



## The Continuum of Care for Soldiers Returning From Iraq and Afghanistan

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Washington—Never in the history of the United States has a military conflict yielded an injury survival rate of better than 90%. Never, that is, until now. According to the most recent calculations, 91% of injured soldiers have survived wounds suffered while taking part in either Operation Iraqi Freedom (OIF) or Operation Enduring Freedom (OEF). This improvement carries with it new challenges for the military, the Department of Veterans Affairs (VA) and civilian healthcare systems.

“We’re now salvaging people [who] in wars past would have died on the battlefield,” said Lt. Col. Chester “Trip” Buckenmaier III, MD. “We have a real challenge. I believe we’re starting to see the tip of a tidal wave of chronic pain in many of these soldiers.” Dr. Buckenmaier, program director for Regional Anesthesia and Pain Management at Walter Reed Army Medical Center, Washington, D.C., and several VA physicians discussed treating pain in returning soldiers at the 2007 annual meeting of the American Pain Society (APS).



To give some perspective, of the approximately 575,000 soldiers who participated in the first Persian Gulf War, 41% subsequently filed disability claims. Furthermore, 35% of soldiers returning from that relatively short conflict reported pain. Evidence is emerging that the prevalence of chronic pain will be even higher among soldiers returning from OIF/OEF, and as of November 2006, 1.4 million soldiers had been deployed.

In fact, a review of medical records from 619 registrants for care at James A. Haley VA Medical Center in Tampa, Fla., showed that 42.7% reported current pain and more than 50% reported pain scores of 4 or higher on a 10-point numeric rating scale (*Pain Med* 2004;5:333-334). Interviews conducted on a subset of 100 returnees showed an even higher rate of pain and indicated a high rate of mental health problems (Table). The findings were presented by Michael E. Clark, PhD, clinical director of the Chronic Pain Rehabilitation

Program at the VA medical center, and colleagues in a poster session at the APS meeting (abstract 904).

One method for handling this incoming wave of chronic pain is to intervene as early and as aggressively as possible. Although there is limited evidence specifically among combat injuries to support this approach, one study of almost 600 single-extremity trauma patients found that those treated with opioids during the first three months following injury had lower levels of chronic pain at 84 months (*Pain* 2006;124:321-329).

### The Continuum of Care

The apparent protective effect of early treatment for pain highlights a need of which the military and the VA are now becoming aware. "Pain needs to be consistently assessed and treated all the way across the continuum of care, from that initial point of injury all the way down the road," said Robyn L. Walker, PhD, clinical psychologist at the James A. Haley VA Medical Center. As of now, the methods of treating and following a patient from the moment of injury on the battlefield all the way through military medical centers to VA hospitals and through the point of reintegration into the soldier's community are lacking. There are gaps in the continuum.

Dr. Buckenmaier described the beginning of the process, which makes use of what he called a "12,000-mile ICU." Injured soldiers receive care on the battlefield, on the C-17 aircraft bringing them to military medical centers in Europe and all the way back to treatment facilities in the United States. The problem, however, lies in the lack of communication between the various segments of this assembly line.

"When a soldier is injured in Iraq, the medical records he generates don't follow him on to the plane," Dr. Buckenmaier said. "He generates more records in Landstuhl, Germany, but when he goes back to the U.S. those records again don't follow him. We often get soldiers at Walter Reed who tell us they have been asked the same questions five separate times."

Beyond the 12,000-mile ICU, the problems only intensify. Patients without severe injuries will return from duty and be treated at both VA hospitals and outside the government system completely, at community health centers. Without good communication between the Department of Defense (DOD), the VA and the civilian healthcare sector, these individuals may not receive the specific care they need, he said

### RATS and Polytrauma Centers

Dr. Buckenmaier's efforts in providing regional anesthesia immediately following combat injuries is now aided by the Regional Anesthesia Tracking System (RATS), which allows the military to follow patients and the specifics of their treatment. RATS has proven useful, but it is limited to pain management and it does not extend into the VA system or beyond.

Soldiers who suffer severe injuries also now have the benefit of improved programs. The VA

**TABLE.** Pain and Emotional Problems In Military Personnel Returning From Iraq and Afghanistan (n=100)

Pain scores $\geq 7$	57%
Average pain intensity	5.4
Primary pain locations	
Back	47.2%
Knee	18.9%
Shoulder	9.4%
Neck	6.3%
Ankle/foot	6.2%
Headache	58%*
Active mental health problem	53.7%

\*Percentage of respondents who reported headaches when asked.

has four polytrauma rehabilitation centers to treat severely wounded soldiers even before they are discharged from the military. "The DOD and the VA have created a liaison system to follow these patients," Dr. Walker said. "These liaisons are active duty personnel and VA case managers who coordinate care between the military treatment facilities and the VA system." The polytrauma centers now also have increased availability of military medical records, so the entire rehabilitation team is aware of the treatment that has been given to their patients.

The challenge now, Dr. Walker said, is to make sure these patients continue to be followed beyond their stay at the VA hospital. A network of secondary and tertiary care programs has been established to facilitate that effort, and case managers are assigned to eventually "follow those patients for a lifetime."

The bigger issue in the coming years, however, might be those patients without severe or obvious injuries. Many of these individuals will suffer from post-traumatic stress disorder and chronic pain, but will not have had the level of care from the military and the VA that is given to severely injured soldiers. Our growing understanding of the need for early interventions in pain management has spawned a huge push for research in this area, Dr. Clark said.

Firmly establishing the connections between early pain management and later chronic pain and emotional health is a top priority, said Dr. Clark. "If we can do that, it will certainly provide justification for intervening much earlier—or differently—with active duty military right on the battlefield or shortly thereafter."

Dr. Buckenmaier is now involved in just such a study following soldiers from the moment of injury and correlating treatments received with pain and psychological outcomes further down the road. Although convincing the DOD and the VA to collaborate on this effort has been a challenge, he is optimistic about its possible effects. "Even if we have a small trend toward a positive outcome with early pain management, that would be enough," he told *Pain Medicine News*. "These are small steps, but when you implement these small steps along the entire chain, they are going to lead to a good overall pain management picture."

Pain physicians working outside the military and the VA need to be aware of these issues as well, given the enormous number of patients that will need pain and psychological care over the coming years, Dr. Clark said. "These same complications are going to be affecting not just those of us who work in the VA or the DOD, but all of us. This is going to impact us for decades to come."

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