUMBER: 8.01.19

CATEGORY: Therapy/Rehabilitation

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- *If a product excludes coverage for a service, it is not covered, and medical policy criteria do not apply.*
- *If a commercial product (including an Essential Plan product) or a Medicaid product covers a specific service, medical policy criteria apply to the benefit.*
- *If a Medicare product covers a specific service, and there is no national or local Medicare coverage decision for the service, medical policy criteria apply to the benefit.*

POLICY STATEMENT:

- I. Based upon our criteria and review of the peer-reviewed literature, cognitive rehabilitation as part of a comprehensive physical, occupational and/or speech rehabilitation/therapy program for patients who have suffered a cerebrovascular accident (CVA, stroke) or traumatic brain injury (TBI) is **medically appropriate** as part of the rehabilitation and therapy program. *Refer to the policy guidelines section for benefit application.*
- II. Based upon our criteria and the lack of peer-reviewed literature, cognitive rehabilitation has not been medically proven to be effective and is considered **investigational**:
 - A. when rendered as a stand-alone program following CVA or TBI; or
 - B. when rendered as a stand-alone program or as part of a comprehensive physical, occupational and/or speech rehabilitation/therapy program for all other indications.
- III. Based upon our criteria and review of the peer-reviewed literature, sensory integration therapy has not been proven to be effective and is considered **not medically necessary**.

Refer to Corporate Medical Policy #8.01.12 regarding Physical Therapy (PT).

Refer to Corporate Medical Policy #8.01.13 regarding Speech Pathology and Therapy.

Refer to Corporate Medical Policy #8.01.17 regarding Occupational Therapy (OT).

Refer to Corporate Medical Policy #11.01.03 regarding Experimental and Investigational Services.

POLICY GUIDELINES:

- I. When cognitive rehabilitation is performed by a physical, occupational, or speech therapist as part of a comprehensive physical, occupational and/or speech rehabilitation/therapy program for patients who have suffered a CVA or TBI, services are counted toward the appropriate therapy visit limit in the member's subscriber contract.
- II. When cognitive rehabilitation services are necessary in order for a patient to return to work, coverage is provided under the New York State Vocational and Educational Services for Individuals with Disabilities (VESID) Program.
- III. The Federal Employee Health Benefit Program (FEHBP/FEP) requires that procedures, devices or laboratory tests approved by the U.S. Food and Drug Administration (FDA) may not be considered investigational and thus these procedures, devices or laboratory tests may be assessed only on the basis of their medical necessity.

DESCRIPTION:

Cognitive rehabilitation is a therapeutic approach aimed at treating cognitive impairments after central nervous system insult to improve cognitive functioning. Impairments include, but are not limited to: disorientation, limited attention span, memory impairment, decreased capacity for learning, disorganization of verbal and non-verbal activity, incompleteness of thought and action, inability to problem solve and adapt behavioral responses, and reduced initiation. These impairments alter the way in which a person experiences, responds to, and interfaces with elements in everyday living.

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Cognitive rehabilitation includes therapy methods that retrain or alleviate cognitive impairments and consists of tasks designed to reinforce or re-establish previously learned patterns of behavior or to establish new compensatory mechanisms for impaired neurological systems. Cognitive rehabilitation may be performed by a physician, psychologist, or a physical, occupational, or speech therapist.

The two most common approaches to cognitive rehabilitation, usually performed in conjunction with each other are the:

- I. *Remedial, or restorative, approach* that focuses on attempting to restore core areas of cognitive dysfunction by systematic training (e.g., paper and pencil exercises, table top tasks, use of computer software) and is based upon the theory that repetitive exercise can restore lost function; and
- II. *Compensatory, or adaptive, approach* that is geared toward facilitation of activities of everyday living by developing internal substitutes and/or external prosthetic assistance for dysfunctions.

Cognitive rehabilitation is distinguished from occupational therapy in that cognitive rehabilitation consists of tasks designed to develop memory, language and reasoning skills that can be applied to specific environments (e.g., home, work) while occupational therapy is rehabilitation directed at those specific environments. Cognitive rehabilitation may be performed by speech therapists, occupational therapists, physical therapists, physicians, or psychologists.

Sensory integration therapy (SIT) is a component of cognitive rehabilitation that has been investigated as a treatment of autism, mental retardation or learning disabilities. Sensory integration therapy is aimed at improving the way the brain processes and organizes sensations, as opposed to teaching higher order skills.

RATIONALE:

Although studies are relatively limited, available literature supports the use of certain cognitive and behavioral rehabilitation strategies for individuals with traumatic brain injury.

