



TEXAS TECH UNIVERSITY
HEALTH SCIENCES CENTER™

News Release

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TTUHSC Responds to Call from Gov. Greg Abbott to Increase VTM Capacity for Texas Through Production and Education

AMARILLO, TX- In a Monday press conference, Gov. Greg Abbott spoke of increasing testing availability in Texas—saying the state would aim to test 30,000 people a day in the coming term. His OpenTexas report recognized Texas Tech University Health Sciences Center (TTUHSC) as a producer of Viral Transport Medium (VTM), a critical component to expanding access to COVID-19 testing across the state.

Since March, a team from the TTUHSC Jerry H. Hodge School of Pharmacy has produced about 15,000 vials of VTM. Nearly 9,000 vials have been shipped out to support COVID-19 testing across Texas. The team is working to produce an additional 12,000 to 16,000 vials this week to meet the high demand for testing. Meanwhile, they look to become a resource for health care communities across the state for education about on-site production of VTM.

“Our group produced a webinar on the production process that will be shared with other universities and labs around the state who may also be able to help,” Eric MacLaughlin, Pharm.D., chair of Pharmacy Practice, said.

Providing protocol and resources to other health care communities will help to provide a sustainable supply of VTM to support Gov. Abbott’s testing goals. Testing policy for the state continues to align with Centers for Disease Control and Prevention (CDC) guidance.

VTM is a sterile tube with 1mL or 3mL of cell culture media that contains a broad-spectrum antibiotic and an antifungal agent. The VTM protects the virus samples obtained from nose or throat swabs. Because COVID-19 is particularly unstable, it’s important those samples don’t degrade in transit to processing facilities. Any changes could lead to incorrect testing results.

At least 8,620 vials of VTM have been delivered to Amarillo, Brownfield, Lubbock, Snyder, Levelland, Denton, Eden, Brady, Littlefield, Tahoka, Lamesa, Odessa, Muleshoe, Pampa, Hemphill, Big Spring, Seminole, Friona, Shamrock, San Angelo, Slaton, Colorado City,

Abilene, Dumas, Hereford. Two thousand of those vials were sent to San Antonio on a refrigerated semi truck with a Texas State Trooper escort.

The production began when TTUHSC Associate Professor of Pediatrics Todd Bell, M.D., partnered with MacLaughlin, Mikala Conatser, Pharm.D., assistant professor, and Ulrich Bickel, M.D., professor and associate dean of Sciences in the TTUHSC School of Pharmacy to find a solution to a local shortage of VTM. Once word got out that the team had successfully produced the VTM, communities began to reach out asking for help replenishing supplies.

“While we didn’t have VTM in our labs, a literature search revealed that such VTM could be prepared in-house from materials that are readily available in many labs doing cell culture work,” Bickel said.

These vials have passed sterility testing, and on April 3, the state lab in Lubbock confirmed the quality by running positive controls with COVID-19 samples.

“From the onset, the VTM production has been a team effort between faculty in the Departments of Pharmaceutical Sciences, Pharmacy Practice and Pediatrics,” MacLaughlin said. “I know of several private cleanrooms in Amarillo where additional VTM could be made. It’s certainly not as efficient as commercial manufacturers, but this process could be scaled up.”

A team from Texas Tech University School of Engineering also has joined in on production. Based in Lubbock, the group has made 10,000 vials; they are working to produce another 10,000 in the next 7-10 days.

Along with MacLaughlin, Bickel, Conatser and Bell, other team members include Constantinos Mikelis, Ph.D, assistant professor, Behnam Noorani, graduate student, Siavash Shahbazi, graduate student, Desmon Dunn, unit manager, Heather Houser, pharmacy technician, Maegan Whitworth, Pharm.D., assistant professor, and Jill Frost, Pharm.D., assistant professor.

Stay up to date on the latest COVID-19 information from TTUHSC, [here](#).