



PARKINSON'S  
PROGRESSION  
MARKERS  
INITIATIVE

Play a Part in Parkinson's Research

## **PPMI**

# **[<sup>18</sup>F] Florbetaben PET Imaging Technical Operations Manual**

## **The PARKINSON PROGRESSION MARKER INITIATIVE**

Version: 3.0

Date: 09 March 2017

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**Approvals:**

I acknowledge and approve the PPMI [<sup>18</sup>F] Florbetaben Technical Operations Manual (TOM) (Version 3.0). Any revisions made to this TOM will require it to be re-versioned, with signatures.

  
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## 1. Introduction

This manual describes technical features of [<sup>18</sup>F]Florbetaben PET brain imaging for Parkinson's Progression Markers Initiative (PPMI).

**For more information about the clinical study, please request a copy of the current clinical study protocol from your respective clinical site team.**

## 2. Imaging Center Qualification Process

To ensure that an imaging center chosen to participate in a study meets the high level of standard required by the Core Lab, The Institute for Neurodegenerative Disorders (IND), the selected PET imaging centers will complete the following steps listed below, as needed.

### 2.1 Completion of the PET Imaging Center Technical Assessment Questionnaire

This initial step in the process is the site's completion of a PET Imaging Site Qualification Questionnaire. This form provides IND with contact information for key individuals, specific scanner and computer system capabilities, and other specifications necessary for satisfactory completion of the study. The completed questionnaire is reviewed by IND for initial assessment of the imaging center's technical capabilities. In certain cases where IND has been working with an imaging center on another study and has a current questionnaire on file, the requirement for the center to complete a new questionnaire may be waived.

### 2.2 Test Data Transfer and Data Web Upload, sFTP or Direct DICOM Transfer

PET Imaging centers will be asked to provide a de-identified brain scan (or another acceptable acquisition such as a phantom) as test data and to electronically transfer the data via Web Upload, Direct DICOM push (DICOM node to DICOM node), sFTP, FTP to IND. This serves as a test to establish the transfer mechanism between the center and IND, and to discover any file transfer problems. Imaging centers will be provided with instructions and PET Test Data Transfer Document for the test data acquisition via e-mail once their PET Technical Questionnaire has completed review.

The preferred method of transfer for the data is via Web Upload (e.g. upload data in a web browser to MNI's PACS server). **Test data needs to be sent using the same exact pathway anticipated to send subject data.** If IND is already receiving data from an imaging center, and the transfer pathway is well established, the requirement to send a test data transfer may be waived. In the event that electronic transfer cannot be performed, IND will work with the imaging center to determine other options.

### 2.3 PET Technical Set Up Visit

Once the test data has passed quality control (QC), a member of IND's team will contact the center to schedule the PET imaging center Technical Set-up Visit. The PET set-up visit will be conducted one of two ways, via an on-site visit as described in 2.3.1 or a teleconference visit as described in 2.3.2. The type of visit conducted will depend upon IND's experience with the PET center.

### **2.3.1 On Site Set Up Visit:**

A representative from IND will review the imaging center's PET instrumentation and image processing software in order to optimize the image acquisition and data processing plan for the imaging center. The acquisition protocol will be established for the imaging center's PET scanner. In addition, procedures for image reconstruction and processing, file-naming, and data transfer will be reviewed.

This visit is usually conducted in two sessions over one day. The first session is a slide presentation and the second session is the scanner set up/phantom acquisition. IND understands that demands for scanner time may influence the timing of the phantom acquisition and every means will be taken to be flexible around the scheduling of the visit activities. The clinical staff working on the project are invited and encouraged to attend the presentation portion of the visit.

