

Virginia Department of Health

Serum Drug Level Sample Handling and Shipping Instructions

SPECIMEN HANDLING

- Two tests can be performed in one plain red top vacuum tube if completely full and both medications are scheduled **for the same time of collection**. Five milliliters of blood (2 mls serum) are required *per drug tested*. For example, if drawing isoniazid and rifampin 2 hours after ingestion one large red top tube filled to the top is sufficient.
- Recommended draw times for each drug are listed on the requisition form.
- Plain red top tubes are preferred, as an alternative for most drugs a green top tube can also be used. Exceptions: Streptomycin and Capreomycin must be drawn in a plain red top tube only; Vitamin D must be drawn in a plain red top tube or purple top tube only.
- Label the red top tube with the client's name, date and time of collection and drugs(s) to be tested. (initials of person drawing blood is also usually standard)
- After the blood clots, centrifuge the sample and pipette 2 ml of serum into labeled polypropylene or polyethylene tubes. This should be done using either a countertop protective barrier or mask with plastic face shield. It is acceptable practice in a CLIA Waived Lab to prepare samples for submission.
- Label polypropylene or polyethylene tubes with the patient's name, the drug to be assayed and the date and time of collection
- The tubes should be frozen at -70°C. (Placing the specimen(s) in the styrofoam box with dry ice will freeze them sufficiently)

If a local health department is unable to perform these steps, assistance should be sought from a community partner such as a local hospital or other laboratory.

- Complete one column of information for each drug to be assayed on the requisition. Four drugs, if drawn at the same time, can be requested per form.
- Record the exact date, time and dosage that was observed taken.
- Photocopies of the requisition can be made as needed.
- Complete the requisition in its entirety to ensure a comprehensive and accurate interpretation of results can be provided by Dr. Charles Peloquin, the IDPL director.

SPECIMEN SHIPPING

UPS Packaging Requirements

https://www.ups.com/content/us/en/resources/ship/hazardous/biological_substances.html

The IATA (International Air Transportation Association) regulations require that shipments containing biological substance, Category B materials are triple packaged according to Packing Instruction 650. The triple packaging consists of the following:

- A leak proof primary receptacle
- A leak proof secondary packaging
- An outer rigid packaging of adequate strength for its capacity, mass and intended use

Place samples in a zip-lock plastic bag and pack upright in a Styrofoam box (about 10 cubic inches in size) with a minimum of 5 lbs and a maximum of 5 ½ lbs of dry ice.

- Include the Requisition Form in a plastic bag and tape to the outside lid of the box.

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All refrigerated packages sent via UPS must be clearly marked with the following information:

- The type and amount of refrigerant used inside the package. Print 'Dry Ice XXX pounds'. **UPS restricts dry ice to 5 ½ lbs.**
- The type of product being refrigerated. Print 'human blood sample'
- **Ship Monday - Wednesday is recommended** via overnight delivery to arrive Tuesday through Friday. Deliveries are not accepted on Saturday or Sunday. Pay attention to holiday schedules.
- Packages must be clearly marked with the proper shipping name of "Biological substance, Category B" with the characters being at least 6 mm high and must also have the UN 3373 mark illustrated clearly and legibly displayed on the external surface of the outer packaging adjacent to the proper shipping name. The UN3373 mark must be in a square on point configuration (diamond shaped) with each side being a minimum of 50 mm (or 2 inches) in length with the UN3373 characters being at least 6 mm in height.
- Take the sample to UPS (find a location near you) https://www.ups.com/dropoff?loc=en_US or schedule a pick-up at the health department.
- Samples should be shipped by an overnight by UPS.
- Ship Monday through Wednesday by UPS for overnight arrival to:
Infectious Disease Pharmacokinetics Laboratory
Dr. Charles Peloquin, Pharm D. UF Health
1600 SW Archer Road, P4-30
Gainesville, FL 32610



Biological substance, Category B