



# ACAD

Asian Cohort for Alzheimer's Disease

## ACAD U19

# Biospecimen Collection, Processing, and Shipment Training Slides

## Version 2.2

in collaboration with the

# NCRAD



National Centralized Repository for  
Alzheimer's Disease and Related Dementias

# Training Overview

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  - Specimen Labels
  - Handling/Processing Study Specimens
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  - Frozen Packaging and Shipping Instructions

**\*\*If not able to collect blood samples for a participant, Saliva can be collected for DNA extraction\*\***

- **Saliva Collection**
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- **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

Alt. Phone: 317-278-8413

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

Website: <https://ncrad.org/>

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

# Globally Unique Identifier (GUID)

<https://bricsguid.nia.nih.gov/portal/jsp/login.jsp>

NCRAD



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# Globally Unique Identifier (GUID)

The GUID is a participant ID that allows researchers to share data specific to a study participant, without exposing personally identifiable information.

A GUID is made up of random alpha-numeric characters and does not include any PHI in the identifier.



The logo for NCRAD features the letters 'NCRAD' in a sans-serif font. The letters 'N', 'C', and 'R' are in a light blue color, while 'A', 'D', and the final 'A' are in a darker blue. Below the text, there are two horizontal double-headed arrows. The first arrow is light blue and spans the width of the 'NCR' portion. The second arrow is dark blue and spans the width of the 'AD' portion.

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# Globally Unique Identifier (GUID) cont.

- To create a GUID follow these steps:
  1. Create an account: <https://bricsguid.nia.nih.gov/portal/jsp/login.jsp>
  2. Once you have an account, go to the GUID Tool – Create GUID
  3. To open the ‘Launch GUID Tool’ you will need to have Java installed on your device
  4. In order to generate a GUID, the following PHI is required ([Appendix A](#)):
    - Complete legal given (first) name of participant at birth
    - If the participant has a middle name
    - Complete legal family (last) name of participant at birth
    - Day of birth
    - Month of birth
    - Year of birth
    - Name of city/municipality in which participant was born
    - Country of birth

# Kit Request Module

<https://redcap.link/acadU19>



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# NCRAD Kit Request Module



ACAD U19 Kit Request System

## Kits Shipped to Sites via UPS

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.

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

Please enter your email address here to receive a confirmation email after completing the survey:

WaiHaung.Yu@camh.ca

\* must provide value

Site

05 Centre for Addiction and Mental Health (Univ

\* must provide value

05 - Centre for Addiction and Mental Health (Univ. of Toronto) - 05

ATTN: Wai Haung (Ho) Yu  
Address: 250 College St. Room 202  
Toronto, ON Canada  
M5T 1R8

Email: WaiHaung.Yu@camh.ca  
Phone: 416-535-8501 X 34295; 437-348-3190

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.



# NCRAD Kit Request Module

ACAD Blood Kits	
ACAD Blood-Based Kit Qty	<input type="text" value="1"/>
ACAD Blood-Based Supplemental Supply Kit Qty	<input type="text" value="1"/>
ACAD Frozen Blood Shipping Supply Kit (SMALL) Qty	<input type="text" value="1"/>
ACAD Frozen Blood Shipping Supply Kit (LARGE) Qty	<input type="text" value="1"/>
ACAD Frozen Blood Shipping Supply Kit (International Sites) Qty	<input type="text" value="1"/>
ACAD Saliva Kits	
ACAD Saliva Collection Kit Qty	<input type="text" value="1"/>
ACAD Saliva Batch Shipping Kit Qty	<input type="text" value="1"/>
ACAD REMOTE Saliva Shipping Kit Qty	<input type="text" value="1"/>
Do you need Extra Supplies? <small>* must provide value</small>	<input type="radio"/> Yes <input checked="" type="radio"/> No <span style="float: right;"><small>reset</small></span>
Our standard shipping time for all orders is 3 weeks.	
We can ship this kit request by: <b>04-02-2024</b>	
If you need any supplies in this order prior to <b>04-02-2024</b> , you must contact the NCRAD coordinator for this study: <a href="mailto:zdpotter@iu.edu">zdpotter@iu.edu</a> .	
Comments	<input type="text"/> <small>Expand</small>
Each ACAD Blood-Based Kit Contains (KIT258):	

- 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\*\*

# ACAD Kit List

- Kits and individual supplies are available to order:
  - **Blood Kits:**
    - ACAD Blood-Based Kit
    - ACAD Blood-Based Supplemental Supply Kit
    - ACAD Frozen Blood Shipping Supply Kit (SMALL)
    - ACAD Frozen Blood Shipping Supply Kit (LARGE)
    - ACAD Frozen Blood Shipping Supply Kit (International Sites)
  - **Saliva Kits:**
    - ACAD Saliva Collection Kit
    - ACAD Saliva Batch Shipping Kit
    - ACAD REMOTE Saliva 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 **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.

# Blood Collection

NCRAD



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# Blood Collection Schedule

NCRAD

The logo for NCRAD features the text 'NCRAD' in a sans-serif font. The letters 'N', 'C', and 'R' are in a light blue-grey color, while 'A' and 'D' are in a dark blue color. Below the text, there are two horizontal double-headed arrows. The first arrow is dark blue and spans the width of the 'NCR' portion. The second arrow is grey and spans the width of the 'AD' portion.

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# ACAD Blood-Based Biomarker Collection Schedule

Sample Type	Tube Type	Number of Tubes Supplied in Kit	Aliquot Volume	Tubes to NCRAD	Ship
Whole blood for isolation of serum	Serum Separator (Gold-Top) Blood Collection Tube (5 mL)	1	N/A	2	Frozen
	SERUM: 2.0 mL cryovials	2	1.5 mL serum aliquot per 2.0 mL cryovial (red-cap and blue-cap residual)		
Whole blood for isolation of plasma & buffy coat (for DNA extraction)	EDTA (Purple-Top) Blood Collection Tube (2 x 10 mL)	2	N/A	N/A	N/A
	PLASMA: 2.0 mL cryovials with purple-cap (residual volume placed in 2.0 mL cryovial with blue cap)	7	1.5 mL plasma aliquot per 2.0 mL cryovial (purple-caps and blue-cap residual)	7	Frozen
	BUFFY COAT: 2.0 mL cryovial	2	1.0 mL buffy coat aliquot per 2.0 mL cryovial (gray-cap)	2	Frozen

# Blood Specimen Labels

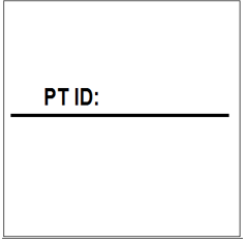
Provided by NCRAD

# Four Label Types



Kit Number  
  
448945

Kit Number  
Labels




PT ID:  
\_\_\_\_\_

PTID Labels



 ACAD  
0042664008  
PLASMA  
Kit #: 448945  


Collection Tube  
Labels



ACAD  
Plasma  
Kit # 448945

Cryovial 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 C)
  2. Lid of cryobox that houses aliquot tubes during storage and shipment
  3. One extra label provided



**NCRAD**  
ACAD  
Asian Cohort for Alzheimer's Disease

**Appendix C**

Site ID: \_\_\_\_\_ Participant ID: \_\_\_\_\_

**Blood Sample and Shipment Notification Form**

*Please email this form prior to the date of shipment.*

To: Kelley Faber Email: alzstudy@iu.edu Phone: 1-800-526-2839

General Information: \_\_\_\_\_ UPS tracking #: \_\_\_\_\_

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

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

Study:  ACAD U19  ADRC ADRC PT ID: \_\_\_\_\_  Co-Enrolled in a study other than ADRC  
(if applicable)

GUID: \_\_\_\_\_

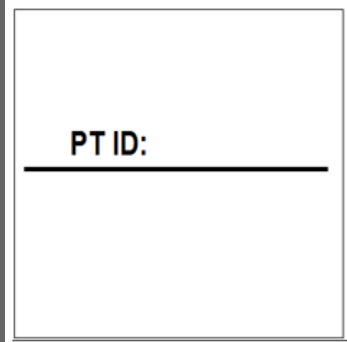
Sex: M F Year of Birth: \_\_\_\_\_

Visit (circle number): 1 2 3 4 5 Kit #: \_\_\_\_\_

Visit (circle letter): a b c d e

Kit Number  
448945  
BARCODE

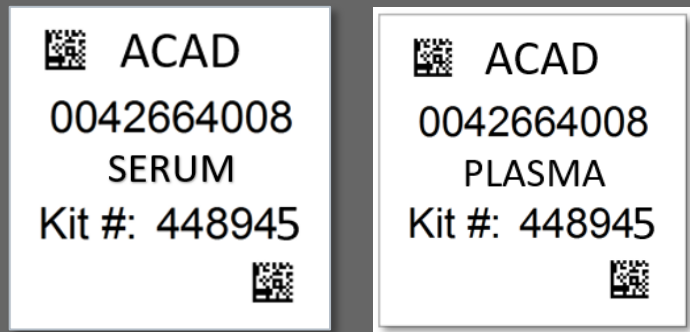
# PTID Labels



PT ID:

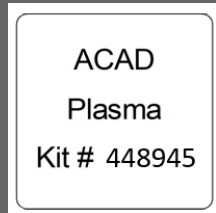
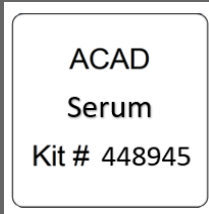
- Participants will be identified by their PTID.
  - The PTID may only be available shortly before the visit
- Sites will be responsible for handwriting this onto the provided labels
  - Must use fine point permanent marker
  - Write information on label prior to adhering to tube
- Label will be placed on all collection tubes:
  - 1 x Serum Separator (Gold-Top) Blood Collection Tube (5 mL)
  - 2 x EDTA (Purple-Top) Blood Collection Tubes (10 mL)

# Collection Tube Labels



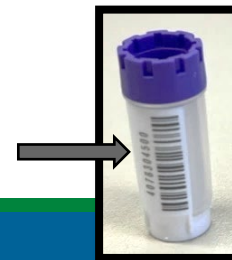
- Collection Tube Labels have 4 components:
  - Study name
  - 10-digit specimen number (assigned by NCRAD)
  - Specimen type
  - Kit number (assigned by NCRAD)
    - Unique to participant AND visit
- Label will be placed on all collection tubes:
  - 1 x Serum Separator (Gold-Top) Blood Collection Tube (5 mL)
  - 2 x EDTA (Purple-Top) Blood Collection Tubes (10 mL)

# Cryovial Labels



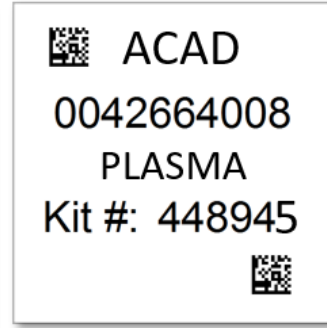
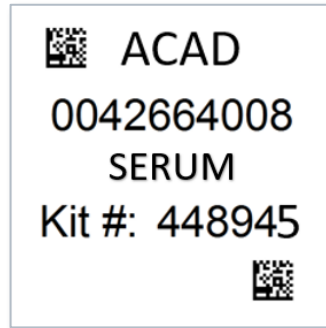
- Only one label to be placed on each cryovial
  - **Serum**
    - From SST tube
  - **Plasma**
    - From EDTA tube
  - **Buffy Coat**
    - From EDTA tube

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

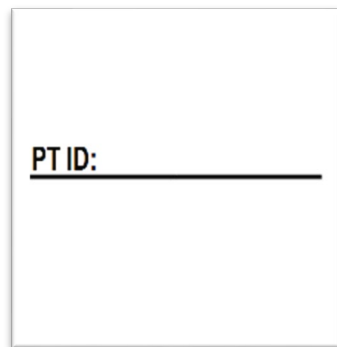


# Collection Tube Labels:

## Label 1: Collection Tube Label



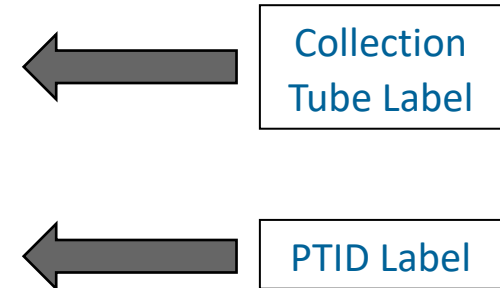
## Label 2: PTID Label



Serum Separator (Gold-Top) Blood Collection Tube (5 mL)