During the on-site setup visit, the following will be completed:

- Review subject flow and imaging center study roles, responsibilities, and communication
- Review imaging procedures, rationale, and documents
- Develop scanner-specific acquisition protocol
- Perform  $^{18}\text{F}$  Hoffman 3D brain phantom acquisition emission and attenuation correction (CT or Transmission) scan
- Review and document with screen captures, reconstruction and attenuation correction procedures
- Review imaging center's data transfer capabilities and transmit phantom acquisition data to IND for review
- Review quality assurance program and assessments to occur during the study
- Review Core Lab communications
- Review [ $^{18}\text{F}$ ] florbetaben ordering procedures
- Review adverse event reporting procedures
- Confirm contact information
- Review contents of the PET Technical Binder

### **2.3.2 PET Technical Set-Up Teleconference**

In some cases (depending on sponsor requirements and at IND's discretion) IND will schedule a Technical Set-Up Teleconference in lieu of an on-site set-up visit. All procedures outlined above will be completed during the Technical Set-Up Teleconference except for the phantom acquisition and scanner set-up.

Imaging centers will be requested to set up the acquisition and reconstruction protocols prior to the teleconference and take screen captures documenting the accurate set up of the protocol on the scanner workstation. Centers are asked to then send the screen captures or photos electronically to IND for review. An IND center set-up staff member will contact the imaging center's nuclear medicine staff to work through the scanner set-up for the new protocol via phone if necessary.

### 2.3.3 PET Approval to Scan

Following the on-site or teleconference technical visit, an 'Approval to Scan' email and a detailed report summarizing the technical acquisition and reconstruction parameters, image analysis, and file transfer procedures will be sent to the imaging center, with a copy to the clinical site and sponsor designees. This approval indicates that the imaging center is now ready to scan the first study subject. The approval letter and technical report should be kept in the PET Technical Binder.

### 2.3.4 First Subject Acquisition

After the first subject has been imaged, the imaging center will be instructed to promptly transfer the data to IND for review. The imaging center should NOT image a second subject until IND has reviewed the first subject data and it has passed the quality control procedures at the Core Lab.

Once the first subject data has passed quality control at IND, the imaging center will be notified via email that they have been cleared to continue imaging additional subjects scheduled to have a PET scan. Sites will be notified within approximately 3 business days of receipt of the 1<sup>st</sup> subject data (barring no queries).

## 3. [<sup>18</sup>F] Florbetaben Ordering Procedures

### 3.1 [<sup>18</sup>F] Florbetaben Dose Ordering Information

**Neuraceq<sup>TM</sup> (florbetaben F18 injection) Dose orders can be placed by:**

- Telephoning the pharmacist <sup>1</sup>
- Faxing a completed dose order form<sup>2</sup>
- Online ordering using Pinestar NMIS software<sup>3</sup>
- Online ordering using eDose connect

**Imaging centers will be provided with site specific instructions to order [<sup>18</sup>F] Florbetaben.**

## 4. [<sup>18</sup>F] Florbetaben Safety Information

[<sup>18</sup>F] florbetaben is a FDA approved imaging agent (Neuraceq<sup>TM</sup>) approved for use in the US and Europe.

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<sup>1</sup> Primary Supply site/Nearest Pharmacy to supply Neuraceq<sup>TM</sup> will be indicated at the time of imaging set up up

<sup>2</sup> If choosing to fax in the order using the Piramal supplied order form, an order confirmation must be requested/obtained.

<sup>3</sup> Online ordering with Pinestar NMIS or eDose Connect requires that an online account be set up. Please contact your local IBA Molecular pharmacy to set up online ordering for your site. NeuraCeq<sup>TM</sup> (F-18 Florbetaben) dose availability may vary, based on location, day and calibration times.

The imaging center personnel (especially the nuclear medicine physician) should review the information posted on this web link:

[http://neuraceq.com/images/Neuraceq\\_PI\\_031814.pdf](http://neuraceq.com/images/Neuraceq_PI_031814.pdf)

## 5. PET Scan Procedures

### 5.1 Timing of the [<sup>18</sup>F] Florbetaben PET Scan

Refer to the schedule of activities in the clinical protocol to determine the frequency to [<sup>18</sup>F] florbetaben scanning for the different PPMI cohorts.

