



TRICARE Must Officially Cover Cognitive Rehabilitation

➤ **Our nation's wounded warriors deserve world-class healthcare.**

Recent Administration and congressional policy initiatives focused on improving military healthcare repeatedly call for the establishment of a world-class continuum of care for injured servicemembers.

Access to cognitive rehabilitation¹ is a basic element of the continuum of care for brain injury patients. Individuals who have incurred a traumatic brain injury (TBI) while serving their country deserve nothing less than the appropriate level of care based on currently accepted and widely utilized treatment modalities.

➤ **A clear clinical consensus has developed recognizing the importance of providing cognitive rehabilitation to patients with TBI.**

It is clear to clinicians that cognitive rehabilitation plays a critical role in treating individuals with TBI. Numerous scientific organizations and professional organizations recognize the efficacy of cognitive rehabilitation.

Treatment guidelines and position statements on the use of cognitive rehabilitation in brain injury treatment have been adopted by:

- Academy of Neurologic Communication Disorders and Sciences
- American Congress of Rehabilitation Medicine
- American Speech/Language/Hearing Association in conjunction with Division 40 (Clinical Neuropsychology) of the American Psychological Association
- Brain Injury Association of America

¹ **Note:** Cognitive rehabilitation is a systematically applied set of medical and therapeutic services designed to improve cognitive functioning and participation in activities that may be affected by difficulties in one or more cognitive domains.

Diagnosis and treatment of cognitive dysfunction should be undertaken by clinicians who have fulfilled the requirements for professional training and certification in their respective medical or allied health disciplines, such as speech/language pathology, clinical neuropsychology or occupational therapy.

- British Society of Rehabilitation Medicine in collaboration with the Royal College of Physicians (2003)
- European Federation of Neurological Sciences
- National Academy of Neuropsychology
- Society for Cognitive Rehabilitation
- The State of Colorado Department of Labor and Employment's Division of Workers' Compensation (2005)

➤ **There is substantial evidence to support the use of cognitive rehabilitation in TBI treatment.**

An abundance of well-controlled studies attest to the efficacy of cognitive rehabilitation. In a comprehensive, evidence-based review of 46 Class I studies utilizing prospective, randomized controlled methodology, experts from the Brain Injury Interdisciplinary Special Interest Group of the American Congress of Rehabilitation Medicine found that 78.7% of the comparisons demonstrated a benefit of cognitive rehabilitation over the alternative treatment. The reviewers determined that “there is substantial evidence to support cognitive rehabilitation for people with brain injury,” and further concluded, “Future research should move beyond the simple question of whether cognitive rehabilitation is effective, and examine the therapy factors and patient characteristics that optimize the clinical outcomes of cognitive rehabilitationⁱ.”

In addition, the individual experiences of numerous servicemembers and individuals with TBI who have received cognitive rehabilitation provide evidence of the beneficial and important role of such treatment.

The high quality of care received by ABC News Journalist Bob Woodruff, who was injured by a roadside bomb in January 2006 while reporting from Iraq, has been widely cited by officials as an example of the tremendous strengths and innovations of the military healthcare system. Mr. Woodruff has repeatedly emphasized that one of the most critical components of his therapy contributing to his recovery was cognitive rehabilitation.

In another case, documented by the *New England Journal of Medicine*, Sergeant David Emme, a supply officer with a U.S. Army Stryker Brigade who was injured in Iraq as a result of an improvised explosive device (IED) blast in November 2004, experienced dramatic improvement in his speech and cognitive function after intense therapy, including daily cognitive-therapy sessions. His speech and language therapist, Laura W. Battiata explained that such cognitive-therapy sessions included deductive-reasoning tasks as well as basic problem-solving tasks, and said, “We know that counseling and giving patients some strategies to use is beneficial.ⁱⁱ”

(See attached document for additional evidence and definitions)

➤ **Numerous DoD/VA publications refer to the widely recognized effectiveness of cognitive rehabilitation.**

Here are some clear examples:

- In the Army's Report to the Surgeon General, Traumatic Brain Injury Task Force, published in January, 2008, cognitive rehabilitation is highlighted as a Best Practice in treating Moderate/Severe/Penetrating brain injuries:

"Appropriate acute inpatient TBI rehabilitation during medical stabilization utilizing the full scope of standard rehabilitation services (that is, PT, OT, SLT) early in the rehabilitation process is a best practice. Providing cognitive rehabilitation in a functional manner across all disciplines is also a best practice."

And when it comes to Best Practice in treating Mild brain injury, the Army's Report highlights Walter Reed Army Medical Center (WRAMC) as exemplifying the best approach, and the Report notes that "Cognitive rehabilitation is provided in a functional manner across all disciplines" at WRAMC.

- The Department of Veterans Affairs Independent Study Course on Traumatic Brain Injury, released in January 2004, highlights the importance of cognitive rehabilitation:

"If a patient has not had a course of cognitive rehabilitation during the more acute phase of treatment, for persisting and more severe learning and memory problems, outpatient cognitive rehabilitation should be considered. Cognitive retraining has been shown to be beneficial, particularly in higher-level patients.

Depression and anxiety can also impact learning and memory performance. Clarifying the precipitating causes of impairments can help determine the most appropriate intervention – referral to speech pathology for cognitive rehabilitation or referral to psychology or psychiatry for treatment of depression, anxiety, or adjustment issues."

