

PPMI Biologics Training Webinar





Presented by: Alison Ansbach, MS and Mark Frasier, PhD

Overview

- Equipment
- Supplies (Coriell and Covance)
- Collection and Processing
- Labelling
- Entering Data in eClinical Database
- Shipping
- Quality Control
- Contact Information

Equipment

Phlebotomy Equipment

- You must supply
 - Gloves
 - Alcohol wipes
 - Butterfly needles
 - Tourniquet
 - Gauze Pad
 - Bandage
 - Microcentrifuge tube rack
 - Sharps bin and lid
 - Crushed Ice
 - Dry ice
 - Pipets and pipet tips
- So stock up now!

Required Equipment

- 4 °C and Room Temperature Centrifuge
- -80 °C Freezer

Supplies (Covance and Coriell)

Initial Supply

Covance: 6 screening visits

Coriell:

- 6 Screening kits
- 4 V01 kits
- 4 V02 kits
- 4 LP Trays
- 1 Supplemental Supplies Kit

General Clinical Labs: Covance Blood Work

- At Screening and annual visits thereafter
- Covance will provide initial supply to kits
 - 3 tubes:
 - Hematology and Differential panel
 - Chemistry Panel
 - Coagulation Group (Only at screening)
- Automatic Resupply

	VISIT	Screening	V04/Month 12	V06/Month 24	V08/Month 36	V10/Month 48	V12/Month 60	Premature Withdrawal	Unscheduled	
Γ	OCCURRENCE	1 month	Month 12 +/-	Month 24 +/-	Month 36 +/-	Month 48 +/-	Month 60 +/-			
	OCCORRENCE	-1 IIIOIIIII	30 days							
Γ.	TEST GROUPS									
	Hematology & Differential Panel	Χ	Χ	Χ	Χ	Χ	Χ	Χ	0	
	Chemistry Panel	Χ	Χ	Χ	Χ	Χ	Χ	Χ	0	
	Coagulation Group	Χ							0	

Covance Kits

SERUM

Chemistry Panel

One 2.5 mL gold top serum separation tube. Fill tube completely. It is important to thoroughly mix the blood with the clotting activation agent by inverting the tube not less than five times. Allow blood to clot for 30 minutes (tube standing upright). Centrifuge at 1500 to 2000 x g for 15 minutes until clot and serum are separated by a well-formed polymer barrier. Use pipette provided to transfer all the serum into the 5 mL plastic vial labeled CHEMISTRY.



Hematology & Differential Panel

Draw whole blood samples last except when collecting coagulation group at the same visit.

One 2 mL lavender top tube. Fill tube completely. Mix immediately by gently inverting the tube at least 8 to 10 times. Make blood smears with blood from the lavender top tube using the Diff-Safe dispenser. Make two slides. Allow to air dry and place in blue slide mailer. **Remove the Diff-Safe from the tube!** Do not forget to ship the tube after using it for the hematology slides.

NOTE: The best source of information in confirmation of hematology results is the blood smear slide prepared by you at the time of draw. Your diligence in slide preparation increases the opportunity to provide hematology results.



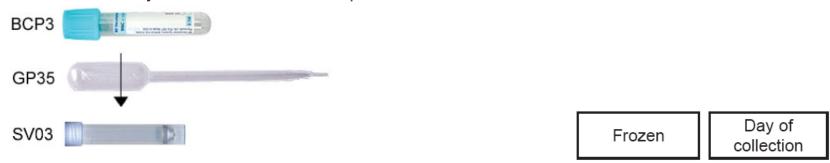
Covance Kits

PLASMA

Coagulation Group

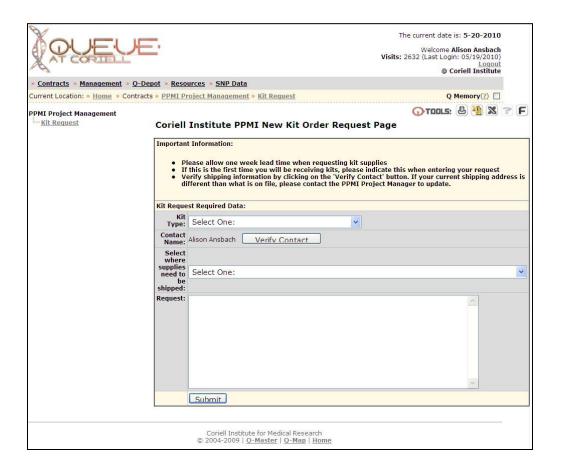
Draw this tube last.