EDTA (Purple-Top) Blood Collection Tube (10 mL)

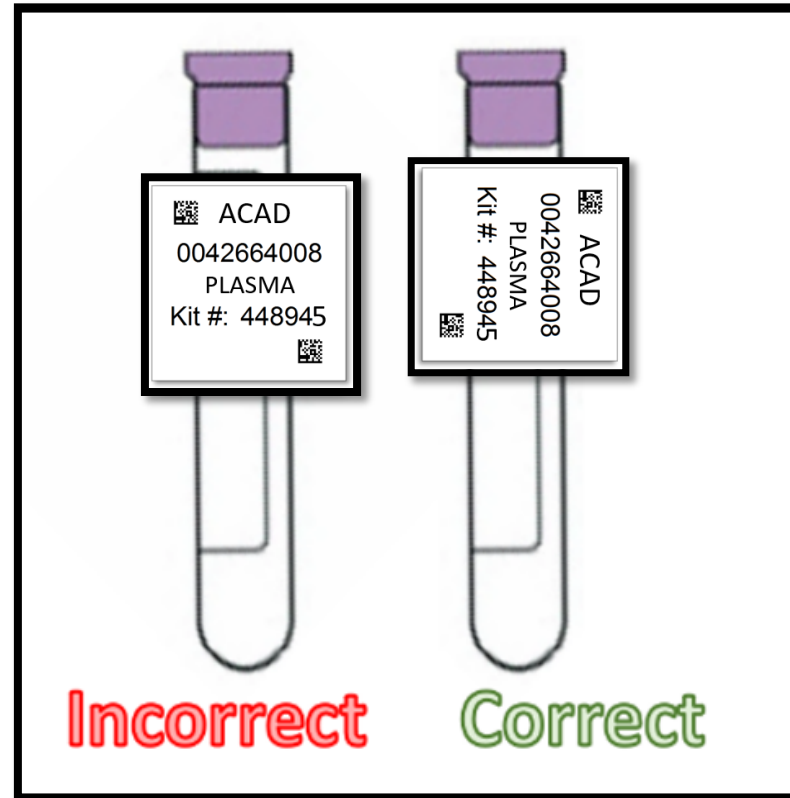


# Properly Labeling Biologic Samples:

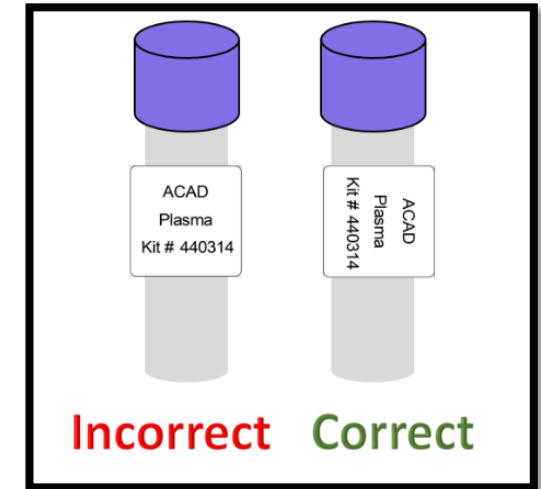
## Please...

- Label all collection and cryovial tubes *before* cooling, collecting, processing or freezing samples.
- Label only 1 participant'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.

### Collection Tube



### Cryovial



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

# Handling/Processing Study Blood Specimens

Serum, Plasma and Buffy Coat

# Site Required Equipment

## Blood Collection/Safety Equipment

- 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
- Wet Ice Bucket
- Wet Ice
- Pelleted dry ice

## Processing/Storage/Shipping Equipment

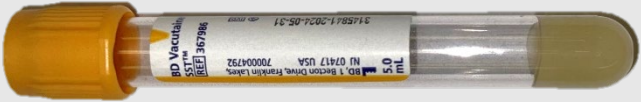

1. Centrifuge capable of  $\geq 2000$  rcf with refrigeration to  $4^{\circ}\text{C}$
2.  $-80^{\circ}\text{C}$  Freezer
3. Wet Ice Bucket
4. Pelleted dry ice (~45 lbs. per shipment)

### **Remote Blood Collections ONLY:**

1. Cold pack chilled at  $4^{\circ}\text{C}$
2. Paper towel to wrap ice pack

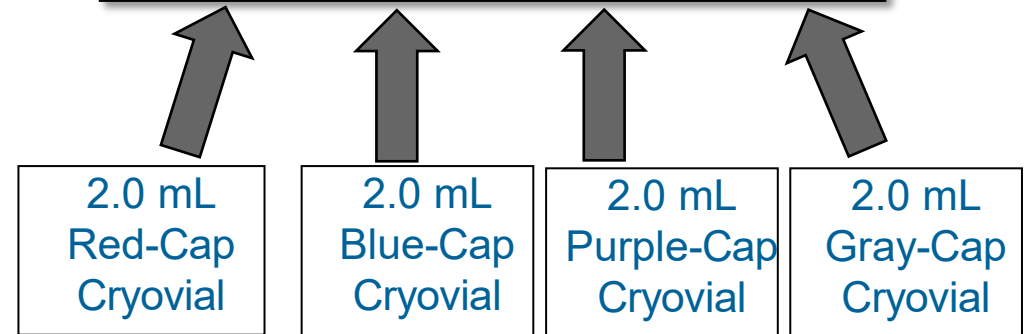


# Blood Collection Tubes

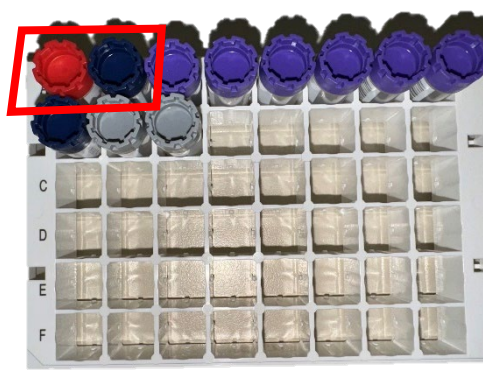
Tube Type	Number of Tubes Drawn	Tube Image
Serum Separator (Gold-Top) Blood Collection Tube (5 mL) for Serum	X 1	 A 5 mL Serum Separator (Gold-Top) Blood Collection Tube. The tube is clear with a yellow cap and a yellow band at the top. The label includes the text "BD Vacutainer", "5.0 mL", "NID 07417 USA", and "700004732".
EDTA (Purple-Top) Blood Collection Tube (10 mL) for Plasma and Buffy Coat	X 2	 A 10 mL EDTA (Purple-Top) Blood Collection Tube. The tube is clear with a purple cap. The label includes the text "BD Vacutainer", "10 mL", "NID 07417 USA", and "700004732".

# Cryovial Cap Colors

Cap Color	Sample Type
Red-Cap	Serum 1.5 mL serum aliquots per 2.0 mL cryovial
Blue-Cap	Serum and Plasma Residual Residual volume placed in 2.0 mL cryovial
Purple-Cap	Plasma 1.5 mL plasma aliquots per 2.0 mL cryovial
Gray-Cap	Buffy Coat 1.0 mL buffy coat aliquot per 2.0 mL cryovial



# Serum Collection



48 slot cryobox with 2.0 mL cryovials – sent to NCRAD

- 1 x Serum Separator (Gold-Top) Blood Collection Tube (5 mL) for Serum
  - Create up to (2) 1.5 mL serum aliquots to be shipped to NCRAD
    - If residual aliquot created, document specimen number and volume on sample form



SST immediately after blood draw.



SERUM  
GEL MATRIX  
BLOOD CLOT

SST immediately following the centrifuge.



Close up of 2.0 mL Serum Aliquot

# Serum Separator (Gold-Top) Blood Collection Tube (5 mL) for Serum x 1



## Step 1



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

## Step 2



- Collect blood in (1) 5 mL Gold-Top tube, allowing blood to flow for 10 seconds and ensure blood flow has stopped.

## Step 3



- Immediately after blood draw, invert tube 5 times to mix samples.

## Step 4



- Allow blood to clot at room temperature by placing it upright in a vertical position in a tube rack for 30 minutes.

## Step 5



- Within 2 hours of blood draw, centrifuge samples at 2000 x g at 4°C for 10 minutes.

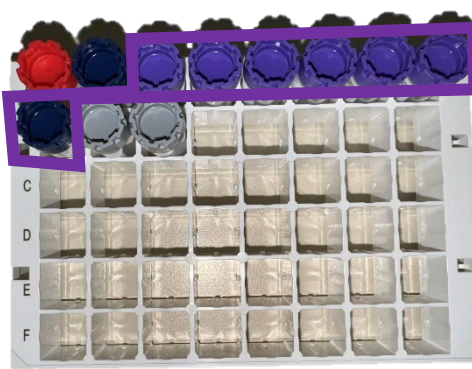
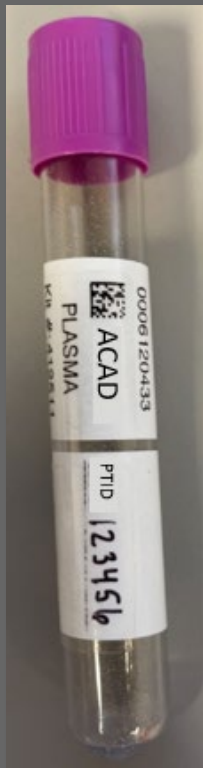


## Step 6

- Using a clean pipette, aliquot 1.5 mL of serum from SST tube to pre-labeled red-cap serum cryovial.
- If residual aliquot is created in pre-labeled blue-cap serum cryovial, document specimen number and volume on sample form.
- Store serum aliquots upright at -80°C until shipment to NCRAD.

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

# Plasma Collection

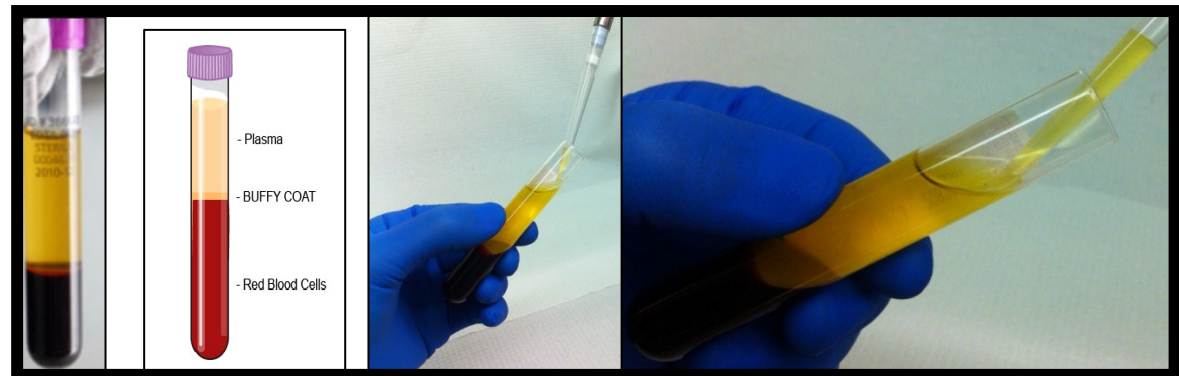


48 slot cryobox with 2.0 mL cryovials – sent to NCRAD

- 2 x EDTA (Purple-Top) Blood Collection Tube (10 mL)
  - Create up to (7) 1.5 mL plasma aliquots to be shipped to NCRAD
    - If residual aliquot created, document specimen number and volume on sample form

