



NCRAD

ADRC Protocol Update: V03.2021

| Section | Change |
|----------------|---|
| 7.1 | Renamed “NCRAD Packaging Instructions—Ambient Shipments”. Removed shipping information. |
| 7.2 | Renamed “NCRAD Packaging Instructions—Frozen Shipments”. Removed shipping information |
| 7.3 | Ambient and Frozen Shipping Instructions added to include new UPS steps |

Alzheimer's Disease Research Centers

in collaboration with the

National Centralized Repository for Alzheimer's Disease and Related Dementias



NCRAD

**Biospecimen Collection, Processing, and Shipment
Manual of Procedures**

Version 03.2021



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1.0 ABBREVIATIONS

| | |
|-------|---|
| AD | Alzheimer's Disease |
| ADRC | Alzheimer's Disease Research Center |
| CITI | Collaborative IRB Training Initiative |
| DNA | Deoxyribonucleic Acid |
| EDTA | Ethylene Diamine Tetra-acetic Acid |
| IATA | International Air Transport Association |
| NACC | National Alzheimer's Coordinating Center |
| NCRAD | National Centralized Repository for Alzheimer's Disease and Related Dementias |
| PBMC | Peripheral Blood Mononuclear Cell |
| RBC | Red Blood Cells |



2.0 PURPOSE

The purpose of this manual is to provide Alzheimer's Disease Research Center (ADRC) staff (PIs, study coordinators, and the sample collection and processing teams) at the various study sites with instructions for collection and submission of biological samples to the National Centralized Repository for Alzheimer's Disease and Related Dementias (NCRAD) located at Indiana University. The following samples may be collected and sent to NCRAD:

- Ambient samples
 - Whole Blood (in purple-top EDTA tube)
 - Buffy Coat, if approved
 - Whole Blood (in green-top sodium heparin tube), if approved
- Frozen samples
 - Whole Blood (in purple-top EDTA tube)
 - DNA
 - Buffy Coat
 - Brain Tissue

This manual includes instructions for collection of blood, labeling, storage prior to shipping, and shipping to NCRAD.

These procedures are relevant to all study personnel responsible for processing blood specimens to be submitted to NCRAD.



3.0 NCRAD INFORMATION

3.1 NCRAD Contacts

Tatiana Foroud, PhD, Core Leader

Phone: 317-274-2218

Kelley Faber, MS, CCRC, Project Manager

Phone: 317-274-7360

Email: kelfaber@iu.edu

Kaci Lacy, MPH, CCRP, Study Coordinator

Phone: 317-278-1170

Email: lacy@iu.edu

General NCRAD Contact Information

Phone: 1-800-526-2839

Fax: 317-321-2003

Email: alzstudy@iu.edu

Website: www.ncrad.org

Sample Shipment Mailing Address

ADRC at NCRAD

Indiana University School of Medicine

351 W. 10th St. TK-217

Indianapolis, IN 46202

Phone: 1-800-526-2839

3.2 NCRAD Hours of Operation

Indiana University business hours are from 8 AM to 5 PM Eastern Time, Monday through Friday.

Ambient samples must be shipped **Monday-Thursday only**.

Frozen samples must be shipped **Monday-Wednesday only**.

For packing and shipment details of samples, please refer to [Section 7.0](#) of this protocol.

Check the weather report to make sure impending weather events (blizzards, hurricanes, etc.) will not impact the shipping or delivery of the samples.

3.3 NCRAD Holiday Observations

| Date | Holiday |
|--------------------------------------|-----------------------------|
| January 1 | New Year's Day |
| 3 rd Monday in January | Martin Luther King, Jr Day |
| 4 th Monday in May | Memorial Day |
| July 4 | Independence Day (observed) |
| 1 st Monday in September | Labor Day |
| 4 th Thursday in November | Thanksgiving |
| 4 th Friday in November | Friday after Thanksgiving |
| December 25 | Christmas Day |

Please note that between December 24th and January 2nd, Indiana University will be open Monday through Friday for essential operations **ONLY** and will re-open for normal operations on January 2nd. If at all possible, biological specimens for submission to Indiana University should **NOT** be collected and shipped to Indiana University after the second week in December. Should it be necessary to ship blood samples for DNA extraction to Indiana University during this period, please contact the Indiana University staff before December 20th by e-mailing alzstudy@iu.edu, so that they can arrange to have staff available to process incoming samples. Please see: https://ncrad.org/holiday_closures.html for additional information.