One 2.7 mL blue top sodium citrate tube. Fill tube completely. Mix immediately by gently inverting the tube at least 8 to 10 times. Centrifuge at 1500 to 2000 x g for 15 minutes until cells and plasma are well separated. Use pipette provided to transfer all the plasma into the 3 mL plastic vial labeled COAGULATION GROUP FROZEN. Freeze immediately at -20°C or -70°C until shipment.



Ordering Kits

- Coriell provides materials to collect and ship samples
- Each site will place kit orders through Coriell's online database
- Please allow turnaround time of at least one week



Collection and Processing (Research Samples)

Submitting samples to Coriell/BioRep: 3 types of visits, 3 types of kits

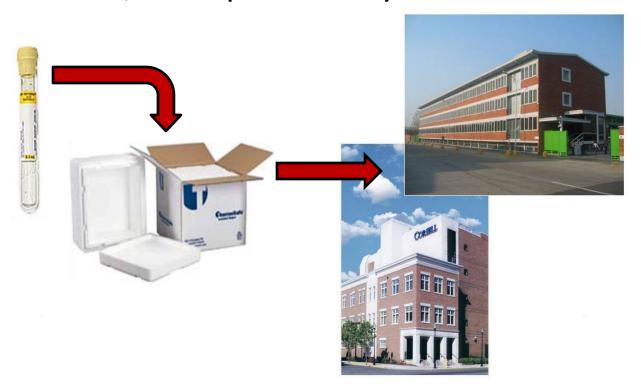
Sample	SCREENING VISIT	Baseline/V02/ V04/V06/V08/ V10/V12	V01/V03/V05/ V07/ V09/V11
Blood for DNA			
extraction	X		
Blood for Plasma		X	X
Blood for Serum		X	X
Whole Blood		X	X
Blood for RNA			
extraction		X	X
Urine		X	
CSF		X	

Standardization and Quality are Key!!

Be sure to carefully review the biologics manual prior to the first subject visit and reference during visits as needed.

Screening Visit: Blood for DNA Extraction

- Fill one 8.5ml yellow-top tube with blood
- Keep blood at room temp DO NOT refrigerate or freeze
- Ship to Coriell/BioRep same day as blood is drawn



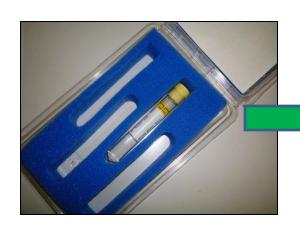
Screening Kit Contents



Type of specimen to be collected:

1 yellow top tube of blood

Packaging & Shipping the Screening Kit







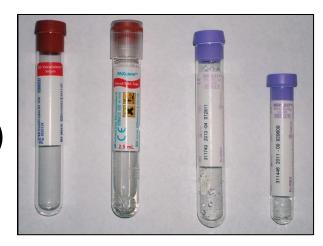






Baseline, 6 month, and Annual Visits: Plasma, Serum, Whole Blood, RNA, Urine & CSF

- Fill one each of the following blood tubes:
 - PAXgene (RNA)
 - Large (10ml) Purple top (plasma)
 - Small (5ml) Purple top (whole blood)
 - Red top (serum)



- Collect urine and CSF
- Process each specimen per protocol
- Ship to Coriell/BioRep on dry ice

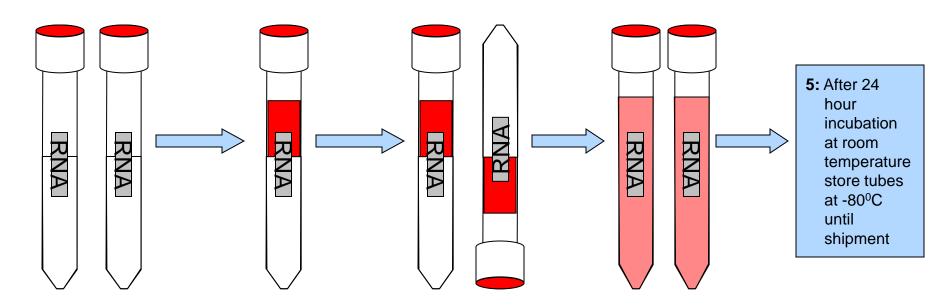
Baseline/V02/V04/V06/V08/V10/V12 Kit Contents



