



New Medical Machine Extends the Arm of Care

Jennifer Clampet

The U.S. Army is looking to a medical machine to help in the outpatient treatment of Soldiers suffering post-traumatic stress and traumatic brain injuries.

EMMA – an Electronic Medication Management Assistant offered through InRange Systems Inc. – is being used in Warrior Transition Units throughout the Army.

At Fort Bliss, the medical device – which resembles a cash ATM machine in design – was introduced in the fall of 2011. The device can be kept in a Soldier's quarters, is controlled remotely via Wi-Fi connection to EMMA representatives and dispenses medications according to programmed times.

Four military medical facilities including Walter Reed Medical Center have been testing the EMMA system since 2007. Three Fort Bliss Warrior Transition Battalion Soldiers now use the machine. "I take more than 21 medications," said Sgt. James Mitchell, Alpha Company, Fort Bliss WTB.

Crowding a dresser top in his bedroom, the EMMA machine's blue screen glows when prompted to dispense Mitchell's many pills. The 18-year Army veteran – who spent most of his time in service as a Soldier in the U.S. Army Reserves – has been diagnosed with PTSD and TBI. Mitchell was stationed at the Fort Bliss WTB in 2007 following a tour in Iraq pulling convoy security.

"I had a lot of bad stuff happen," Mitchell said. "I try not to focus on it."

But the WTB Soldier offers candid remarks in describing his adjustment to EMMA – a machine intended to keep the high-risk Soldier in adherence with his poly-pharmacy drug therapy.

"The first week I didn't like a machine telling me what to do. Now it really is a load off my mind. And now I'm fighting to keep it," said Mitchell who has begun transitioning out of the Army.

EMMA is designed for outpatients suffering from cognitive impairments associated with conditions such as PTSD and TBI.

Between 2000 and 2011, the Army has reported diagnosing more than 76,000 cases of PTSD and more than 233,000 cases of TBI in Soldiers.

Soldiers diagnosed with either one or a combination of the two conditions can be placed on multiple medications – for which sched-

ules for correct usage in outpatient settings rely heavily on Soldiers or caretakers to comprehend and follow.

"I can never remember what doctors told me," said Mitchell who keeps a diary and tape recordings as reminders of instructions for medications.

While PTSD and TBI treatments can include therapy and medications, the latter treatment is a concern as risks associated with poly-pharmacy drug regimens (taking four or more medications) include accidental and intentional overdoses.

"EMMA is used to help mitigate risks associated with outpatient drug therapy," said Dr. Robbie Rampy, medical director at Fort Bliss WTB.

Rampy noted that at Fort Bliss WTB, the use of an EMMA can be recommended by Soldiers' doctors, nurse case managers and even their squad leaders and company commanders.

"It crosses over from medical to command," said Rampy. "Those with a relationship with the Soldier can voice a concern or desire for the possibility that the Soldier be considered for an EMMA."

The effects of a TBI injury include difficulty organizing daily tasks, easily irritated or angered trouble with memory or concentration and easily confused.

The PTSD condition includes the re-experience of a life-threatening event over and over again; avoiding people, places and feelings that remind a person of the event; and feeling on the edge all the time.

First Sgt. Earlean Smith, Alpha Company, Fort Bliss WTB, said the EMMA devices are "a help" for high-risk Soldiers – those taking multiple medications or who have histories of non-adherence to the drug therapy.

EMMA is described not as an automated pill dispenser but as an "arm of the caregiver," according to the InRange website.

The machine which is monitored 24/7 by EMMA representatives and offers programmed alarms for reminders to take scheduled pills. The system is remotely programmed by TRICARE pharmacies to ensure that the patient's medications are delivered according to the physician's prescribed dosing instructions. Medica-

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tions can be mailed to the patient's home. For Mitchell, he is accompanied to the pharmacy with a squad leader who observes the insertion of the pill blister cards.

"It gives the Soldiers independence when they have the machine," Smith said.

For caregivers, the independence is similar.

"Before I would have to put all his pills into the pill boxes," said Patricia Mitchell, James' wife, who remembered the day when her husband's pills stopped fitting into the small individual plastic containers.

"Now we just have a password," she said.

But as with all technology, some patients are hesitant to surrender control to a machine. At Fort Bliss the success of the EMMA-option is dependent upon the Soldier's willingness to use the device.

EMMA is covered under TRICARE. A waiver is submitted to TRICARE on behalf of the Soldier requesting the use of the machine. The request then undergoes a lengthy approval process, said T.J. Inslee, national military sales manager with InRange Inc.

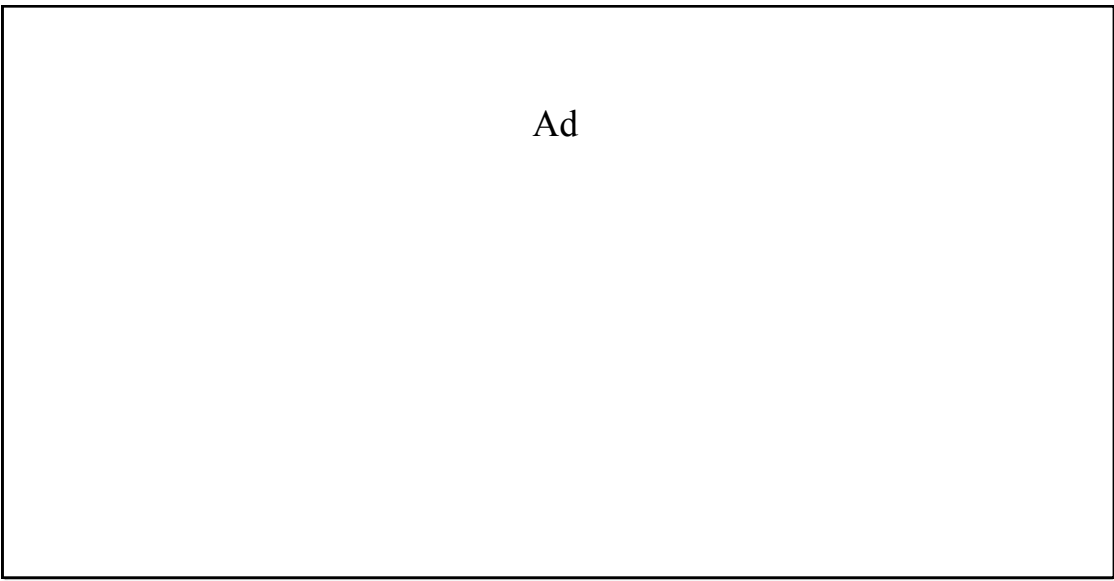
Mitchell is aware of his past behaviors in struggling with PTSD and TBI. Giving a tug to a dog leash attached to Nakita – Mitchell's service dog – he notes even the dog's assistance in helping him hear the alarm sounds for pills from EMMA.

"There is no way physically possible to beat that machine," said Mitchell.



DSC_ : Sgt. James Mitchell, Alpha Company, Fort Bliss Warrior Transition Battalion, stands in his bedroom which houses his Electronic Medication Management Assistant (EMMA) with his service dog Nakita.

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