Phlebotomist Instructions

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This guide is offered to our vendors and contracted companies to help them safely and legally package and ship medical specimens to Mayo Clinic Laboratories for testing.

Although this document makes many references of regulatory requirements, it is not intended to serve as a comprehensive training program for Department of Transportation (DOT) or International Air Transport Association (IATA) training requirements. We highly recommend that anyone involved in transporting medical specimens become familiar with the many governmental and airline regulations pertinent to these types of shipments. The US DOT Web site contains technical information about compliance with the Dangerous Goods regulations. These regulations apply to both ground and air transport. In addition, the IATA Web site provides information on airline requirements.

Various federal and international agencies have published rules and regulations that are available on the internet regarding the transportation of medical specimens. These include:

- **ICAO** International Civil Aviation Administration
- **IATA** International Air Transport Association
- **DOT** Department of Transportation
- **CDC** Centers for Disease Control
- **TSA** Transportation Safety Administration
- **FDA** Food and Drug Administration
- **OSHA** Occupational Safety and Health Administration
- **FAA** Federal Aviation Administration

For more information, call Mayo Clinic Laboratories at 800-533-1710 and ask to speak with a Transportation Specialist.

As regulations, methods, and packaging materials change over time, we urge the reader to obtain the most current information available when shipping medical specimens. Please refer to our Web site at www.MayoClinicLabs.com.
Objectives

This guide has been developed to meet the following objectives:

- Provide instructions for packaging specimens
- Provide information about supplies
- Use as a tool for training additional staff members

Specimen Integrity

Specimens must be packed and shipped properly for accurate testing, which helps ensure that patients receive optimal treatment. A specimen may not be viable for testing if it becomes too cold or too hot. It may be necessary to collect another specimen from the patient, which may delay treatment. People’s lives may depend on our work.

Mayo Clinic Laboratories’ goal is to ensure that all medical specimens arrive at the testing facility:

- At the correct temperature for testing
- Intact in the container, without breakage or leakage
- In the shortest possible time
- In compliance with all applicable regulations

This guide has been prepared to help vendors understand their role in accomplishing these goals. By following the guidelines for proper specimen preparation, packing, shipping, and documentation, vendors can comply with regulations and safely transport Mayo Clinic Laboratories specimens.

Packaging Specimens

Medical samples being transported to testing laboratories must be maintained at an appropriate temperature: ambient, refrigerate, or frozen

For convenience, biohazard bags, color-coded by temperature, are provided to you and client laboratories by Mayo Clinic Laboratories. Additional bags maybe ordered in bundles of 50 by using the numbers listed below:

- Refrigerate Bag – pink (T229)
- Ambient Bag – white (T027)
- Frozen Bag – yellow (T121)
Specimens must be separated by temperature, and each of these temperature bags must be packaged in a specific manner. Mayo Clinic Laboratories provides raspberry-colored shipping boxes with Styrofoam (Styro) containers inside. Styro transportation coolers provided by Mayo Clinic Laboratories contain appropriate labeling for dry ice and biohazards. Refrigerated Styro containers hold the cool-packs needed to keep refrigerate/ambient specimens cool up to 48 hours.

All specimens must be shipped in a leak-proof container, regardless of transport temperature. The color-coded bags also contain material that can absorb the full liquid content of the specimen(s) placed inside.

The following pages provide vendors with detailed instructions for packaging specimens for shipping. This includes preparing the Styros, packing specimens at the appropriate temperature (refrigerated, ambient, and frozen), completing shipping documents (if required), and shipping specimens.

**Preparing the Styros**

Refrigerated and ambient specimens, if shipped together, may be packed in the same Styro. The lid of the Styro has a pink label to indicate Refrigerate Specimens and a white label to indicate Ambient Specimens. Specimens should be in temperature color-coded bags that should match the color of the label on the Styro lid. Put on gloves prior to placing the specimen bags into the Styros.

**Packing Ambient Specimens**

1. A kit is provided for Ambient specimens that contains an ambient (white) specimen bag, as well as a FedEx Clinical Pak envelope and FedEx return label, all included within the Mayo Berry-colored shipping box. The ordering number for this kit is T759.
2. Locate the ambient specimens and place them in the Mayo white ambient bag provided with the ambient kit. The kits are meant to ship each individual patient draw only, however, if the number of tubes is less than 5, multiple patients may be shipped in the same mailer.
3. Insert the white ambient specimen bag in the small Styro within the berry box.
4. Seal the box with tape and place into the FedEx Clinical Pak mailing envelope.
5. Place the FedEx return label on the outside of the FedEx Clinical Pak mailing envelope and tender with FedEx. The FedEx return label is pre-marked for Priority Overnight delivery.
Packing Refrigerated Specimens

1. A kit is provided for refrigerated specimens that contains a refrigerated (pink) specimen bag and FedEx return label. The ordering number for this kit is T760.
2. Place a cold cool-pack in the bottom of a Styro. Please refer to the following diagrams to determine what temperature of cool pack should be used.
3. Place three to four paper towels (for insulation) over the cool pack.
4. Locate the refrigerated specimens and place them in pink refrigerated bags.
5. Open the lid of the refrigerated/ambient Styro. Insert the pink refrigerated specimen bag(s) in the Styro. Place two paper towels over the refrigerated specimens.
6. Immediately replace the Styro lid.