Please make sure you receive the correct visit and scan interval from the study coordinator.

For sites performing multiple imaging scans, [<sup>18</sup>F] florbetaben PET scans will occur at approximately 1-3 weeks after completion of the SPECT DAT imaging.

### 5.2 [<sup>18</sup>F] florbetaben Injection and Scan Acquisition Procedures

Subjects will receive the [<sup>18</sup>F] florbetaben injection as a single intravenous (i.v.) bolus injection. The administered dose should be 300 MBq (+/- 20 %).

The [<sup>18</sup>F] florbetaben injection should be followed by a flush of sodium chloride 9 mg/mL (0.9%) solution for injection to ensure the full recommended dose is administered to the subject. **There is no requirement for subjects to fast prior to a [<sup>18</sup>F] florbetaben injection.**

#### 5.2.1 Pre-Injection Assessments and Procedures

**NOTE: For female patients of childbearing potential, a negative urine pregnancy (HCG) test must be observed on the day of the imaging, prior to injection and other imaging procedures.**

- Obtain subject's weight.
- Patient voids bladder.

#### 5.2.2 Injection Assessments and Procedures

- Obtain intravenous access
- Draw approximately 300 MBq of [<sup>18</sup>F] florbetaben ( $\pm$  20%) and assay with a dose calibrator. Record assay results and assay time.
- Inject the 300 MBq ( $\pm$  20%) of [<sup>18</sup>F] florbetaben as a single bolus followed by an infusion line flush with 10-20 ml of saline.



- The dose should be injected intravenously through an indwelling catheter ideally placed in the antecubital region (no injection should be made by needle insertion into a vein, which may be subject to extravasation). Please refer to the manufacturer's prescribing information for further details.
- For accurate determination of the dose of injected [<sup>18</sup>F] florbetaben, the empty syringe is refilled to the same volume as the injection and re-assayed in the dose calibrator recording activity and time of sampling.

### 5.2.3 Scanning Assessments and Procedures

- Have subject relax post injection for approximately 80 minutes.
- Once approximately 80 minutes has elapsed, have the subject empty their bladder prior to the imaging session.
- Post Void, position and secure the subject in the scanner, using Velcro straps or tape to prevent head motion.
- A CT or isotope transmission scan will be performed prior to obtaining emission data with the patient's brain completely in the field of view.
- Acquire a **4 X 5 minute** emission scan per the acquisition/reconstruction parameters detailed below at 90 min ± 5 min after injection.

**NOTE: For imaging centers that are unable to acquire or save dynamic PET images, a single 20 minute (1x20 minute) image would be acceptable.**

- Assess for adverse events. If a subject experiences an adverse event, the study coordinator and/or principal investigator of the respective site must be contacted immediately. (See Section 10.1)
- 7-10 days following the PET scan, the subject will be contacted by the clinical site by telephone to obtain information on any adverse events that may have occurred since the subject was discharged from the PET imaging center.
- All images should be corrected using measured attenuation.

### 5.3 Attenuation Correction

#### PET only scanners

- Acquire a transmission scan for the purpose of attenuation correction using rod sources for 5 to 10 minutes, depending on the strength of the rod sources during time of study. This should be done prior to the acquisition of the emission scans.
- Apply segmentation and re-projection routines for attenuation correction.

#### PET/CT Scanners

- Use standard low-dose CT acquisition parameters for attenuation correction. This should be done prior to the acquisition of the emission scans.

**For Both Types of Scanners--Make sure to:**

- Assess images for artifacts and patient motion.
- Assess images for patient positioning. (Make sure the entire brain is within the FOV).
- Imaging centers must ensure they archive the reconstructed imaging data for this study as these represent the source data and must be kept at the imaging center. Additionally and if possible, raw (sinogram) data should be archived as well.
- Check QC headers for proper scan identification, confirm headers are void of any patient identifiable information and verify correct dynamic time point information.

