DEPARTMENT OF VETERANS AFFAIRS
Veterans Health Administration
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UNDER SECRETARY FOR HEALTH'S INFORMATION LETTER

SCREENING AND CLINICAL MANAGEMENT OF TRAUMATIC BRAIN INJURY

1. Purpose. This Information Letter provides guidance to the Department of Veterans Affairs (VA) primary care clinicians on how to identify and initiate clinical management of Traumatic Brain Injury (TBI) in veterans and eligible active duty service members.

2. Background

a. In peacetime, more than 7,000 Americans diagnosed with TBI are admitted to military and veterans' hospitals yearly. During times of combat, TBI admissions increase significantly. Historically, between 14 and 20 percent of surviving casualties of armed conflicts are left with TBI. A recent perspectives article in the New England Journal of Medicine (Okie, NEJM, 2005; 352(20):2043-2047) noted that 59 percent of blast exposed patients from Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) admitted to Walter Reed Army Medical Center had brain injury. As members of the Armed Forces return from engagements in Afghanistan and Iraq, it is anticipated that some will exhibit symptoms of TBI that may not have been diagnosed prior to demobilization. Given the high rate of exposure to conditions that may cause TBI, it is important that VA clinicians maintain a low threshold to suspect TBI and to initiate its management.

b. While the nature and outcomes of brain injuries resulting from blast exposure are not yet fully understood, it is important to recognize that brain trauma causes both acute and delayed symptoms. Each requires prompt identification and multidisciplinary evaluation and treatment. Providing specialized health care for military personnel and veterans sustaining a brain injury continues to be a high VA priority.

3. Evaluation and Treatment

a. Veterans and active duty service members with TBI recognized at the time of injury benefit from care provided at specialized Department of Defense (DOD) and VA TBI Centers.

Less severe brain injuries may not become evident until military personnel return home to the care of their community physicians, DOD, or VA medical centers. Complicating prompt diagnosis is the fact that many who receive this type of brain injury do not recall the trauma that caused it. As a result of amnesia, patients may not be able to volunteer a history of head injury to link to their symptoms. Therefore, in some cases, it may be necessary to ask directly about head injury, and in others, to determine by inference (e.g., patient woke up in a hospital after having been thrown from a vehicle) that a head injury may have taken place.

b. Common symptoms found in the post-acute phase include physical problems with motor strength and coordination, post-traumatic headaches, pain, dizziness, fatigue, sleep disturbances, muscle spasms, seizures, and visual and vestibular impairments. In addition, patients may experience cognitive and personality changes, such as exhibiting new learning and memory deficits, impaired ability to attend and concentrate, diminished executive control, problems communicating, impaired judgment and insight, poor impulse control, difficulty controlling physical aggression, persistent irritability, mood lability, depression, and substance abuse. These impairments may make reintegration into civilian life and return to family and work problematic. Appropriate assessment and treatment can help with long-term outcomes.

c. Individuals presenting with symptoms such as these need to be evaluated for TBI. They may need referral to physical medicine and rehabilitation, mental health, clinical neuropsychology, or neurology services, or they may need to undergo brain imaging, such as by Magnetic Resonance Imaging (MRI). Clinicians need to discuss with families and caregivers the role TBI may play in causing the veteran's personality and cognitive changes. Long-term treatment is likely to require continuation of multidisciplinary care and case management. ***NOTE:*** *For more details about the diagnosis and treatment of TBI, see Veterans Health Initiative, Traumatic Brain Injury: A CME Program which can be found at: http://www.va.gov/vhi*

d. Extra caution needs to be exercised in pharmacological management, as patients with brain injury are more sensitive to medication side effects. Clinicians need to avoid agents likely to decrease or slow cognition or that may cause adverse side effects in this vulnerable population. Pharmacological treatment needs to be tailored to individuals with TBI. Before starting a medication, clinicians need to ensure new symptoms are not due to environmental stressors (e.g., caregiver conflict, sleep cycle disruption). Pharmacological treatment needs to start at low doses, with increased attention given to drug toxicity and drug interactions. Use of benzodiazepines, anticholinergics, or antidopaminergics need to be minimized as they may exacerbate cognitive dysfunction. Over the counter products containing caffeine or claiming to improve energy should be avoided, because their use has been linked to episodes of mania, aggression, or hypertensive crisis.

e. While TBI is a relatively common occurrence, evidence-based guidelines for diagnosis and treatment are limited. Current practice is based on expert opinion. Given the high rate of exposure to conditions that may cause TBI, it is important that primary care clinicians routinely screen for its occurrence. Patients with TBI remain at high risk for development of delayed symptoms. A comprehensive assessment and treatment plan needs to be pursued if such symptoms are present. To help develop such a plan, primary care providers need to consider

referring patients likely to have TBI to physiatrists, clinical neuropsychologists, neurologists, or mental health professionals.

Jonathan B. Perlin, MD, PhD, MSHA, FACP
Under Secretary for Health

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