



# **Cerebral Autosomal Dominant Arteriopathy with Sub-cortical Infarcts and Leukoencephalopathy Study**

**COLLECTION AND SHIPMENT TRAINING**

**Version 1.1**



# Training Overview

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- Incomplete or Difficult Blood Draws and Redraws
  - Packaging Sample Shipments
    - Sample Form
    - NCRAD Website
  - Common Nonconformance Issues
    - Questions?



# NCRAD Contact Information

## Questions?

Zoë Potter, BA, CCRP, Study Coordinator

Phone: (317) 278-9086

Email: [zdpotter@iu.edu](mailto:zdpotter@iu.edu)

## General NCRAD Contact Information

Phone: 1-800-526-2839

Email: [alzstudy@iu.edu](mailto:alzstudy@iu.edu)

Website: [www.ncrad.org](http://www.ncrad.org)

CADASIL Study Specific Webpage: [NCRAD - CADASIL Active Study Page](#)



# CADASIL Blood-Based Collection Schedule

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	Visit 1 (Baseline)	Visit 2 (18 month)	Visit 3 (36 month)
Plasma	X	X	X
Buffy Coat	X	X	X
RNA	X	X	X
Serum	X	X	X

# Kit Request Module

<http://kits.iu.edu/cadasil>



# CADASIL Kit Request Module

If possible, only order what you will need in the next month

AAA  
+

## NCRAD

CADASIL Kit Request System

Due to ongoing supply limitations, we ask that you please only order as many kits and extra supplies that you will be able to use in the next 30 days. Doing so allows us to fulfill as many kit requests as possible without depleting stock for other kit requests in our queue. If we are not able to fulfill any part of your request due to supplies being out of stock, we will reach out about those individually.

Please enter your email address here to receive a confirmation email after completing the survey:  
  
\* must provide value

CADASIL Site   
\* must provide value

296 - USA: University of Wisconsin  
ATTN: Alicia Henson  
Address:  
UW School of Medicine and Public Health  
Dept. of Neurology, Rm 7220  
1685 Highland Ave  
Madison, WI 53705-2281  
Phone: (608)263-4120  
Email: henson@neurology.wisc.edu

Is the contact name above correct?  Yes  No  
\* must provide value [reset](#)

Is the shipping address above correct?  Yes  No  
\* must provide value [reset](#)

Is the e-mail address above correct?  Yes  No  
\* must provide value [reset](#)

- Enter your email to receive a confirmation email after you submit your kit request.
- Choose your site from the drop-down list.
- The coordinator name and contact information will appear.
- Verify that this information is accurate. Correct if necessary.



# CADASIL Kit Request Module

CADASIL Participant Blood Supply Kit Qty

CADASIL Blood Supplemental Supply Kit Qty

CADASIL Frozen Blood Shipping Kit Qty

Do you need Extra Supplies?  Yes  No reset

\* must provide value

Our standard shipping time for all orders is 3 weeks.

We can ship this kit request by: **05-16-2023**

If you need any supplies in this order prior to **05-16-2023**, you must contact the NCRAD coordinator for this study: [zdpotter@iu.edu](mailto:zdpotter@iu.edu).

Comments

Expand

Each CADASIL Participant Blood Supply Kit Contains (KIT10491 or KIT10522 with clear-cap alternative):

2: PAXgene™ Blood Collection Tube (2.5 ml) - CT004  
1: SST (Tiger-Top) Blood Collection Tubes (8.5 mL) - CT051

- Indicate the quantity needed of each kit
  - Once selected, kit components of the chosen kit will appear at the bottom of the screen
- You can order extra supplies individually by selecting “Yes” here.
- We will return requests within 3 weeks from the order date.
  - If you need any supplies expedited, please contact the NCRAD Coordinator via email.
- Click “Submit” to turn in your request.
- **\*\*Note: You can order more than one type of kit in a single kit request\*\***

# CADASIL Kit List

- CADASIL Participant Blood Supply Kit
- CADASIL Blood Supplemental Supply Kit
- CADASIL Frozen Blood Shipping Kit

- Each individual 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 for scheduled participants.
- Be sure to check your supplies and order additional materials before you run out or supplies expire so you are prepared for study visits.
- Allow a minimum of **3 weeks** for your order to be processed and delivered.
- Due to ongoing supply limitations, we ask that you please only order as many kits and extra supplies that you will be able to use in the next 30 days.

# Specimen Labels

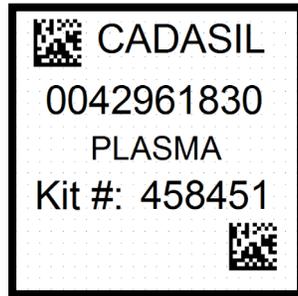
Provided by NCRAD



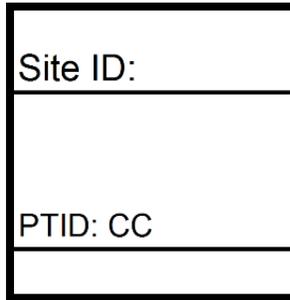
# Four Label Types



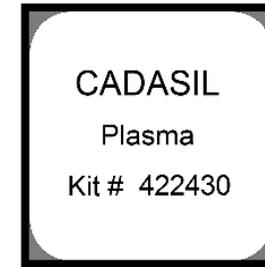
Kit Number  
Labels



Collection Tube  
Labels

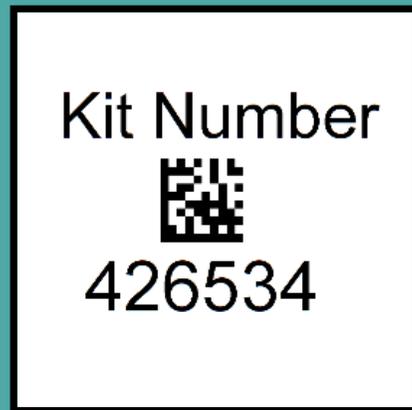


Site and CADASIL  
ID Labels



Cryovial Tube  
Labels

# Kit Number Labels



- Used to track patient samples and provide quality assurance – Will be placed on the following locations :
  1. Blood Sample and Shipment Notification Form (Appendix B).
  2. Lid of cryobox that houses aliquot tubes during storage and shipment.
  3. One extra label provided

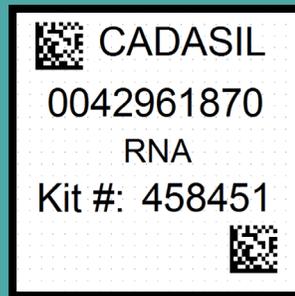


## Appendix B: Biological Sample and Shipment Notification Form

To: Kelley Faber		Email: <a href="mailto:alzstudy@iu.edu">alzstudy@iu.edu</a>		Phone: 1-800-526-2839	
UPS tracking #: <u>1Z976R8W</u>			Date: _____		
From: _____		Phone: _____		Email: _____	
Study: CADASIL		Site ID: _____		CADASIL IND #: <u>CC</u>	
Sex: M F		Year of Birth: _____			
Visit: Baseline		18 Month		36 Month	
<b>Blood Collection:</b>					
Date of Draw:		[MMDDYY]		Time of Draw: [HHMM]	
Date subject last ate:		[MMDDYY]		Time subject last ate: [HHMM]	