- Please note that courier services may observe a different set of holidays.
- Please be sure to verify shipping dates with your courier prior to any holiday.
- **Weekend/holiday delivery must be arranged in advance with NCRAD staff.**

4.0 ADRC LABORATORY COLLECTION

4.1 Site Required Equipment

The following materials and equipment are necessary for the processing of specimens at the collection site and are to be **supplied by the local site**:

- Personal Protective Equipment: lab coat, nitrile/latex gloves, safety glasses
- Tourniquet
- Alcohol Prep Pad
- Gauze Pad
- Bandage
- Butterfly needles and hub
- Microcentrifuge tube rack
- Sharps bin and lid

4.2 Ambient Biospecimens Collected

Whole blood can be collected into two different types of Vacutainer tubes: purple-top EDTA tubes and/or green-top sodium heparin tubes (if site is approved to collect these). Both the purple-top EDTA tubes and green-top sodium heparin tubes are kept ambient without further processing and shipped to NCRAD.

Consent forms must specify that any biological samples and de-identified clinical data may be shared with academic and/or industry collaborators through NCRAD. A copy of the consent form for each subject should be kept on file by the site investigator.

4.3 Ambient Biospecimens Sent to NCRAD

Ambient samples are to be submitted according to the shipping methods outlined in [Section 7.1](#). Guidelines for the collection tube and shipping temperature are listed in the table below.

4.3.1 Ambient Biospecimen Collection Table

| Collection Tube | Specimen Type | Purpose | # of Samples sent to NCRAD | Shipping Temperature |
|---|---------------|------------|----------------------------|----------------------|
| Up to 3 EDTA (Purple-Top) Blood Collection Tubes (10 ml) | Whole Blood | DNA | Up to 3 | Ambient |
| EDTA (Purple-Top) Blood Collection Tube | Whole Blood | Buffy Coat | 1 | Ambient |
| Up to 2 Sodium Heparin (Green-Top) Blood Collection Tubes (10ml) | Whole Blood | PBMC | Up to 2 | Ambient |

4.4 Frozen Biospecimens Sent to NCRAD

Frozen samples are to be submitted according to the shipping methods outlined in [Section 7.2](#). Guidelines for the amount, required tube, and shipping temperature are listed in the table below.

4.4.1 Frozen Biospecimens Collection Table

| Specimen Type | Amount | Required Tube | Shipping Temperature |
|---------------|---|---|----------------------|
| Whole Blood | 6-10ml | EDTA (purple-top) collection tube | Frozen |
| Buffy Coat | No volume requirement, but we must receive whole buffy coat | 2 ml cryovial | Frozen |
| Brain Tissue | 2-5g | Self-standing polypropylene 30mL tube | Frozen |
| DNA | At least 20ug (minimum concentration 0.1 ug/ul, minimum volume 50 ul) | DOT Scientific 819-S 2.0ml screw cap microcentrifuge tubes with O-rings | Frozen |

5.0 SPECIMEN COLLECTION KITS, SHIPPING KITS, AND SUPPLIES

Research specimen collection kits will be provided by NCRAD. These materials include EDTA (purple-top) collection tubes, sodium heparin (green-top) collection tubes, tubes for brain tissue and DNA, and partially completed shipping labels to send materials to NCRAD.

5.1 NCRAD Specimen Collection Kit Contents

Collection kits contain the following (for each subject) and provide the necessary supplies to collect samples from a given subject. Do not replace or supplement any of the tubes or kit components provided with your own supplies unless you have received approval from the NCRAD Study team to do so. *Please store all kits at room temperature until use.*

ADRC Blood Kit

| Quantity | ADRC Blood Kit Components |
|----------|--|
| Up to 3 | EDTA (Purple-Top) Blood Collection Tube (10 ml) |
| Up to 2 | Sodium Heparin (Green-Top) Blood Collection Tube (10 ml) |

NCRAD Ambient Shipping Kit

| Quantity | NCRAD Ambient Shipping Kit Components |
|----------|---|
| 1 | Plastic biohazard bag with absorbent sheet |
| 1 | Small IATA shipping box with insulated cooler |
| 1 | Small refrigerant pack |
| 1 | Aqui-Pak 6 tube absorbent pouch |
| 1 | UN3373 Biological Substance Category B label |
| 1 | List of contents card |
| 1 | UPS return airbill and pouch |
| 1 | UPS Clinic Pak |

Additional Supplies

| Quantity | Additional Supplies from NCRAD |
|-------------|--|
| Per Request | Ambient Shipping Kit |
| Per Request | UPS Clinic Pak |
| Per Request | UPS Return Airbill |
| Per Request | EDTA (Purple-Top) Blood Collection Tube (10 ml) |
| Per Request | Sodium Heparin (Green-Top) Blood Collection Tube (10 ml) |
| Per Request | Frozen Shipping Supply Kit (shipper, insulated foam) |
| Per Request | Self-standing polypropylene 30 ml tubes |
| Per Request | DOT Scientific 819-S 2.0 ml screw cap microcentrifuge tubes with O-rings |

5.2 Kit Supply to Study Sites

Each site will be responsible for ordering and maintaining a steady supply of kits from NCRAD. We advise sites to keep a supply of each kit type available. Be sure to check your supplies and order additional materials before you run out or supplies expire so you are prepared for study visits. Please go to: <http://kits.iu.edu/ADRC> to request additional kits and follow the prompts to request the desired supplies.