Refrigerate Shipping Container
November through March

Diagram 1a
**Refrigerate Shipping Container**  
**April through October**

Diagram 1b

Frozen cool pack helps keep specimens from becoming too warm

![Diagram 1b](image)

**Reminder** – Do not use dry ice to freeze the cool pack; if dry ice is your only option, then remove the cool pack from the dry ice three hours before use.

**Packing Frozen Specimens**

Note: Pellet dry ice is preferred. Block dry ice must be reduced to small pieces (1”-2”) to minimize the chance of damage to bags and vials.

1. A kit is provided for frozen specimens that contains a frozen (yellow) specimen bag and FedEx return label. The ordering number for this kit is T761.
2. Prepare the frozen Styro. The lid of the Styro will have a yellow label to indicate frozen specimens.
3. Locate the frozen specimens and place them in yellow frozen bags.
4. Open the lid of the frozen Styro and place
a 2-inch layer of dry ice in the bottom of the frozen Styro. *To avoid burns, always wear cloth gloves and safety glasses when handling dry ice.*

5. Insert the yellow specimen bag(s) on top of the dry ice. If shipping multiple specimens, add bags only up to the line marked on the yellow sticker inside of the Styro. Cover bag(s) with more dry ice. Do not overfill, leaving enough room at the top to put the lid on securely.

6. Immediately place the yellow-labeled "Frozen" cover onto the Styro.

Under normal conditions, 5 lb, or 2.2 kg, of dry ice will keep the specimens frozen until they arrive at the laboratory.

**Frozen Shipping Container**

Diagram 1c

**Reminder** – Do not fill the frozen Styrofoam shipping container too full of specimen bags. Leave room for dry ice on top of the topmost specimen shipping bag and make sure the Styrofoam lid fits tightly.

**Packing "Other Materials"**

Sometimes materials that do not fit into Mayo Clinic Laboratories specimen bags must also be packed and transported. Examples include paperwork or envelopes. Place envelopes inside of the Styro if they fit. Do not place envelopes alongside the Styros in the box. If items do not fit, contact Mayo Transportation for further instructions.
General Instructions for Packing Specimens

- Never overfill a Styro or compress the specimens. If the lid will not fit securely on a Styro, use another box.
- If specimens are not in Mayo Clinic Laboratories bags or containers, please repackage them. Vendors should have extra temperature color-coded bags which can be ordered in bundles of 50.
- Do not leave a box containing specimens in an unlocked car. Always enter a facility carrying the box.

For additional assistance or questions regarding specimen packaging, supplies, or shipping, please contact Mayo Clinic Laboratories at 800-533-1710 or visit our Web site at www.MayoClinicLabs.com.

Extra Supplies for the Vendor

Pack the vendor vehicle with the following items:

- Extra dry ice with cloth gloves and safety glasses if shipping frozen specimens.
- Box of latex gloves
- Paper towels
- Packaging tape
- Extra biohazard color-coded by temperature bags.

*Always pack the boxes with the cool packs and dry ice just before leaving.* Cool packs can freeze if left in a very cold car and dry ice can evaporate if left in a very warm car.

Shipping Instructions

The vendor will utilize shipping supplies provided by Mayo. Individual shipping kits, including a temperature-specific FedEx pre-printed return label, will be available to order through Mayo Medical Labs. The FedEx return labels have different versions whether the vendor is shipping with dry ice, or without dry ice (see examples below). Choose the appropriate kit and return label for Refrigerated, Ambient or Frozen shipments.

Shipping: Preparing the Shipping Box

Close the shipping box and seal it with packaging tape.

If using the small Ambient Mailer Kit (T759), it must be sealed inside a FedEx MedPak envelope labeled for UN3373 Category B (included in the kit). The FedEx pre-printed shipping label will be placed on the outside of the envelope.

If shipping with frozen specimens, on the outside of the box, write the weight (in kilograms) of dry ice being shipped on the Class 9 label printed on the box.
Please note: The weight of dry ice (in kg) written on the box must match the weight of dry ice on the FedEx return label, usually 2.2 kg.
Dropping off your shipment

If the vendor tenders the shipment at a FedEx location, the FedEx location must be staffed and have a Dangerous Goods person on duty. Take the shipping boxes inside and hand them over to the counter receiving person.

Please keep your FedEx tracking numbers for 2 weeks. Should we need to search for a shipment, we will rely on the vendor to provide the FedEx tracking number from a particular day.

*If there are any issues with tendering the shipment, or anything that you think we should know about the shipment, please follow the instructions below:*

2. After the recording, clearly and slowly state your name, company, city, state, airbill number, the number of boxes sent and the issue.

*It is important to make this call within a few hours. Mayo Clinic Laboratories will need this information urgently if the shipment doesn't arrive on time.*

Transportation Specialists

Thank you for providing our clients with safe, dependable, and timely service. Vendors are in charge of transporting extremely precious, and often irreplaceable, human blood, tissue, and other specimens. Mayo Clinic Laboratories Transportation Specialists are in the office from 0600 to 1630 central time, Monday through Friday. Also, the MML Call Center is available 24 hours per day, 365 days per year for emergencies. The toll-free number is 800-533-1710.