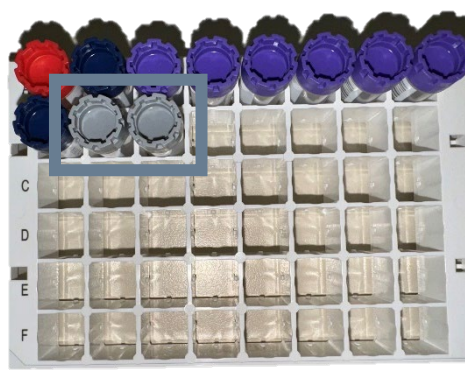
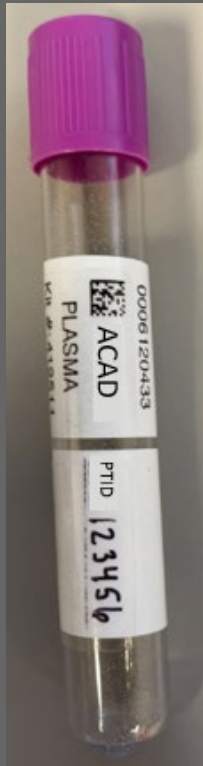


Close up of 2.0 mL Plasma Aliquot



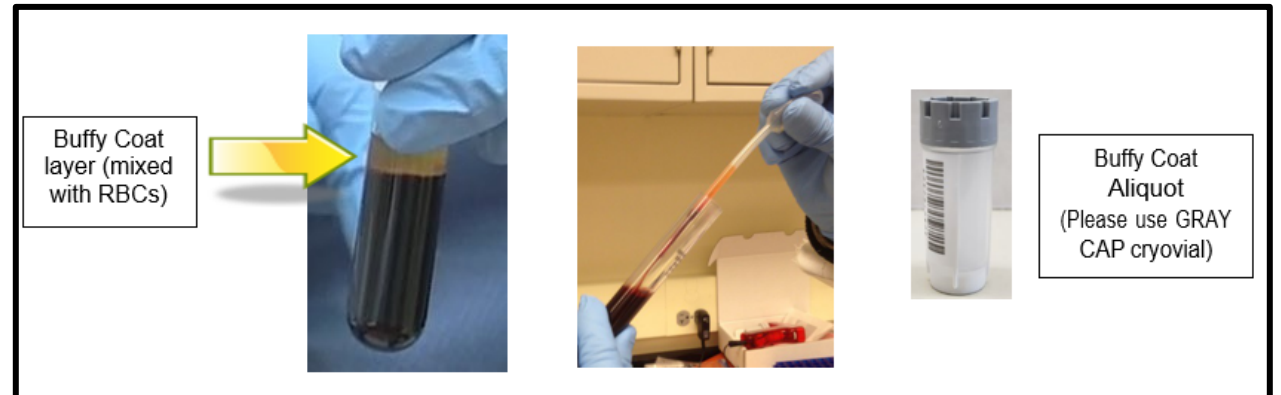
**NOTE:** When pipetting plasma from the plasma tube into the 15 mL conical tube, be very careful to pipette the plasma top layer only, leaving the buffy coat and the red blood cell layers untouched.

# Buffy Coat Collection



48 slot cryobox with 2.0 mL cryovials – sent to NCRAD

- 2 x EDTA (Purple-Top) Blood Collection Tube (10 mL)
  - Create up to (2) 1.0 mL buffy coat aliquots to be shipped to NCRAD
    - Expected to have a reddish color from the RBCs.
    - Be sure to only place the buffy coat from one EDTA tube into each gray cryovial



**NOTE:** When pipetting plasma from the plasma tube into the 15 mL conical tube, be very careful to pipette the plasma top layer only, leaving the buffy coat and the red blood cell layers untouched.

# EDTA (Purple-Top) Blood Collection Tube (10 mL) for Plasma and Buffy Coat x 2



## Step 1



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

## Step 2



- Collect blood in (2) 10 mL Purple-Top tube, allowing blood to flow for 10 seconds and ensure blood flow has stopped.

## Step 3



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

## Step 4



- Immediately after inverting the EDTA tubes, place them on wet ice until centrifugation begins.
- Within 2 hours of blood draw, centrifuge samples at 2000 x g at 4°C for 10 minutes.

## Step 5



- Using a clean pipette, transfer plasma from both 10 mL EDTA tubes into the 15 mL conical tube.
- Mix the plasma by gently inverting the conical tube 3 times.

## Step 6



- Using a clean pipette, aliquot 1.5 mL of plasma from the 15 mL conical to pre-labeled purple-cap plasma cryovials.
- If residual aliquot is created in pre-labeled blue-cap plasma cryovial, document specimen number and volume on sample form.
- Store plasma aliquots upright at -80°C until shipment to NCRAD.

## Step 7



- Using a clean pipette, transfer each buffy coat layer from EDTA tubes to pre-labeled gray-cap buffy coat cryovials (do not pool buffy coats).
- Store buffy coat aliquots upright at -80°C until shipment to NCRAD.

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

# If remote draw,

- Keep the samples on 4°C cold pack until you reach the lab for processing.



# Incomplete and Difficult Blood Draws

## \*\*\*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.

**If blood redraw is not possible, attempt to collect saliva sample to obtain DNA.**

NCRAD

The logo for NCRAD features the letters 'NCRAD' in a bold, sans-serif font. Below the letters, there are two horizontal double-headed arrows. The first arrow spans the width of the letters 'N', 'C', and 'R'. The second arrow spans the width of the letters 'A', 'D', and the final 'A'.

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

1. *If the biospecimens 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 blood biospecimens at a scheduled visit **are not** collected:*

1. See [Section 10.0](#) Saliva Collection for instructions on how to collect saliva samples.

# Frozen Packaging and Shipping Instructions

## Serum, Plasma and Buffy Coat

**IMPORTANT!**

**FROZEN SAMPLES MUST BE SHIPPED  
MONDAY-WEDNESDAY ONLY!  
MONDAY-TUESDAY FOR INTERNATIONAL SITES!**

# Blood Sample Shipment Summary

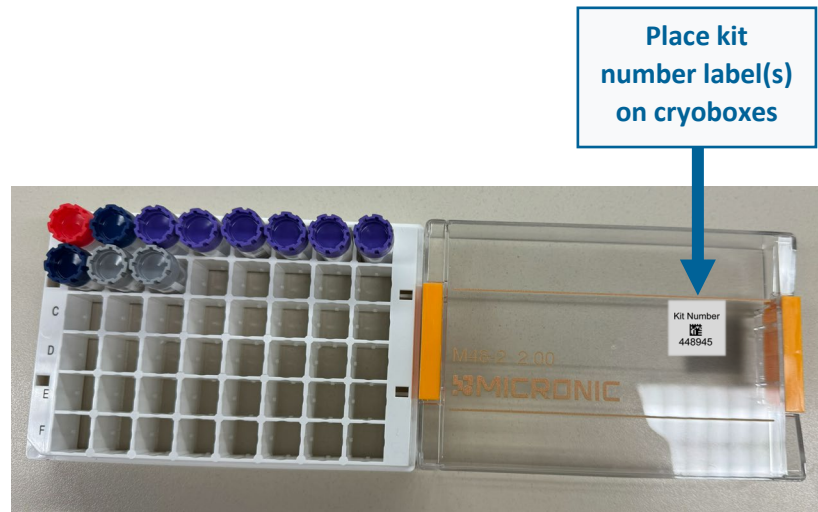
Sample Type	Processing/ Aliquoting	Tubes to NCRAD	Ship
Whole blood (Gold-Top SST) for isolation of serum	1.5 mL serum aliquot per 2.0 mL cryovial (red-cap)	Up to 2	Frozen
	Residual volume placed in 2.0 mL cryovials (blue-cap)		
Whole blood (Purple-Top EDTA) for isolation of plasma & buffy coat (for DNA extraction)	1.5 mL plasma aliquot per 2.0 mL cryovial (purple-cap)	Up to 7	Frozen
	Residual volume placed in 2.0 mL cryovials (blue-cap)		
	1.0 mL buffy coat aliquot per 2.0 mL cryovial (gray-cap)	Up to 2	Frozen

# Notify NCRAD When Samples Ship:

1. **Notify NCRAD of shipment** by emailing NCRAD coordinators at: [alzstudy@iu.edu](mailto:alzstudy@iu.edu)
  - Attach the completed Blood Sample and Shipment Notification Form to the email notification. (See Appendix C for an example of the NCRAD sample form)
  - Please include the tracking number in the body of the email.
  - ***If email is unavailable, please call NCRAD and do not ship until you've contacted and notified NCRAD coordinators about the shipment in advance.***
  - Place the completed Blood Sample and Shipment Notification Form ([Appendix C](#)) in the package on top of the Styrofoam lid for each patient specimen.

# Frozen Shipment Packaging:

Place all frozen labeled aliquots of serum, plasma and buffy coat in the cryoboxes.



One cryobox to contain Serum, Plasma and Buffy Coat Aliquots



Place up to 2 serum, 7 plasma and 2 buffy coat cryovials per participant visit inside 48 cell cryobox. Place cryobox in the clear plastic biohazard bag (do NOT remove the absorbent material found in the bag) and seal according to the instructions on the bag to ship to NCRAD frozen.

# Frozen Batch Shipping

- Batch shipping should be performed every 3 months **or** when specimens from 8 participants accumulates, whichever is sooner.



**Large Frozen Shipper:**

\*\* 45 lbs. of dry ice pellets

**AND**

Fits up to 8 x 48-slot cryoboxes



**Small Frozen Shipper:**

\*\*10 lbs. of dry ice pellets

**AND**

Fits up to 2 x 48-slot cryoboxes

# Frozen Shipment Packaging

- Place 2-3 inches of pelleted 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 pelleted dry ice in the provided shipper.
- Each Styrofoam shipper must contain about 45 lbs (20 kg) of pelleted dry ice.
- Fill shipper to the top with pelleted dry ice!

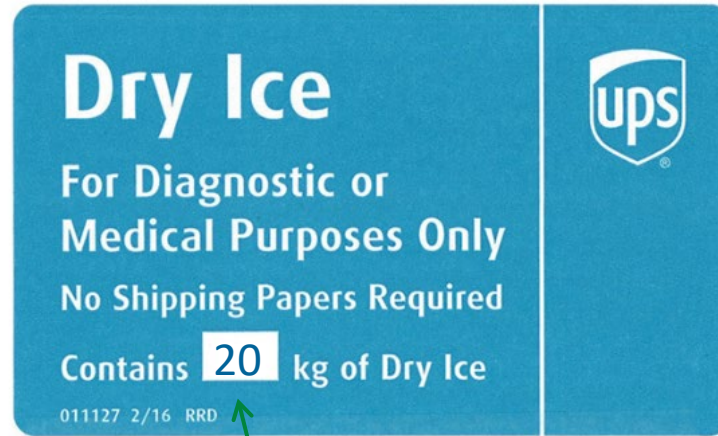




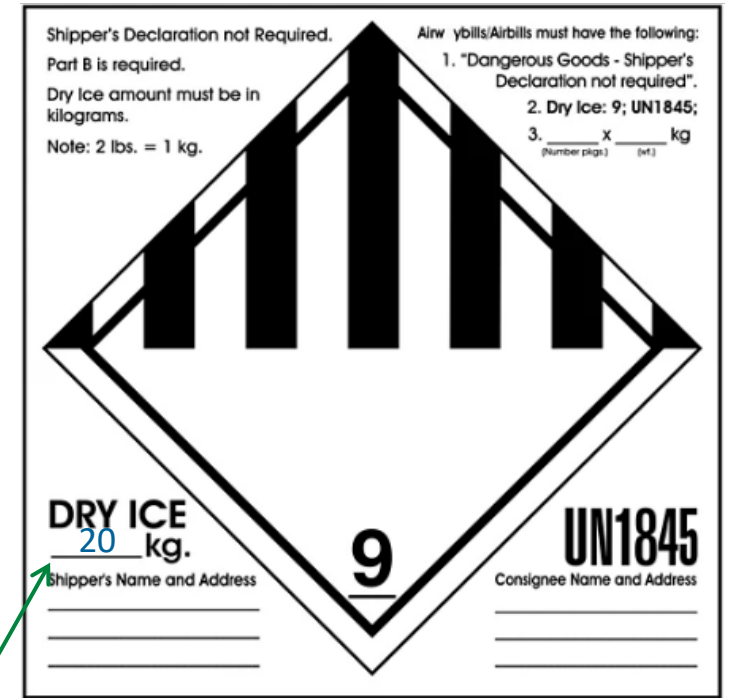
# Frozen Shipping Dry Ice Requirements

Failure to do the following will result in shipping carrier rejecting/returning your package!