# Collection Tube Labels



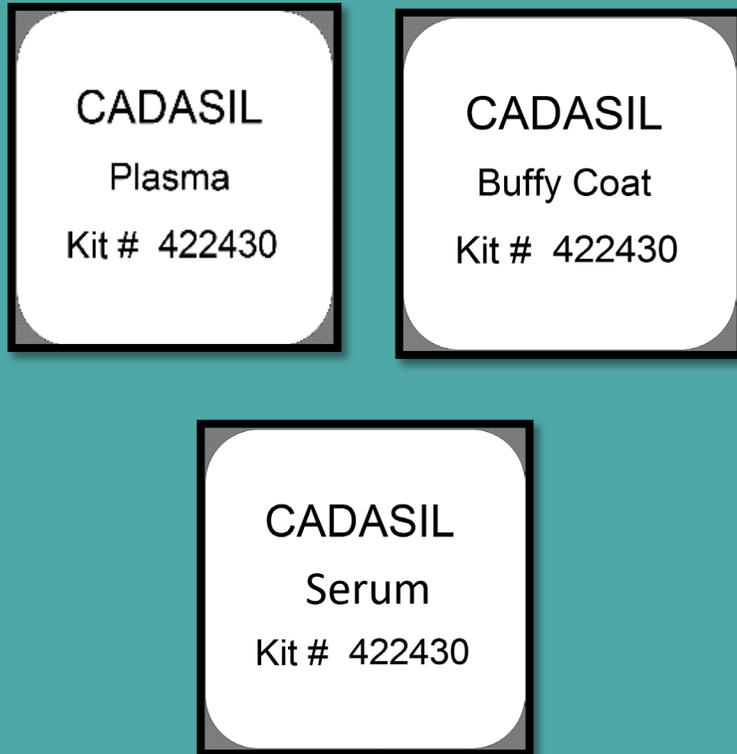
- Collection Tube labels have 4 components:
  - Study name
  - 10-digit specimen barcode
  - Specimen type
  - Kit number
- Will be placed on the following locations :
  - All Collection Tubes
    - 4 x EDTA (Lavender-Top) Blood Collection Tube (10 mL)
    - 2 x PAXgene™ Blood Collection Tube (2.5 mL)
    - 1 x SST (Tiger-Top) Blood Collection Tube (8.5 mL)

# Site and CADASIL ID Labels

Site ID:
PTID: CC

- Subjects will be identified by their Site and PTID
- Sites will be responsible for handwriting this onto the provided labels
  - Must use fine point permanent marker
  - Write information on label prior to adhering to tube
- Will be placed on the following locations :
  - 4 x EDTA (Lavender-Top) Blood Collection Tube (10 mL)
  - 2 x PAXgene™ Blood Collection Tube (2.5 mL)
  - 1 x SST (Tiger-Top) Blood Collection Tube (8.5 mL)

# Cryovial Tube Labels



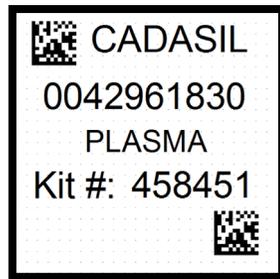
- Only one label to be placed on each 2.0 mL cryovial
  - **Plasma**
    - From EDTA tube
  - **Buffy Coat**
    - From EDTA tube
  - **Serum**
    - From SST tube

**Important:** Do not cover barcode that is pre-etched on cryovial.



# Blood Collection Tube Labels:

## Label 1: Collection Tube Label



EDTA  
(Lavender-Top)  
Blood  
Collection Tube  
(10 mL) x 4

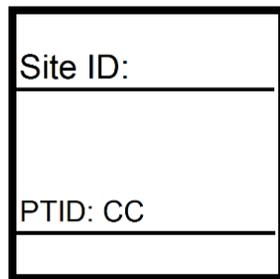


PAXgene™  
Blood  
Collection  
Tube (2.5 mL)  
x 2



SST  
(Tiger-Top)  
Blood Collection  
Tubes (8.5 mL) x  
1

## Label 2: Site and CADASIL ID Label

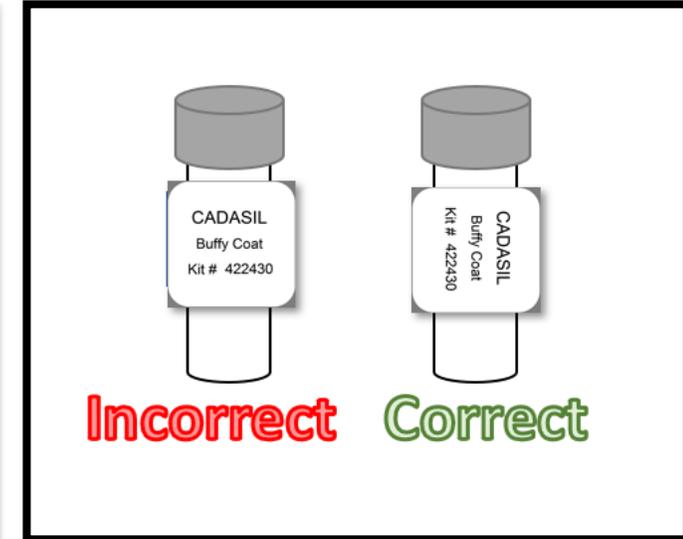
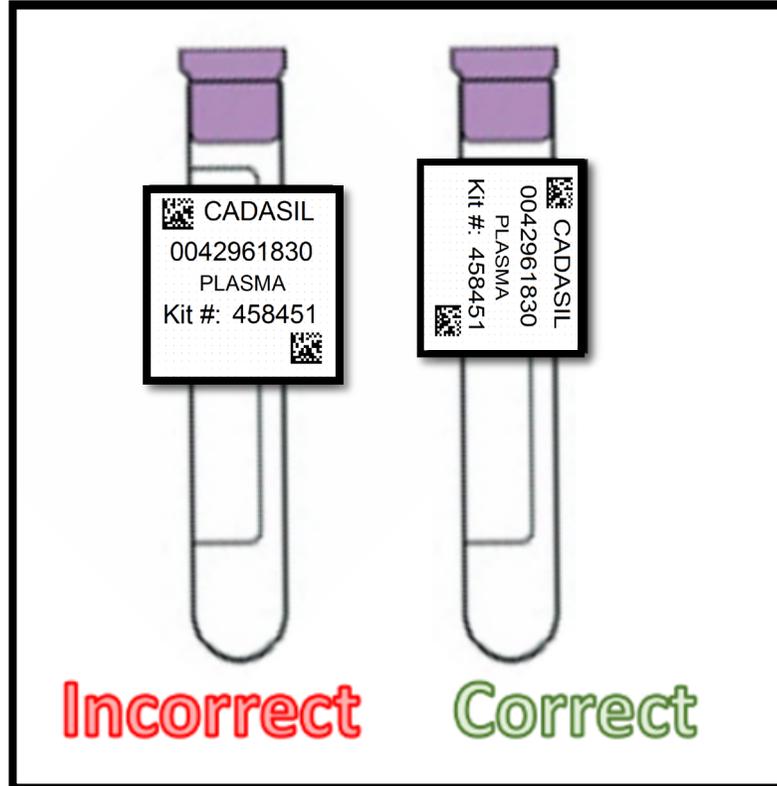


# Labeling Biologic Samples

- Label all collection and aliquot tubes *before* cooling, collecting, processing or freezing samples
- Label only 1 subject's tubes at a time to avoid mix-ups
- Wrap the label around the tube *horizontally*. Label position is important for *all* tube types
- Make sure the label is completely adhered by rolling between your fingers



DO NOT cover pre-etched specimen numbers/barcodes on the cryovials!



# Handling/Processing Study Specimens



# Site Required Equipment

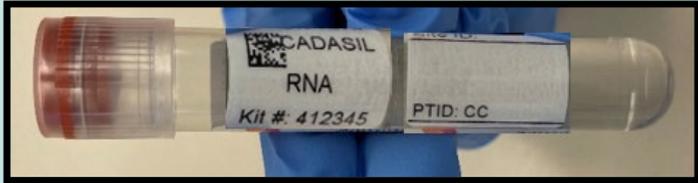
## BLOOD COLLECTION/SAFETY EQUIPMENT

- 1) Personal Protective Equipment:
  - 1) Lab coat, nitrile/latex gloves, safety glasses
- 2) Tourniquet
- 3) Alcohol Prep Pad
- 4) Gauze Pad
- 5) Bandage
- 6) Butterfly needles and hub
- 7) Microcentrifuge tube rack
- 8) Sharps bin and lid

## PROCESSING/STORAGE EQUIPMENT

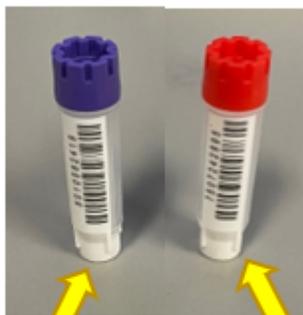
- 1) Centrifuge capable of  $\geq 2000 \times g$  at room temperature
- 2)  $-80^{\circ}\text{C}$  Freezer
- 3) Wet Ice Bucket

