

# Challenges with Interoperability Between the VA and DoD, and the Potential Value of Patient-Centric Analytics in Healthcare



On May 29<sup>th</sup> 2014, The House Committee on Veterans Affairs held a two hour hearing: “Assessing Inadequacies in VA Data Usage for and Services Provided to Visually-Impaired Veterans” (video available on C-Span at <http://www.c-span.org/video/?319636-1/veterans-administration-visuallyimpaired-services>.)

Among those testifying were senior officials of the VA including Dr. Maureen McCarthy, MD, Deputy Chief Patient Care Services and Ms. Lorraine Landfried, Deputy Chief Information Officer for Product Development. One of the key topics of the hearing was the role (or lack thereof) of the VA in the Vision Center of Excellence Eye Registry. The Eye Registry is the first joint registry designed to be shared by the departments of Defense (DoD) and Veterans Affairs (VA). When fully functional, the eye registry will provide the capability for analyzing longitudinal outcomes, assessing implemented intervention strategies, and enhancing care coordination across both DoD and VA care delivery systems ([http://vce.health.mil/info\\_dveivr.aspx](http://vce.health.mil/info_dveivr.aspx)).

The pointed issue in front of the hearing was that although the registry program has been operational and funded for over 5 years, only one name of an injured veteran has been added by the VA to the thousands already identified and entered into the registry by the DoD. The committee was focused on the question: why does the VA seem to be “dragging their feet” in Eye Registry participation?

Why is this important?

Perhaps the best way to illustrate importance this is through a case study: Travis Fugate, veteran, and a key witness at this May 29<sup>th</sup> hearing (<http://veterans.house.gov/witness-testimony/mr-travis-fugate>):

In May 2005, Army Spec. Travis Fugate was seriously injured by a roadside bomb while on patrol in Iraq. It took out his right eye and damaged the retina of his left, bruised his brain and crushed the bones in his face. Immediately following his trauma and for months thereafter he was treated by DoD surgeons at numerous MTFs including WRAMC. DoD clinicians were able to provide facial reconstruction and salvage limited but precious vision in his left eye and document this care in DoD electronic systems of record.

In 2006 he transitioned out of active duty and thus put his care in the hands of VA clinicians near his home. His medical records from the DoD arrived at the office of his new VA doctor as a stack of paper inches thick. Though Mr. Fugate’s full medical record was made available by the DoD, the VA physicians were unable to use the information to provide effective continuity of care due to the overwhelming amount of information that would have taken days to read through and organize. Within 3 years he suffered complications and, due to lack of access to detailed surgery records, he received ineffective care at the VA which delayed treatments that might have salvaged his sight. He ultimately returned back to WRAMC where clinicians had access to all surgery trauma records, and upon examination, performed urgent surgeries that were tragically too late.

The key point of this testimony from Mr. Fugate was: “I strongly believe today the lack of having my eye surgery records in an electronic joint registry where both VA and DOD medical staff can find out immediately what treatments and surgery was done could have made a difference.”

This “joint registry” differs from routine “electronic medical records” maintained by the DoD and VA in that it contains data mainly in a “computable” form so that computer algorithms and analytics can help clinicians deal with massive amounts of detailed clinical data. This requires a registry database with “coded information” (as opposed to free text) for diagnosis, examination findings, surgical interventions, operative procedures, related medical treatments, and follow-up care of each significant eye injury incurred by members of the Armed Forces while serving on active duty. Such a system converts data in a patient’s medical record into a powerful tool for risk stratification and care coordination.

By aggregating data representing care received from both DoD and VA in one single coherent database, such a system could track how outcomes are associated with specific care received in different care settings in both these agencies. For those suffering eye trauma due to battlefield injuries such as IED blasts, such a system could also be useful in coordinating care between these agencies.

Two points made by Mr. Fugate in his testimony underscore lack of usefulness of today’s non-computable EMR records:

1) “In 2006, I went for a follow-up visit with an ENT doctor at the Lexington VA Medical Center. The nurse brought him a big stack of my paper military medical files, and he told her, ‘There’s absolutely nothing relevant that I need in there’;

2) “Because of a lack of my electronic surgery files being accessible from WRAMC, the VA medical doctors in Kentucky did not have all the information needed about my very complex eye injury and surgery facial reconstruction treatment in various military medical centers to make the right decisions.”

There are thousands of veterans and millions of Americans affected by lack of non-computable, siloed medical records that fail to support care coordination across care settings and providers. Tools like BHIE (<http://en.wikipedia.org/wiki/BHIE>) can help share non-computable “electronic records” but will not address improved care coordination and quality resulting from clinical decision support analytics.

It’s time electronic medical records delivered on the promise of better care through their use. Billions of dollars have been spent to implement electronic medical record systems that have not substantially improved patient outcomes. Compared to other non-healthcare industries that leverage analytics extensively to provide better value, electronic medical record systems have fallen far behind.

Better value will come from the use of electronic medical records only when we implement new technologies that release the power of computational analytics and semantics in support of patient care. We believe this can only be achieved with the creation of patient-centric informatics designed to meet the unique challenges facing individuals.