1. Net weight of pelleted dry ice in kg (must match amount on the airbill)!
2. Dry Ice label should not be covered with other stickers and must be completed (see right)!



UPS Dry Ice Sticker



FedEx Dry Ice Sticker

Net weight of pelleted dry ice in kg

# Critical Frozen Shipping Instructions

1. Hold packaged samples in -80°C freezer until time of pick-up/drop-off.

2. Frozen shipments should be shipped Monday - Wednesday ONLY to avoid shipping delays on Thursday or Friday. Monday - Tuesday for INTERNATIONAL SITES!

**BE AWARE OF HOLIDAYS and current weather conditions!**

3. Notify NCRAD of sample shipment the day you ship for tracking purposes.

4. Remember to complete the requisition forms and include a copy in your shipment with the samples: Blood Sample and Shipment Notification (Appendix C).

5. *Do not ship blood in same container as saliva as the saliva should be at ambient temperature and not frozen.*

# Saliva Collection

NCRAD

The logo for NCRAD features the letters 'NCRAD' in a sans-serif font. The 'AD' is significantly larger and bolder than the 'NCR'. Below the text, there are two horizontal double-headed arrows. The first arrow is blue and spans the width of the 'NCR' portion. The second arrow is black and spans the width of the 'AD' portion.

National Centralized Repository for  
Alzheimer's Disease and Related Dementias

# Saliva Collection Schedule

**\*\*If not able to collect blood samples for a participant, Saliva can be collected for DNA extraction\*\***



National Centralized Repository for  
Alzheimer's Disease and Related Dementias

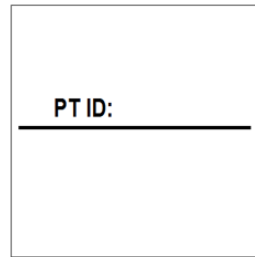
# ACAD Saliva Collection Schedule

Sample Type	Tube Type	Number of Tubes Supplied in Kit	Tubes to NCRAD	Volume	Ship
Saliva for DNA extraction	Oragene Saliva Collection Tube (OG-500)	1	1	2.0 mL of Saliva collected in each 4.0 mL tube	Ambient

# Saliva Specimen Labels

Provided by NCRAD

# Two Label Types

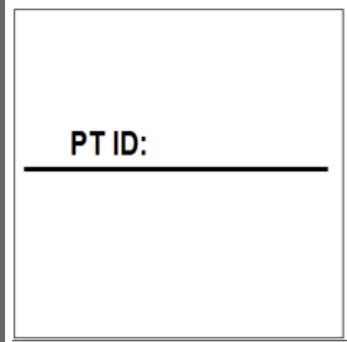


PTID Labels



Specimen Labels

# PTID Labels



PTID:

- participants will be identified by their PTID.
  - The PTID may only be available shortly before the visit
- 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
- Label will be placed on all collection tubes:
  - Oragene Saliva Collection Tube (OG-500)



# Specimen Labels



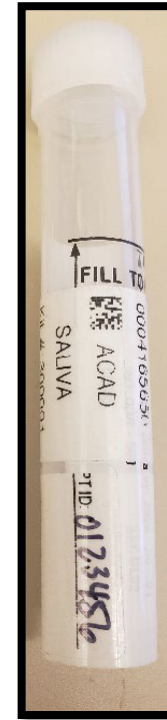
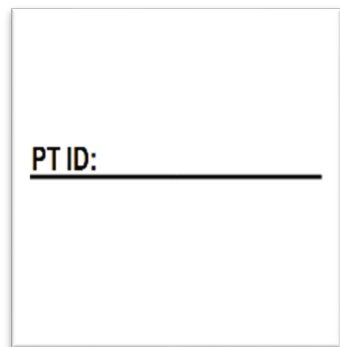
- Specimen Labels have 4 components:
  - Study name
  - 10-digit specimen number (assigned by NCRAD)
  - Specimen type
  - Kit number (assigned by NCRAD)
    - Unique to participant AND visit
- Label will be placed on all collection tubes:
  - Oragene Saliva Collection Tube (OG-500)
  - Saliva Sample and Shipment Notification Form (Appendix D)

# Oragene Saliva Collection Tube Labels:

## Label 1: Specimen Label



## Label 2: PTID Label



Specimen Label

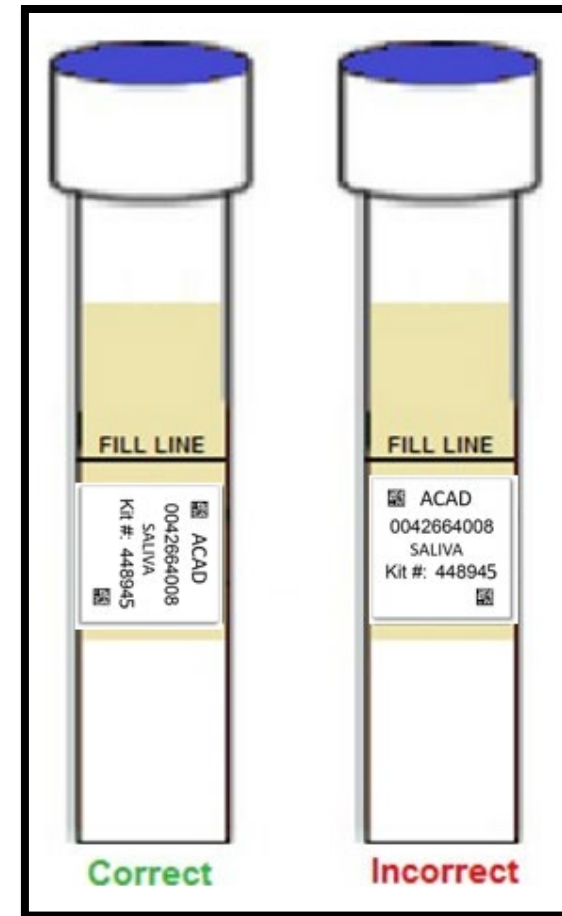
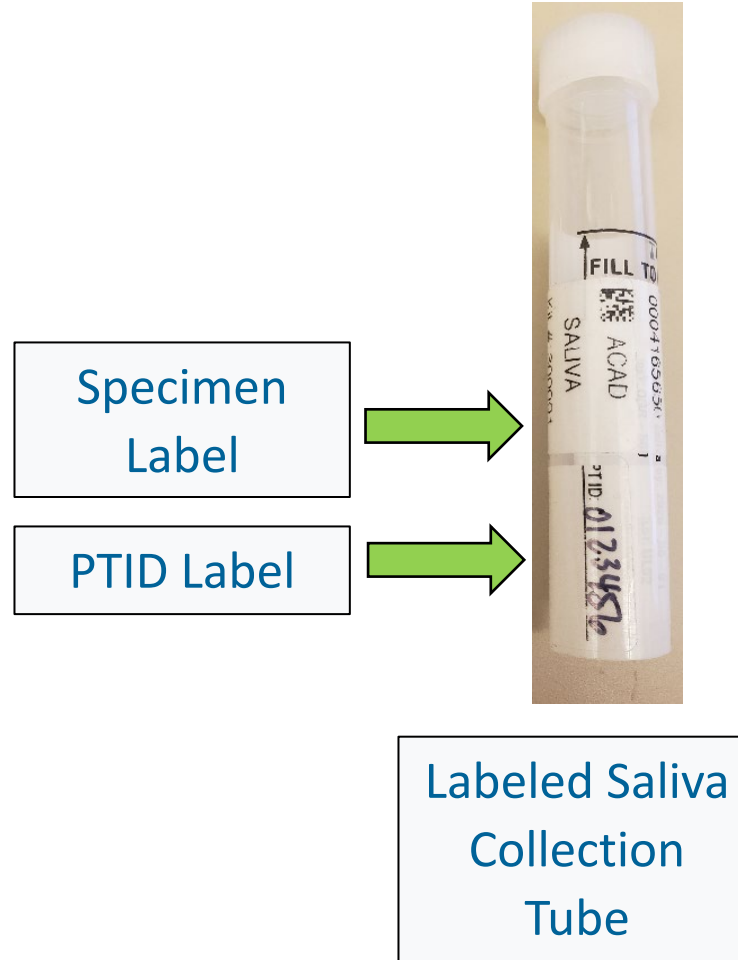
PTID Label

Labeled Oragene Saliva Collection Tube

# Properly Labeling Saliva Samples:


## Please...

- Label saliva tubes before sample collection.
- Label only 1 participant's tubes at a time to avoid mix-ups.
- Wrap the label around the tube horizontally. Place barcode toward the tube cap AND below the "Fill To" line.
  - Label position is important for all tube types.
- Make sure the label is completely adhered by rolling between your fingers.



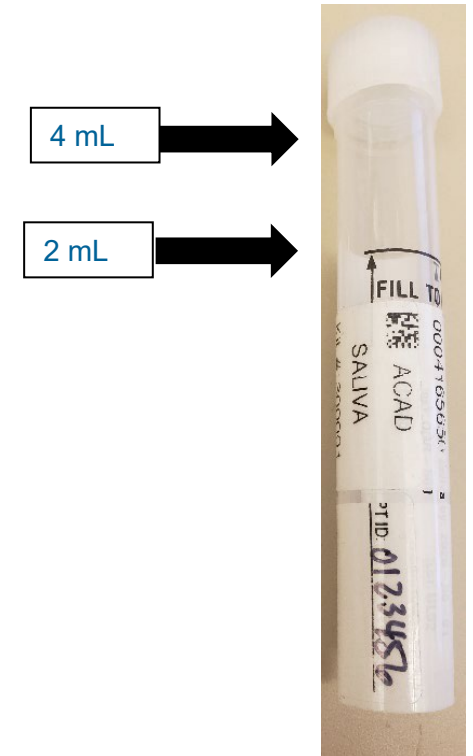
# Handling/Processing Study Saliva Specimens

# Saliva Collection Kit

Tube Type	Number of Tubes Drawn	Kit Image
Oragene Saliva Collection Tube (OG-500) – DNA Kit	X 1	

# Critical Saliva Collection Instructions:

- Do NOT remove plastic film from the lid.
- Participant should not eat, drink, smoke, chew gum or brush teeth for 30 minutes prior to giving sample.
- Participant does NOT need to rinse their mouth prior to giving the sample.
- Do not over-fill the saliva tube as tubes can leak during shipment, resulting in a loss of sample.



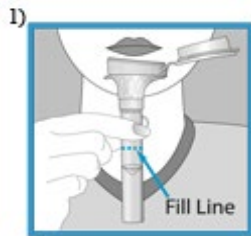
# Saliva Collection Preparation Tips:

- Most people take between 2 and 5 minutes to deliver a saliva sample. If the participant finds it difficult to produce a sample, instruct them to relax and rub their cheeks gently for 30 seconds to generate saliva.
- Some other helpful hints to increase saliva output:
  - Hydrate before collection. Drink at least one large glass of water prior to collection – must be done at least 30 minutes prior to collection (be mindful to explain they should not eat/drink 30 minutes before giving the sample).
  - Smelling appealing aromas, such as citrus fruits, can help with saliva production
  - Telling participant to take their time filling the tube. Most participants take just a few minutes to complete, but those with dry mouth might need to take longer and shouldn't feel rushed.

# Saliva Collection Procedure:

[Saliva Collection Instructions - \(link\)](#)

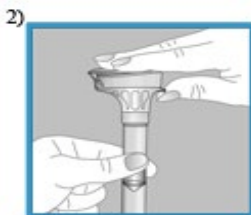
1



**Do NOT remove the plastic film from the lid of the container.** Spit into funnel until the amount of liquid saliva (not including bubbles) reaches the fill line shown in picture #1.