IND should be sent all reconstructed study data, reconstructed images with attenuation correction, and transmission data from the imaging day associated with each injection. It is requested these be provided in DICOM 3 format.

In keeping with regulatory requirements, it is critical that no subject names or other identifying information be associated with the transferred image files. Files should be identified on the basis of the study-specific subject number, according to the algorithm described below.

**5.4 Image Acquisition & Reconstruction Guidelines**

***Example only of an initial PET Emission Acquisition & Reconstruction-NOTE: This will be evaluated during site set-up and adjusted for system optimization.***

Scanning direction:	Head to foot
# Of Beds:	1 (brain)
Time per Scan:	4 x 5 Minute scans*
Randoms Correction:	On (Prompts – Delays)
Scatter correction:	On (Monte Carlo Simulation based upon CT data model)
Decay Correction:	On
Attenuation Correction:	CT or isotope transmission
Reconstruction Algorithm:	Iterative (OSEM, RAMLA, etc.)
Image Matrix Size:	128 x128
Zoom:	2
SFOV:	Standard Brain SFOV
Post reconstruction Filter:	Gaussian FWHM 5.0 mm

**\* Iterative reconstruction of the emission data with attenuation correction represents the default reconstruction image set.**

**Please note that the technical site set-up visit will determine the final imaging protocol to be used for centers that cannot acquire dynamic scans.**

Acquisition and reconstruction descriptions above may vary depending on scanner model and software versions. These parameters are meant to be a general guideline in assisting you with the scanner set up. Final determinations will be made at the time of the phantom acquisition or during your technical set up

teleconference. List mode, dynamic or serial static acquisitions are preferred with a single 20 min static being acceptable only on those scanners not capable of the other acquisition methods.

***Suggested low-dose CT Scan parameters:***

A **standard low-dose, non-diagnostic CT** acquisition of the head is acquired for attenuation correction. [Eff mAs approx. 55 and Tube voltage approx: 120 kVp]CT parameters will be evaluated during site set-up and adjusted for system optimization.

The Core Lab should be sent all reconstructed study data, reconstructed images with attenuation-correction, and transmission data from the imaging day associated with each injection. These data should be provided in DICOM 3 format. In addition, the transmission (or low-dose CT) scan should be sent in DICOM format.

**NOTE: Please ensure that the images are reconstructed using quantitative units such as SUV, Bq/ml, kBq/cc, etc. prior to sending the images to IND. If this is not available on your system, please contact IND prior to sending any subject data to be provided with further instructions.**

## **6. File Naming Procedures**

It is very important that each imaging center use a standard file naming convention so that all scans can be easily identified.

- Subject data transferred to the imaging core lab will be identified in the following manner:  
**(PPMI + 3 digit site number + 4 or 5 digit subject number) followed by:**
  - 1 = e.g. V04, V06, V08, unscheduled, etc.
- The subject ID will be provided by the Clinical Study Coordinator at the clinical site prior to the PET visit.

**Please note:** The site number is assigned to the clinical sites in the trial, not the imaging centers. Therefore, imaging centers that are receiving referrals from several clinical sites need to use the clinical site number associated with the site the subject is being referred from, on the paperwork and in the naming of the scans when data is transmitted to IND.

### **For all acquisition modes:**

- The file naming convention is to be entered in the **Patient name and ID fields** on your scanner in this format:

**Protocol Identifier-3 digit site number-4 or 5 digit subject number  
(e.g., PPMI-123-1234)**

- The **series description** will be specific to each center and scanner and will be determined at the time of the site set-up visit
- **For scanners acquiring in sequential static frames, please incorporate the order of the acquisition into the series description.**

Example: For a scan from subject 1001 from site 003, the emission and transmission series description fields would be as follows:

PPMI-003-1001	Transmission or CT scan
PPMI-003-1001	90-110 minutes post-injection PET emission scan

## 7. Imaging Data Transfer

All image data transfer is by Web Upload, file transfer protocol (FTP), or Direct DICOM push to the IND servers in New Haven, CT. Individual image center issues regarding transfer of image data will be addressed at the time of the test data transfer.