Please allow **TWO weeks** for kit orders to be processed and delivered.

6.0 BLOOD COLLECTION AND PROCESSING PROCEDURES

*****Important Note*****

In order to ensure the highest quality samples are collected, it is essential to follow the specific collection and shipment procedures detailed in the following pages. Please read the following instructions first before collecting any specimens. Have all your supplies and equipment out and prepared prior to drawing blood.

6.1 Additional information

- Additional collection and shipping information is available on the NCRAD website at https://www.ncrad.org/sample_requirements.html.

6.2 Whole Blood Collection with 10ml Sodium Heparin (Green-Top) Tube for PBMC (if site is approved to collect)

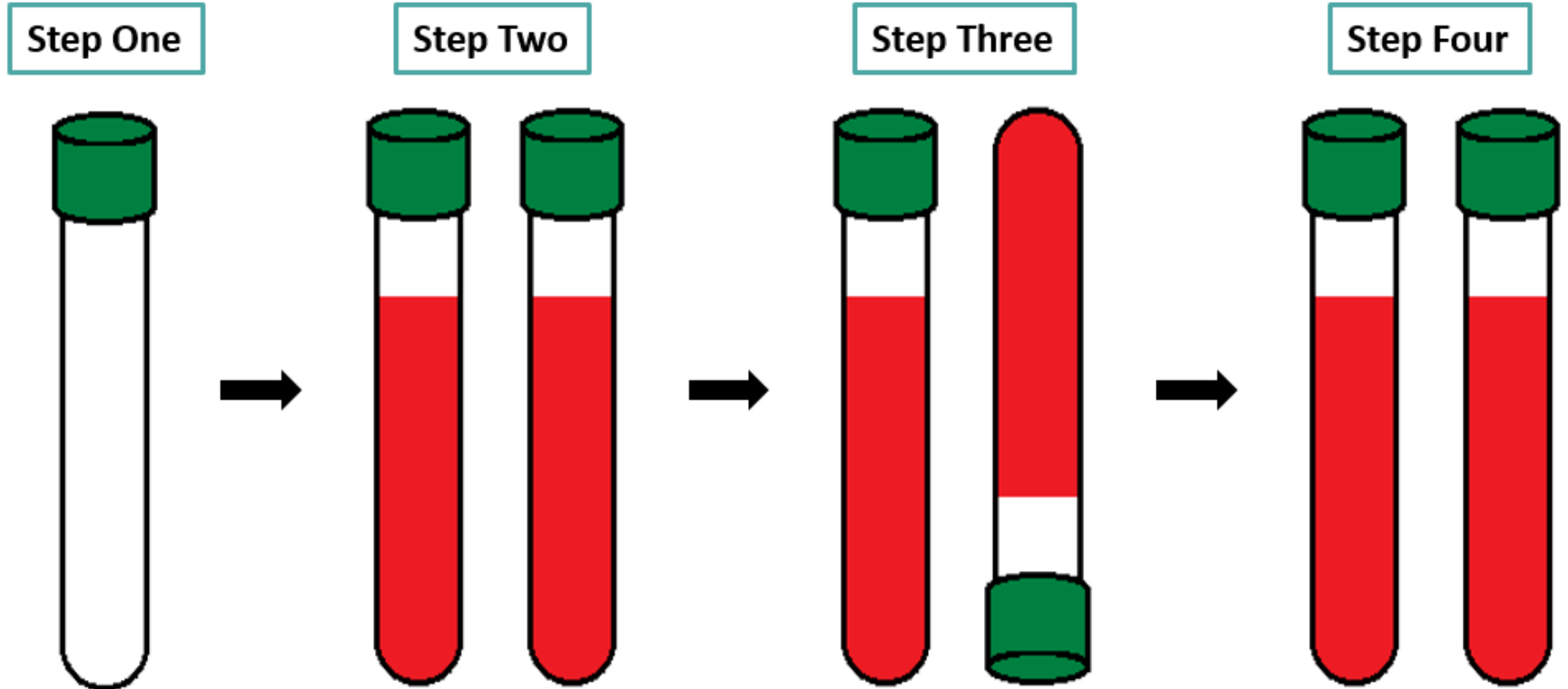
Important Note

Once drawn, Sodium Heparin tubes **MUST** be shipped to NCRAD the day of collection via UPS Priority Overnight. This is to ensure the specimens have the most viable cells available at extraction.

These samples should only be collected Monday-Thursday. **DO NOT** collect these samples on Fridays.