Types of specimen to be collected:

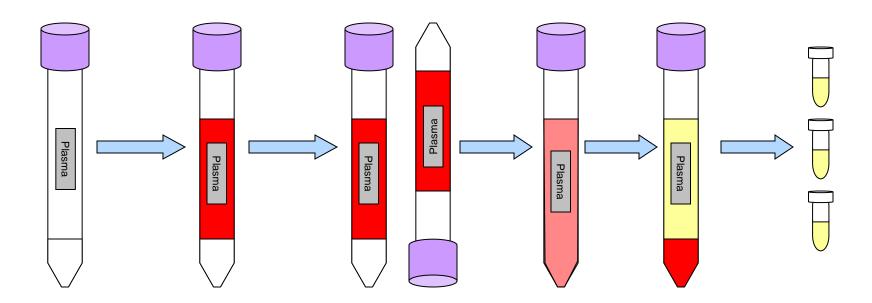
- 1 red top tube of blood (for serum)
- 1 [10ml] purple top tube of blood (for plasma)
- 1 [5ml] purple top tube of blood (for whole blood)
- 2 PAXgene blood RNA tubes
- Urine sample
- Cerebrospinal fluid

PaxGene Tube Preparation



- 1: Store tubes at room temperature, label with preprinted "RNA" labels prior to blood draw.
- 2: Collect blood into one PAXgene tube, allowing blood to flow 10 seconds and ensuring blood has stopped flowing each time.
- 3: Immediately after blood draw, invert tube gently 8-10 times to mix samples. Repeat Step 2 and 3 for second tube.
- 4: Incubate tubes upright at room temperature for 24 hours before freezing samples.

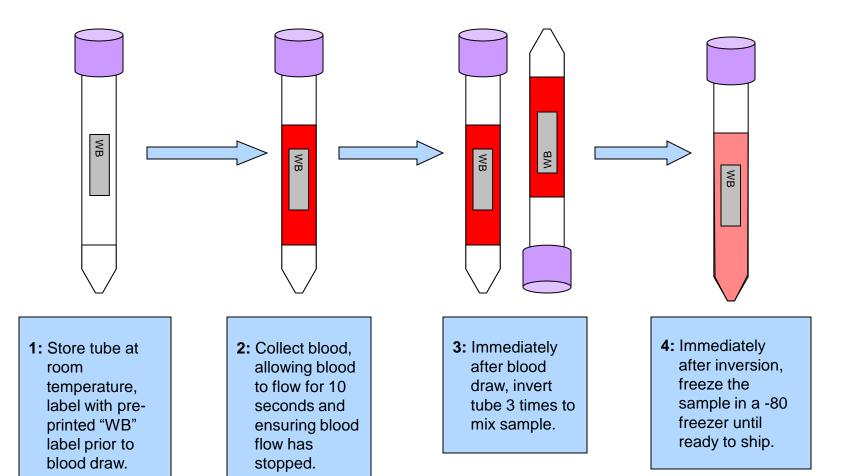
Plasma Preparation



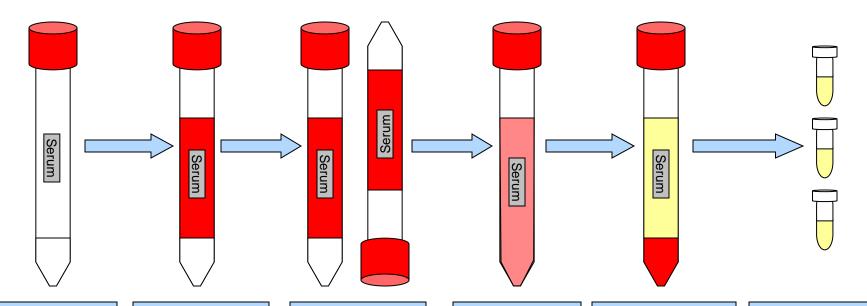
- 1: Store tubes at room temperature, label with pre-printed "Plasma" labels prior to blood draw.
- 2: Collect blood in Plasma Tube, allowing blood to flow for 10 seconds and ensuring blood flow has stopped.
- 3: Immediately after blood draw, invert tubes 8-10 times to mix samples.

