

SUMMARY

TREATING SLEEP DISORDERS IN GULF WAR VETERANS

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Study Introduction. The most common complaints of Gulf War veterans involve fatigue and sleep disturbances. Approximately one quarter of veterans who participated in VA's Gulf War Health Examination Registry have complaints consistent with an undetected sleep disorders. Preliminary studies suggest a high prevalence of sleep disorders in the Gulf War veteran population. However, sleep disorders have not been recognized as a significant cause of Gulf War complaints, and no studies have been conducted to establish effective treatment programs.

Given the high rate of sleep disorders in the general population and the high potential of the combat environment to induce these disorders, appropriate recognition and treatment of sleep disorders could have a profound impact on delivery of care to Gulf War veterans. To test this hypothesis, this study established a Gulf War Veterans Sleep Disorders Evaluation Center (SDEC). The Center used case managers to direct a multidisciplinary evaluation to improve diagnoses for sleep disorders in Gulf War veterans, to provide optimal treatment regimens, and to improve patient satisfaction and retention. Success treatment may reduce chronic symptoms, improve quality of life and improve patient satisfaction with VA care.

Objectives.

To establish a multidisciplinary specialized treatment unit to evaluate the symptoms of 300 Gulf War veterans, and determine if they have undiagnosed sleep disorders.

To treat those Gulf War veterans with sleep disorders, and assess the outcome of therapy.

To measure the satisfaction with care of Gulf War veterans who participate in the treatment program and compare their level of satisfaction with that found in a control group.

Methods. Gulf War veterans from the New England area (VISN 1) were sent questions taken from VA's National Health Survey of Gulf War Veterans, and existing validated sleep questionnaires. Subjects reporting sleep related complaints were offered the clinical services of the Sleep Disorder Evaluation Center (SDEC). Controls were recruited from demographically similar Gulf War veterans not residing in VISN 1 and who were receiving care at similar facilities. Controls were mailed identical questions and assessed for sleep-related complaints. Instead of being evaluated in the SDEC, control veterans were sent a follow-up letter indicating that their symptoms may be due to and underlying sleep disorder, and they should seek appropriate care at their local VAMC. A follow-up questionnaire will be sent in one year to assess change in symptoms and customer satisfaction with standard care for Gulf War related complaints.

Results. Gulf War subjects diagnosed and treated for sleep disorders had a statistically significant improvement in quality of life scores compared to the nonintervention group. Of 2,020 Gulf War veterans returning the initial sleep health questionnaire, 936 were

subjects from VISN 1, and 1084 were controls from the comparison VISN. Despite small differences between the two groups, overall responses were similar. Among the two groups, about 66 percent were eligible for a sleep disorders evaluation, and 134 veterans participated during the 18 month study (participation required a significant time commitment). About 97 percent of participants were diagnosed with an existing sleep disorder. Longitudinal changes over the study period were also reported.

Conclusions .

- There is a high rate of undiagnosed sleep disorders in Gulf War veterans, suggesting that it is essential to increase awareness of sleep disorders in all VA facilities.
- The sleep disorders diagnosed in these veterans have been well characterized in the general U.S. population, and are highly treatable. Thus, treatment of this Gulf War cohort resulted in an improvement in quality of life.
- Existing validated sleep disorder screening measures are effective for identifying Gulf War veterans with sleep disorders.
- The availability of Sleep Medicine Services increases Gulf War veterans' utilization of DVA facilities.
- It is impractical and too expensive to establish full-staffed sleep laboratories in every VAMC within a given VISN.
- Gulf War veterans were very willing to come to a specialized VA sleep treatment center for treatment for their sleep disorders. This included Gulf War veterans not previously using VA health care.
- Further research into the most effective method for treating sleep disorders in this population is still needed.

Exportability to Other VAMCs. Use of standard approaches for diagnoses and treatment of sleep disorders can result in improved functional status of Gulf War veterans. Treatment for sleep related disorders also improves patient satisfaction with health care delivery, and thus may serve to attract new and younger veterans to the VA health care system. It is not practical to establish sleep laboratories in every VAMC. Therefore, a referral process will be required to make this approach broadly available to veterans seeking health care throughout the VA health care system.

The detailed Brocton/West Roxbury VAMC's Demonstration Project Report is available on-line. For additional information contact Lawrence J. Epstein, MD at VA Medical Center Brockton/West Roxbury, 940 Belmont St., Brockton, MA 02410.