

EBOLA FREQUENTLY ASKED QUESTIONS (FAQ) AND ANSWERS

Updated 10/16/2014 (see red text for most current updates)

A. TESTING DETAILS

Does Virginia's public health laboratory conduct Ebola testing?

Yes. The Division of Consolidated Laboratory Services, within the Virginia Department of General Services, is one of **18** public health laboratories nationwide that is qualified and approved by the Centers for Disease Control and Prevention to perform the Department of Defense (DOD) Emergency Use Authorization (EUA) Ebola Zaire (EZ1) rRT-PCR TaqMan® assay. DCLS is the only laboratory in Virginia that has this testing capability.

The other **17** state/local public health laboratories equipped to do the testing include:

1. Arizona (Phoenix)
2. Florida (Miami Branch)
3. Los Angeles County
4. Maryland (Baltimore)
5. Massachusetts (Boston)
6. Michigan (Lansing)
7. Minnesota (St. Paul)
8. Montana (Helena)
9. Nebraska (Omaha)
10. New York City
11. New York State (Albany)
12. North Carolina (Raleigh)
13. Ohio (Reynoldsburg)
14. Pennsylvania (Exton)
15. Texas (Austin)
16. Washington, DC
17. Washington (Shoreline)

How does this Ebola test work?

PCR, or Polymerase Chain Reaction, is a molecular analysis technique in which the genetic material of the Ebola virus is amplified or replicated to produce thousands to millions of copies. These amplified copies can be detected by using Ebola -specific probes that target specific sequences within the Ebola virus genome, which is detected using specific instrumentation in the laboratory. If Ebola specific amplification occurs, a patient sample is considered presumptively positive for Ebola virus.

Does the DOD EUA Ebola PCR assay detect all strains of the Ebola virus?

No. The DOD EUA Ebola PCR assay detects the presence of the Ebola virus Zaire strain only. The Zaire strain is the agent implicated in the current West Africa Ebola outbreak.

How many suspect Ebola cases have been tested at DCLS?

DCLS has performed Ebola virus testing on three suspect cases. All three cases yielded negative results.

Will DCLS perform testing for other diseases while testing for the Ebola virus?

DCLS can perform Malaria testing for suspect Ebola cases, as the symptoms for Malaria are very similar to symptoms presented by persons infected with the Ebola virus. Malaria testing is performed on all specimens that test negative for Ebola virus.

B. CONSULTATION & APPROVAL

Who do I call if there's a suspect Ebola virus case at my facility? Who determines if a suspect case warrants testing for Ebola virus?

Contact your local epidemiologist or Virginia Department of Health (VDH) immediately to have the case viewed. VDH, in consultation with the Centers for Disease Control and Prevention, has the responsibility of investigating all suspect cases, determining exposure risk (high, low or none), and requesting testing if clinical symptoms and travel history meet the case definition. Final approval from the CDC is required before testing can be initiated by state laboratories such as DCLS.

How do I find out who my local epidemiologist is?

Please use the link below to obtain contact information for your local health department. It is highly recommended that local health department contact information be posted in your laboratory: <http://www.vdh.virginia.gov/LHD>.

C. SPECIMEN COLLECTION/TRANSPORT/SUBMISSION

If a patient presents with mild symptoms and travel history within the first 72 hours of onset, should specimen collection take place at that time, or would it be best to wait until the patient has been ill for at least 72 hours?

If Ebola virus infection is suspected and testing has been approved by VDH and CDC, specimens should be collected as soon as possible and submitted to DCLS for testing.

Should specimens be recollected if the initial specimen was collected less than three days post onset and the initial PCR result is negative?

Yes. Another set of specimens should be collected at least three days post onset of symptoms submitted for retesting before considering the negative test to be valid. An exception would be if an alternate diagnosis was made and patient's clinical presentation is improving and other lab testing (i.e., CBC, liver enzymes) are within normal limits. This will be decided on a case-by-case basis with consultation from VDH/DCLS.

What specimens are acceptable for testing?

Whole blood is the preferred specimen type for the Ebola Zaire (EZ1) rRT-PCR TaqMan® assay.

How do hospital laboratories submit specimens to DCLS for Ebola virus testing?

Once a suspect case has been investigated and approved for testing by the Virginia Department of Health and the Centers for Disease Control and Prevention, DCLS will arrange for a special courier pickup. The specimens will be delivered to DCLS immediately.

NEW DEVELOPMENT: To comply with Department of Transportation (DOT) regulations, all suspect Ebola specimens will have to be packaged as "Risk Group 4" Category A specimens by individuals certified to prepare Category A packages only. Contracted couriers cannot transport Category A packages that have not been prepared by certified individuals. DCLS is working on other alternatives to have suspect Ebola specimens transported to DCLS for testing for those facilities that are not certified to ship Category A packages.

Can DCLS send shipping kits to hospitals?

DCLS is preparing to provide all health districts with approved shipping kits. Please contact your local health district to arrange to receive a shipping kit.

If our hospital staff has a courier, should we use it to transport specimens to DCLS?

No. DCLS will dispatch a special courier pickup, using a state-contracted, bonder courier to pick up and deliver specimens for testing.

Who will facilitate sending additional specimens to CDC for confirmatory testing?

Hospitals are required to submit two purple-top blood tubes to DCLS for testing. One of the tubes will be tested at DCLS. DCLS has the responsibility for forwarding the second blood tube to the CDC.

D. TEST RESULTS

Does the DOD EUA Ebola PCR assay confirm infection with Ebola virus?

The results generated from the test provide “presumptive positive” or “presumptive negative” results for the detection of Ebola virus. Additional laboratory testing by the CDC is required for confirmation.

What is the turn-around time for DCLS PCR results?

The approximate turn-around time for results is 3-5 hours after specimens are received at DCLS. At this time, DCLS is able to perform testing immediately when the specimens arrive at the laboratory but in the event that DCLS begins to receive large numbers of tests requests, DCLS will prioritize testing in consultation with VDH.

What is the turn-around time for CDC test results?

Confirmatory tests results from CDC can be received anywhere from a few to several days. CDC is prioritizing testing based on severity of illness and Ebola virus exposure risk level.

E. BIOSAFETY

What safety/work practices are used by DCLS staff during Ebola virus testing?

All Ebola virus testing at DCLS is performed in a Biosafety Level 3 (BSL3) laboratory, using BSL3 safety and work practices.

What does Biosafety Level 3 (BSL3) mean?

Biosafety level 3 is a level of biological containment measures appropriate for moderate- to high-risk infectious agents. BSL3 agents pose a risk for respiratory transmission via exposure to infectious aerosols, autoinoculation and ingestion. Exposure to these agents may result in serious or lethal infection. Work practices within a BSL3 facility include, but are not limited to, manipulation of infectious agents or specimens inside a biological safety cabinet (BSC), special protective clothing, restricted and controlled access to the laboratory, and special air handling to prevent the release of infectious aerosols outside of the laboratory.

What BSL3 safety and work practices will be employed by DCLS staff when performing Ebola virus testing to ensure their protection?

BSL-3 work practices employed at DCLS are consistent with the [Biosafety in Microbiological and Biomedical Laboratories \(BMBL\)](#) recommendations. This includes wearing the appropriate personal protective equipment (PPE) – fluid resistant gowns, shoe covers, safety glasses, respiratory protection, and two sets of examination gloves. All potentially infectious work is performed inside of a biological safety cabinet (BSC) and all items removed from the BSC are appropriately disinfected prior to removal. All potentially infectious waste generated during Ebola virus testing is decontaminated by autoclaving prior to removal from the BSL3 laboratory.