Recent peer-reviewed literature demonstrates there is some indication training improves alertness and sustained attention, but no evidence to support or refute cognitive rehabilitation to improve functional independence on attention deficits following CVA. There is insufficient evidence to support or refute the effectiveness of cognitive rehabilitation on memory deficits following CVA.

Literature demonstrates there is some evidence of improved performance on some impairment level tests but the effect on disability for patients with spatial neglect is unclear. Data are inconclusive and provide no evidence for or against cognitive rehabilitation for schizophrenia.

Regan et al (2017) reported on an RCT of a home-based, 4-session, goal-oriented cognitive rehabilitation program vs usual care in 55 patients with mild cognitive impairment and early AD. 17 Patients were community-dwelling with a diagnosis of mild cognitive impairment or AD within 6 months of enrollment and an MMSE score greater than 20. The intervention group received 4 weekly 1-hour therapy sessions delivered by experienced therapists with a focus on addressing personally meaningful goals. All participants identified at least 1 goal for improvement. The usual care group had no contact with the research team between their initial and final assessments. The primary outcome measures were goal performance and satisfaction scores on the Canadian Occupational Performance Measure. Twelve participants in the intervention group and 3 participants in the control group discontinued study participation and were excluded from the final, per-protocol analysis. For the first identified goal, the intervention group had significantly greater improvements in performance and satisfaction on the Canadian Occupational Performance Measure than the control group. There were no differences in secondary measures of QOL or anxiety and depression. The per-protocol results were biased due to the high rate of missing data.

In 2011 the Institute of Medicine published a report addressing cognitive rehabilitation therapy (CRT) for traumatic brain injury. The report concluded that the current evidence provides limited support for the efficacy of CRT interventions. The report states the evidence varies in both the quality and volume of studies and therefore is not yet sufficient to develop definitive guidelines for health professionals on how to apply CRT in practice. The report

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recommended that standardization of clinical variables, intervention components, and outcome measures was necessary in order to improve the evidence base for this treatment. They also recommended that future studies are needed that have larger sample sizes and include a more comprehensive set of clinical variables and outcome measures. However, despite the methodological shortcoming of the evidence, the committee supports the ongoing use of CRT for people suffering from a traumatic brain injury while improvements are made in the standardization, design, and conduct of studies.

Sensory integration therapy (SIT) can be considered to be a component of cognitive rehabilitation. However, there is not enough evidence to permit conclusions regarding the effectiveness or whether SIT improves the net health outcomes in autistic and mentally retarded children. Only one study was published for SIT in autistic children and 3 studies were published for SIT in mentally retarded children; with the validity of all 4 studies being questionable. The evidence indicates that SIT does not improve the net health outcomes in learning disabled children when compared to alternative treatments or no treatment at all.

CODES: Number Description

Eligibility for reimbursement is based upon the benefits set forth in the member's subscriber contract.

CODES MAY NOT BE COVERED UNDER ALL CIRCUMSTANCES. PLEASE READ THE POLICY AND GUIDELINES STATEMENTS CAREFULLY.

Codes may not be all inclusive as the AMA and CMS code updates may occur more frequently than policy updates.

Code Key: Experimental/Investigational = (E/I), Not medically necessary/ appropriate = (NMN).

<u>CPT:</u>	96125	Standard cognitive performance testing (e.g., Ross Information Processing Assessment) per hour of a qualified health professional's time, both face-to-face time administering the tests to the patient and time interpreting these test results and preparing the report
	97532	Development of cognitive skills to improve attention, memory, problem solving (include compensatory training); direct (one-on-one) patient contact, each 15 minutes
	97533 (NMN)	Sensory integrative techniques to enhance sensory processing and promote adaptive responses to environmental demands, direct (one-on-one) patient contact, each 15 minutes

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HCPCS:	G0515	Development of cognitive skills to improve attention, memory, problem solving (includes compensatory training), direct (one-on-one) patient contact, each 15 minutes
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ICD10: Various

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KEY WORDS:

Attention rehabilitation, Cognitive rehabilitation, Sensory integration therapy.

CMS COVERAGE FOR MEDICARE PRODUCT MEMBERS

Based upon review, cognitive rehabilitation is not addressed in a National or Local Medicare coverage determination or policy. However, there is currently a Local Coverage Determination addressing Outpatient Physical and Occupational Therapy Services that includes Sensory Integration Therapy. Please refer to the following website for Medicare Members: <https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?LCDId=33631&ver=18&CoverageSelection=Both&ArticleType=All&PolicyType=Final&s=New+York+-+Entire+State&Keyword=outpatient+physical+therapy&KeywordLookUp=Title&KeywordSearchType=And&bc=gAA ABAAIAAAA%3d%3d&>