➤ **Numerous public and private payers currently provide coverage of cognitive rehabilitation, in recognition of its efficacy.**

- As of 2004, 14 states included cognitive rehabilitation among the menu of services offered under their Medicaid Home and Community-Based Services (HCBS) Waivers to meet the needs of individuals with brain injuries.
- Texas state law now requires health plans within the state to cover cognitive rehabilitation as a treatment for individuals with brain injuries.
- Aetna recently reversed a previously restrictive policy and now covers cognitive rehabilitation as an adjunctive treatment of cognitive deficits in specified cases of brain injury.
- Wellmark Blue Cross/Blue Shield, Cigna, and WellChoice commercial health insurance policies all cover cognitive rehabilitation in specified cases of brain injury.

➤ **Groundbreaking neuroscientific evidence supports the efficacy of cognitive rehabilitation.**

Groundbreaking neuroscientific research in the past few decades regarding neuroplasticity - or use-dependent modulation of the functional organization of cortical brain representations - provides a sound scientific basis for the use of cognitive rehabilitation therapies as a mechanism for brain reorganization and recovery of function after brain injury.

Neuroscientific studies have found that adaptive changes in brain organization do not occur passively, but require the individual to be actively engaged in skill acquisitionⁱⁱⁱ. Studies have also found that repetitive activity alone in the absence of skill acquisition is not sufficient to induce these changes^{iv}, and that further, changes in brain organization do not occur immediately, but improve with longer interactions and require a minimal period of training^v. These findings have clear implications for the use of cognitive rehabilitation in regaining function after brain injury.

In addition, evidence from human studies employing functional neuroimaging demonstrates the injured brain is capable of rapid and long-term physiologic and structural reorganization in response to learning and experience. One study recently demonstrated cortical reorganization following cognitive rehabilitation in five patients who showed marked enhancement in fMRI activity in brain areas related to the tasks being trained^{vi}.

➤ **Multiple levels of evidence should inform TRICARE coverage decisions.**

Current VA/DoD guidelines for addressing TBI incorporate limited evidence from the literature with expert opinion^{vii}, correctly acknowledging the varying levels of evidence which inform medical treatment and research. Decisions regarding coverage of cognitive rehabilitation should follow the same protocol.

As in every area of modern medicine, the research and evidence base for brain injury treatment and rehabilitation continues to evolve. Efforts to improve this research base and the efficacy of various treatment modalities, including cognitive rehabilitation, continue.

Servicemembers with brain injury need treatment services to address cognitive problems, and best practices must be based on the available body of knowledge at the current time. Acknowledging that further research in this area is called for, the military healthcare system should err on the side of providing treatment.

➤ **Widely-cited studies used to justify lack of coverage of cognitive rehabilitation are deeply flawed.**

The Technology Evaluation Center Assessments performed by Blue Cross/Blue Shield (BCBS) determining that cognitive rehabilitation is an unproven treatment for TBI have been used to justify lack of coverage of cognitive rehabilitation by some payers, including TRICARE.

Yet these studies are inherently biased, as they are paid for by BCBS - the insurance payer who has a stake in limiting coverage. The bias evident in these BCBS reviews severely undermines their credibility, as they represent the prejudiced views, opinions and biases of those who provided the financial supports for these reviews and as a result, subscribe to their findings.

In addition, these studies feature incomplete reviews of the existing literature on the efficacy of cognitive rehabilitation, as well as numerous methodological flaws.

➤ **The lack of official coverage of cognitive rehabilitation by TRICARE is a case of selective reasoning.**

To date, there is no proven pharmacologic intervention to treat and potentially improve post-TBI cognitive deficits, yet TRICARE covers the off-label use of various pharmacological agents aimed at improving functioning after TBI.

This is not to argue that such pharmacological agents should not be covered by TRICARE, but rather to illustrate a case of selective reasoning when it comes to covering cognitive rehabilitation as a treatment for neurocognitive impairments.

ⁱ Cicerone KD, Dahlberg C, Malec JF, et al. Evidence-based cognitive rehabilitation: updated review of the literature from 1998 through 2002. *Arch Phys Med Rehabil.* 2005; 1681-1692.

ⁱⁱ Okie, S. Traumatic Brain Injury in the War Zone. *N Engl J Med.* 2005; 352;20.

ⁱⁱⁱ Plautz EJ, Milliken GW, and Nudo, RJ. Effects of repetitive motor training on movement representations in adult squirrel monkeys: role of use versus learning, *Neurobiol Learn Mem.* 2000; 74(1): 27-55.

^{iv} Ibid.

^v Kleim JA, Hogg TM, VandenBerg PM, Cooper NR, Bruneau R, Remple, M. Cortical synaptogenesis and motor map reorganization occur during late, but not early, phase of motor skill learning, *J Neurosci.* 2004; 24(3): 628-33.

^{vi} Laatsch LK, Thulborn KR, Krisky CM, Shobat DM, Sweeney. Investigating the neurobiological basis of cognitive rehabilitation therapy with fMRI. *Brain Injury.* 2004; 18:957-74.

⁷ Tanielian Tanielian, Terri L. et al. Invisible wounds of war: psychological and cognitive injuries, their consequences, and services to assist recovery. RAND Corporation – Center for Mental Health Policy Research: A Joint Endeavor of RAND Health and the RAND National Security Research Division. 2008.

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Katz, DI, Ashley, MJ, O'Shanick, GJ, Connors, SH. Cognitive rehabilitation: the evidence, funding and case for advocacy in brain injury. Mclean, VA: Brain Injury Association of America, 2006.