- 4: Within 30 minutes of blood draw, centrifuge samples at 4°C, 1500 x g for 15 minutes.
- 5: Label micro centrifuge tubes with preprinted "Plasma" labels. Use transfer pipette to aliquot 1.5 ml samples of plasma. Store plasma aliquots at -80°C until shipment.

Whole Blood Preparation



Serum Preparation

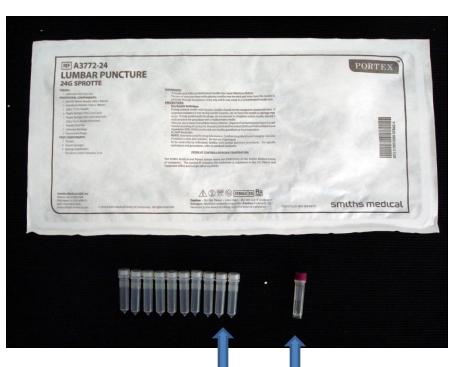


- 1: Store tubes at room temperature, label with pre-printed "Serum" labels prior to blood draw.
- 2: Collect blood in Plasma Tube, allowing blood to flow for 10 seconds and ensuring blood flow has stopped.
- 3: Immediately after blood draw, invert tubes 8-10 times to mix samples.
- 4: Allow blood to clot at room temperature for 15 minutes.
- 5: Within 60 minutes of collection, centrifuge samples at 4°C, 1500 x g for 15 minutes.
- 6: Label micro centrifuge tubes with preprinted "Serum" labels. Use transfer pipette to aliquot 1.5 ml samples of plasma. Store plasma aliquots at -80°C until shipment.

Urine Sample Preparation

- Collect in the cup provided
- Transfer to 15 mL Conical tube
- Spin at 4 °C for 15 minutes at 2500xg
- Label 15 mL transfer tube, pipette supernatant into clean tube
- Freeze on dry ice or at -80 °C immediately

Lumbar Puncture Tray





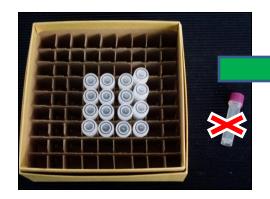
Purple top 2ml vial for clinical lab

Clear 2ml vials for repository

LP Procedure

- 24g Sprotte needle provided in custom kit
- Label and Pre-cool aliquot tubes on ice—tubes NOT in LP tray but in blood kits
- Collect first 1-2 cc's, place in purple top tube
 - Send within 4 hours of collection to local lab for routine analysis (protein, cell count, glucose)
- Collect next 15 cc's CSF and transfer to 15 mL conical tubes
 - Immediately mix in 15 mL conical tubes
 - Spin at 2000x g for 10 minutes at ROOM TEMPERATURE
 - Immediately aliquot approx. 1.5 mL into pre-cooled aliquot tubes
 - Freeze at -80 °C immediately

Packaging & Shipping the Baseline Kit













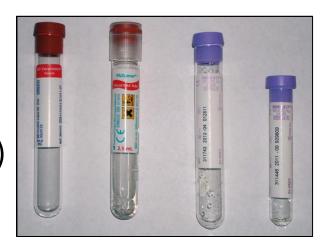






V01/V03/V05/V07/V09/V11: Plasma, Serum, Whole Blood & RNA

- Fill one each of the following blood tubes:
 - PAXgene (RNA)
 - Large (10ml) Purple top (plasma)
 - Small (5ml) Purple top (whole blood)
 - Red top (serum)



- Process each specimen per protocol
- Ship to Coriell/BioRep on dry ice

V01/V03/V05/V07/V09/V11 Kit Contents



Type of specimen to be collected:

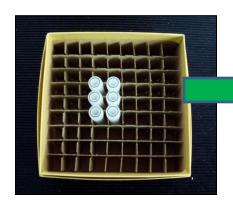
1 red top tube of blood (for serum)

1 [10ml] purple top tube of blood (for plasma)

1 [5ml] purple top tube of blood (whole blood)

2 PAXgene blood RNA tubes

Packaging & Shipping the V01/V03/V05/V07/V09/V11 Kit















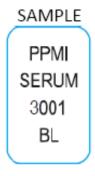




Labelling Samples

Labelling Biologic Samples

- Labels provided by the CTCC
- Labela are pre-printed with:
 - Study name (PPMI)
 - Specimen type (Serum, Plasma, CSF, etc.)
 - Subject ID number (based on block assigned to your site)
 - Visit number (BL, V01, V02, etc.)



