



STATEMENT OF JOHN BOOSS, MD

ON BEHALF OF THE AMERICAN ACADEMY OF NEUROLOGY

BEFORE THE SENATE COMMITTEE ON VETERANS' AFFAIRS

IN SUPPORT OF

S. 1233

May 23, 2007

Good morning, Mr. Chairman and Members of the Committee. My name is Dr. John Booss. I am a veteran of the Air Force and the former National Director of Neurology at the Department of Veterans Affairs (VA), and proud to have over thirty years of service to the VA. I am currently a Professor Emeritus of Neurology and Laboratory Medicine at Yale University and a fellow of the American Academy of Neurology (AAN). On behalf of the AAN I am pleased to present our support of S. 1233. The AAN, which represents over 20,000 neurologists and neuroscience professionals, believes that our veterans deserve the best possible care for neurological injuries sustained in their service to our country.

I applaud this Committee for holding hearings earlier on how the conflicts in Iraq and Afghanistan have created an emerging epidemic of traumatic brain injury (TBI) among combat veterans. TBI, which has been called the signature wound of the wars, involves neurological, cognitive and behavioral changes which are complex, varied, diverse and may change in severity or develop over time. Longer-term neurological problems often include post-traumatic epilepsy, headaches, sleep disorders and sensory complications.

The AAN strongly supports the "team approach" laid out in section 3 of S. 1233. Each veteran who suffers a TBI should receive ongoing individualized, comprehensive and multidisciplinary rehabilitation after inpatient services. Rehabilitation plans that are based upon a comprehensive assessment of the veteran's physical, cognitive, vocational, and psychosocial impairments, using a multidisciplinary team that includes **neurologists** (as required by S. 1233), are essential to rehabilitative success.

We support the provision in section 3 which requires involving the family and veteran in the development and review of the rehabilitation plan. TBI is a devastating and life-altering event which affects the veteran and his or her family. Families of veterans with TBI need support and education, and should be part of the rehabilitative team to the greatest extent possible.

We also support the periodic assessment of the rehabilitation plan. The consequences of a TBI may change over time and new symptoms may develop. For example, individuals with TBI may develop post-traumatic seizures months or years after the injury. Epilepsy requires regular monitoring. For many

patients, changes in their anti-seizure medications are required. This makes this periodic assessment crucial.

The AAN also appreciates the recognition of seizure disorders as a common outcome of TBI in S. 1233. Post-traumatic epilepsy is going to be a significant long-term consequence of TBI.

Although we do not have data on post-traumatic epilepsy from the current conflicts, the statistics from the Vietnam era are alarming. VA-funded research conducted in collaboration with the Department of Defense found that 53 percent of veterans who suffered a penetrating TBI in Vietnam developed epilepsy within 15 years. For these service-connected veterans, the relative risk for developing epilepsy more than 10 to 15 years after their injury was **25** times higher than their age-related civilian cohorts. Indeed, 15 percent did not manifest epilepsy until five or more years after their combat injury. As neurologists, we believe that the rate of epilepsy from blast TBI will also be high.

Given the high rate of post-traumatic epilepsy that veterans with TBI are likely to endure, the AAN believes that Congress should authorize and the VA must establish a strong national epilepsy program with Research, Education and Clinical Centers, to include Epilepsy Centers of Excellence. We are concerned that the VA lacks a national program for epilepsy with clear guidelines on when to refer patients for further assessment and treatment of epilepsy. VA Centers of Excellence have been the model of innovation in the delivery of highly specialized health care and research for other disabling and chronic diseases in the veteran population. VA has infrastructure to address many of the other common consequences of TBI, such as psychosocial changes and vision problems but not post-traumatic epilepsy.

At one point, the VA was a national leader in care and research for patients with epilepsy. As early as 1972 the VA recognized the need for VA health centers that specialized in epilepsy. But starting in the 1990's these epilepsy centers have languished due to lack of funds.

Six strategically located facilities could develop the necessary capacity to function as centers of excellence in research, education, and training in diagnosis and treatment of epilepsy. For example, a VA health care facility affiliated with a medical school that trains residents in the diagnosis and treatment of epilepsy, including epilepsy surgery, would be able to attract the participation of clinicians and scientists capable of driving innovation in the prevention and treatment of post-traumatic epilepsy.

Because so many of our recent veterans are returning to rural areas, access to state-of-the-art care for post-traumatic epilepsy will be a challenge of the VA. Epilepsy Centers for Excellence could help address this challenge by expanding the VA's telemedicine capacity. Through the transmission and review of neurological diagnostic tests, such as EEGs and MRIs, the VA Epilepsy Centers of Excellence could provide a nationwide monitoring program to improve the quality of life for veterans with post-traumatic epilepsy who live in rural areas.

We appreciate that S. 1233 contains a provision to establish a broad TBI research, education and clinical care program. Still, more research into epilepsy is needed. Without a strong national program on epilepsy, post-traumatic epilepsy may not receive adequate focus and support. As you move S. 1233 forward in the legislative process, we ask that you clarify that these centers must include a significant focus on the prevention, diagnosis and treatment of epilepsy. We ask that you give the VA an incentive to establish the VA Epilepsy Centers of Excellence with a clear statutory foundation and the authorization of appropriations.

Both the American Academy of Neurology and I thank you for the opportunity to provide our support and comments on S. 1233.