

Devoted to noteworthy happenings at the medical school



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A new whole blood test can confirm a concussion with nearly 97% accuracy in 15 minutes.

‘Whole’ new game

Clinical researchers at the University of Pittsburgh were instrumental in the development of a new blood test that can identify a concussion within 15 minutes—much faster than the previous iteration, which needed to be sent to a lab.

The whole blood test, manufactured by medical device and health care company Abbott, received Food and Drug Administration approval April 1. It can confirm a concussion with nearly 97% accuracy within 24 hours of an injury using only a small venous blood draw.

The i-STAT TBI (traumatic brain injury) test measures two biomarkers from the brain that can be released into the bloodstream. Until now, measuring those proteins—called UCH-L1 and GFAP—had to be done using blood plasma or serum, which required sending blood samples to a lab for processing and testing.

“Getting FDA approval for whole blood radically changes the landscape for clinical practice,” says David Okonkwo, an MD, PhD professor of neurological surgery, who was a primary investigator on the project. Okonkwo directs the University of Pittsburgh Neurotrauma Clinical Trials Center.

The test, he says, can be used in health care settings outside a hospital emergency room and soon could be found in urgent care centers and in primary care facilities.

He expects it won’t be too far in the future before the test can be used on the sidelines at sporting events or at the scene of a car accident. The U.S. military is already using it to evaluate soldiers overseas, he says.

The “monumental” story of getting FDA approval for a whole blood TBI test, says Okonkwo, “can’t be told without the University of Pittsburgh School of Medicine.” The school played a critical role in creating a consortium dedicated to diagnosing and treating TBI that includes partners such as Abbott, the Department of Defense and the University of California, San Francisco. *—Michael Aubele*

FOOTNOTE

Thanks to a partnership with Pitt Med since 2012, the Nazarbayev University School of Medicine (NUSOM) in Astana, Kazakhstan, has gained a rare full accreditation for five years in its first attempt. It is the only graduate-level MD program in Central Asia, where students typically go to med school directly from high school. “We are absolutely delighted,” said NUSOM Dean Massimo Pignatelli, “and extremely grateful to the team from [Pitt Med].” Maggie McDonald co-led the Pitt team, with former Vice Dean Ann Thompson, that guided the fledgling school. McDonald, associate vice chancellor for academic and global affairs, health sciences, is retiring in January 2025, but said, “I was determined that I wasn’t doing that until the school was accredited.”