

Texas Department of State Health Services

Texas Department of State Health Services
Tuberculosis and Hansen's Disease Branch

Tuberculosis Specimen Shipping Guide

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FedEx Accounts

Account Set-Up

Texas Department of State Health Services (DSHS) public health regions (regions) and DSHS-contracted local health department (LHD) tuberculosis (TB) programs must establish a courier account with DSHS TB and Hansen's Disease Branch (TB Branch) to ship Branch-approved specimen to DSHS laboratories and other DSHS-contracted laboratories using FedEx.

To set up a new account, contact the Branch Administrative Team (BAT) at TBProgram@dshs.texas.gov and provide the following information:

- Name of submitter
- Email address of clinic contact
- Name of public health region/county/clinic

An account must be established for each DSHS-contracted LHD clinic site and regional field office.

Once established, programs may use this account to ship all TB specimen to the laboratories outlined in this guide.

Courier Services Offered

- 1. FedEx Priority Overnight
- 2. FedEx Standard Overnight
- 3. FedEx Home Delivery
- 4. FedEx Ground

Helpful FedEx Resources

- Customer Service Telephone Number:
 - o 1(866) 477-7529
- Packaging Guidelines for Clinical Samples (prevent leaking specimen):
 - o fedex.com/us/packaging/guides/Clinical fxcom.pdf
- Service Guide:
 - o images.fedex.com/us/services/pdf/Service_uide_2017.pdf
- Ground Service Map (transit):
 - fedex.com/grd/maps/ShowMapEntry.do
- InSight (advanced shipment tracking):
 - fedex.com/en-us/tracking/insight.html
- Return Shipments (labels):
 - o fedex.com/en-us/service-guide/return-shipments.html

Shipping TB Specimen to Designated Laboratories

Regions and LHD TB programs may order free specimen shipping boxes from the TB Branch. These boxes should not be used to ship specimen for other programs, such as the Newborn Screening Program.

Specimen may be shipped to any of the laboratories accepting specimen from TB programs, as outlined in this document.

DSHS Laboratory

1100 West 49th Street Austin, Texas 78756

Phone: (512) 776-7318 or (512) 776-7598; Fax (512) 776-7294

dshs.texas.gov/lab/

- Tests performed:
 - Acid Fast Bacilli (AFB) smear and culture
 - Nucleic Acid Amplification Test (NAAT)
 - Drug susceptibility studies
 - o HIV
 - Hepatitis B and C
- Ship cold specimen by FedEx Priority **Overnight** Monday through Wednesday only (so shipment does not arrive on a weekend).
- Ship other biological specimen Monday through Thursday only.
- Do not ship on Friday or Saturday or the day prior to a holiday.

DSHS South Texas Laboratory (STL)

1301 S. Rangerville Road, Harlingen, TX 78552

Phone: (956) 364-8746 or (956) 364-8753 (TB); (956) 364-8751 (Hematology); and (956) 364-8752 (Clinical); Fax (956) 412-8794

dshs.texas.gov/lab/so tx lab.shtm

- Tests performed:
 - o AFB smear and culture (to include all urine AFB cultures)
 - NAAT
 - Drug susceptibility studies
 - Blood testing results for chemistry, special chemistry, hematology
- Ship cold specimen by FedEx Priority <u>Overnight</u> Monday through Thursday only.
- Do not ship on Friday, Saturday or the day prior to a holiday.

University of Florida – Infectious Disease Pharmacokinetics Laboratory (IDPL)

Infectious Disease Pharmacokinetics Laboratory Dr. Charles Peloquin, Pharm D. University of Florida 1600 SW Archer RD., P4-30 Gainesville, FL 32610

Phone: (352) 273-6710 idpl.pharmacy.ufl.edu/

- Test performed:
 - Therapeutic drug monitoring
- Pack samples upright in Styrofoam box and ship FedEx Priority Overnight.
- Ship Monday through Wednesday only. Specimen are received Monday through Friday only. Do not ship on Friday, Saturday or the day prior to a holiday.
- Package properly for dry ice handling, including a dry-ice specific label. Ship on at least five pounds of dry ice.
- Place return label on inside flap in a plastic bag to prevent damage or loss during transit or when the box is opened to remove the specimen.
- Shipping details are at idpl.pharmacy.ufl.edu/forms-and-catalog/sample-handling-instructions/