Labelling Biologic Samples

 ENSURE <u>ALL</u> SAMPLES ARE PROPERLY LABELED!

 You should label <u>each</u> tube during processing so samples do not get mixed

 You must label <u>each</u> aliquot tube to ensure proper identification of each sample upon receipt at Coriell/BioRep

Entering Data into EDC

Timely Data Entry

- At the time samples are collected, ensure all information is recorded accurately on the DNA Sample, Laboratory Procedures and LP data forms
- Data captured in EDC will be used for sample reconciliation
- Information from the CRF source worksheets should be entered on the day of the visit (or within 2 business days per protocol)

DNA Sample CRF

PPMI DNA SAMPLE 1 3 2 5 6 SUBJECT ID VISIT NO INITIALS SITE NO VISIT DATE MM DD YYYY 1. Blood sample for DNA: (0 = Not Gollected, 1 = Gollected) Date blood sample for DNA collected: 1a. DD YYYY 2. Volume of blood collected: (milliliters)

3.

Date DNA sample shipped:

Whole Blood Sample CRF

PPMI 1 3 2 7 8 WHOLE BLOOD SAMPLE SUBJECT ID VISIT NO INITIALS SITE NO VISIT DATE MM DD YYYY Whole blood for storage and analysis: (0 = Not collected, 1 = Collected) 1a. Date of whole blood collection: 2. Comments:

Laboratory Procedures CRF

PPMI

1 3	2	LABORATORY PRO	DCEDURES		5 8		
SUB	JECT I	D		VISIT NO			
INITI	ALS	SITE NO VISIT D	DATE MM	DD	YYYY		
1.	Date	of last intake of food:	1	DD	YYYY		
la.	Time	me of last intake of food: (24-hour clock) 1a.					
2.	ls sub	eject on medication for PD? $(0 = No, 1 = Yes)$		2.			
	2a.	Date of most recent PD medication dosing:	2a	DD DD	YYYY		
	2b.	Time of most recent PD medication dosing	(24-hour clock)	2b.	:		
Jrine Sample Collection							
3.	Urine	for storage and analysis: (0 = Not collected,	1 = Collected)		3.		
	3a.	Date of urine sample collection:	3a	DD	YYYY		
	3b.	Time of urine sample collection: (24-hour co	lock)	3b.	:		
	3c.	Time of centrifugation: (24-hour clock)		3c.	:		
	3d.	Rate of centrifugation: (xg)		3d.			
	3e.	Duration of centrifugation: (minutes)			3e.		
	3f.	Indicate temperature at which tube was spu	un: (Gelsius)		3f.		
	3g.	Time urine sample placed in freezer: (24-ho	our clock)	3g.	:		

Lab Procedures CRF – page 2

Blood Sample Collection

Dioo	a Gairin	ore confection				
4.	Date	blood samples collected: 4	DD YYYY			
(RNA	– PAX	(gene RED TOP)				
5.	Blood	for PAXgene/RNA: (0 = Not collected, 1 = Gollected)	5.			
	5a.	Time of PAXgene/RNA sample collection: (24-hours at room temperature)	5a. :			
	5b.	Date PAXgene/RNA samples placed in freezer: 5b. MM	DD YYYY			
	5c.	Time PAXgene/RNA samples placed in freezer:	5c. :			
	5d.	Storage temperature: (Celsius)	5d			
(PLASMA – EDTA PURPLE TOP)						
6.	Blood	for plasma: (0 = Not collected, 1 = Collected)	6.			
	6a.	Time of plasma sample collection: (24-hour clock)	6a. :			
	6b.	Time of centrifugation: (24-hour clock)	6b. :			
	6c.	Rate of centrifugation: (xg)	6c.			
	6d.	Duration of centrifugation: (minutes)	6d.			
	6e.	Indicate temperature at which tube was spun: (Celsius)	6e.			
	6f.	Total volume aliquotted after spinning: (milliliters)	6f			
	6g.	Total number of aliquot tubes:	6g.			
	6h.	Time plasma samples placed in freezer: (24-hour clock)	6h. :			
	6i.	Storage temperature: (Gelsius)	6i			

Lab Procedures CRF – page 3

(SERUM - RED TOP)

Blood for serum: (0 = Not collected, 1 = Gollected)

7.