# Blood Draw Order

Tube Type	Number of Tubes Drawn	Tube Image
<p>1. EDTA (Lavender-Top) Blood Collection Tube (10 mL)</p>	<p>4</p>	
<p>2. PAXgene™ Blood Collection Tube (2.5 mL)</p>	<p>2</p>	
<p>3. SST (Tiger-Top) Blood Collection Tubes (8.5 mL)</p>	<p>1</p>	

# Aliquot Cap Colors

Cap Color	Sample Type
Purple Cap (8 x 0.75 mL and 12 x 2 mL)	Plasma
Blue Cap (2 x 2.0 mL)	Residual (plasma and serum)
Gray Cap (4 x 2.0 mL)	Buffy Coat
Red Cap (8 x 0.75 mL and 1 x 2 mL)	Serum



0.75 mL  
Purple Cap  
(Plasma)

0.75 mL  
Red Cap  
(Serum)



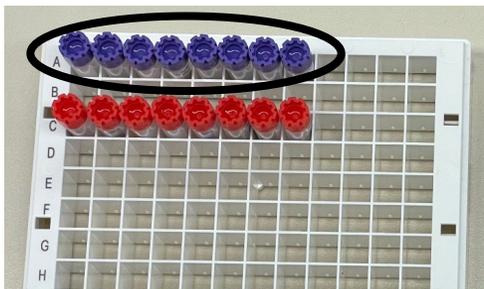
2 mL  
Purple Cap  
(Plasma)

2 mL Blue  
Cap  
(Residual)

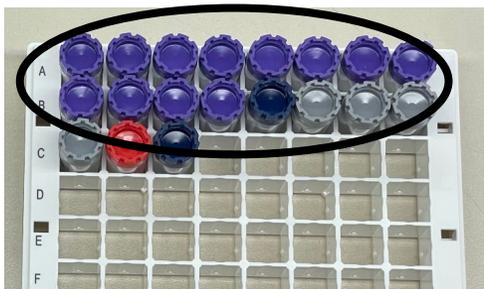
2 mL Gray  
Cap (Buffy  
Coat)

2 mL Red Cap  
(Serum)

# Plasma Collection



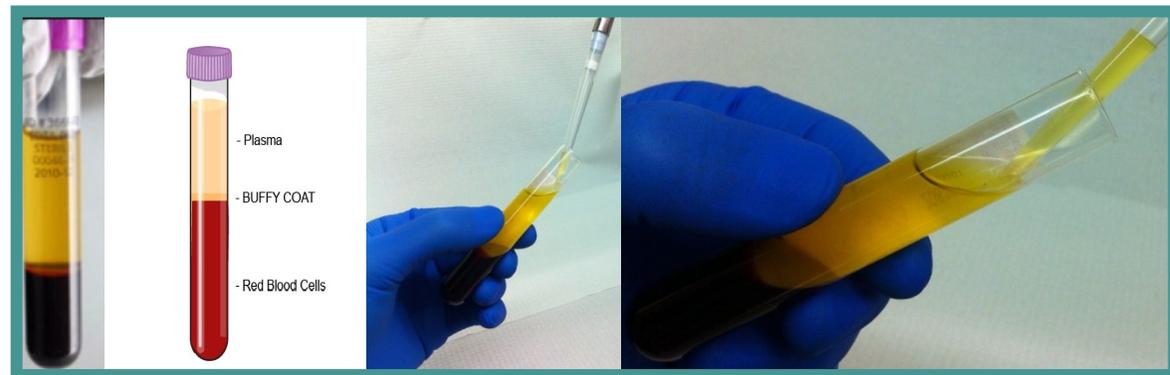
96 cell cryobox with 0.75 mL cryovials



48 cell cryobox with 2.0 mL cryovials

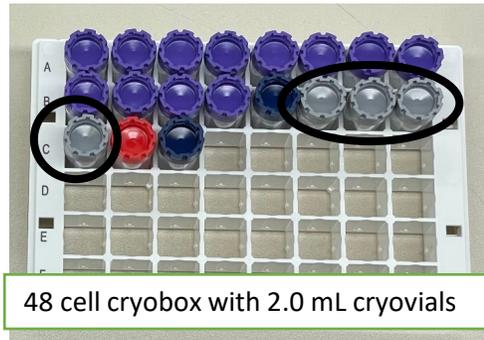
## 4 x EDTA (Lavender-Top) Blood Collection Tube (10 mL)

- Create up to (8) 0.25 mL plasma aliquots
- Create up to (12) 1.5 mL plasma aliquots
- Create up to (1) 1.5 mL residual plasma aliquot



**NOTE:** When pipetting plasma from the conical into the cryovials, be very careful to pipette the plasma top layer only, leaving the buffy coat and the red blood cell layers untouched.

# Buffy Coat Collection

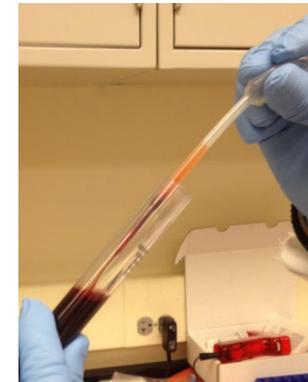


48 cell cryobox with 2.0 mL cryovials

## 4 x EDTA (Lavender-Top) Blood Collection Tube (10 mL)

- Create up to (4) 1.5 mL buffy coat aliquots
  - Expected to have a reddish color from the RBCs.
  - Be sure to only place the buffy coat from one EDTA tube into each cryovial

Buffy Coat layer



Buffy Coat Aliquot  
(Please use GRAY CAP cryovial)

# Plasma and Buffy Coat Preparation (10ml Lavender-Top Tube X 4)



## Step One



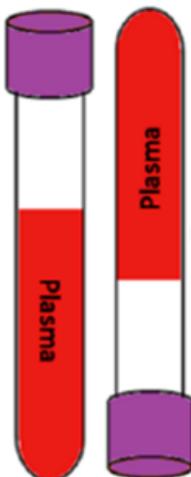
- Store tubes at room temperature.
- Label tubes with preprinted labels prior to blood draw.

## Step Two



- Collect blood in EDTA Tubes allowing blood to flow for 10 seconds and ensuring blood flow has stopped.

## Step Three



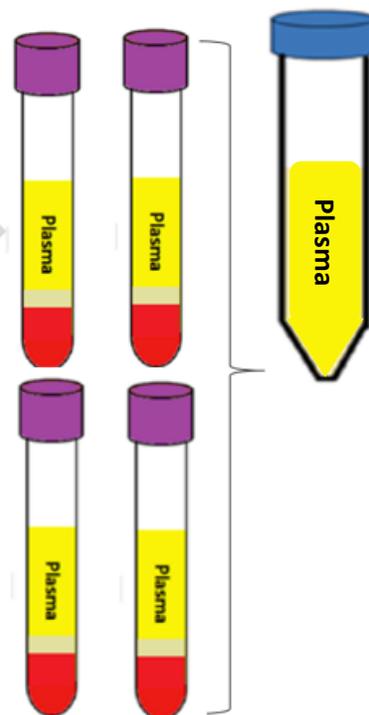
- Immediately after blood draw, invert tubes 8-10 times to mix samples.

## Step Four



- Preferably within 30 minutes, centrifuge samples at 2000 x g at room temperature for 10 minutes.
- Samples need to be spun, aliquoted, and in the freezer within 2 hours from the time of collection.

## Step Five



- Pool all plasma from the 4 EDTA tubes into a 50 mL conical tube and invert gently 3 times to mix the plasma.



Up to (8) 0.25 mL aliquots



Up to (12) 1.5 mL aliquots



(1) Residual Aliquot

## Step Six

- Adhere preprinted labels to the purple cap cryovials.
- Aliquot .25 mL into each .75 mL cryovial tube and aliquot 1.5 mL into each 2.0 mL cryovial tube.
- If the residual aliquot is created, document specimen number and volume on Sample Notification Form.
- Store plasma aliquots at -80°C until shipment.