1. Using a blood collection set and a holder, collect blood into the 10ml sodium heparin tubes using your institution's recommended procedure for standard venipuncture technique.
The following techniques shall be used to prevent possible backflow:
 - a. Place donor's arm in a downward position.
 - b. Hold tube in a vertical position, below the donor's arm during blood collection.
 - c. Release tourniquet as soon as blood starts to flow into tube.
 - d. Make sure tube additives do not touch the stopper or the end of the needle during venipuncture.
2. Allow at least 10 seconds for a complete blood draw to take place in the tube. **Ensure that the blood has stopped flowing into each tube before removing the tube from the holder.** The tube with its vacuum is designed to draw 10ml of blood into the tube.
3. Immediately after blood collection, gently invert/mix (180-degree turns) each tube 8-10 times.
4. Ship the unprocessed sodium heparin (green-top) blood collection tube(s) **ambient** to NCRAD the day of the participant visit. Please see [Section 7.1](#) for detailed ambient shipping instructions.
5. Complete Blood Sample and Shipment Notification Form ([Appendix A](#)).

PBMC Preparation (10ml Sodium Heparin Tube)



- Store tubes at room temp.
- Label tubes with pre-printed subject labels prior to blood draw.

- Collect blood in Sodium Heparin tubes allowing blood to flow for 10 seconds, and ensuring blood flow has stopped.

- Immediately after blood draw, invert tubes 8-10 times to mix sample.

- Store tubes at room temp. until shipment.
- Ship ambient same day as blood draw.

6.3 Whole Blood Collection with 10 ml EDTA (Purple-Top) Tube for Isolation of DNA

*****Important Note*****

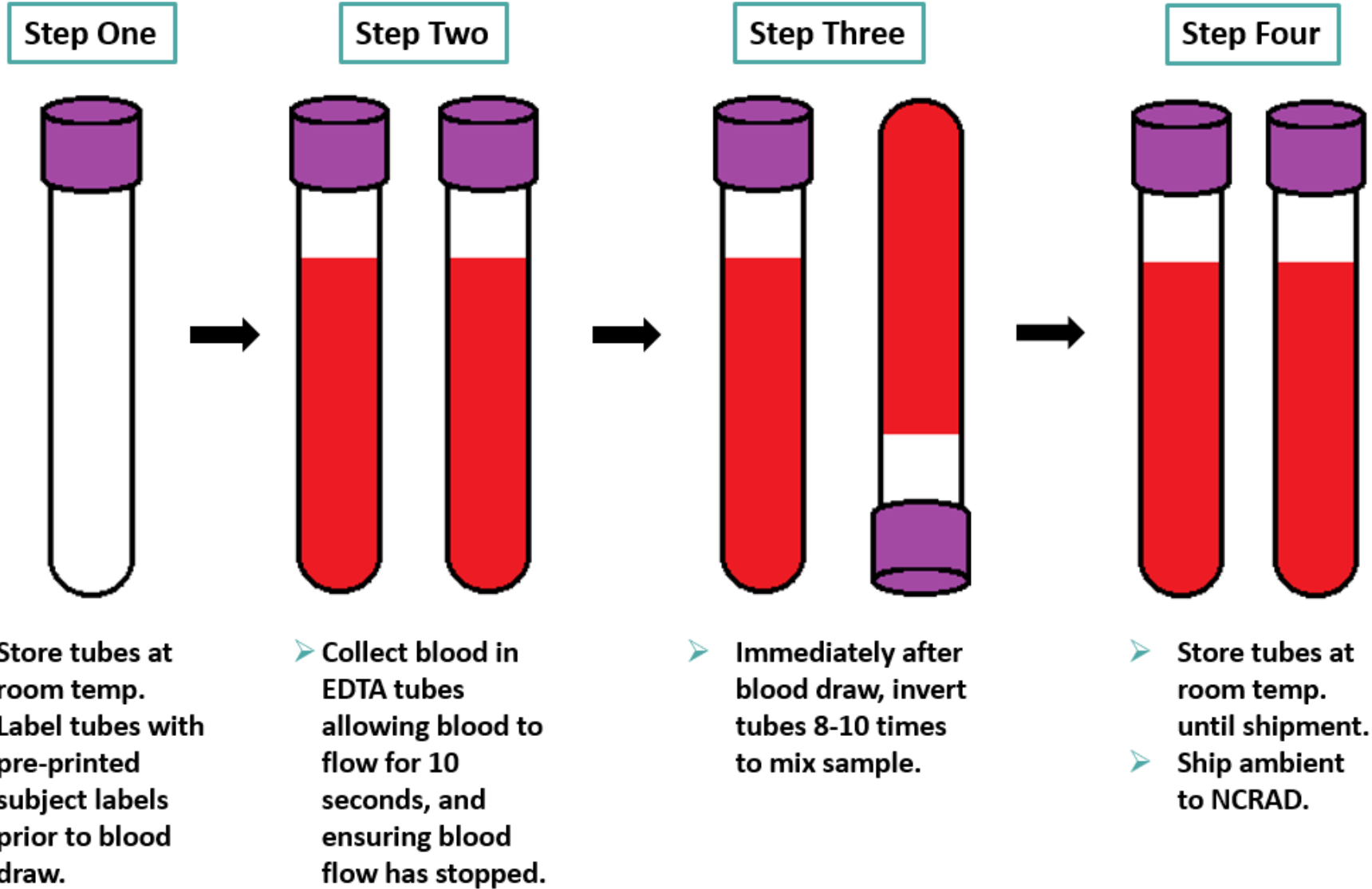
These samples can be collected Monday-Friday, but please only ship samples Monday-Thursday. Hold samples drawn on Fridays ambient until shipment on Monday.

