FEP 8.03.10 Cognitive Rehabilitation

Effective Date: July 15, 2017
Related Policies: None

Cognitive Rehabilitation

Description
Cognitive rehabilitation is a therapeutic approach designed to improve cognitive functioning after central nervous system insult. It includes an assembly of therapy methods that retrain or alleviate problems caused by deficits in attention, visual processing, language, memory, reasoning, problem solving, and executive functions. Cognitive rehabilitation comprises tasks to reinforce or reestablish previously learned patterns of behavior or to establish new compensatory mechanisms for impaired neurologic systems. Cognitive rehabilitation may be performed by a physician, psychologist, or a physical, occupational, or speech therapist.

FDA REGULATORY STATUS
Cognitive rehabilitation is not subject to regulation by the U.S. Food and Drug Administration.

POLICY STATEMENT
Cognitive rehabilitation (as a distinct and definable component of the rehabilitation process) may be considered medically necessary in the rehabilitation of patients with cognitive impairment due to traumatic brain injury.

Cognitive rehabilitation (as a distinct and definable component of the rehabilitation process) is considered investigational for all other applications, including, but not limited to, stroke, postencephalitic or postencephalopathy patients, autism spectrum disorder, seizure disorders, multiple sclerosis, the aging population, including patients with Alzheimer disease, and patients with cognitive deficits due to brain tumor or previous treatment for cancer.

POLICY GUIDELINES
For services to be considered medically necessary, they must be provided by a qualified licensed professional and must be prescribed by the attending physician as part of the written care plan. Additionally, there must be a potential for improvement (based on preinjury function), and patients must be able to actively participate in the program. (Active participation requires sufficient cognitive function to understand and participate in the program, as well as adequate language expression and comprehension, ie, participants should not have severe aphasia.) Ongoing services are considered necessary only when there is demonstrated continued objective improvement in function.

Duration and intensity of cognitive rehabilitation therapy programs vary. One approach for comprehensive cognitive rehabilitation is a 16-week outpatient program comprising 5 hours of therapy daily for 4 days each week. In another approach, cognitive group treatment occurs for three 2-hour sessions weekly and three 1-hour individual sessions (total, 9 hours weekly). Cognitive rehabilitation programs for specific deficits (eg, memory training) are less intensive and generally have 1 or 2 sessions (30 or 60 minutes) a week for 4 to 10 weeks.
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BENEFIT APPLICATION

Experimental or investigational procedures, treatments, drugs, or devices are not covered (See General Exclusion Section of brochure).

RATIONALE

Summary of Evidence

For individuals who have cognitive deficits due to traumatic brain injury who receive cognitive rehabilitation delivered by a qualified professional, the evidence includes randomized controlled trials (RCTs), nonrandomized comparison studies, case series, and systematic reviews. Relevant outcomes are functional outcomes and quality of life. The cognitive rehabilitation trials have methodologic limitations and have reported mixed results, indicating there is no uniform or consistent evidence base supporting the efficacy of this technique. Systematic reviews have generally concluded that efficacy of cognitive rehabilitation is uncertain. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals who have cognitive deficits due to dementia who receive cognitive rehabilitation delivered by a qualified professional, the evidence includes RCTs, nonrandomized comparison studies, case series, and systematic reviews. Relevant outcomes are functional outcomes and quality of life. Systematic reviews of RCTs have generally shown no benefit of cognitive rehabilitation or effects that were not clinically important. One large RCT with a goal-oriented cognitive rehabilitation program reported significantly less functional decline in 1 of 2 functional scales and lower rates of institutionalization in the cognitive rehabilitation group compared to usual care at 24 months. These results need replication. The evidence is insufficient to determine the effect of the technology on health outcomes.

For individuals who have cognitive deficits due to stroke who receive cognitive rehabilitation delivered by a qualified professional, the evidence includes RCTs and systematic reviews. Relevant outcomes are functional outcomes and quality of life. Four systematic reviews evaluating 3 separate domains of cognitive function have shown no benefit of cognitive rehabilitation or effects that were not clinically important. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals who have cognitive deficits due to multiple sclerosis who receive cognitive rehabilitation delivered by a qualified professional, the evidence includes RCTs and systematic reviews. Relevant outcomes are functional outcomes and quality of life. Systematic reviews of RCTs have shown no significant effects of cognitive rehabilitation on cognitive outcomes. Although numerous RCTs have investigated cognitive rehabilitation in multiple sclerosis, high-quality trials are lacking. The ability to draw conclusions based on the overall body of evidence is limited by the heterogeneity of patient samples, interventions, and outcome measures. Further, results of the available RCTs have been mixed, with positive studies mostly reporting short-term benefits. Evidence for clinically significant, durable improvements in cognition is currently lacking. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals who have cognitive deficits due to epilepsy, autism spectrum disorder, postencephalopathy, or cancer who receive cognitive rehabilitation delivered by a qualified professional, the evidence includes RCTs, nonrandomized comparison studies, and case series. Relevant outcomes are functional outcomes and quality of life. The quantity of studies for these conditions is much less than that for the other cognitive rehabilitation indications. Systematic reviews generally have not supported the efficacy of cognitive rehabilitation for these conditions. Relevant RCTs have had methodologic limitations, most often very short lengths of follow-up, that do not permit strong conclusions about efficacy. The evidence is insufficient to determine the effects of the technology on health outcomes.
SUPPLEMENTAL INFORMATION

Practice Guidelines and Position Statements
American Congress of Rehabilitation Medicine

Based on a 2013 systematic review, the American Congress of Rehabilitation Medicine recommended process-based cognitive rehabilitation strategies (e.g., attention process training, strategy acquisition and internalization, self-monitoring, corrective feedback) to treat attention and memory deficits in children and adolescents with brain cancers who undergo surgical resection and/or radiotherapy.

U.S. Preventive Services Task Force Recommendations

Not applicable.

Medicare National Coverage

There is no national coverage determination (NCD). In the absence of an NCD, coverage decisions are left to the discretion of local Medicare carriers.

REFERENCES

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POLICY HISTORY

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<tr>
<th>Date</th>
<th>Action</th>
<th>Description</th>
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<tbody>
<tr>
<td>December 2011</td>
<td>New</td>
<td>Policy updated with literature review, references updated, Policy statement unchanged.</td>
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<tr>
<td>June 2013</td>
<td>Update Policy</td>
<td>Policy updated with literature review through February 2014, adding references 2, 7-8 and 23-30. Investigational policy statement revised to include epilepsy/seizure disorders and autism spectrum disorders.</td>
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<tr>
<td>September 2015</td>
<td>Revise Policy</td>
<td>Policy updated with literature review through January 25, 2017; references 8, 12, 16-17, 26, 30, 32, 44, 45, and 53 added. Policy statements unchanged.</td>
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