## Step Seven

- Adhere preprinted labels to the gray cap cryovials.
- Using a clean pipette tip, collect the buffy coats (may have residual plasma and some RBCs included).
- Transfer the buffy coats into the cryovial tubes.
- Store buffy coat aliquots at -80°C until shipment.



(4) Buffy Coat Aliquots

**Important Note:** Ensure all tubes are not expired prior to collection and processing of samples.

# RNA Collection

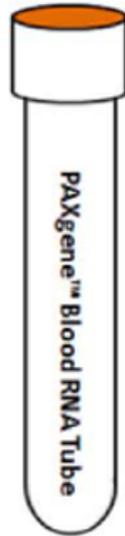


- 2 x PAXgene™ Blood Collection Tube (2.5 mL)
  - Both tubes are to be shipped to NCRAD frozen, without processing at the collection site.

# RNA Preparation (2.5ml PAXgene™ Tube)

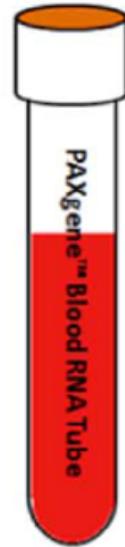


Step One



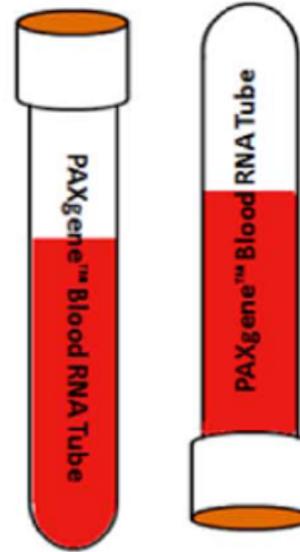
- Store tubes at room temperature.
- Label tubes with pre-printed labels prior to blood draw.

Step Two



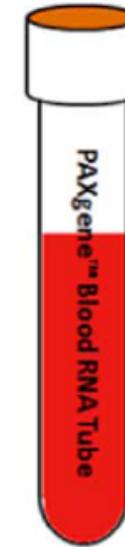
- Collect blood in PAXgene™ tube allowing blood to flow for 10 seconds and ensuring blood flow has stopped.

Step Three



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

Step Four

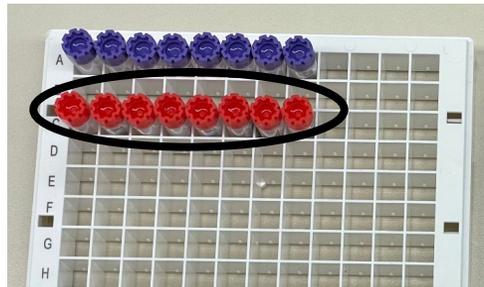


- Store tubes at -80°C in a wire rack until shipment.

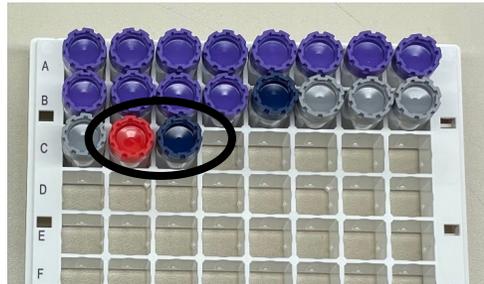


**Important Note:** Ensure all tubes are not expired prior to collection and processing of samples.

# Serum Collection



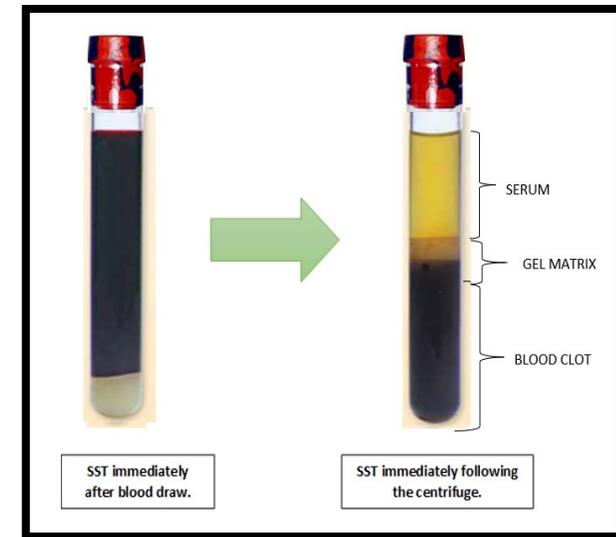
96 cell cryobox with 0.75 mL cryovials



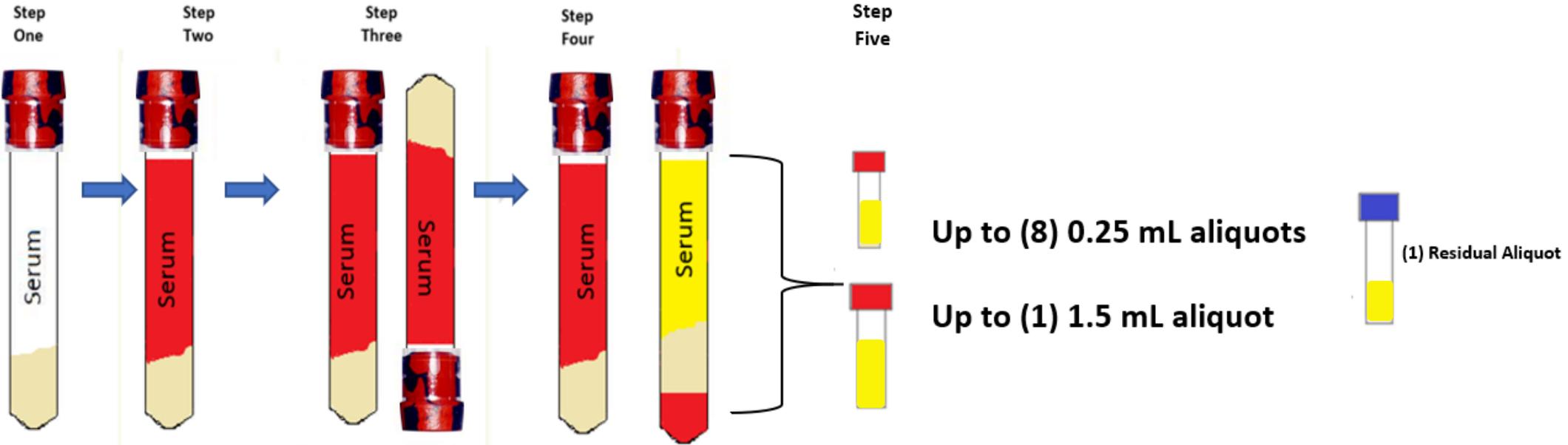
48 cell cryobox with 2.0 mL cryovials

## 1 x SST (Tiger-Top) Blood Collection Tubes (8.5 mL)

- Create up to (8) 0.25 mL serum aliquots
- Create up to (1) 1.5 mL serum aliquots
- Create up to (1) 1.5 mL residual serum aliquot



# SST (Tiger-Top) Blood Collection Tubes (8.5 mL) for Serum x 1



- Store tubes at room temperature.
- Label tubes with preprinted labels prior to blood draw.

- Collect blood in (1) 8.5 Tiger-Top tube allowing blood to flow for 10 seconds and ensure blood flow has stopped.

- Immediately after blood draw, invert tube 8-10 times to mix samples.

- Allow blood to clot for 30 minutes.
- Within 2 hours of blood draw, centrifuge samples at 2000 x g at room temperature for 10 minutes.

- Adhere preprinted labels to the red-cap cryovials.
- Aliquot 0.25 mL into each 0.75 mL cryovial tube and aliquot 1.5 mL into the 2.0 mL cryovial tube.
- If a residual aliquot is created, document specimen number on Sample Notification Form.
- Store serum aliquots at -80°C until shipment.

**Important Note:** Ensure all tubes are not expired prior to collection and processing of samples.

# Incomplete or Difficult Blood Draws and Redraws

**\*\*\*Important Note\*\*\***

If challenges arise during the blood draw process, it is advised that the phlebotomist discontinue the draw. Attempt to process and submit any blood-based specimens that have already been collected to NCRAD.

