



DCHHS Submission Instructions for Zika Virus Testing

Interim Criteria as of August 2, 2016

Pre-approval is required for all specimens sent to Dallas County Health and Human Services (DCHHS) lab for testing.

- Patients must meet epidemiologic testing criteria in order to be approved for Zika testing.

Testing for Zika is indicated in patients meeting one of the following criteria:

1. Any patient who developed **1 or more symptoms** compatible with Zika virus infection (e.g., fever, rash, joint pain, or conjunctivitis) **up to 4 weeks after**: spending time in an [area with active Zika virus transmission](#)¹, OR unprotected sex with a partner who spent time in such areas.
2. Any [pregnant woman](#) (with or without symptoms) who:
 - Spent time in an area with active Zika virus transmission, (during pregnancy or up to 8 weeks prior to conception)², within 9 months after returning to the US from travel.
 - Had unprotected sex with a partner who spent time in an area with active Zika transmission.

Note: Asymptomatic pregnant women with ongoing risk of possible exposure (e.g. living in areas with active transmission) should receive Zika testing as part of routine obstetric care during first and second trimesters.
3. Any patient with Guillain-Barré syndrome (GBS) after spending time in an area with Zika virus transmission.
4. [Infants born to women who had positive or inconclusive test results](#) for Zika infection.³
5. [Infants with microcephaly or intracranial calcifications](#) born to women who spent time in an area with Zika virus transmission while pregnant, OR who had unprotected sex during pregnancy with a partner who spent time in an area with active Zika transmission.³
6. Patients with compatible illness who do not meet above testing criteria, but for whom there may be [concern for alternate \(e.g., transplant, transfusion, local vector-borne\) modes of transmission](#) should be discussed with DCHHS epidemiology division for case-by-case evaluation and determination of approval for testing.

Note: Local vector-borne transmission can be considered in persons >5 years of age, without travel exposures, who present with ≥3 symptoms compatible with Zika disease.

- **Healthcare providers must call the DCHHS Epidemiology division** (at 214-819-2004 or on-call at 214-235-1799) to request Zika testing for patients who **reside in Dallas County**. A completed copy of the [required DCHHS Zika Laboratory Test Request Form](#)⁴ must be faxed to 214-819-1933.
- There is no cost for Zika testing at the DCHHS laboratory, which can only accept specimens from residents of the following counties comprising its service area: **Collin, Dallas, Ellis, Fannin, Grayson, Henderson, Hunt, Kaufman, Navarro, Rains, Rockwall, and Van Zandt**. For patients who **reside outside of Dallas County**, the submitter must obtain approval for testing from the [appropriate County/State health department](#) prior to submission of specimens either to DCHHS or to the Texas Department of State Health Services (DSHS) laboratory.⁵
- For most patients, **one tube of urine and one tube of serum** will be required. DCHHS epidemiology will advise providers during the initial phone discussion to confirm which specimens to collect.
- DCHHS Epidemiology will determine the type of Zika screening tests (e.g. PCR and/or IgM) which will be performed at the DCHHS laboratory. PCR testing for Zika will be performed for urine and serum specimens collected within 4 weeks from symptom onset or 6 weeks from return from travel. PCR results are reported within 1-2 workdays of specimen receipt. Specimens collected up to 9 months after return from travel will be accepted for serology (IgM testing), with results typically reported within 4-5 working days. DCHHS Epi will determine which specimens with

¹ CDC. Areas with Zika Transmission: <http://www.cdc.gov/zika/geo/active-countries.html>

² CDC. MMWR. Update: Interim Guidelines for Pregnant Women, July 2016: <http://www.cdc.gov/mmwr/volumes/65/wr/mm6529e1.htm>

³ CDC. MMWR. Interim Guidelines for Infants and Children: <http://www.cdc.gov/mmwr/volumes/65/wr/mm6507e1.htm>

⁴ **DCHHS Zika Virus Specimen Submission Form**: <http://www.dallascounty.org/department/hhs/epistats.html>

⁵ DSHS Texas Regional and Local Public Health Departments and State Laboratory contact information: <http://www.texaszika.org/labs.htm>

⁶ CDC. Diagnostic Tests for Zika Virus: <http://www.cdc.gov/zika/hc-providers/types-of-tests.html>



positive or equivocal IgM results for Zika will be reflexed for PCR or referred to CDC for confirmatory PRNT testing.