7a. Time of serum sample collection: (24-hour clock)

7a. :

7b. Time of centrifugation: (24-hour clock)

7b. :

7c. Rate of centrifugation: (xg)

7c.

7d. Duration of centrifugation: (minutes)

7d.

7e. Indicate temperature at which tube was spun: (Celsius)

7e.

7f. Total volume aliquotted after spinning: (milliliters)

7f. .

7g. Total number of aliquot tubes:

7g.

7h. Time serum samples placed in freezer: (24-hour clock)

7h. :

7i. Storage temperature: (Celsius)

7i. -

(GENERAL LABS)

Blood for clinical labs: (0 = Not collected, 1 = Collected)

8.

8a. Date shipped to central lab:

8a.

7777

Lumbar Puncture CRF

PPMI						
1 3 2 LUMBAR PUNCTURE 6 4						
SUBJECT ID VISIT NO VISIT NO						
INITI	ALS SITE NO VISIT DATE	DD YYYY				
A.	Date of last intake of food: A	DD YYYY				
В.	Time of last intake of food: (24-hour clock)	В. :	_			
G.	Is subject on medication for PD? (0 = No, 1 = Yes)	C.				
Ga.	Date of most recent PD medication dosing: Ca. MM	DD YYYY				
Gb.	Time of most recent PD medication dosing (24-hour clock)	Cb. :				
1.	Lumbar puncture for collection of CSF: (0 = Not collected (comment required), 1 = Gollected)	1.				
2.	Date GSF collected: 2	DD YYYY				
3.	Indicate needle used to collect CSF: 1 = 20g Quincke (sharp bevelled) needle 2 = 22g Quincke (sharp bevelled) needle 3 = 25g Quincke (sharp bevelled) needle 4 = 22g Sprotte (atraumatic) needle 5 = 24g Sprotte (atraumatic) needle (preferred) 6 = 18g	3.				
4.	Indicate method of collecting the CSF: 1 = Gravity 2 = Syringe suction	4.				
5.	Lumbar puncture performed at the: 1 = L3-L4 Interspace 2 = L2-L3 Interspace 3 = Unknown	5.				
6.	Subject position when lumbar puncture performed: 1 = Sitting, leaned over (preferred) 2 = Lying, curled up on side 3 = Unknown	6.				
7.	Time GSF collected: (24-hour clock)	7. : :				

Note to record time of last meal.

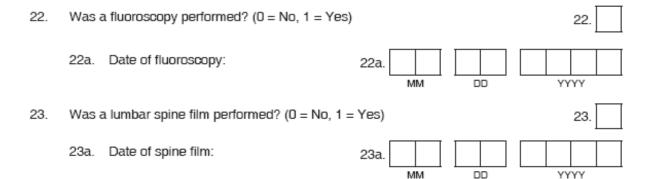
Note to record info about PD meds (if applicable).

Lumbar Puncture CRF – page 2

8.	Volume of CSF collected prior spinning: (milliliters)	8.				
9.	Time CSF was centrifuged: (24-hour clock) (Within 15 minutes from sample collection)	9. :				
10.	Rate of centrifugation for the CSF sample: (xg)	10.				
11.	Temperature at which CSF tube was spun: (Gelsius)	11.				
12.	Time CSF sample aliquotted: (24-hour clock)	12. :				
13.	Total volume of CSF aliquotted after spinning: (milliliters)	13.				
14.	Total number of aliquot tubes:	14.				
15.	Was part of sample discarded due to a bloody tap? (0 = No, 1 = Yes)					
16.	Time samples were either placed in freezer or placed on dry ice: (24-hour clock)	16. :				
	16a. Storage temperature if placed in freezer: (Celsius)	16a	Re			
17.	Was part of the sample sent to local lab for analyses? (0 = No, 1 = Ye If No, specify in Comments	es) 17	the			
18.	What is the white blood cell count?		an			
	18a. Indicate units: 10° mcL 10° mcL					
19.	What is the red blood cell count?					
	19a. Indicate units: 10° mcL 10° mcL					
20.	What is the total protein? 20.					
	20a. Indicate units:					
21.	What is the total glucose?					