1. Using a blood collection set and a holder, collect blood into the EDTA (purple-top) blood collection tubes (10 ml) using your institution's recommended procedure for standard venipuncture technique.

The following techniques shall be used to prevent possible backflow:

- a. Place participant's arm in a downward position.
 - b. Hold tube in a vertical position, below the participant's arm during blood collection.
 - c. Release tourniquet as soon as blood starts to flow into tube.
 - d. Make sure tube additives do not touch stopper or end of the needle during venipuncture.
2. Allow at least 10 seconds for a complete blood draw to take place in each tube. **Ensure that the blood has stopped flowing into the tube before removing the tube from the holder.** The tube with its vacuum is designed to draw 10 ml of blood into the tube.
 - a. If complications arise during the blood draw, please note the difficulties on the Blood Sample and Shipment Notification Form. Do not attempt to draw an additional EDTA tube at this time.
 3. Immediately after blood collection, gently invert/mix (180 degree turns) the EDTA tubes 8-10 times.
 4. The unprocessed EDTA (purple-top) tubes may be shipped ambient or frozen to NCRAD.
 - a. If sending ambient whole blood sample to NCRAD:
 - i. Samples from multiple patients may be batch shipped, but samples must arrive at NCRAD within 5 days of the collection date. Please see [Section 7.1](#) for detailed ambient shipping instructions.
 - ii. Complete Blood Sample and Shipment Notification Form ([Appendix A](#)).
 - b. If sending frozen whole blood sample to NCRAD:
 - i. Transfer to -80°C Freezer when possible. Store all samples upright at -80°C until shipped to NCRAD on dry ice.
 - ii. Complete Blood Sample and Shipment Notification Form ([Appendix A](#)).

Whole Blood Preparation for DNA (10ml EDTA Tube)



6.4 Buffy Coat Collection (if site is approved to collect)

1. After the blood draw is complete, document the volume of blood in the EDTA tube on the Blood Sample and Shipment Notification Form ([Appendix A](#)).
2. After plasma has been aliquoted following your center's protocol, pipet the buffy coat layer into the cryovial using a clean pipette. **All of the buffy coat should be collected and placed into one cryovial.** The buffy coat aliquot is expected to have a reddish color from the RBCs.
3. If sending ambient buffy coat sample to NCRAD:
 - a. Samples from multiple patients may be batch shipped, but samples must arrive at NCRAD within 5 days of the collection date. Please see [Section 7.1](#) for detailed ambient shipping instructions.
 - b. Complete Blood Sample and Shipment Notification Form ([Appendix A](#)).
4. If sending frozen buffy coat samples to NCRAD:
 - a. Transfer to -80°C Freezer when possible. Store all samples upright at -80°C until shipped to NCRAD on dry ice.
 - b. Complete Batch Buffy Coat Sample Form ([Appendix B](#)).

7.0 PACKAGING & SHIPPING INSTRUCTIONS

ALL study personnel responsible for shipping should be certified in biospecimen shipping. If not available at your site, please notify NCRAD with questions and information regarding resources.

In addition to tracking and reconciliation of samples, the condition and amount of samples received are tracked by NCRAD for each sample type. Investigators and clinical coordinators for each project are responsible to ensure the requested amounts of each fluid are collected to the best of their ability and that frozen samples are packed with sufficient amounts of dry ice to avoid thawing in the shipment process.

7.1 Ambient Packaging Instructions

*****Important Note*****

AMBIENT SAMPLES MUST BE SHIPPED MONDAY-THURSDAY ONLY!

Ambient PBMC samples must be shipped the day of blood draw, so do not draw on Fridays.

Ambient EDTA (purple-top), buffy coat, and sodium heparin (green-top) sample shipments should be considered as Category B UN3373 and as such must be tripled packaged and compliant with the IATA Packing Instructions 650. *See the Latest Edition of the IATA Regulations for complete documentation.*

Triple packaging consists of a primary receptacle(s), a secondary packaging, and a rigid outer packaging. The primary receptacles must be packed in secondary packaging in such a way that, under normal conditions of transport, they cannot break, be punctured or leak their contents into the secondary packaging. Secondary packaging must be secured in outer packaging with suitable cushioning material. Any leakage of the contents must not compromise the integrity of the cushioning material or of the outer packaging.