Redraws will be scheduled for samples submitted to NCRAD.



# **Situations may arise that prevent study coordinators from obtaining the total amount scheduled for biofluids. In these situations, please follow the below steps:**

1. If the biofluids at a scheduled visit **are partially** collected:
  - a. Attempt to process and submit any samples that were able to be collected during the visit.
  - b. Document difficulties on the 'Biological Sample and Shipment Notification Form' prior to submission to NCRAD.
    - i. Indicate blood draw difficulties at the bottom of the 'Biological Sample and Shipment Notification Form' within the "Notes" section.
    - ii. Complete the 'Biological Sample and Shipment Notification Form' with tube volume approximations and number of aliquots created.
  - c. Contact a NCRAD coordinator and alert them of the challenging blood draw.
  
2. If the biofluids at a scheduled visit **are not** collected:
  - a. Contact the CADASIL Global Coordinator and a NCRAD coordinator to alert them of the challenging blood draw or circumstances as to why biofluids were not collected.
  - b. Schedule participant for a re-draw visit as quickly as possible.

# Packaging Sample Shipments



# Sample Shipment Summary

Sample Type	Tube Type	Number of Tubes Supplied in Kit	Processing/Aliquoting	Tubes to NCRAD	Ship
Whole blood for isolation of plasma & buffy coat (for DNA extraction)	EDTA (Lavender-Top) Blood Collection Tube (10 mL)	4	N/A	N/A	N/A
	PLASMA: 0.75 mL cryovials	8	0.25 mL plasma aliquot per 0.75 mL cryovial (Micronic™ purple cap)	8	Frozen
	PLASMA: 2.0 mL cryovials	12	1.5 mL plasma aliquot per 2.0 mL cryovial (Micronic™ purple cap)	12	
	PLASMA RESIDUAL: 2.0 mL cryovials	1	1.5 mL plasma aliquot per 2.0 mL cryovial (Micronic™ blue cap)	1	
	BUFFY COAT: 2.0 mL cryovials	4	1 mL buffy coat aliquot per 2.0 mL cryovial (Micronic™ gray cap)	4	
Whole blood for RNA extraction	PAXgene™ Blood Collection Tube (2.5 mL)	2	N/A	2	Frozen
Whole blood for isolation of serum	SST (Tiger-Top) Blood Collection Tubes (8.5 mL)	1	N/A	N/A	N/A
	SERUM: 0.75 mL cryovials	8	0.25 mL serum aliquot per 0.75 mL cryovial (Micronic™ red cap)	8	Frozen
	SERUM: 2.0 mL cryovials	1	1.5 mL serum aliquot per 2.0 mL cryovial (Micronic™ red cap)	1	
	SERUM RESIDUAL: 2.0 mL cryovials	1	1.5 mL serum aliquot per 2.0 mL cryovial (Micronic™ blue cap)	1	

# Frozen Shipment Packaging



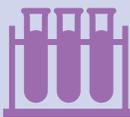
All samples shipped frozen to NCRAD **Monday-Wednesday ONLY**



On the day of scheduled UPS pick-up, begin packaging specimens on dry ice **at least 1 hour before UPS arrives**. Hold samples in  $-80^{\circ}\text{C}$  freezer until it is time to package the specimens on dry ice for shipment to NCRAD.



Include copy of Blood Sample Shipment and Notification Form



Batch shipping should be performed every (3) three months or when specimens from 4 participants accumulate, whichever is sooner.

# Frozen Shipment Packaging

- Place all frozen labeled aliquots of plasma, buffy coat, serum, and residual aliquots from the same subject in the cryoboxes. Place both cryoboxes from the same subject into the biohazard bag with absorbent sheet.
- Place frozen (2) PAXgene™ tubes in provided bubble wrap tube sleeves, seal, and place in biohazard bag with cryoboxes. Seal biohazard bag according to the instructions on the bag.



Place kit number label(s) on cryoboxes



NCRAD

# Frozen Shipment Packaging

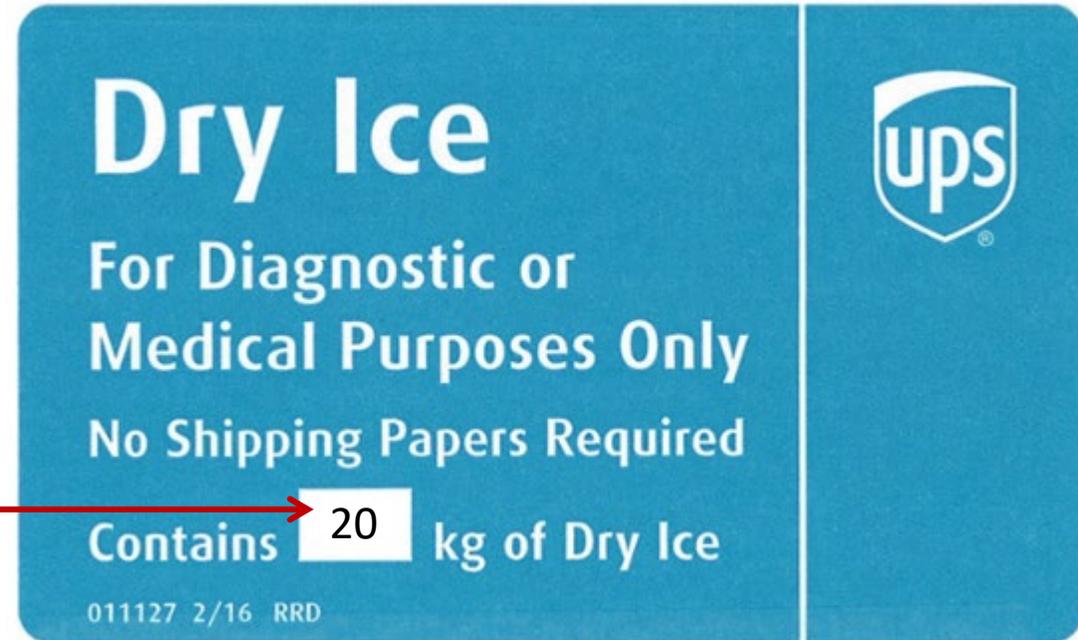
- Place 2-3 inches of dry ice in the bottom of the Styrofoam shipping container, then insert the cryoboxes laying upright.
- Fully cover the cryoboxes with about 2 inches of dry ice in the provided shipper.
- Each Styrofoam shipper must contain about 45 lbs (20 kg) of dry ice.
- Fill shipper to the top with dry ice!



# Frozen Shipping – Dry Ice Requirements

Dry Ice label should not be covered with other stickers and must be completed or the shipping carrier will reject/return your package!

Net  
weight of  
dry ice in  
**kg**



# Creating Airbills/Scheduling Pickups



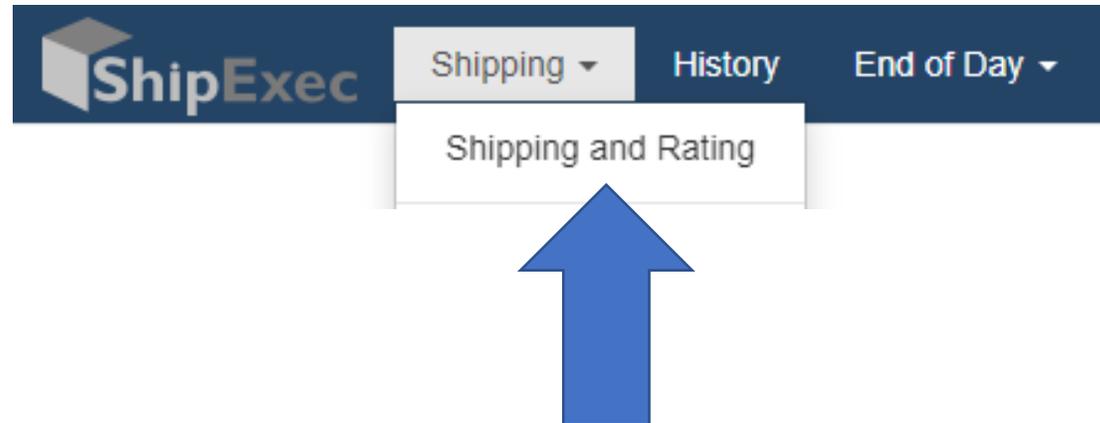
# UPS ShipExec™ Thin Client Website



Log into the ShipExec Thin Client:  
<https://kits.iu.edu/UPS>



Click on the “Shipping”  
dropdown and click on “Shipping  
and Rating”