Record results from the local lab analysis of the CSF.

Lumbar Puncture CRF – page 3



Shipping Samples (Covance and Coriell/BioRep)

Covance Shipping Instructions

- Ambient Day of Collection
 - Hematology and Differential
 - Chemistry Panel
- FROZEN Day of Collection
 - Coagulation Group (Screening Only)
- Packaging and Shipping Instructions
 - Refer to Covance Laboratory Manual

Coriell/BioRep Sample Record Shipping Form

PPMI Sample Record Summary and Shipment Notification

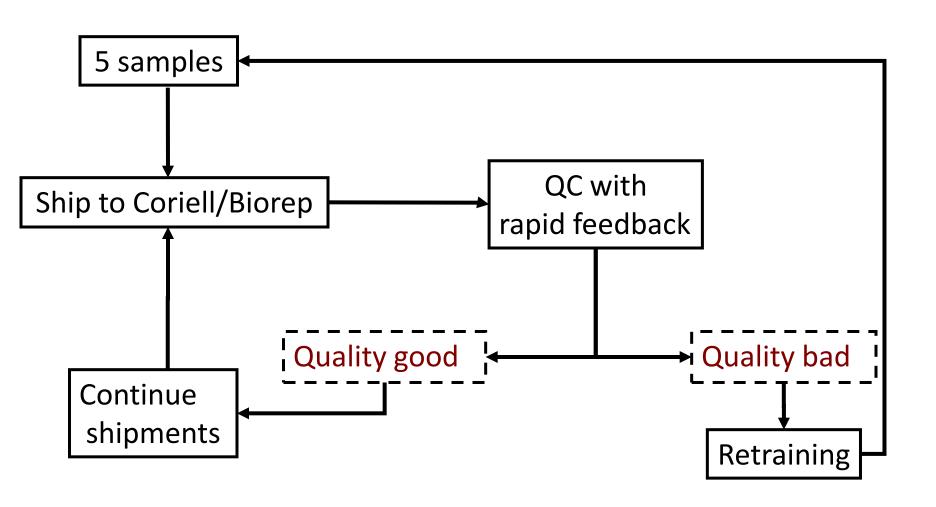
Site Number:			P	rincipal Inv	estigator:			
Coordinator:				elephone:		Email:		
Date Samp	ole(s) Shipped	l:						
of shipmen Site will be	t using contact contacted sho	informatior uld there be	n below. e issues w	Place a copy vith samples	y in the shipment box a s noted upon receipt or	nd file a copy of the co shipment did not inclu	Rep (email, fax or phone) in advance ompleted form in the study binder. de this form.	
Completed by Submitter/Site			Completed by Repository					
Subject ID Number	Specimen Type (RNA,DNA, WB, Urine, CSF, Plasma, or Serum)	Visit Type (BL, V01, V02, etc.)	# of Tubes	Gender	Date of Draw	Repository ID Number	Notation of problems	
Total number of tubes:								
Courier (check one): FedEx DHL Other (specify): Tracking Number:				pecify):	Contact Information: Coriell - U.S. Sites BioRep – European Sites Alison Ansbach PPMI@biorep.it aansbach@coriell.org Fax: +39 02 58018471 Fax: 856-966-5067 Ph: +39 02 58014369			

Quality Control of Research Samples

QC Feedback to Sites

- Purpose: Provide feedback to sites to confirm whether procedures are being followed per the research lab manual
- QC Checklist Form completed for first 2 subject's samples submitted (SC and BL visit)
- Coriell and BioRep completes upon receipt of the SC and BL visit and emails completed form back to site
- Site should file copy in study binder

Quality Control



Summary

Adhering to protocol and Manual is CRITICAL!

 Do not hesitate to contact CTCC/Coriell/BioRep with any questions or feedback

Coriell Contact Info

Coriell

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