
Hepatitis C Dried Blood Spot (DBS) Testing In New York State

The New York State Department of Health (NYSDOH) Wadsworth Center Laboratory has developed a method for detecting hepatitis C virus (HCV) RNA from dried blood spot (DBS) specimens. This DBS test was developed by modifying a standard (FDA-approved) HCV RNA test. The HCV DBS test can be used to confirm a current HCV infection after a person has been screened and received a reactive (or preliminary positive) result for HCV antibodies. DBS samples are often collected at the same visit as an HCV rapid antibody test. However, unlike the HCV rapid antibody test, DBS is not a point-of-care test and must be sent to the Wadsworth Center Laboratory for analysis.

At this time, NYS is using DBS for qualitative, HCV RNA diagnostic testing (i.e. confirmatory) and not for quantitative HCV RNA testing (i.e. viral load). The DBS test can detect HCV RNA if a person's viral load is at least 250 IU/mL. In comparison, the standard HCV RNA test can detect HCV RNA if a person's viral load is at least 4 IU/mL. Therefore, the DBS test is less sensitive than the standard method, but its sensitivity is sufficient to confirm current HCV infection.

What is a dried blood spot (DBS)?

A DBS is collected by fingerstick and is an alternative to venipuncture for collecting blood. After performing a fingerstick, drops of blood are placed on a specialized collection card and then air dried before shipping to the laboratory for analysis.

What are the benefits of DBS testing?

- DBS can be collected wherever the client is, such as a substance use disorder treatment program, homeless shelter, syringe service program, and other community-based organizations. DBS can facilitate access to HCV RNA testing in rural and remote areas.
- Non-clinical staff, including peers, can easily be trained to collect DBS specimens.
- A DBS does not require venipuncture, which is helpful for clients with poor venous access.
- It's easy to store and transport DBS and, once dried, they are stable at room temperature for up to 15 days.
- DBS can be collected at the same visit as the rapid HCV antibody test.
- The use of DBS for laboratory testing is well received by clients.

What happens to the DBS card after specimen collection?

Dried DBS cards are packaged and mailed to the Wadsworth Center's Bloodborne Viruses Laboratory at 120 New Scotland Avenue, Albany, NY 12208.

How are DBS test results provided back to the testing site?

Test results are retrieved electronically by the facility using the secure web-based New York State Health Commerce System (HCS). After the DBS is received at Wadsworth, results are usually available within 4-6 business days.

How much does DBS testing cost?

DBS training, testing supplies, and laboratory analysis are provided free to approved submitters by the NYSDOH.

Where can I get more information about HCV DBS testing, including training?

Contact the Bureau of Hepatitis Health Care and Epidemiology. Call 518-486-6806 or email rtpai@health.ny.gov