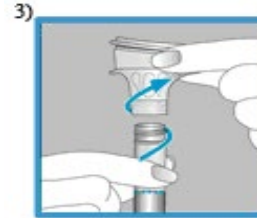
Note: The saliva tube has a false bottom, so you will only need to provide 2 ml of saliva to reach the fill line. **Do NOT fill above the line.**

2



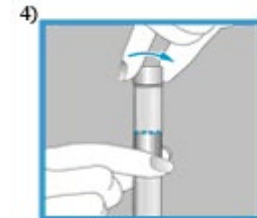
After collection, hold the tube upright with one hand and close the funnel lid with the other hand (as shown) by firmly pushing the lid until you hear a loud click. The liquid in the lid will be released into the tube to mix with the saliva. Make sure that the lid is closed tightly.

3



Hold the tube upright. Unscrew the funnel from the tube.

4



Pick up the small cap for the tube. Use the small cap to close the tube tightly. Discard the funnel.

5



Shake the capped tube for 5 seconds.

6

Complete the Saliva Sample and Shipment Notification Form(s) (Appendix D) and include in shipment with saliva sample(s).



# Video of Saliva Collection Procedure:

- The following training video is available to assist you with the saliva collection:

<http://www.dnagenotek.com/ROW/support/ciOG500.html>

# Ambient Packaging and Shipping Instructions

## Saliva

**IMPORTANT!**

**AMBIENT SAMPLES MUST  
BE SHIPPED  
MONDAY-THURSDAY ONLY!**

# Notify NCRAD When Samples Ship:

1. **Notify NCRAD of shipment** by emailing NCRAD coordinators at: [alzstudy@iu.edu](mailto:alzstudy@iu.edu)

➤ Attach the following to the email:

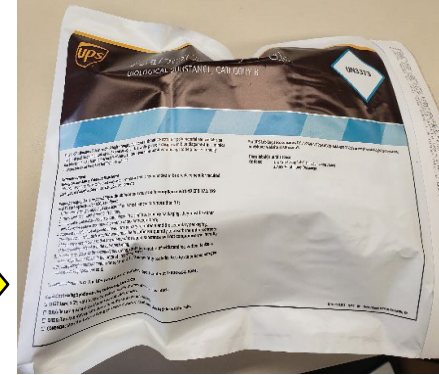
- Completed Saliva Sample and Shipment Notification Form to the email notification. (See Appendix D for an example of the NCRAD sample form)
- If email is unavailable, please call NCRAD and do not ship until you've contacted and notified NCRAD coordinators about the shipment in advance.
- Please include the tracking number in the body of the email.
- Place physical copy of the filled out Saliva Sample and Shipment Notification (Appendix D) in your shipment.

# Ambient Shipping Instructions: Saliva



Bulk shipping box  
containing 36  
saliva samples  
wrapped in  
biohazard bags

UPS ClinPak



1. Place saliva sample into the provided biohazard bag with absorbent sheet. Seal biohazard bag according to the instructions on the bag.
2. Roll packaging around the tube and place sample into the provided Bulk Saliva Shipping Box for batch shipping.
3. Place bulk shipping box containing 36 saliva samples inside UPS ClinPak.
4. Place Exempt Human Specimen label and UPS shipping airbill on the outside of the ClinPak ensuring no labels are covered.
5. Include completed Saliva Sample and Shipment Notification Form(s) (Appendix D) inside ClinPak with samples.
6. Use UPS tracking to ensure delivery occurs.

# Ambient Saliva Shipping Instructions – Remote Draws:



1. If remote draw, place sample inside biohazard bag with absorbent sheet and then place inside small bubble mailer.
2. Place Exempt Human Specimen label and prepaid USPS shipping airbill on the outside of the bubble mailer ensuring no labels are covered.
3. Include completed Saliva Sample and Shipment Notification Form (Appendix D) inside bubble mailer with sample.

# Critical Ambient Shipping Instructions

## Saliva

**1. SHIP ALL AMBIENT SAMPLES MONDAY - THURSDAY ONLY. BE AWARE OF HOLIDAYS.**

**BE AWARE OF INCIPIENT INCLEMENT WEATHER THAT MAY DELAY SHIPMENT/DELIVERY OF SAMPLES.**

**2. Notify NCRAD of sample shipment the day you ship for tracking purposes.**

**3. Place physical copy of the completed Saliva Sample and Shipment Notification Form(s) (Appendix D) inside the ClinPak or bubble mailer.**

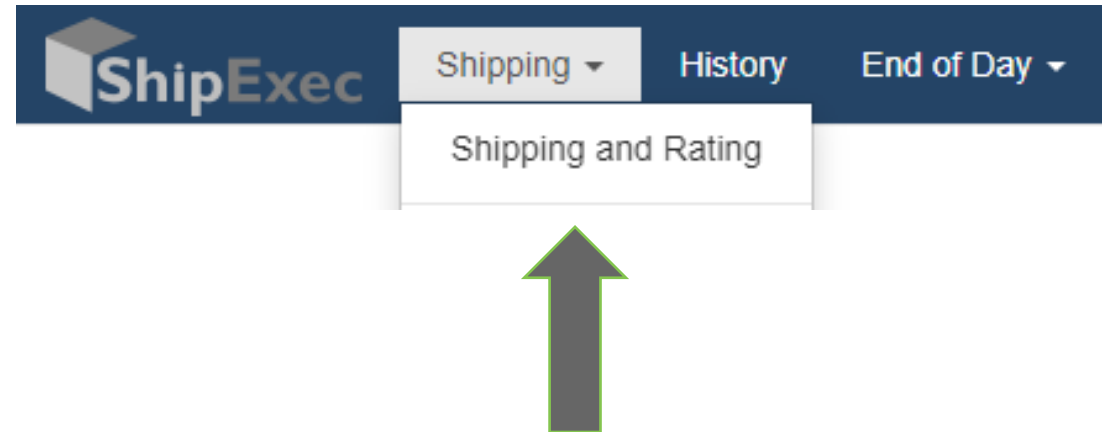
**4. *Do not ship saliva in same container as blood as the saliva should be at ambient temperature and not frozen.***

# **Creating Airbills/Scheduling Pickups via ShipExec Frozen and Ambient Shipments**

# 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

Action	Code	Company
Select	ACAD 05	Centre for Addiction and Mental Health (Univ. of Toronto)
Select	ACAD 08	UCSD
Select	ACAD 03	UCSF Weill Institute for Neurosciences, Memory and Aging Center
Select	ACAD 03	UCSF Weill Institute for Neurosciences, Memory and Aging Center
Select	ACAD 02	University of Massachusetts - Boston
Select	ACAD 05	Centre for Addiction and Mental Health

# Verify Information

- Please verify that both the shipping information AND Study Group are correct for this shipment

Ship From		Shipment Information	
<input type="text"/>	<input type="text"/>	Study Group	ACAD
Code	ACAD 05	Weight	LB
Company	Centre for Addiction and Mental Health (Univ. of Toronto)	Dry Ice Weight	LB
Contact	Wai Haung (Ho) Yu	Description of Return	Biological Specimens
Address 1	250 College St.	<input type="button" value="Pickup Request"/>	
Address 2	Room 202		
Address 3			
City	Toronto		
State/Province	ON		
Postal Code	M5T1R8		
Country/Territory	Canada		

# 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)
- **Ambient shipments**
  - Enter the total weight of your package in the “Weight” field and **leave the “Dry Ice Weight” field empty.**

Shipment Information

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

Pickup Request

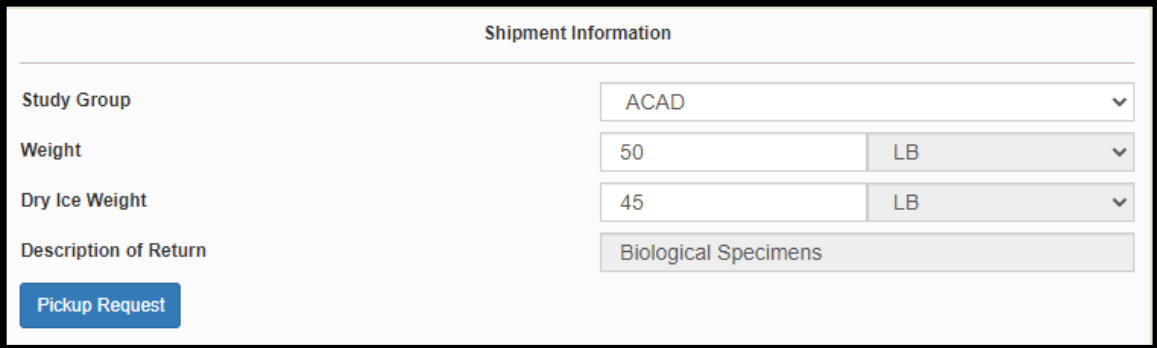
Shipment Information

Study Group	ACAD	▼
Weight	1	LB ▼
Dry Ice Weight		LB ▼
Description of Return	Biological Specimens	

Pickup Request

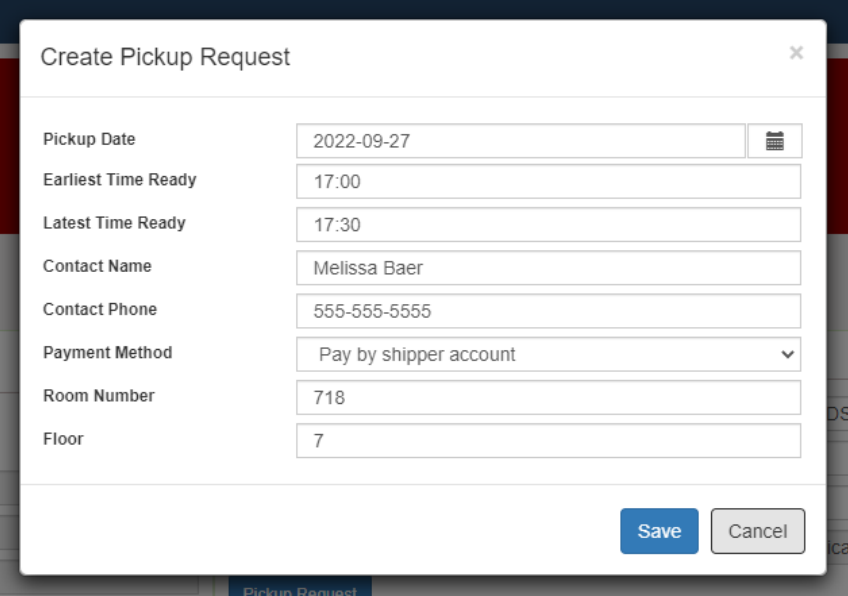
# Need to request UPS Pickup?