Quest Diagnostics

Quest Client Services: 866-MYQUEST (866-697-8378)

questdiagnostics.com

- Tests performed:
 - o Interferon Gamma Release Assays (IGRAs):
 - T-SPOT®-TB Test
 - QuantiFERON®-TB Gold Plus One Tube Test (QFT)
- Ship T-SPOT via Quest's FedEx. Contact Quest for details.
 - testdirectory.questdiagnostics.com/test/test-detail/37737/t-spottb?
 cc=MASTER
- Ship QFT via Quest's Courier. Contact Quest for details.
 - o <u>questdiagnostics.com/dms/Documents/Other/QuantiFERON/QFT-</u> Plus 1 Tube Instructions.pdf

Shipping Biological B Specimen and Supplies

Sputum and blood are categorized as "Biological Substance, Category B" for shipping. This means they are infectious substances transported for diagnostic purposes and submitters must adhere to shipping requirements. Details are at fedex.com/content/dam/fedex/us-united-states/services/UN3373_fxcom.pdf.

TB Programs must ship Category B specimen with three packing layers (see Figure 1). Collect specimen in a **primary receptacle** (such as vacutainer for blood or sterile blue top tube for sputum), wrap in absorbent packaging (such as tissue or cotton), place in a **secondary receptacle** (a leak proof container), and ship in a rigid outer covering (a box, or **third receptacle**) with frozen gel packs for cold shipping or with dry ice for therapeutic drug monitoring. Specimen require labels for Category B and dry ice, when applicable.

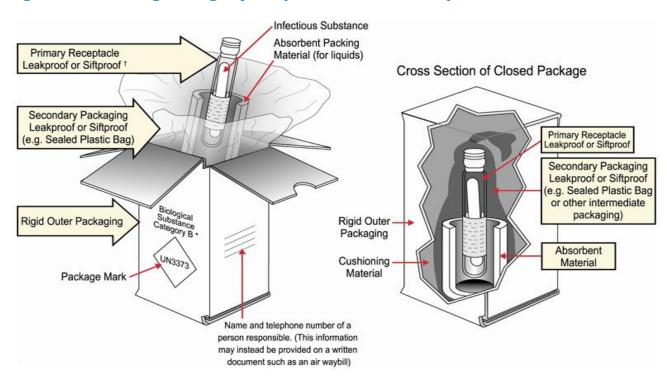


Figure 1: Packing Category B Specimen for Transport

Source: cdc.gov/smallpox/lab-personnel/specimen-collection/pack-transport.html.

See ds.gov/lab/mrs shipping.shtm#Samples for DSHS shipping recommendations.

Primary Receptacle for Sputum



Primary Receptacle for Blood



Sample Secondary Receptacles





Third Receptacle:
Rigid Outer
Covering



Gel Packs, Kept Frozen for Cold Shipping



Biological B Specimen Shipping Label



Dry Ice Shipping Label



Follow these shipping steps for each specimen:

- 1. Wrap the primary receptacle in absorbent material (i.e. a paper towel or cotton) and place into the secondary receptacle. Ensure there is enough absorbent material around and on top of the primary receptacle tube so that it cannot easily move around.
- 2. Include the completed laboratory requisition with the specimen and ensure that it will not get wet. Do not put patient information on outer or secondary container or lids.

- 3. Place the secondary receptacle with the enclosed/affixed requisition in the third receptacle that is made of a Styrofoam layer and an outer cardboard box (rigid outer covering). Place at least two icepacks in the box, including one on bottom and one on top to "sandwich" the specimen, or at least five pounds of dry ice if sending therapeutic drug monitoring specimen. Place absorbent paper towels on the ice to ensure melting does not wet the bag or laboratory requisition.
- 4. Place the FedEx label on the inside flap in a pouch to prevent damage or loss during transit or when the box is opened. If the return label is placed on top of the Styrofoam container (inside the taped seam), it may be sliced in half when staff open the box.
- 5. Close the box and tape securely unless otherwise directed by the courier. Affix the "To" address label and **UN 3373 Biological B Specimen label** (and **UN 1845 Dry Ice Label, when applicable**) to the outside of the box where clearly visible.

Common Reasons for Unsatisfactory Specimen

- **1. Leaking specimen.** This occurs when the blue lid for sputum samples is not fully shut, causing the specimen to leak during transit. To avoid leaking specimen, tighten the blue lid carefully. Ensure the lid is threaded correctly and tightened; do not overtighten or strip the threads. Pack the blue-top tube tightly inside the black top outer receptacle with absorbent material to reduce the risk of leakage.
- 2. Missing patient identifiers. Labs will reject specimen without two matching patient identifiers on the requisition form and on the outside of the primary receptacle. Common identifiers are patient name (first <u>and</u> last) and date of birth, or patient name and medical record number.

For other examples of unsatisfactory specimen sent to South Texas Laboratories (STL), see dsh.texas.gov/lab/stlUnsat.htm.