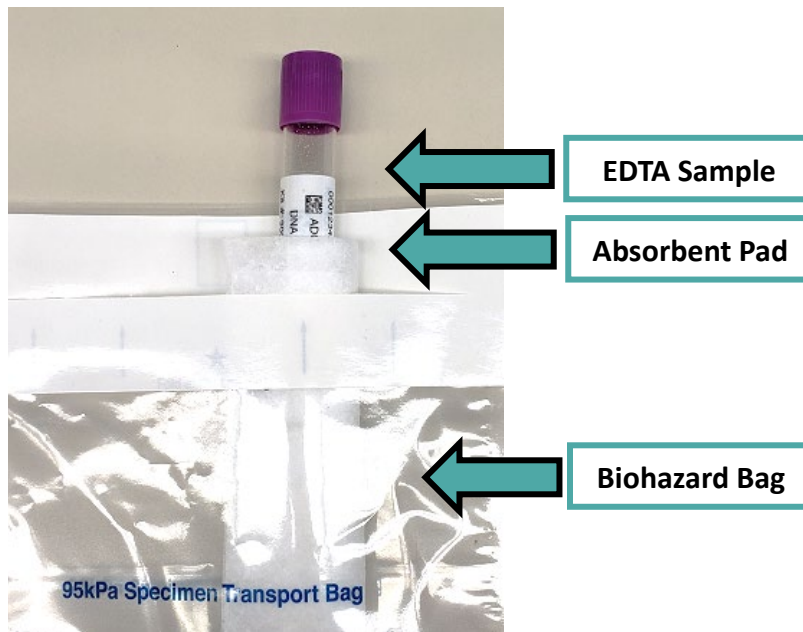
***** Ambient Shipping Packing and Labeling Guidelines *****

- The primary receptacle (EDTA tube, buffy coat, and/or cryovial, sodium heparin tube) must be leak proof and must not contain more than 10 ml total.
- The secondary packaging (small biohazard bag) must be leak proof.
- Absorbent material must be placed between the primary receptacle and the secondary packaging (small biohazard bag). The absorbent material should be of sufficient quantity in order to absorb the entire contents of the specimens being shipped. Examples of absorbent material are paper towels, absorbent pads, cotton balls, or cellulose wadding.
- A shipping manifest of specimens being shipped must be included between the secondary and outer packaging.
- The outer shipping container must display the following labels:
 - ✓ Sender's name and address
 - ✓ Recipient's name and address
 - ✓ Responsible Person
 - ✓ The words "Biological Substance, Category B"
 - ✓ UN3373

7.1.1 NCRAD Packaging Instructions—Ambient Shipments

1. Place refrigerant pack in the freezer 24 hours prior to shipment.
2. Contact UPS to confirm service is available and schedule package to be picked up.
3. Notify NCRAD of shipment by emailing NCRAD coordinators at: alzstudy@iu.edu
 - a. Complete and attach the Blood Sample and Shipment Notification Form to the email. (See [Appendix A](#))

- Place filled and labeled EDTA (purple-top), buffy coat, and/or sodium heparin (green-top) tubes within the slots in the absorbent pad provided, and place into the plastic biohazard bag with absorbent sheet. There should only be one subject's sample(s) in each kit.

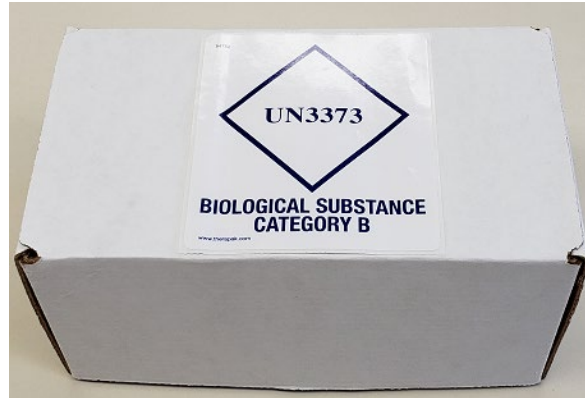


- Remove as much air as possible from the plastic biohazard bag, and seal the bag according to the directions printed on the bag.
- Place the refrigerant pack into the cooler on top of the filled biohazard bag.



- Place the lid onto the cooler.

8. Place an extra copy of the Blood Sample and Shipment Notification Form on top of the cooler lid along with a completed list of contents card.
9. Close the shipping box. Label the outside of the cardboard box with the enclosed UN3373 (Biological Substance Category B) label.



10. Place the closed, labeled shipping box within a UPS Laboratory Pak.
Seal the UPS Laboratory Pak.



11. Place UPS return airbill on the sealed UPS Clinical Pak.
12. Specimens should be sent to the below address via UPS Priority Overnight. Ambient UPS shipments should be sent Monday through Thursday.