- CDC recommends that [diagnostic testing for dengue and chikungunya be considered](#) in symptomatic patients with possible Zika virus infection who have traveled within the previous 2 weeks to an area with ongoing transmission.⁶ PCR and serologic testing for dengue and CHIKV is available from commercial laboratories.

Specimen Collection and Handling

- All tubes must be labeled with: **patient name, date of birth, source, and date/time of collection.**
- All specimens must be double-bagged in a biohazard bag and must be accompanied by a completed printed copy of the [DCHHS Zika Laboratory Test Request Form](#)⁵ placed in the outer pouch of the biohazard bag.

Urine: *{N.B. Preferred specimen with best sensitivity for acute infection by PCR, but must be accompanied by serum.}*

- Urine (3 - 10 mL) should be collected in a sterile cup, and ideally transferred to a sterile tube with lid closed tightly.
- This sealed tube should be placed in a sealed specimen transport bag, and then placed in a second sealed specimen transport bag containing the same patient's serum specimens (*see below*) and refrigerate at 4°C.

Serum: Collect at least 5.0 mL of blood in a **serum** tube (red top or serum separator tube—tiger top/gold) and **refrigerate at 4°C as soon as possible.** Options for serum specimen handling include:

OPTION 1: Facility has a centrifuge and refrigerator. { Preferred option }

Centrifuge within 2 hours from time of collection, to separate the serum from the red blood cells. Transfer the serum from the collection tube into a serum transport tube with screw cap for shipment. (*N.B. Use of gloves, lab coat, mask, and eye protection are recommended when transferring serum.* www.cdc.gov/hicpac/2007IP/2007ip_part3.html) Arrange shipping or courier transportation to DCHHS lab with cold packs for **arrival within 24 hours of collection**, to arrive during business hours Monday–Friday, 8:00 am – 4:30 pm.

If the specimen will be received at the DCHHS laboratory **more than 24 hours after collection**, **freeze** serum and urine transport tubes at -20°C or -70°C and ship to DCHHS on **dry ice**. Specimens can be batched for shipping. Label the outer packaging: “Store at -70°C upon arrival.”

OPTION 2: Facility has no centrifuge.

Hold specimens in a refrigerator at 4°C and arrange courier transportation on cold packs to DCHHS within 2 hours of collection. **Specimens must arrive at DCHHS by 3 pm AND within 2 hours of collection on a weekday.** Label the outer packaging: “STAT specimen.” Samples not meeting handling criteria will be rejected.

Other Specimen Types:

- Other specimens (e.g., amniotic fluid, tissues) must be discussed with DCHHS Epidemiology for approval and coordination of submission. CDC guidance: www.cdc.gov/zika/hc-providers/tissue-collection-submission.html

Specimen Transport

- All healthcare facilities must arrange for transport of specimens from their facility to DCHHS; DCHHS will not pick up specimens from any submitters. Facilities outside of Dallas should contact their respective county or regional health department for case reporting and approval, prior to specimen submission to the DCHHS LRN Laboratory.
- Follow packing and shipping instructions for Category B, Biological Substances (see <https://www.iata.org/whatwedo/cargo/dgr/Documents/packing-instruction-650-DGR56-en.pdf> for instructions).
- Ship according to IATA (International Air Transport Association) guidelines using an overnight or same-day courier to arrive during business hours Monday–Friday, 8:00 am – 4:30 pm.

DCHHS LRN shipping and delivery address:

Dallas County Health Laboratory
2377 N. Stemmons Fwy, Basement #003, Dallas, TX 75207

For questions about testing requirements, call:

DCHHS Epidemiology: 214-819-2004 or 214-235-1799
Or DCHHS Laboratory: 972-692-2762