- 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”.
    - “Earliest Time Ready” has to be after current time of day even if scheduling pickup for later date.
  - Users will get an error if attempting to schedule pick-up after institution’s closing time.
- 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



The screenshot shows a web form titled "Shipment Information". It contains the following fields:

- Study Group: ACAD (dropdown menu)
- Weight: 50 (text input) and LB (dropdown menu)
- Dry Ice Weight: 45 (text input) and LB (dropdown menu)
- Description of Return: Biological Specimens (text input)
- Pickup Request (blue button)

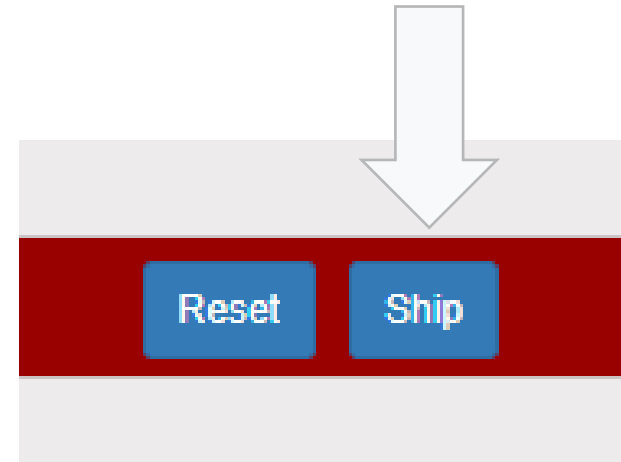


The screenshot shows a dialog box titled "Create Pickup Request". It contains the following fields:

- Pickup Date: 2022-09-27 (calendar icon)
- Earliest Time Ready: 17:00 (text input)
- Latest Time Ready: 17:30 (text input)
- Contact Name: Melissa Baer (text input)
- Contact Phone: 555-555-5555 (text input)
- Payment Method: Pay by shipper account (dropdown menu)
- Room Number: 718 (text input)
- Floor: 7 (text input)
- Save (blue button)
- Cancel (grey button)

# 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

Pickup No: 2929602E9CP

#### 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

#### 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

## Airbill

JOHN SMITH  
317-556-1234  
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



BILLING: PIP  
DESC: Biological Specimens  
RETURN SERVICE  
UN1845, DRY ICE, CLASS 9, 1 x 4.5 KG  
AUDIT REQUIRED

Reference No. 1: 5683820

- 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

# Accessing Airbill

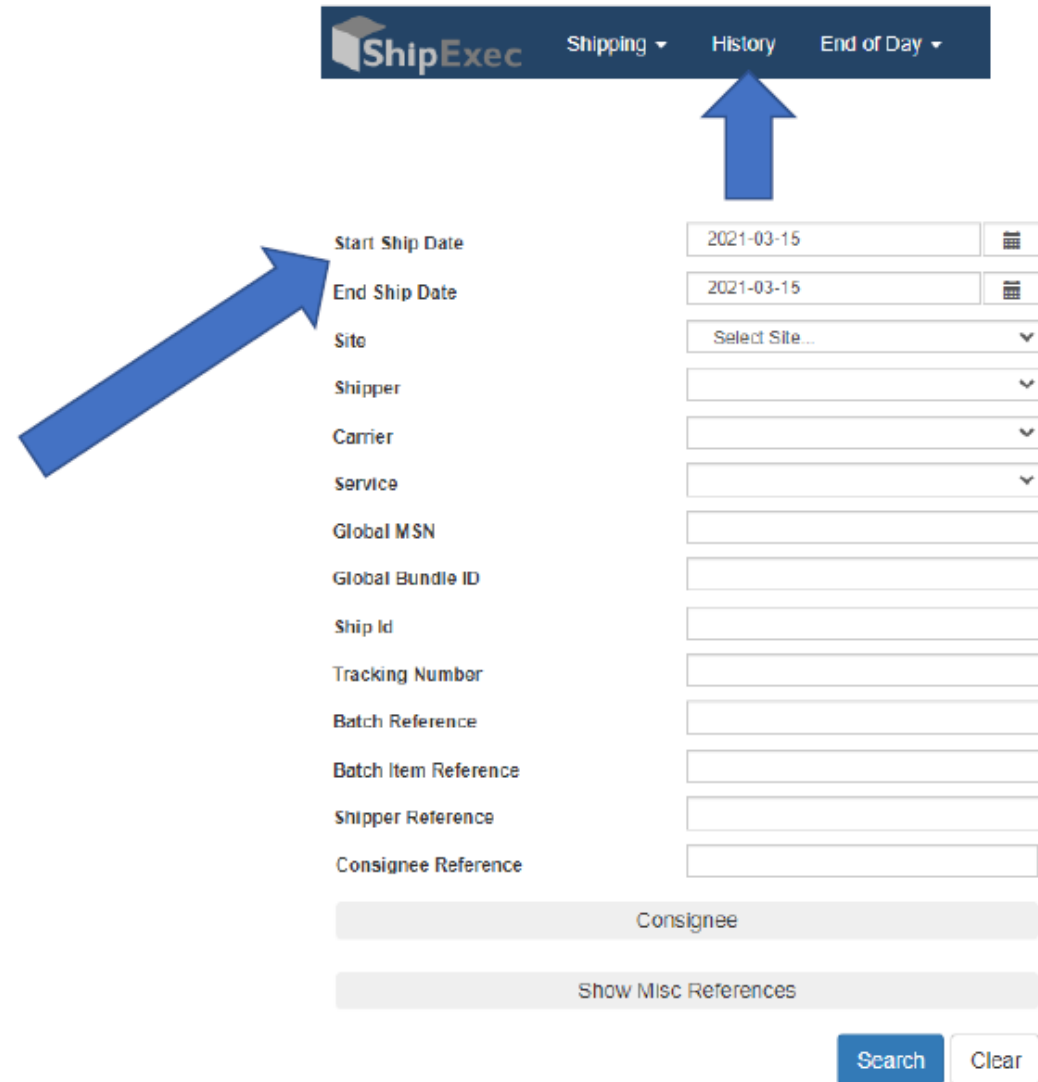
- Print out the UPS air waybill
- Fold the UPS air waybill and slide it inside the plastic UPS sleeve (NCRAD will provide these in kit requests upon request).
- Peel the back off the plastic UPS sleeve and stick the sleeve to your package, making sure it is laying as flat as possible along the surface 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 UN1945, DRY ICE, CLASS 9, 1 x 4.5 KG AUDIT REQUIRED		
Reference No.1: 8683330		



# 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, there is a search filter section with the following fields:

- Start Ship Date: 2021-03-15
- End Ship Date: 2021-03-15
- Site: Select Site...
- Shipper: [Dropdown]
- Carrier: [Dropdown]
- Service: [Dropdown]
- Global MSN: [Text Input]
- Global Bundle ID: [Text Input]
- Ship Id: [Text Input]
- Tracking Number: [Text Input]
- Batch Reference: [Text Input]
- Batch Item Reference: [Text Input]
- Shipper Reference: [Text Input]
- Consignee Reference: [Text Input]

At the bottom of the search filter section, there are two buttons: "Consignee" and "Show Misc References". At the very bottom right, there are two buttons: "Search" and "Clear". A blue arrow points to the "Search" button.

# 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.*

# International Shipping Instructions

# International Shipping Instructions - ShipExec

1. Log into the ShipExec™ Thin Client at [ShipExec™™ Thin Client](#).
2. All international shipments will utilize the same packing requirements as specified in [Section 9.0](#) and [Section 10.5 \(slides 62-68\)](#) (Frozen and Ambient Shipping Instructions).
3. Two components are necessary for international shipments:
  1. International UPS return airbill
  2. International Commercial Invoice

# International Shipping Instructions – ShipExec (cont.)

1. Follow ShipExec™ Frozen and Ambient Shipping Instructions, **steps 1 – 7**, specified in [Section 9.2](#) and [Section 10.5.2. \(Slides 62-68\)](#):
  - a. Once you click ‘Ship’, the following documents will automatically be created/downloaded:
    - i. UPS Package Label
    - ii. UPS Commercial Invoice
    - iii. ShipExec™ Return Shipment Receipt

# Commercial Invoice:

1. Open the UPS Commercial Invoice:
  1. Ensure all information is correct.
  2. Fill in the harmonization code (see below example):

Units	U/M	Description of Goods/Part No.	Harm.Code	C/T/O	Unit Value	Total Value
1	PC	Biological Specimens	3002.12.00.90	CA	150	150

- i. Human Serum, Plasma and Buffy Coat: 3002.12.00.90

**OR**

- i. Human Saliva: 3002.90.90

3. Enter the following in 'Additional Comments' section:

- i. Reason for export: Medical Research. Samples are for laboratory research purposes only and are not for use in live human nor animal research. Samples are non-dangerous, non-toxic, and non-infectious. Samples not intended for human nor animal consumption. This shipment does not contain animal products or byproducts. I declare that the information mentioned above is true and correct to the best of my knowledge.



# Printing Commercial Invoice and Airbill:

1. Print, sign and date 3 copies of the UPS Commercial Invoice. Fold in half.
  - i. Use black or blue pen only
2. Print 1 copy of UPS Package Label (airbill). Fold in half.
3. Place airbill on top of 3 completed copies of the commercial invoice. Place papers inside an airbill sleeve and adhere to the shipping box.

# Critical International Shipping Instructions

1. SHIP ALL AMBIENT SAMPLES MONDAY - THURSDAY ONLY. BE AWARE OF HOLIDAYS.

2. INTERNATIONAL SITES SHIP ALL FROZEN SAMPLES MONDAY - TUESDAY ONLY. BE AWARE OF HOLIDAYS.

3. BE AWARE OF INCIPIENT INCLEMENT WEATHER THAT MAY DELAY SHIPMENT/DELIVERY OF SAMPLES.

4. Notify NCRAD of sample shipment the day you ship for tracking purposes.

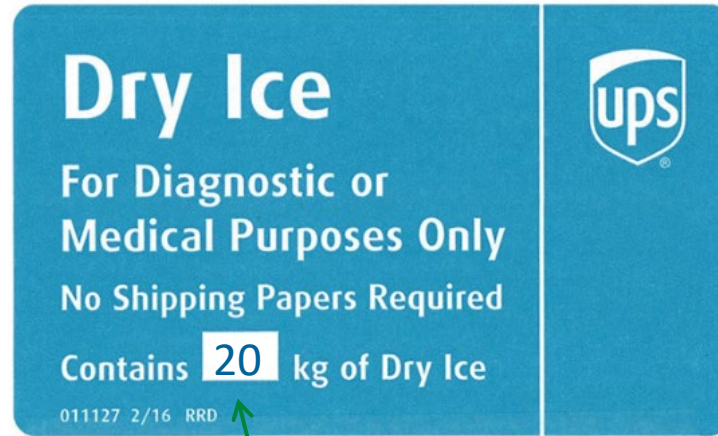
5. Place physical copy of the completed Sample and Shipment Notification Form(s) inside the ClinPak or bubble mailer.

6. *Do not ship saliva in same container as blood as the saliva should be at ambient temperature and not frozen.*

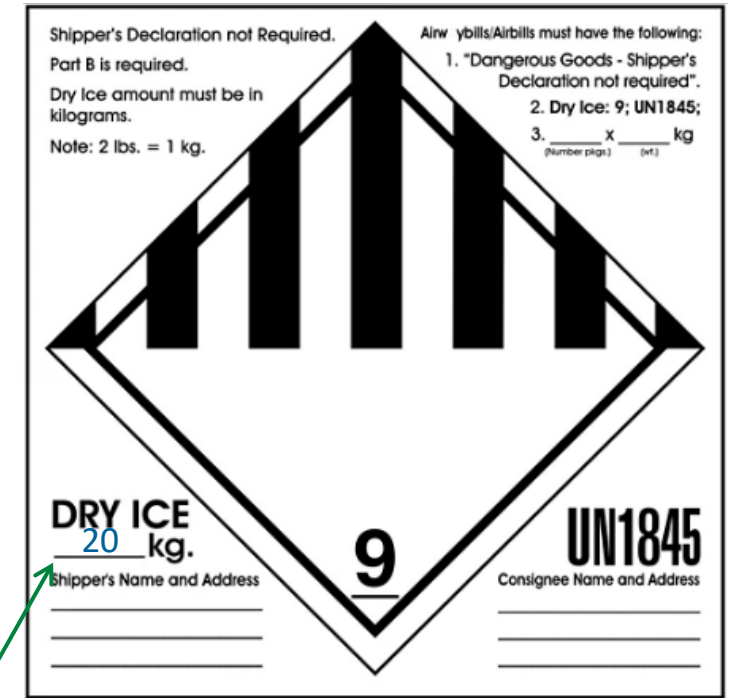
# Frozen Shipping Dry Ice Requirements

Failure to do the following will result in shipping carrier rejecting/returning your package!

1. Net weight of pelleted dry ice in kg (must match amount on the airbill)!
2. Dry Ice label should not be covered with other stickers and must be completed (see right)!