ADRC at NCRAD
Indiana University School of Medicine
351 W. 10th St. TK-342
Indianapolis, IN 46202

13. Use UPS tracking to ensure the delivery occurs as scheduled and is received by NCRAD.

7.2 Frozen Packaging Instructions (Batch Whole Blood, Buffy Coat, Brain Tissue, DNA Only)

The most important issue for shipping is to maintain the temperature of the samples. The frozen samples must never thaw; not even the outside of the tubes should be allowed to defrost. This is best accomplished by making sure the Styrofoam container is filled completely with pelleted dry ice.

Important Note

FROZEN SAMPLES MUST BE SHIPPED MONDAY-WEDNESDAY ONLY!

Specimens being shipped to NCRAD should be considered as Category B UN3373 specimens and as such must be tripled packaged and compliant with IATA Packing Instructions 650. *See the Latest Edition of the IATA Regulations for complete documentation.*

Triple packaging consists of a primary receptacle(s), a secondary packaging, and a rigid outer packaging. The primary receptacles must be packed in secondary packaging in such a way that, under normal conditions of transport, they cannot break, be punctured, or leak their contents into the secondary packaging. Secondary packaging must be secured in outer packaging with suitable cushioning material. Any leakage of the contents must not compromise the integrity of the cushioning material or of the outer packaging.

*** Packing and Labeling Guidelines ***

- The primary receptacle (cryovial) must be leak proof and must not contain more than 1L total.
- The secondary packaging (biohazard bag) must be leak proof and if multiple blood tubes are placed in a single secondary packaging, they must be either individually wrapped or separated to prevent direct contact with adjacent blood tubes.
- Absorbent material must be placed between the primary receptacle and the secondary packaging. The absorbent material should be of sufficient quantity in order to absorb the entire contents of the specimens being shipped. Examples of absorbent material are paper towels, absorbent pads, cotton balls, or cellulose wadding.
- A shipping manifest of specimens being shipped must be included between the secondary and outer packaging.
- The outer shipping container must display the following labels:
 - ✓ Sender's name and address
 - ✓ Recipient's name and address
 - ✓ Responsible Person
 - ✓ The words "Biological Substance, Category B"
 - ✓ UN3373
 - ✓ Class 9 label including UN 1845, and net weight of dry ice contained (when shipping with dry ice)



7.2.1 NCRAD Packaging Instructions – Frozen Shipments

1. Contact UPS to confirm service is available and schedule package to be picked up.
2. Notify NCRAD of shipment by emailing NCRAD coordinators at alzstudy@iu.edu. Attach the following to the email:
 - a. Completed Sample Form ([Appendix A](#), [Appendix B](#), [Appendix C](#), or [Appendix D](#)) to the email notification (email NCRAD coordinator prior to shipment to receive sample form).
 - b. If email is unavailable, please call NCRAD at 1-800-526-2839 and do not ship until you've contacted and notified NCRAD coordinators about the shipment in advance.
3. Place the cryovial boxes containing frozen samples into a biohazard bag.
4. Place approximately 2-3 inches of dry ice in the bottom of the Styrofoam shipping container.
5. Place the samples into a Styrofoam-lined shipping container on top of the dry ice. Please ensure that cryovial boxes are placed so the cryovials are upright in the shipping container.
6. Fully cover the biohazard bags containing the cryovial boxes tubes with approximately 2 inches of dry ice.
7. After the samples have been placed into the shipping container, fill the inner Styrofoam with plenty of dry ice pellets to ensure the frozen state of the specimens during transit.
8. Replace the lid on the Styrofoam carton. Place the completed Blood Sample and Shipment Notification Form in the package on top of the Styrofoam lid for each patient specimen, and close and seal the outer cardboard shipping carton with packing tape.
9. Complete the UPS Dry Ice Label with the following information:
 - a. Net weight of dry ice in kg (must match amount on the airbill)
 - b. Do not cover any part of this label with other stickers, including preprinted address labels.

10. Apply all provided warning labels and the UPS return airbill to the outside of package, taking care not to overlap labels.

*****Important Note*****

Complete the required fields on the UPS return airbill and Class 9 Dry Ice label, or UPS may reject or return your package.

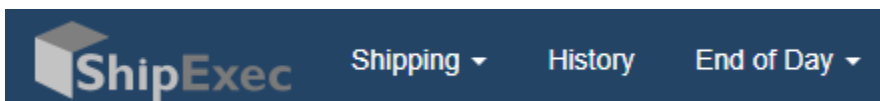
11. Hold packaged samples in -80°C freezer until time of UPS pick-up/drop-off.
12. Specimens should be sent to the below address via UPS Priority Overnight. Frozen shipments should be sent Monday through Wednesday to avoid shipping delays on Thursday or Friday. UPS does not replenish dry ice if shipments are delayed or held over during the weekend.

ADRC at NCRAD
Indiana University School of Medicine
351 W. 10th St. TK-342
Indianapolis, IN 46202

13. Use UPS tracking to ensure the delivery occurs as scheduled and is received by NCRAD. Please notify NCRAD by email (alzstudy@iu.edu) that a shipment has been sent and include the UPS tracking number in your email.

