

## *SUMMARY*

### **SPECIAL EMPHASIS CLINICS WITH INCREASED SUPPORT SERVICES IMPROVE GULF WAR VETERAN PATIENT SATISFACTION AND FUNCTIONAL OUTCOMES**

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**Study Introduction.** In the present Department of Veterans Affairs (VA) medical care system; Gulf War veterans receive care from both community-based Primary Care Clinics and various Gulf War Special Emphasis Program clinics. Together, these clinics provide VA healthcare for Gulf War veterans suffering from undiagnosed and ill-defined illness. However, the comparative effectiveness of these two setting for providing optimal treatment and patient satisfaction for these veterans has not been tested.

**Objectives.** To determine if medical care provided at the Special Emphasis Clinics can be significantly enhanced through addition of “just in time” support services. Supplementing the Special Emphasis Clinics with increased support services may increase patient satisfaction and functional outcomes while decreasing utilization and cost. The goal of this project was to enhance clinical care and supportive services for those veterans with more complex and specialized needs than available from routine care. This project evaluated healthcare effectiveness by measuring differences in: 1. patient satisfaction, 2. patient functional status, 3. cost of care and resource utilization, and 4. knowledge about Gulf War Veterans’ Illnesses.

The two specific objectives of this study were to determine if:

- Use of a Case Manager with the Special Emphasis Clinics provides greater patient satisfaction and better functional outcomes than Primary Care Clinics, and
- Special Emphasis Clinics can yield superior patient satisfaction and better functional outcomes through modification of operating procedures to include support services (psychologist, social worker, benefits counselor, pharmacist, and chaplain) for these clinics.

This experimentally modified Special Emphasis Clinic is referred to as “Demonstration Clinic.”

**Methods.** Letters inviting Gulf War veterans to participate in this study, along with appropriate informed consent forms, were mailed to about 1400 potential subjects. The initial response at time period 0 (T0) was poor. Subsequently, 681 follow-up telephone calls were made to determine if veterans had received the letters. Due to poor response rates at T0, the time point for the second and subsequent mail outs to Gulf War veterans (T1) was shifted, from 11 to 13 months, from 13 to 22 months. Moreover, although the original protocol called for questionnaires to be randomly administered to selected veterans, this was revised to include all Gulf War veterans seen in the clinics. Furthermore, to maximize study participant numbers, the second and third mail outs went to all who participated in the Demonstration Clinic or one of the four Primary Care

Clinics during the initial time period (T0), thus making the groups longitudinal and complete (as opposed to random).

**Results.** The Birmingham VA Medical Center's Primary Care Clinics saw 525 Gulf War veterans over the 12-month period before the study began. Original estimates suggested that 250 patients would be seen in the Demonstration Clinic in the first year (approximately 21 new patients/month) based on a census of 393 patients visiting the Special Emphasis Clinic between June 1997 and June 1998 (33 new patients/month). These numbers helped form the basis for the expected number of patients in the Demonstration Project and in the comparison group and were sufficient to yield a sample size large enough to meet study goals.

The chief diagnoses listed for these patients in descending order of prevalence were joint pain, benign hypertension, prolonged post-traumatic stress, neurotic depression, chronic sinusitis, allergic rhinitis, late effect of war injury, multiple joint pain, anxiety state, dermatitis, and esophageal reflux.

Subject's health care utilization was assessed using statistical analyses of the costs of treatment at each clinic settings, as captured by the Decision Support System (DSS) at the Birmingham VA Medical Center. Cost were grouped by clinic and summed per patient.

Assessment measures were used to determine symptoms, conditions, and feelings as they relate to Post-Traumatic Stress Disorder (PTSD), fibromyalgia, depression, and anxiety. Study questionnaires validated as useful in the diagnosis of these disorders were used as measures of general and disease specific functional status.

One of the new approaches tested in this Demonstration Project was provision of support services coordinated by a nurse case manager. These data also add to the body of scientific knowledge with regards to improving treatment satisfaction of Gulf War veterans especially in those who continue to suffer from undiagnosed illness.

### **Conclusions.**

- The first study objective was accomplished and the data revealed that there was no statistically significant differences between the Special Emphasis Clinic and the Primary Care Clinics as they related to patient satisfaction and functional outcomes. The second study objective was accomplished, and the data revealed that there were indeed statistically differences between the Demonstration Clinic and the other clinics for the above-mentioned outcomes.
- Cost analyses comparing the Special Emphasis Clinic with the Primary Care Clinics initially indicated the Special Emphasis Clinic was more expensive than the Primary Care Clinics, but these figures included in-patient visits. However, separating in-patient and out-patient costs showed the Demonstration Clinic costs represented an approximately 4 percent cost savings for the medical center, although this was not statistically significant.
- The statistically significant differences between the Demonstration Clinic and the Special Emphasis Clinic and the Primary Care Clinics were also reflected in personal comments received from veterans visiting the Demonstration Clinic. These veterans reported that they were appreciative of the VA's efforts and were more satisfied with

the new Demonstration Clinic and its enhanced services than the previous Special Emphasis Clinic.

**Exportability to Other VAMCs.** This study found that increasing the number and/or availability of Benefits Officers who can make regular clinic visits to serve veterans and increasing the use of nurse case management and ancillary support services can be effectively integrated into a supportive team to fulfill veterans needs following future military deployments. These measures can significantly improve veteran patient satisfaction with care available at a VA medical center.

The full Birmingham Demonstration Project Report is available on-line. For additional information contact Michael P. Everson, Ph.D., VAMC Birmingham 700 S. 19<sup>th</sup> St., Birmingham, AL 35233.