Shipping Labels

Category B – Biological Substances Label UN 3373

"Biological Substance, Category B" must appear in 6-mm-high text on the outer package adjacent to a diamond-shaped mark. The UN 3373 mark must be in the form of a square set at an angle of 45 degrees. Each side of the UN 3373 diamond should measure a minimum of 2" (50 mm). The width of the diamond rule line must be a minimum of 2 mm, and the letters and numbers must be at least 6 mm high."

These labels may be printed or purchased from various online sources. Contact FedEx for labeling support at fedex.com/content/dam/fedex/us-united-states/services/UN3373_fxcom.pdf.



Dry Ice - Class 9 Miscellaneous Dangerous Goods UN 1845

An International Air Transport Association (IATA) Class 9 Miscellaneous label must appear on all dry ice shipments. FedEx offers a dry ice label that when correctly completed, satisfies the IATA marking and labeling requirements.

The following permanent markings are required on the outer packaging of all IATA dry ice shipments:

Dry Ice UN 1845 Net weight of dry ice in kilograms Name and address of the shipper Name and address of the recipient



Print this label at fedex.com/content/dam/fedex/us-united-states/ services/Dry_Ice_Label.pdf.

Frequently Asked Questions for Shipping to DSHS Laboratories

We have always shipped specimen using cold boxes from the DSHS Laboratory. What changed?

In 2019, the DSHS Laboratory stopped accepting cold boxes designated for TX Health Steps specimen when they contained TB specimen. The TB Branch now purchases and distributes cold boxes and other supplies for shipping TB specimen via FedEx. The TB Branch cold boxes look like boxes used for TX Health Steps Programs; the difference is the FedEx return label.

What type of TB specimen should be sent in the cold boxes?

Cold boxes are used to ship TB specimen to DSHS laboratories in Austin or South Texas, or to outside reference laboratories for TB testing. This includes sputum samples and blood tests. The boxes are insulated for shipment of cold specimen when used with ice packs, or room temperature specimens when cold packs are not needed.

See <u>dshs.texas.gov/lab/MRS_specimens.shtm</u> for details.

How many specimens fit in one cold box?

Sites may ship 50 ml of specimen or fewer per box. Two or more primary receptacles may be included per box.

How many cold packs are recommended per sputum canister or box?

Typically, using two ice packs per box is recommended. However, consider temperature conditions. FedEx does not use temperature-controlled trucks to transport boxes, so temperatures inside trucks could be warmer than outside temperatures, depending on the season (summer especially). The amount of time trucks are on the road is another factor. In these cases, it might be better to use three or four boxes, depending on distance or time of day FedEx picks up the boxes.

Do we need to ship all sputum to the DSHS Laboratory in the cold box with ice packs, or can we send samples via regular mail in the brown mailing canisters?

Now that the TB Branch provides a cold-box FedEx account for all TB programs, it is recommended that <u>every</u> sputum sample is collected and shipped via cold box with ice packs. This will provide DSHS laboratories the best possible specimen to test, as it will arrive quickly via FedEx at the recommended cold temperature necessary for testing.

There may be times when this is not possible. For example, cold-box shipping is not possible when mailing canisters are left for the patient to self-collect and send via U.S. mail. When this occurs, instruct patients to keep the sample refrigerated before shipping in the brown outer mailer. Ideally, even self-collected specimens should be saved, refrigerated and shipped in the cold boxes with ice packs when public health personnel can pick up the specimen from the patient.

What type of return shipping labels should we use to ensure the boxes are returned after shipping?

Use the FedEx return labels that include the account information provided by the TB Branch. Ensure the return address is accurate. If you are unsure of your account, please email TBProgram@dshs.texas.gov.

How often does DSHS return shipping boxes? How can I ensure that DSHS returns boxes?

DSHS returns cold boxes on Tuesday through Friday afternoons, 1-2 days after they have been picked up from FedEx. For example, if the submitter sends the cold box on Monday, FedEx will deliver the box on Tuesday morning and DSHS will return it to the submitter on Tuesday afternoon (or Wednesday, depending on distance). The only exceptions are closed holidays which would extend the return to the next business day.

Cold boxes received by DSHS laboratories are returned in brown cardboard boxes to prevent wear and tear on the outer cardboard box that protects the Styrofoam containers, provided there is a return shipping label. If no return label is received with the cold box and no information is available inside the cold box to determine who it belongs to, the lab will not return the cold box. Writing "please return" is not acceptable. The return label should include the name and address of facility, phone number and contact name.