8.3 Ambient and Frozen Shipping Instructions

1. Log into the ShipExec Thin Client at kits.iu.edu/UPS.
 - a. If a new user or contact needs access, please reach out to your study contact for access.
2. Click “Shipping” at the top of the page and select “Shipping and Rating”.



3. Select your study from the “Study Group” drop down on the right side of the main screen. Choosing your study will automatically filter the address book to only addresses within this study.
4. Click on the magnifying glass icon in the “Ship From” section to search for your shipping address.

Ship From

| | |
|-------------------|---|
| Company | |
| Contact | |
| Address 1 | |
| Address 2 | |
| Address 3 | |
| City | |
| State/Province | |
| Postal Code | |
| Country/Territory | ▼ |
| Phone | |

- a. Search by Company (site), Contact (name), or Address 1 (first line of your site’s street address). Click Search.
 - b. Click Select to the left of the correct contact information.
5. Verify that both the shipping information AND study reference are correct for this shipment.
 - a. If wrong study contact or study reference, click Reset in the bottom right of the screen to research for the correct information.
 6. Enter Package Information
 - a. Ambient shipments
 - i. Enter the total weight of your package in the “Weight” field and leave the “Dry Ice Weight” field empty.
 - b. Frozen shipments
 - i. Enter the total weight of your package in the “Weight” field.
 - ii. Enter the dry ice weight in the “Dry Ice Weight” field.
 - iii. If the “Dry Ice Weight” field is higher than the “Weight” field, you will receive an error message after clicking Ship and need to reenter these values.
 - c. Click Ship in the bottom right of the page when complete.

7. If your site does not already have a daily UPS pickup, you can schedule one here.
 - a. Click the blue Pickup Request button. Enter the earliest pickup time and latest pickup time in 24-hr format.
 - b. Give a name & phone number of someone who the UPS driver can call if having issues finding the package
 - c. Give the Floor and Room Number (if needed) to be as descriptive as possible where this package needs to be picked up from. Click Save.

8. Print the airbill that is automatically downloaded.
 - a. To reprint airbill, click History at the top left of the page.
 - i. Shipments created from the user that day will automatically populate. If shipments from a previous day need to be located, search by ship date.
 - ii. Locate the correct shipment, and click on the printer icon to the left of the tracking number under “Action” to reprint the airbill
 - iii. Click print icon on right side of the tracking number line.

9. Fold airbill, and place inside plastic UPS sleeve.

10. Peel the back off of the UPS sleeve, and stick the sleeve to the package.

8.0 DATA QUERIES AND RECONCILIATION

Sample and Shipment Notification forms must be completed on the day that samples are collected (for ambient samples), or before sample shipment (for batch frozen samples) because they include information that will be used to reconcile sample collection and receipt, as well as information essential to future analyses.

NCRAD will collaborate with the data team at NACC to reconcile information captured in the NACC database compared to samples received and logged at NCRAD. Additional discrepancies may be sent directly to the Center staff to reconcile.

Data queries or discrepancies with samples shipped and received at NCRAD may result from:

- Incorrect samples collected and shipped
- Damaged or incorrectly prepared samples
- Unlabeled samples, samples labeled with incomplete information, or mislabeled samples



- Discrepant information documented on the Blood Sample and Shipment Notification Form and logged at NCRAD compared to information entered into the NACC database.

9.0 APPENDICES

[Appendix A: Blood Sample and Shipment Notification Form](#)

[Appendix B: Batch Buffy Coat Sample and Shipment Notification Form](#)

[Appendix C: Batch Brain Tissue Sample and Shipment Notification Form](#)

[Appendix D: Batch DNA Sample and Shipment Notification Form](#)



Appendix A: Blood Sample and Shipment Notification Form

Please email or fax the form on or prior to the date of shipment.

ADRC Study

Please complete this form when sending blood to NCRAD. The form can be completed on your computer and submitted electronically by an email attachment or can be completed by hand and faxed. Use the Tab key to move to the next field. The contact information for emailing or faxing the form is in the box below.

Please email or fax the form as soon as possible after the blood is drawn. NCRAD would like to receive this form before the blood arrives.

| | | |
|--|-----------------------|--------------------------|
| To: Kelley Faber | FAX: 317-321-2003 | Email: alzstudy@iu.edu |
| Phone: 1-800-526-2839 | Phone: 1-317-274-7360 | |
| From: _____ | Center: _____ | |
| Phone: _____ | Email: _____ | |
| Date: _____ | | |
| Site #: _____ PTID #: _____ | | |
| GUID (if available): _____ | | |
| Sex: _____ Birth Year: _____ | | |
| Date blood drawn: _____ | | |
| UPS tracking #: _____ | | |
| For internal NCRAD use only, do not complete. "ADC" | | |
| Kit#: _____ | DNA Barcode: _____ | Volume(ml): Purple _____ |