# Finding Your Contact Information

- On the right side of the screen, choose the name of your study from the “Study Group” drop down menu
  - This step must be done 1<sup>st</sup>*



Shipment Information

Study Group	<input type="text"/>	▼
Weight	<input type="text"/>	LB ▼
Dry Ice Weight	<input type="text"/>	LB ▼
Description of Return	Biological Specimens	

[Pickup Request](#)

- On the left side of the screen, Click on the magnifying glass icon



Ship From

[Clear](#)

Code

Company

Contact

Address 1

Address 2

Address 3

City

State/Province

Postal Code

Country/Territory

# Finding Your Contact Information

- On the right side of the screen, a list of all the site addresses within the study you selected should populate
- User can filter the search for their address further by filling in the “Company”, “Contact”, or “Address 1” fields
- Hit “Search” when ready.
- Once you have found your site address, click on the “Select” button to the left of the address
- If any information needs to be updated, please reach out to the NCRAD Coordinator of your study

The screenshot shows a web application interface for finding contact information. The interface is divided into two main sections: a search form on the left and a results table on the right.

**Search Form (Left):**

- Select address book:** A table with columns "Address Book" and "Type". The "RETURN" row is highlighted under "Address Book", and "Company" is highlighted under "Type".
- Group:** A dropdown menu with "CADASIL" selected.
- Code:** An empty text input field.
- Company:** An empty text input field.
- Contact:** An empty text input field.
- Address 1:** An empty text input field.
- Address 2:** An empty text input field.
- Address 3:** An empty text input field.
- City:** An empty text input field.
- State/Province:** An empty text input field.
- Postal Code:** An empty text input field.
- Country/Territory:** A dropdown menu.
- Buttons:** "Email", "Phone Fax", and "Account / Tax" (all in blue).
- Form:** An empty "Email" text input field.
- Buttons:** "Clear" (with an 'x' icon) and "Search" (with a magnifying glass icon).

**Results Table (Right):**

Action	Code	Company
Select	CADASIL 974	Brown Butler
Select	CADASIL 415	Columbia University
Select	CADASIL 391	Emory University
Select	CADASIL 773	Loyola University Chicago
Select	CADASIL 272	Oregon Health & Science University
Select	CADASIL 709	University of California San Francisco (UCSF)
Select	CADASIL 348	University of Colorado
Select	CADASIL 976	University of TexasHealth S

# Verify Information

- Please verify that both the shipping information AND study reference are correct for this shipment

Ship From		Shipment Information	
<input type="text"/>	<input type="text"/>	Study Group	CADASIL
Code	CADASIL 296	Weight	50 LB
Company	UW School of Medicine and Public Health	Dry Ice Weight	45 LB
Contact	Alicia Henson	Description of Return	Biological Specimens
Address 1	600 Highland Ave.	<input type="button" value="Pickup Request"/>	
Address 2	K4354		
Address 3	Department of Neurology		
City	Madison		
State/Province	WI		
Postal Code	53792		
Country/Territory	United States		

# Entering Shipment Information

- Frozen shipments
  - Enter the total weight of your package in the “Weight” field
  - Enter the dry ice weight in the “Dry Ice Weight” field
    - The “Dry Ice Weight” field cannot be higher than the “Weight” field (will receive an error message)

Shipment Information	
Study Group	CADASIL
Weight	50 LB
Dry Ice Weight	45 LB
Description of Return	Biological Specimens

[Pickup Request](#)

# Need to request UPS Pickup?

- Click on the “Pickup Request” button
- Fill out all fields for the pickup request
- Enter in the “Earliest Time Ready” and “Latest Time Ready” in 24-hour format
  - Users must schedule pickup minimum 1 hour before “Earliest Time Ready”
- Choose a name and number that is the best to contact if the UPS driver has questions related to picking up your package
- Entering the Room Number and Floor will help the UPS driver locate your package
  - Room number field is free text
  - Floor field is numerical only
- Hit “Save” when done

Shipment Information

Study Group	CADASIL
Weight	50 LB
Dry Ice Weight	45 LB
Description of Return	Biological Specimens

Pickup Request

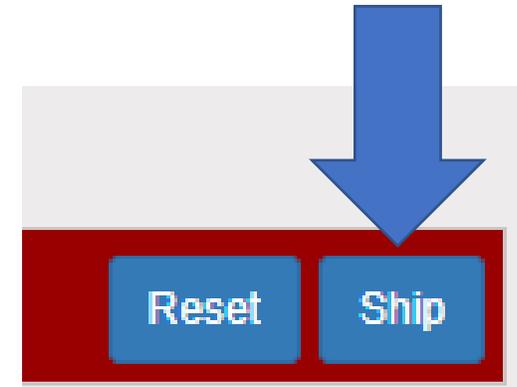
Create Pickup Request

Pickup Date	2023-04-27
Earliest Time Ready	17:00
Latest Time Ready	21:00
Contact Name	John Smith
Contact Phone	555-555-5555
Payment Method	Pay by shipper account
Room Number	718
Floor	7

Save Cancel

# Shipping Packages

- If all fields in “Ship From” and “Shipment Information” fields are completed, and pickup request is completed (if necessary), click Ship in the bottom right corner of the page



# Accessing Airbill

## Shipment Receipt

ShipExec™ Shipment Receipt

Transaction Date: Tuesday, December 8, 2020

Address Information

Ship To:	Shipper:	Ship From:
John Smith	lugb	lugb
Indiana University	Iu School Of Medicine	Iu School Of Medicine
980 W. Walnut Street	351 W 10Th St	351 W 10Th St
Indianapolis, IN 46202	Indianapolis, IN 46202	Indianapolis, IN 46202

Pickup No: 2929602E9CP

---

Shipment Information

Service: UPS Next Day Air (UPS Adapter)

---

Package Information

Pkg No	Tracking No	Packaging Type	Actual Wt	Billable Wt	Insured Value
1	1Z976R8W8430841976	Customer Packaging	20.0	20	0.00

- Check Pickup Status by going to [UPS.com](https://www.ups.com), click on the Shipping, select Schedule a Pickup, and look on the right side of screen to click on "Pickup Request Status". Enter in the Pickup No. listed on receipt into PRN field and submit

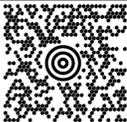
## Airbill

JOHN SMITH  
317-555-1234  
INDIANA UNIVERSITY  
980 W. WALNUT STREET  
INDIANAPOLIS IN 46202

20 LBS  
RS  
1 OF 1

SHIP TO:  
IUGB  
317-278-6158  
IU SCHOOL OF MEDICINE  
TK 217  
351 W 10TH ST  
INDIANAPOLIS IN 46202

---

 IN 461 9-01  


---

UPS NEXT DAY AIR 1  
TRACKING #: 1Z 976 R8W 84 3084 1976

---

 SAMPLE

---

BILLING: PIP  
DESC: Biological Specimens  
RETURN SERVICE  
UN1845, DRY ICE, CLASS 9, 1 x 4.5 KG  
AUDIT REQUIRED  
Reference No.1: 6883830