UPS Dry Ice Sticker




FedEx Dry Ice Sticker

Net weight of pelleted dry ice in kg

# Additional Resources:

- UPS International Customer Service Center: [1-800-782-7892](tel:1-800-782-7892)
- [Commercial Invoice How-to Guide](#)

# Example International Commercial Invoice

INVOICE								Page 1	
FROM				Shipment ID: [REDACTED]					
Tax ID/VAT No.: [REDACTED]									
Contact Name: [REDACTED] [REDACTED] [REDACTED] Toronto, ON M5T1R8 CA Phone: [REDACTED]				Invoice No.: [REDACTED] Date: 12/22/2022 PO No.: ACAD Terms of Sale(Incoterm): Reason for Export: P					
SHIP TO				SOLD TO INFORMATION					
Tax ID/VAT No.: [REDACTED]				Tax ID/VAT No.: [REDACTED]					
Contact Name: [REDACTED] [REDACTED] [REDACTED] Indianapolis IN-46202 US Phone: [REDACTED]				Contact Name: [REDACTED] [REDACTED] [REDACTED] Indianapolis IN-46202 US Phone: [REDACTED]					
Units	U/M	Description of Goods/Part No.	Harm.Code	C/T/O	Unit Value	Total Value			
1	PC	Biological Specimens	3002.12.00.90	CA	150	150			
Additional Comments:									
Reason for export: Medical Research. Samples are for laboratory research purposes only and are not for use in live human nor animal research. Samples are non-dangerous, non-toxic, and non-infectious. Samples not intended for human nor animal consumption. This shipment does not contain animal products or byproducts. I declare that the information mentioned above is true and correct to the best of my knowledge.									
Declaration Statement: The exporter of the products covered by this document declares that except where otherwise clearly indicated these products are of EEA preferential origin.					Invoice Line Total: 150.00 Discount/Rebate: 0.00 Invoice Sub-Total: 150.00 Freight: 0.00 Insurance: 0.00 Other: 0.00 Total Invoice Amount: 150.00 USD				
Shipper: <i>Jane Doe</i> Date: 1/5/2023					Total Number of Packages: 1 Total Weight: 50 LBS				
These items are controlled by the U.S. Government and authorized for export only to country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into items, without first obtaining approval from the U.S. government or as authorized by U.S. law and regulations.									



# Sample Forms

# Appendix A: GUID Demographics Form

## Appendix A: GUID Demographics Form

Please be certain to collect the following demographic information to generate a Global Unique Identifier. **Do NOT** return this information to NCRAD. Only send the GUID to NCRAD.

1. Complete legal given (first) name of subject at birth: \_\_\_\_\_
2. Complete additional (middle) name or names at birth: \_\_\_\_\_
3. Complete legal family (last) name of subject at birth: \_\_\_\_\_
4. Suffix: \_\_\_\_\_
5. Date of Birth: \_\_\_\_\_
6. Name of city/municipality in which subject was born: \_\_\_\_\_
7. Country of birth: \_\_\_\_\_


  

  
Asian Cohort for Alzheimer's Disease

**Appendix C**  
 Site ID: \_\_\_\_\_ Participant ID: \_\_\_\_\_  
**Blood Sample and Shipment Notification Form**  
Please email this form prior to the date of shipment.



---

To: Kelley Faber Email: alzstudy@iu.edu Phone: 1-800-526-2839

<b>General Information:</b> _____		UPS tracking #: _____
From: _____	Date: _____	
Phone: _____	Email: _____	

Study: <input checked="" type="checkbox"/> ACAD U19 <input type="checkbox"/> ADRC	ADRC PT ID: _____	<input type="checkbox"/> Co-Enrolled in a study other than ADRC
GUID: _____ (if applicable)		
Sex: <input type="checkbox"/> M <input type="checkbox"/> F	Year of Birth: _____	KIT LABEL/BARCODE
Visit (circle number): 1 2 3 4 5	Kit #: _____	
Visit (circle letter): a b c d e		

<b>Blood Collection:</b>	
1. Date Drawn: _____ [MMDDYY]	2. Time of Draw: _____ [HHMM]
3. Last date subject ate: _____ [MMDDYY]	4. Last time subject ate: _____ [HHMM]


  

  
Asian Cohort for Alzheimer's Disease

**Appendix D**  
 Site ID: \_\_\_\_\_ Participant ID: \_\_\_\_\_  
**Saliva Sample and Shipment Notification Form**  
Please email this form prior to the date of shipment.

---

To: Kelley Faber Email: alzstudy@iu.edu Phone: 1-800-526-2839

<b>General Information:</b> _____		UPS tracking #: _____
From: _____	Date: _____	
Phone: _____	Email: _____	

Study: ACAD U19	GUID: _____	Specimen Label: _____
Visit (circle one): V01 V02	Specimen Label / Kit Number	
Sex: <input type="checkbox"/> M <input type="checkbox"/> F		

# Appendix B: Rate of Centrifuge Worksheet

## Appendix B: Rate of Centrifuge Worksheet

Please complete and return this form by fax or email to the NCRAD Project Manager if you have any questions regarding sample processing. The correct RPM will be sent back to you. You can also use online calculators like this one -

<https://www.sigmaaldrich.com/CA/en/support/calculators-and-apps/g-force-calculator>

For this, you will need

RPM

Radius of rotor – Distance from center to middle of bucket

### 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:

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

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

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

You are not required to send this to the NCRAD Study Coordinator.  
This is a tool to help calculate rate of centrifuge.



# Appendix C: Blood Sample and Shipment Notification Form



**NCRAD**  
Asian Cohort for Alzheimer's Disease

**Appendix C**

Site ID: \_\_\_\_\_ Participant ID: \_\_\_\_\_

**Blood Sample and Shipment Notification Form**

*Please email this form prior to the date of shipment.*

To: Kelley Faber Email: alzstudy@iu.edu Phone: 1-800-526-2839

<b>General Information:</b> _____		UPS tracking #: _____	
From: _____		Date: _____	
Phone: _____		Email: _____	

Study:  ACAD U19  ADRC ADRC PT ID: \_\_\_\_\_  Co-Enrolled in a study other than ADRC  
(if applicable)

GUID: \_\_\_\_\_

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

Visit (circle number): 1 2 3 4 5 **Kit #:** \_\_\_\_\_

Visit (circle letter): a b c d e

KIT LABEL/BARCODE

<b>Blood Collection:</b>			
1. Date Drawn: _____ [MMDDYY]	2. Time of Draw: _____ [HHMM]		
3. Last date subject ate: _____ [MMDDYY]	4. Last time subject ate: _____ [HHMM]		

**Blood Processing:**

Serum (Gold-Top) Tube (5 mL)	
Time spin started:	_____ [HHMM]
Duration of centrifuge:	_____ Minutes
Temp of Centrifuge: _____ °C	
Rate of centrifuge: _____ x g	
Time aliquoted:	_____ [HHMM]
Number of 1.5 mL serum aliquots created (red-cap):	_____
If applicable, volume of residual serum aliquot (less than 1.5 mL in blue cap):	_____ mL
If applicable, specimen number of residual serum aliquot (last four digits):	_____
Original blood volume drawn (1 x 5 mL SST collection tube):	_____ mL
Time aliquots placed in freezer:	_____ [HHMM]
Storage temperature in freezer:	_____ °C
Plasma & Buffy Coat (Purple-top) Tube (10 mL)	
Time spin started:	_____ [HHMM]
Duration of centrifuge:	_____ Minutes
Temp of Centrifuge: _____ °C	
Rate of centrifuge: _____ x g	
Time aliquoted:	_____ [HHMM]
Number of 1.5 mL plasma aliquots created (purple-cap):	_____
If applicable, volume of residual plasma aliquot (less than 1.5 mL in blue-cap):	_____ mL
If applicable, specimen number of residual plasma aliquot (last four digits):	_____
Original blood volume drawn (2 x 10 mL EDTA collection tube):	EDTA #1: _____ mL EDTA #2: _____ mL
Time aliquots placed in freezer:	_____ [HHMM]
Storage temperature in freezer:	_____ °C
Buffy coat aliquot specimen numbers (last four digits):	Buffy Coat #1: _____ Buffy Coat #2: _____
Buffy coat volumes (~1.0 mL in gray-cap):	Buffy Coat #1: _____ mL Buffy Coat #2: _____ mL

**Notes:** \_\_\_\_\_  
*E.g., hemolysis, blood is coagulated, thick or cloudy plasma, issues with buffy coat collection - please specify, etc.*

Version (3.2024)

Note:

Please ensure forms are filled out in their entirety. Complete during the participant study visit as samples are processed to guarantee accuracy.

**Send by E-mail prior to shipment, and include a copy in each shipment**





Appendix C  
 Site ID: \_\_\_\_\_ Participant ID: \_\_\_\_\_  
**Blood Sample and Shipment Notification Form**

Please email this form prior to the date of shipment.

To: Kelley Faber Email: alzstudy@iu.edu Phone: 1-800-526-2839

General Information: \_\_\_\_\_ UPS tracking #: \_\_\_\_\_  
 From: \_\_\_\_\_ Date: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Study:  ACAD U19  ADRC ADRC PT ID: \_\_\_\_\_ (if applicable)  Co-Enrolled in a study other than ADRC  
 GUID: \_\_\_\_\_

Sex: M F Year of Birth: \_\_\_\_\_  
 Visit (circle number): 1 2 3 4 5 Kit #: \_\_\_\_\_  
 Visit (circle letter): a b c d e KIT LABEL/BARCODE

**Blood Collection:**  
 1. Date Drawn: \_\_\_\_\_ [MMDDYY] 2. Time of Draw: \_\_\_\_\_ [HHMM]  
 3. Last date subject ate: \_\_\_\_\_ [MMDDYY] 4. Last time subject ate: \_\_\_\_\_ [HHMM]

**Blood Processing:**

**Serum (Gold-Top) Tube (5 mL)**  
 Time spin started: \_\_\_\_\_ [HHMM]  
 Duration of centrifuge: \_\_\_\_\_ Minutes  
 Temp of Centrifuge: \_\_\_\_\_ °C  
 Rate of centrifuge: \_\_\_\_\_ x g  
 Time aliquoted: \_\_\_\_\_ [HHMM]  
 Number of 1.5 mL serum aliquots created (red-cap): \_\_\_\_\_  
 If applicable, volume of residual serum aliquot (less than 1.5 mL in blue cap): \_\_\_\_\_ mL  
 If applicable, specimen number of residual serum aliquot (last four digits): \_\_\_\_\_  
 Original blood volume drawn (1 x 5 mL SST collection tube): \_\_\_\_\_ mL  
 Time aliquots placed in freezer: \_\_\_\_\_ [HHMM]  
 Storage temperature in freezer: \_\_\_\_\_ °C

**Plasma & Buffy Coat (Purple-top) Tube (10 mL)**  
 Time spin started: \_\_\_\_\_ [HHMM]  
 Duration of centrifuge: \_\_\_\_\_ Minutes  
 Temp of Centrifuge: \_\_\_\_\_ °C  
 Rate of centrifuge: \_\_\_\_\_ x g  
 Time aliquoted: \_\_\_\_\_ [HHMM]  
 Number of 1.5 mL plasma aliquots created (purple-cap): \_\_\_\_\_  
 If applicable, volume of residual plasma aliquot (less than 1.5 mL in blue cap): \_\_\_\_\_ mL  
 If applicable, specimen number of residual plasma aliquot (last four digits): \_\_\_\_\_  
 Original blood volume drawn (2 x 10 mL EDTA collection tube): EDTA #1: \_\_\_\_\_ mL EDTA #2: \_\_\_\_\_ mL  
 Time aliquots placed in freezer: \_\_\_\_\_ [HHMM]  
 Storage temperature in freezer: \_\_\_\_\_ °C  
 Buffy coat aliquot specimen numbers (last four digits): Buffy Coat #1: \_\_\_\_\_ Buffy Coat #2: \_\_\_\_\_  
 Buffy coat volumes (~1.0 mL in gray-cap): Buffy Coat #1: \_\_\_\_\_ mL Buffy Coat #2: \_\_\_\_\_ mL

Notes:  
 E.g., hemolysis, blood is coagulated, thick or cloudy plasma, issues with buffy coat collection - please specify, etc.

Enter GUID here. (Section 4.0 of MOP)

Check box next to the Participant's Sex (M = Male, F = Female)

Enter the participant's Year of Birth

**Circle Visit Number**  
 1 = Year 1 (newly enrolled)  
 2 = Year 2  
 3 = Year 3  
 etc.

**Circle Visit Letter**  
 a = First visit of the year  
 b = Second visit of the year  
 c = Third visit of the year  
 etc.

Enter temperature of centrifugation (i.e., 4°C) and rate of centrifugation (i.e., 2000 x g)

Enter the last 4-digits of the residual serum aliquot (if applicable)

Enter the original blood volume drawn in each SST (Gold-Top) Collection Tube (5mL) in mL.

