





Elizabeth Bass, PhD; Dustin D. French, PhD; Kris Siddharthan, PhD

JRRD Guest Editorial

Outpatient use and costs for veterans with combatrelated injuries

The Polytrauma Rehabilitation Center (PRC) at the James A. Haley Department of Veterans Affairs (VA) Hospital in Tampa, Florida, is one of four centers in the United States managing postacute sequelae of polytrauma for injured soldiers returning from Iraq and Afghanistan. In accordance with the Veterans Health Administration (VHA) directive establishing these centers in Tampa, Florida; Palo Alto, California; Richmond, Virginia; and Minneapolis, Minnesota, "a PRC provides comprehensive interdisciplinary rehabilitation and coordinates complex medical, surgical, and mental healthcare, as well as long-term follow-up" [1]. Other VHA hospitals and outpatient clinics located throughout the country also provide care to these returning soldiers. We contribute to the discussion of meeting the healthcare needs of these injured soldiers by presenting preliminary outpatient utilization data for a cohort of wounded veterans. We analyzed outpatient healthcare use among 62 veterans of Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) with combat-related injuries who were treated at Tampa's Haley PRC in fiscal years 2005 and 2006 to determine outpatient resource use and costs to the VHA after discharge. Using a polytrauma cohort identified by the Haley PRC, we obtained national outpatient cost and use data from the Decision Support System National Data Extracts (DSS-NDE). These files contain cost information on care provided to patients during VHA outpatient visits nationally [2] rather than solely on the local level (Tampa), which is important because some of the cohort were seen in other VHA facilities. Thus, care provided at or paid for by the VHA was captured in this analysis. Measures of healthcare use were the type and number of outpatient clinic stops and associated costs. Clinic stops are DSS-NDE identifiers defining outpatient production units [3] but may also be used to quantify healthcare use by patient.

During the 2-year period of this analysis, over half the cohort was seen in six clinics (**Table 1**). The combination of social work service (94%) and clinical pharmacy (74%) may indicate civilian adjustment, mental health needs, or both. Clearly, medications were used regularly by most of the cohort to treat war-related injuries and conditions. The clinics generating the highest expenses are shown in **Table 2**. Some overlap existed with high use and high cost (social work service and pharmacy). The most expensive clinic stop was contract nursing home care, defined as the number of days the patient had VA-paid, vendor-provided care [3]. Total outpatient costs were approximately \$1.13 million, an average of \$18,000 per patient over 2 years.

To our knowledge, this is the first data published giving insight into the trajectory of rehabilitation costs for OIF/OEF casualties treated in the VHA. Transitioning from inpatient rehabilitation to the community is critically important, and outpatient care is part of that effort. With increasing numbers of wounded arriving in VHA facilities, this effort is a first step in understanding cost implications of rehabilitation for those wounded in combat.

JRRD, Volume 45, Number 6, 2008

Table 1. Clinics used most frequently by cohort of 62 veterans.

Clinic Stop	Number of Patients, n (% of Cohort)
125: Social Work Service	58 (94)
160: Clinical Pharmacy	46 (74)
423: Prosthetic Supply Ordering Services	40 (65)
323: Primary Care	37 (60)
108: Laboratory	35 (56)
147: Telephone/Ancillary	35 (56)

Source: Decision Support System National Data Extracts, fiscal years 2005 and 2006.

Table 2. Clinics generating highest costs for cohort of 62 veterans.

Clinic Stop	Total Cost (\$)*
650: Contract Nursing Home Days	128,800
125: Social Work Service	110,800
160: Clinical Pharmacy	108,300
205: Physical Therapy	93,200
204: Speech Pathology	84,000
206: Occupational Therapy	66,000

^{*}Costs rounded to nearest \$100.

Source: Decision Support System National Data Extracts, fiscal years 2005 and 2006.

REFERENCES

- 1. VHA directive 2005-024: Polytrauma rehabilitation centers. Washington (DC): Department of Veterans Affairs, Veterans Health Administration; 2005.
- Phibbs CS, Yu W, Barnett PG. Research guide to Decision Support System: National cost extracts 1998–2004. Menlo Park (CA): Health Economics Resource Center of Health Service R&D Services, Department of Veterans Affairs; 2006.
- 3. VIReC Research User Guide. VHA Decision Support System (DSS) clinical National Data Extracts (NDEs) FY2000–FY2004. Hines (IL): Department of Veterans Affairs Information Resource Center, Health Services Research and Development Service, Edward J. Hines Jr Department of Veterans Affairs Hospital; 2005.

Elizabeth Bass, PhD; Dustin D. French, PhD; *Kris Siddharthan, PhD

Veterans Integrated Services Network 8, Patient Safety Center of Inquiry, James A. Haley VA Medical Center, Tampa, FL

*Email: **Dustin.French2@va.gov**

DOI: 10.1682/JRRD.2007.11.0188