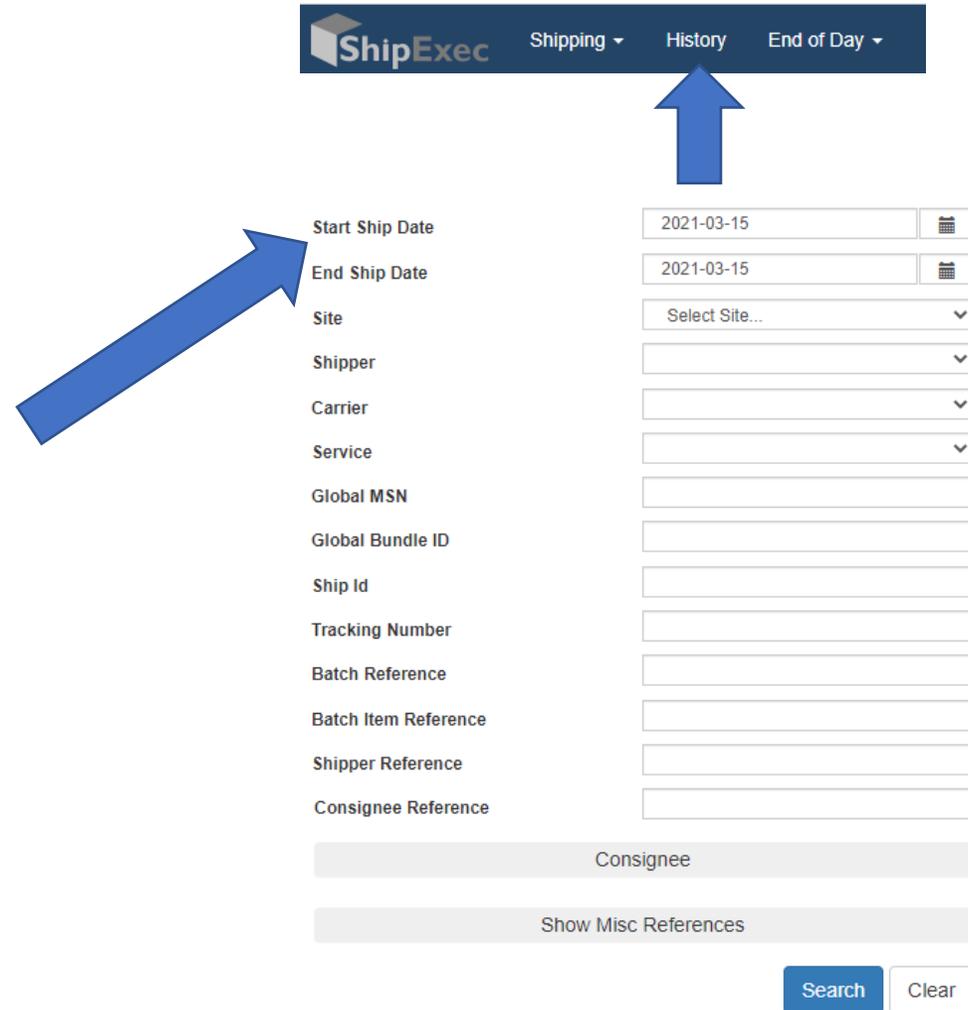
# Accessing Airbill

- Print out the UPS air waybill
- Fold the UPS air waybill and slide it inside the plastic UPS sleeve (NCRAD will provide these in kit requests)
- Peel the back off the plastic UPS sleeve and stick the sleeve to your package, making sure it is laying as flat as possible along the surface of the package.

JOHN SMITH 317-555-1234 INDIANA UNIVERSITY 980 W. WALNUT STREET INDIANAPOLIS IN 46202	20 LBS <b>RS</b>	1 OF 1
SHIP TO: IUGB 317-278-6158 IU SCHOOL OF MEDICINE TK 217 351 W 10TH ST INDIANAPOLIS IN 46202		
	IN 461 9-01 	
UPS NEXT DAY AIR		1
TRACKING #: 1Z 976 R8W 84 3084 1976		
 SAMPLE		
BILLING: P/P DESC: Biological Specimens RETURN SERVICE UN1845, DRY ICE, CLASS 9, 1 x 4.5 KG AUDIT REQUIRED		
Reference No.1: 6683830		

# Reprint Airbills/Voiding Shipments

- To reprint airbill or void a shipment, click “History” at the top of the ShipExec Thin Client portal
- If your shipment doesn’t automatically pop up, enter in the date of shipment and then click “Search”



The screenshot shows the ShipExec Thin Client portal interface. At the top, there is a navigation bar with the ShipExec logo and three menu items: "Shipping", "History", and "End of Day". A blue arrow points to the "History" menu item. Below the navigation bar is a search filter form. A blue arrow points to the "Start Ship Date" field, which is set to "2021-03-15". Other fields include "End Ship Date" (2021-03-15), "Site" (Select Site...), "Shipper", "Carrier", "Service", "Global MSN", "Global Bundle ID", "Ship Id", "Tracking Number", "Batch Reference", "Batch Item Reference", "Shipper Reference", and "Consignee Reference". At the bottom of the form, there are two buttons: "Search" and "Clear".

# Reprint Airbill

- Click the print icon to reprint airbill

Action	Global MSN	Tracking Number	Shipper Reference	Consignee Reference	Ship Date	Weight	Rated Weight	Dimension
  	9506	1Z976R8W8430841976		6683830	2020-12-08	20 LB	20 LB	

# Void Shipment

- To void a shipment, click on the “X” symbol

Action	Global MSN	Tracking Number	Shipper Reference	Consignee Reference	Ship Date	Weight	Rated Weight	Dimension
  	9506	1Z976R8W8430841976		6683830	2020-12-08	20 LB	20 LB	

# Creating a ShipExec Account

- Please email the NCRAD Coordinator if you do not have a ShipExec Account:
  - Zoë Potter - [zdpotter@iu.edu](mailto:zdpotter@iu.edu)
- Once your ShipExec account is created, you will get an email from [noreply@shipexec.com](mailto:noreply@shipexec.com). This email will have a temporary password in the body of the email. Login using this password.
- You will then be prompted to reset your password.
- *Look in your junk folder in case the email is being incorrectly flagged.*

# **Blood Sample and Shipment Notification Form**

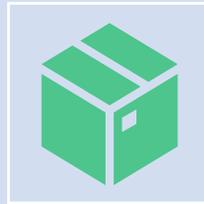


**NCRAD**

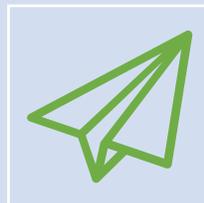
# Blood Sample and Shipment Notification Form



A copy of the sample form *must* be emailed to NCRAD prior to the date of sample arrival.



Please include sample forms in all shipments of frozen samples.



Email: [alzstudy@iu.edu](mailto:alzstudy@iu.edu)

# Appendix B: Biological Sample and Shipment Notification Form



## Appendix B: Biological Sample and Shipment Notification Form

To: Kelley Faber Email: [alzstudy@iu.edu](mailto:alzstudy@iu.edu) Phone: 1-800-526-2839

UPS tracking #: **1Z976R8W**

Date: \_\_\_\_\_

From: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Study: CADASIL Site ID: \_\_\_\_\_ CADASIL IND #: CC

Sex: M F Year of Birth: \_\_\_\_\_

Visit: Baseline 18 Month 36 Month

KIT BARCODE

### Blood Collection:

Date of Draw: _____ [MMDDYY]	Time of Draw: _____ [HHMM]
Date subject last ate: _____ [MMDDYY]	Time subject last ate: _____ [HHMM]

RNA (PAXgene™ Tubes)				
#1	Specimen Number (Last four digits): _____	Original volume drawn: _____ ml	Time PAXgene™ tubes placed in freezer: _____ [HHMM]	
#2	Specimen Number (Last four digits): _____	Original volume drawn: _____ ml		

