

New COVID-19 test gives results in four hours

March 31, 2020 9:15 AM

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From left, Liz Mahoney, Gale Froeba, Quyen La and Mike Kravet are members of the Tulane Medical Center team responsible for operating the Roche Cobas 6800 analyzer used to run COVID-19 diagnostic tests. (Photo courtesy of Tulane Medical Center)

A laboratory based at Tulane Medical Center and in partnership with UMC-LCMC is conducting a new test for COVID-19 that can yield results within four hours. The test was made possible through the joint efforts of the Tulane University School of Medicine, the LSU School of Medicine, Tulane Medical Center, LCMC Health and Roche Diagnostics.

Researchers at the Tulane Medical Center Laboratory ran its first set of tests using the Cobas 6800 analyzer over the weekend and is now capable of running nearly 200 tests a day. The testing is open only to patients at Tulane Medical Center and University Medical Center.

Tulane University

Roche Diagnostics is the Switzerland-based manufacturer of the Cobas 6800 analyzer. The FDA this month issued emergency use authorization to Roche to test patients who show signs and symptoms of COVID-19 infection.

"You want to know as soon as possible whether a patient has COVID or not. You want to get those who test negative out as soon as possible, otherwise it ties up physicians, health care workers and PPEs."

Dr. Byron Crawford, medical director of the Tulane Medical Center Laboratory

The tests detect the virus in saliva and mucus swab samples from patients who meet the clinical and epidemiological criteria for testing. Because of its rapid turnaround, doctors can quickly release patients who test negative and quarantine and treat those who test positive. It also means that tests no longer need to be shipped to the state lab in Baton Rouge.

The Louisiana Department of Health recommends testing for any patient with fever, respiratory symptoms and negative flu test. Any provider can order testing based on their clinical judgment. Those with mild symptoms such as fever and a cough should self-isolate and call ahead to their physician's office so they can limit exposure to others.

Anyone with severe symptoms such as difficulty breathing or shortness of breath, persistent pain or chest pressure, new confusion, bluish lips or face should call 911 and go to a hospital emergency room.

"Hospitals need in-house testing to manage patients admitted with presumptive symptoms of COVID-19," said Dr. Byron Crawford, medical director of the Tulane Medical Center Laboratory and a professor of pathology at Tulane School of Medicine.

This new rapid testing solution will improve hospitals' ability to quickly diagnose COVID patients and help conserve precious resources and space in COVID-specific units.

"You want to know as soon as possible whether a patient has COVID or not. You want to get those who test negative out as soon as possible, otherwise it ties up physicians, health care workers and PPEs (personal protective equipment)," Crawford said.

Crawford credited the multi-talented individuals from the Tulane University School of Medicine, LSU School of Medicine, Tulane Medical Center, UMC-LCMC and Roche Diagnostics "for working as a team to improve patient care at both UMC and TMC while also helping our overall community in this pandemic."

Dr. Gordon Love, professor and chair of pathology at LSU Medical School and Medical Director of Laboratories at University Medical Center, agreed.

"I knew that Tulane Medical Center Laboratory had the instrument to detect COVID-19 virus but could not obtain the chemicals to run the tests," Love said. "LCMC Health's leadership was able to obtain these chemicals from Roche Diagnostics and I was able to work with Dr. Crawford to bring the testing up at TMC. This is a great example of LSU Medical School, University Medical Center and Tulane Medical Center working together for the benefit of the people of New Orleans to fight the COVID-19 virus."

Dr. Lee Hamm, dean of Tulane Medical School, said the lack of rapid testing had been "one of the critical issues in dealing with this pandemic. By working together between Tulane, LSU, and LCMC/UMC we have been able to achieve rapid testing now - this is a huge achievement for our patients."