Site ID = 3-digit Site Number

Participant ID = 5-digit Participant Number

Coordinator Contact Information and Sample Tracking Information

If the participant is co-enrolled in the ADRC study, please check the "ADRC" box and fill in the ADRC Patient ID in the "ADRC PT ID" field.

If the ACAD participant is co-enrolled in a study other than ADRC, please check this box.

Place Kit Number label here (Section 7.1 of MOP)

Enter time and date of blood collection in HHMM format.

Enter last date and time participant ate in HHMM format.

Enter time centrifugation started in HHMM format.

Enter duration of centrifugation in minutes (i.e., 10 minutes)

Enter the time the samples were aliquoted in HHMM format.

Enter the number of 1.5 mL serum aliquots that were created.

Enter the volume in mL of the residual serum aliquot (if applicable)



Appendix C

Site ID: \_\_\_\_\_ Participant ID: \_\_\_\_\_

Blood Sample and Shipment Notification Form

Please email this form prior to the date of shipment.

To: Kelley Faber Email: alzstudy@iu.edu Phone: 1-800-526-2839

General Information: \_\_\_\_\_ UPS tracking #: \_\_\_\_\_  
 From: \_\_\_\_\_ Date: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Study:  ACAD U19  ADRC ADRC PT ID: \_\_\_\_\_  Co-Enrolled in a study other than ADRC  
 (if applicable)  
 GUID: \_\_\_\_\_  
 Sex: M F Year of Birth: \_\_\_\_\_  
 Visit (circle number): 1 2 3 4 5 Kit #: \_\_\_\_\_  
 Visit (circle letter): a b c d e

**Blood Collection:**

1. Date Drawn: _____ [MMDDYY]	2. Time of Draw: _____ [HHMM]
3. Last date subject ate: _____ [MMDDYY]	4. Last time subject ate: _____ [HHMM]

**Blood Processing:**

**Serum (Gold-Top) Tube (5 mL)**

Time spin started: \_\_\_\_\_ [HHMM]  
 Duration of centrifuge: \_\_\_\_\_ Minutes  
 Temp of Centrifuge: \_\_\_\_\_ °C  
 Rate of centrifuge: \_\_\_\_\_ x g  
 Time aliquoted: \_\_\_\_\_ [HHMM]  
 Number of 1.5 mL serum aliquots created (red-cap): \_\_\_\_\_  
 If applicable, volume of residual serum aliquot (less than 1.5 mL in blue cap): \_\_\_\_\_ mL  
 If applicable, specimen number of residual serum aliquot (last four digits): \_\_\_\_\_  
 Original blood volume drawn (1 x 5 mL SST collection tube): \_\_\_\_\_ mL  
 Time aliquots placed in freezer: \_\_\_\_\_ [HHMM]  
 Storage temperature in freezer: \_\_\_\_\_ °C

**Plasma & Buffy Coat (Purple-top) Tube (10 mL)**

Time spin started: \_\_\_\_\_ [HHMM]  
 Duration of centrifuge: \_\_\_\_\_ Minutes  
 Temp of Centrifuge: \_\_\_\_\_ °C  
 Rate of centrifuge: \_\_\_\_\_ x g  
 Time aliquoted: \_\_\_\_\_ [HHMM]  
 Number of 1.5 mL plasma aliquots created (purple-cap): \_\_\_\_\_  
 If applicable, volume of residual plasma aliquot (less than 1.5 mL in blue cap): \_\_\_\_\_ mL  
 If applicable, specimen number of residual plasma aliquot (last four digits): \_\_\_\_\_  
 Original blood volume drawn (2 x 10 mL EDTA collection tube): \_\_\_\_\_ mL EDTA #1: \_\_\_\_\_ mL EDTA #2: \_\_\_\_\_ mL  
 Time aliquots placed in freezer: \_\_\_\_\_ [HHMM]  
 Storage temperature in freezer: \_\_\_\_\_ °C  
 Buffy coat aliquot specimen numbers (last four digits): \_\_\_\_\_ Buffy Coat #1: \_\_\_\_\_ Buffy Coat #2: \_\_\_\_\_  
 Buffy coat volumes (~1.0 mL in gray-cap): \_\_\_\_\_ Buffy Coat #1: \_\_\_\_\_ mL Buffy Coat #2: \_\_\_\_\_ mL

Notes: \_\_\_\_\_  
 E.g., hemolysis, blood is coagulated, thick or cloudy plasma, issues with buffy coat collection - please specify, etc.

Enter the time the aliquots were placed in the freezer in HHMM format.

Enter the temperature of the freezer the samples are stored in (i.e., -80°C).

Enter the last 4-digits of the buffy coat aliquots (the barcode is etched on the cryovial).



Enter the volume for Buffy Coat #1 and #2, corresponding with the barcodes in the field above.  
 Buffy Coat #1 was created from EDTA #1 and Buffy Coat #2 was created from EDTA #1.

Enter the original blood volume drawn in each EDTA (Purple-Top) Collection Tube (10mL) in mL.



Enter any non-conformance details here that NCRAD should make note of.

# Appendix D: Saliva Sample and Shipment Notification Form

## Note:

Please ensure forms are filled out in their entirety. Complete during the participant study visit as samples are processed to guarantee accuracy.

**Appendix D**

  
  
Asian Cohort for Alzheimer's Disease

Site ID: \_\_\_\_\_ Participant ID: \_\_\_\_\_  
**Saliva Sample and Shipment Notification Form**  
*Please email this form prior to the date of shipment.*

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

<b>General Information:</b>		UPS tracking #: _____
From: _____	Date: _____	
Phone: _____	Email: _____	

Study: ACAD U19 GUID: _____	Specimen Label: _____	Specimen Label / Kit Number
Visit(circle one): V01 V02		
Sex: <input type="checkbox"/> M <input type="checkbox"/> F Year of Birth: _____		

<b>Saliva Collection:</b>		
1. Date collected:	_____	[MMDDYY]
2. Time of collection:	_____	[HHMM]
3. Last date subject ate:	_____	[MMDDYY]
4. Last time subject ate:	_____	[HHMM]

<b>Internal NCRAD Use-Do Not Complete:</b>
Saliva Volume: _____ mL

Notes:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*E.g., incomplete sample, subject ate, drank, smoked, and/or chewed gum 30 minutes or less before giving saliva sample*

Version (3.2024)

# Noncomformance Issues

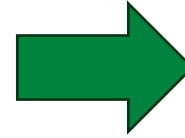
NCRAD

The logo for NCRAD features the letters 'NCRAD' in a sans-serif font. The 'AD' portion is significantly larger and colored in a dark blue, while 'NCR' is in a lighter blue-grey. Below the text, there are two horizontal double-headed arrows. The first arrow is dark blue and spans the width of the 'NCR' portion. The second arrow is black and spans the width of the 'AD' portion.

National Centralized Repository for  
Alzheimer's Disease and Related Dementias

# Nonconformance Issues

Sample aliquots and collection tubes frozen at an angle/inverted



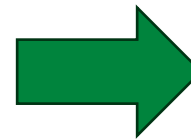
**Recommendation:**

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

Fields left blank on Blood Sample and Shipment Notification Form

Last time participant ate often left blank/unknown

Incorrect data reported on Sample and Shipment Notification Forms



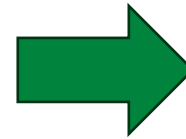
**Recommendation:** Complete Sample Notification forms during the participant study visit as samples are processed.

# Nonconformance Issues (cont.)

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

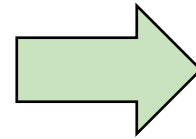


**Recommendation:**

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

# Nonconformance Issues

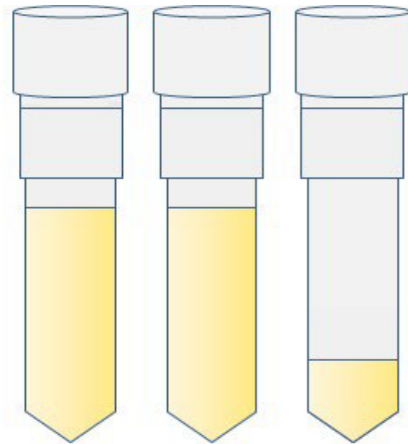
Multiple low volume aliquots



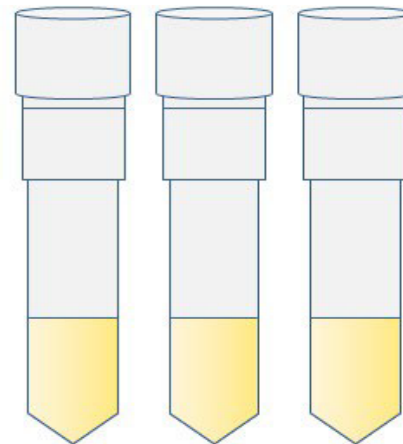
**Recommendation:**

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

1.5 mL



YES



NO




# NCRAD Website



National Centralized Repository for  
Alzheimer's Disease and Related Dementias

# NCRAD ACAD Study Page

[NCRAD - The ACAD Active Study Page](#)



National Centralized Repository for Alzheimer's Disease and Related Dementias

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[ABOUT](#) [BANK SAMPLES](#) [ACCESS SAMPLES](#) [BIOMARKER ANALYSIS](#) [COORDINATE STUDIES](#) [GENETICS & FAMILIES](#) [CONTACT](#)

**COORDINATE STUDIES**


- ACAD**
- ABC-DS
- 4RTNI-2
- 90+ Study
- ACE
- ADCFB
- ADDS/NIAD
- ADNI-3
- ADNI-Depression
- ADNI-DOD
- AGMP
- ALLFTD
- APOE
- BBBSR
- BenfoTeam
- BEYONDD
- BI-FB
- BioSTAC
- CADASIL

[Home](#) / [Coordinate Studies](#) / [ACAD](#)

## THE ACAD ACTIVE STUDY PAGE

Welcome ACAD Study staff, coordinators and PIs.

This section encompasses study specific tools and videos for your reference. If you have any questions, comments, or new ideas, please contact NCRAD by [email](#) or phone **800-526-2839**.



ACAD BLOOD-BASED BIOMARKER COLLECTION SCHEDULE	
	All Visits
Serum	✓
DNA	✓
Plasma	✓

ACAD SALIVA-BASED BIOSPECIMEN COLLECTION SCHEDULE	
	All Visits
DNA	✓

**Study Resources**

# NCRAD Website: Helpful Pages

[NCRAD - The ACAD Active Study Page](https://ncrad.org/contact/hours/holiday-closures)

<https://ncrad.org/contact/hours/holiday-closures>

<https://ncrad.org/contact/hours/shipping-resources>

The screenshot shows the NCRAD website's 'CONTACT' page, specifically the 'HOLIDAY CLOSURES' section. The page features a navigation menu with 'CONTACT' selected. Below the menu, there is a breadcrumb trail: Home / Contact / Hours / Holiday Closures. The main heading is 'HOLIDAY CLOSURES'. A table lists various holidays and their dates. Below the table, there are two 'Please Note' sections providing important information about operations during the holiday period.

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

**Please Note:** 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 of 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](mailto:alzstudy@iu.edu), so that they can arrange to have staff available to process incoming samples.

**Please Note:** Courier services may observe a different set of holidays. Please be sure to verify shipping dates with your courier prior to any holiday.

The screenshot shows the NCRAD website's 'CONTACT' page, specifically the 'SHIPPING RESOURCES' section. The page features a navigation menu with 'CONTACT' selected. Below the menu, there is a breadcrumb trail: Home / Contact / Hours / Shipping Resources. The main heading is 'SHIPPING RESOURCES'. Underneath, there are sections for 'Shipping Address' and 'UPS Shipping Resources'. The 'Shipping Address' section provides the NCRAD location in Indianapolis, IN. The 'UPS Shipping Resources' section includes text about generating air waybills and scheduling pickups, along with a link to the UPS ShipExec™ Thin Client website. Below this, there is a section for 'Navigating UPS ShipExec™' which includes a video player with a play button.

**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/dad4>