### Blood Processing:

Serum (Red-top) Tube (8.5 mL)			
Time spin started: _____ [HHMM]	Number of 0.25 mL serum aliquots created (red cap): _____		
Duration of centrifuge: _____ Mins	Number of 1.5 mL serum aliquots created (red cap): _____		
Temp of Centrifuge: _____ °C	Volume of residual serum aliquot (less than 1.5 mL in blue cap): _____ mL <input type="checkbox"/> N/A		
Rate of centrifuge: _____ x g	Specimen number of residual serum aliquot (last four digits): _____ <input type="checkbox"/> N/A		
Original volume drawn: _____ mL	Time aliquots placed in freezer: _____ [HHMM]		
Time aliquoted: _____ [HHMM]	Storage temperature in freezer: _____ °C		
Plasma & Buffy Coat (Lavender-top) Tubes (10 mL)			
Time spin started: _____ [HHMM]	Time aliquoted: _____ [HHMM]		
Duration of centrifuge: _____ Mins	Number of 0.25 mL plasma aliquots created (purple cap): _____		
Temp of Centrifuge: _____ °C	Number of 1.5 mL plasma aliquots created (purple cap): _____		
Rate of centrifuge: _____ x g	Volume of residual plasma aliquot (less than 1.5 mL in blue cap): _____ mL <input type="checkbox"/> N/A		
Original volume drawn - EDTA #1 _____ mL	Specimen number of residual plasma aliquot (last four digits): _____ <input type="checkbox"/> N/A		
Original volume drawn - EDTA #2 _____ mL	Time aliquots placed in freezer: _____ [HHMM]		
Original volume drawn - EDTA #3 _____ mL	Storage temperature in freezer: _____ °C		
Original volume drawn - EDTA #4 _____ mL			
Aliquot volume – Buffy coat #1 _____ mL	Buffy coat aliquot #1 (last four digits): _____		
Aliquot volume – Buffy coat #2 _____ mL	Buffy coat aliquot #2 (last four digits): _____		
Aliquot volume – Buffy coat #3 _____ mL	Buffy coat aliquot #3 (last four digits): _____		
Aliquot volume – Buffy coat #4 _____ mL	Buffy coat aliquot #4 (last four digits): _____		

NOTES:

## Appendix A: Rate of Centrifugation Worksheet

Please complete and return this form by email to the NCRAD Project Manager if you have any questions regarding sample processing. The correct RPM will be sent back to you.

### Submitter Information

Name:

Site:

Submitter e-mail:

### Centrifuge Information

Please answer the following questions about your centrifuge.

#### Centrifuge Type

Fixed Angle Rotor:  Swing Bucket Rotor:

Radius of Rotation (mm):

Determine the centrifuge's radius of rotation (in mm) by measuring distance from the center of the centrifuge spindle to the bottom of the device when inserted into the rotor (if measuring a swing bucket rotor, measure to the middle of the bucket).

#### Calculating RPM from G-Force:

$$\text{RCF} = \left( \frac{\text{RPM}}{1,000} \right)^2 \times r \times 1.118 \Rightarrow \text{RPM} = \sqrt{\frac{\text{RCF}}{r \times 1.118}} \times 1,000$$

RCF = Relative Centrifugal Force (G-Force)

RPM = Rotational Speed (revolutions per minute)

R = Centrifugal radius in mm = distance from the center of the turning axis to the bottom of centrifuge

Comments:

Please send this form to NCRAD Study Coordinator at [alzstudy@iu.edu](mailto:alzstudy@iu.edu)

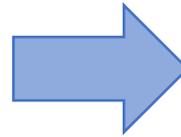
It is critical that the tube be centrifuged at the appropriate speed to ensure proper serum and plasma separation. Use Rate of Centrifugation Worksheet to calculate RPM.

# Noncomformance Issues



# Nonconformance Issues

Sample aliquots and collection tubes frozen at an angle/inverted



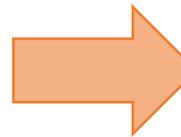
**Recommendation:**

Place aliquots in cryoboxes/tube rack in freezer *upright* until shipment

Fields left blank on Blood Sample and Shipment Notification Form

Last time subject ate often left blank/unknown

Incorrect data reported on Sample and Shipment Notification Forms



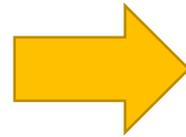
**Recommendation:** Complete Sample Notification forms during the participant study visit as samples are processed.

# Nonconformance Issues

All frozen samples for a participant not sent within one shipment box (plasma and buffy coat aliquots should be kept together)

Aliquots arriving to NCRAD without labels

Sample forms not scanned to NCRAD the day before shipment

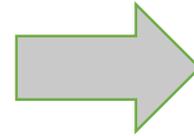


**Recommendation:**

Ship Samples to NCRAD utilizing the Notification Form, by PTID. Do not throw away labels until samples are packed and shipped.

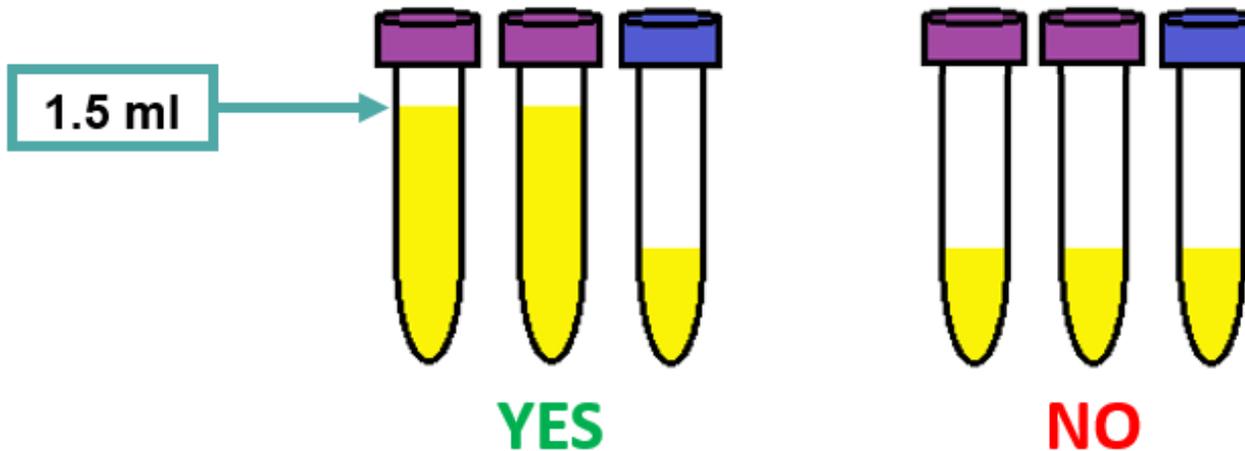
# Nonconformance Issues

Multiple low volume aliquots



## Recommendation:

Lay out cryovials in a row and aliquot in order until sample is depleted



# NCRAD Website



# NCRAD Website: Helpful Pages

[NCRAD - CADASIL Active Study Page](#)

[https://ncrad.org/holiday\\_closures.html](https://ncrad.org/holiday_closures.html)

## Holiday Closures

Date	Holiday
January 1	New Year's Day
3 <sup>rd</sup> Monday in January	Martin Luther King, Jr Day
4 <sup>th</sup> Monday in May	Memorial Day
June 19	Juneteenth (observed)
July 4	Independence Day (observed)
1 <sup>st</sup> Monday in September	Labor Day
4 <sup>th</sup> Thursday in November	Thanksgiving
4 <sup>th</sup> Friday in November	Friday after Thanksgiving
December 25	Christmas

[https://ncrad.org/shipping\\_address.html](https://ncrad.org/shipping_address.html)

## Shipping Address

NCRAD  
Indiana University School of Medicine  
351 W. 10th St TK-217  
Indianapolis, IN 46202

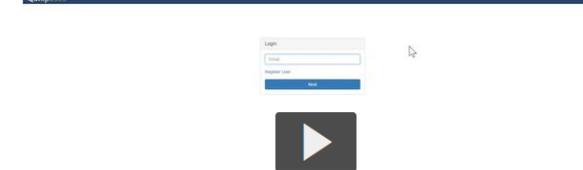
## UPS Shipping Resources

To generate air waybills and schedule UPS pickups for shipments to NCRAD, please visit the UPS ShipExec™ Thin Client website.

For instructions on how to use the UPS ShipExec™ Thin Client website, please refer to the NCRAD UPS ShipExec™ Thin Client Guide.

## Navigating UPS ShipExec™

To request edited captions for the deaf/HOH, see <https://kb.iu.edu/d/adad>



# Contact Information

Questions?

**Zoë Potter, Study Coordinator**

Phone: (317) 278-9086

Email: [zdpotter@iu.edu](mailto:zdpotter@iu.edu)

**General NCRAD Contact Information**

Phone: 1-800-526-2839

Email: [alzstudy@iu.edu](mailto:alzstudy@iu.edu)