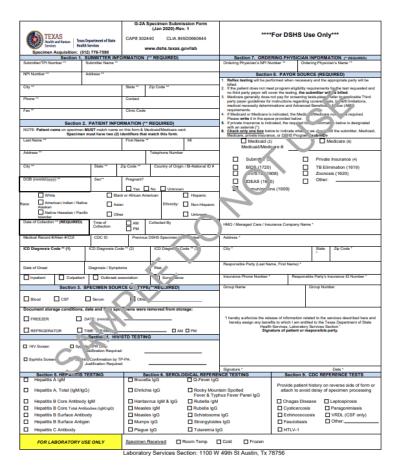
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G-MYCO Specimen Submission Form - DSHS Austin

- Use the G-MYCO Specimen Submission Form for mycobacteriology and TB specimen testing.
- **Section 1.** Ensure all information is updated and current.
- **Section 2.** Fill out completely. Patient name must match exactly the patient name labeled on the specimen container.
- **Section 3.** Specimen source must be provided. This will direct how the specimen is processed in the laboratory.
- **Section 4.** Requested test must be selected or specimen is unsatisfactory for testing.
- **Sections 5 and 8.** These sections are only for referred isolates from other laboratories.
- **Sections 6 and 7.** Fill out completely. Ensure *TB Elimination* is marked in "Payor Source" in Section 7.

Visit laboratory website for the most recent requisition version dshs.texas.gov/lab/MRS_forms.shtm

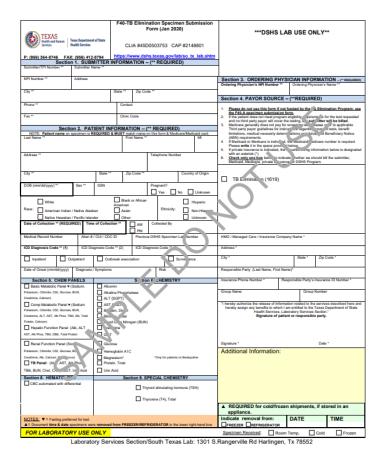
G-2A Serology Specimen Submission Form- DSHS Austin



- Use the G-2A Serology Specimen Submission Form for Hepatitis B, C and HIV serology testing for patients in the TB program.
- **Section 1.** Ensure all information is updated and current.
- **Section 2.** Fill out completely. Patient name must match exactly the patient name labeled on the specimen container.
- Section 3. Specimen source must be provided.
- **Sections 4 and 5.** Requested test must be selected, or specimen is unsatisfactory for testing.
- **Section 7 and 8.** Fill out completely. Ensure *TB Elimination* is marked as "Payor Source" in Section 8.

Visit laboratory website for the most recent requisition version dshs.texas.gov/lab/mrs_forms.shtm

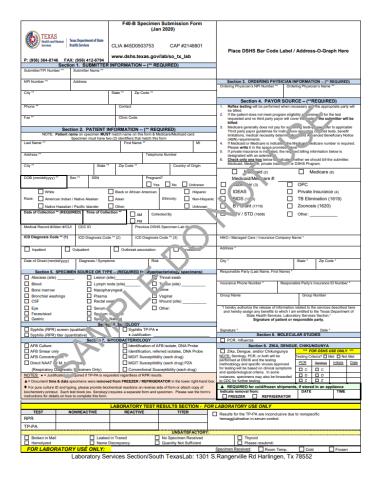
F40-TB Elimination Specimen Submission Form - DSHS South Texas Laboratory (STL)



- Use the F40-TB Elimination Specimen Submission Form for chemistry and hematology clinical blood samples.
- **Section 1.** Ensure all information is updated and current.
- **Section 2.** Patient name must match exactly the name labeled on the specimen container. Ensure date and time of collection are included.
- **Sections 3 and 4.** Fill out completely. Ensure *TB Elimination* is marked in Section 4 "Payor Source."
- **Sections 5, 6, 8 and 9.** Select each test requested. Magnesium may be ordered for patients on Bedaquiline only.

Visit laboratory website for the most recent requisition version dshs.texas.gov/lab/stlForms.htm

F40-B Specimen Submission Form - DSHS South Texas Laboratory (STL)



- Use the F40-B Specimen Submission Form for mycobacteriology and TB specimen testing.
- **Section 1.** Ensure all information is updated and current.
- **Section 2.** Patient name must match exactly the patient name labeled on the specimen container. Ensure date and time of collection are included.
- **Sections 3 and 4.** Fill out completely. Ensure *TB Elimination* is marked in Section 4 "Payor Source."
- **Section 5.** Specimen source must be provided. This will direct how the specimen is processed in the laboratory.
- **Section 7.** Requested test must be selected or specimen is unsatisfactory for testing.

Visit laboratory website for the most recent requisition version <u>dshs.texas.gov/lab/stlForms.htm</u>