

WVU Rockefeller Neuroscience Institute leads country in adoption of brain injury test, care protocol

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MORGANTOWN, W.Va. — Experts at the [WVU Rockefeller Neuroscience Institute](#) (RNI) will use a diagnostic test developed by Abbott in collaboration with the Department of War to help assess mild traumatic brain injury and concussion in patients ranging from first responders, domestic violence survivors, athletes, and others.

The test measures two biomarkers in the blood that may be present after suffering a brain injury to provide objective information, helping to reduce the ambiguity of mild traumatic brain injury assessment to benefit both doctors and patients seeking answers about their injury.

Running on Abbott's Alinity i platform, the test can be used for adults ages 18 and older within 12 hours of injury. A result is provided in as little as 18 minutes. For those with a negative result, the test aids in ruling out the need for a CT scan and helps doctors determine the best next steps for care. This reduction of unnecessary CT scans shortens waiting time at the hospital and helps to bring down costs.



A blood sample is loaded into Abbott's Alinity i platform.

“Assessing a head injury in a busy emergency department can be challenging, often due to the nature of an injury,” [Javier Cárdenas, M.D.](#), director of the [RNI Concussion and Brain Injury Center](#), said. “We aim to evaluate acute injuries as quickly as possible because early intervention gets patients on track to recovery quickly.”

In addition to the test, the RNI is also utilizing a new characterization framework for acute traumatic brain injury published this year in *The Lancet Neurology* and spearheaded by the U.S. National Institutes of Health – National Institute of Neurological Disorders and Stroke.

This new framework enables faster, more accurate assessment, personalized treatment planning, and more precise follow-up care for patients with traumatic brain injury. By replacing the outdated “mild/moderate/severe” labels with a multidimensional system, it eliminates subjectivity and ambiguity while embracing objective, evidence-based tools.

The RNI Concussion and Brain Injury Center provides comprehensive treatment for patients with concussion and TBI. The team offers the same level of expert care to first responders and

domestic violence survivors as to professional athletes. The Center also has novel concussion outreach and education programs for youth athletes.

Nearly 5 million people go to the emergency department for a TBI in the U.S. each year, but more than half of people who suspect they have a concussion never get it checked. In West Virginia, young adults especially suffer a disproportionately high number of head injuries from several causes, including falls and vehicular accidents.

“For decades, standard TBI assessment has remained the same, with doctors leveraging the Glasgow Coma Scale, a subjective assessment, to evaluate potential concussion,” Beth McQuiston, M.D., R.D., medical director in Abbott’s diagnostics business, said. “Now, 50 years later, we have a new breakthrough in head injury assessment that emphasizes precision. Having an objective methodology helps clinicians provide care for the brain when it’s most vulnerable, and we’re excited to see it implemented across various settings.”

About the WVU Rockefeller Neuroscience Institute

The WVU Rockefeller Neuroscience Institute (RNI) is a comprehensive multidisciplinary patient care, education, and research institute providing neurological and mental healthcare for 300,000 patients annually. The 300 physicians and scientists of the RNI improve lives by pioneering advances in neuroscience, brain health, and therapeutics. The RNI team uses the latest technologies with academic, government, and industry partners to make tangible progress to combat public health challenges ranging from addiction to Alzheimer’s disease. For more information, visit WVUMedicine.org/RNI.