### Please note:

- Imaging centers that are sending images via FTP to IND for more than 1 study will have a separate FTP username and password for each study. It is important for the image center to use the right username and password when sending the data so that images can be identified to the right study.
- For Siemens HR+ scanners, FTP transfer is required in native ECAT format (eliminating DICOM conversion).

### 7.1 Imaging Document Transmission

Using the file naming procedures detailed in Section 5, the center should record the files to be sent on the PET Scan Acquisition Document and PET Imaging Data Transfer Document. These sheets should be emailed to IND at [corelab@indd.org](mailto:corelab@indd.org) or can also be faxed to IND (fax number 203-401-4303) along with the Camera QA Log.

***Imaging data and corresponding paperwork are to be transferred within 24 hours of acquisition. This is especially important for screening PET scans as they are used for study eligibility purposes.***

## 8. Data Receipt Notification

Once the PET data and corresponding documents are received at IND, the imaging center will be sent an email indicating that the data and documents have been received and that they are under review. This email should be printed and filed in the Technical Binder.

## 9. IND Data Review and Query Generation

The Core Lab will then review the file transfer document against the data received via Web Upload, FTP, or Direct DICOM Push to check for the presence of all expected data files. Each image file will be reviewed for accuracy and completeness using a standard quality assurance procedure. Image files sent to the Core Lab will undergo a two step quality assurance check, including review of the file naming, ensuring image headers are de-identified, energy windows, movement artifacts, reconstruction artifacts, timing of the acquisition relative to injection, among other checks.

If there is a problem with the data a query may be generated. There are two types of queries you may receive:

- 1) **Data Clarification Form (DCF)** – DCFs are sent to imaging centers if there is missing information or if there is a clarification needed from study documents.
- 2) **Technical Issue Clarification Form (TIC)** – TICs are sent if there are technical issues found with PET scans, such as problems with acquisition procedures or reconstruction, or image quality in general.

**Please note that the subjects' first scan (Screening scan) will be used for eligibility for the study. Please complete any query generated for the first scans within 24 hours of receipt.**

For follow-up scans, DCFs & TICs are to be completed, signed by nuclear medicine physician or PET staff designee and returned to IND within 5 working day of receipt.

## 10. Adverse Events Assessment

An adverse event (AE) is any untoward medical occurrence in a subject or clinical investigation subject administered an investigational product.

In this trial, the Clinical Study Site Investigator is responsible for reporting of adverse events (AEs). Although adverse events related to the PET imaging ligands themselves are not anticipated, other things can happen during the subject's time at the PET center (i.e. subject falls, injection site reaction, nausea, dizziness, etc.).

Therefore, it is very important for the imaging centers to contact their respective clinical study site personnel immediately (i.e., local Principal Investigator or study coordinator) if they become aware of any adverse events during the imaging procedures, whatever the cause may be. The clinical coordinator should be contacted by phone and then a follow-up should occur in writing (by fax or e-mail).

## 11. Quality Control and Scanner Calibration

Quality control measures are to be performed according to the center and scanner manufacturer standard procedures as implemented in the center's quality control program for the PET scanner and dose calibrator.

**For dedicated PET scanners:** The scanner should have up-to-date 3D well-counter and 3D normalization calibrations on the date of each imaging session. IND recommends quarterly updates of 3D well counter calibration for research studies. In addition a daily QC/blank scan (empty port transmission) scan should be done at the beginning of the day the scanning is to be completed. The QC sinogram should be visually inspected for abnormalities. If there is a possibility that the abnormality could impact the quality of the PET scan the study should be rescheduled.

**For PET/CT systems:** The scanner should have up-to-date 3D well-counter and 3D normalization calibrations as recommended by the manufacturer, on the date of the imaging session. A daily QC check should be done at the beginning of the day the scanning is to be completed. This scan should be visually inspected for abnormalities. If there is a possibility that the abnormality could impact the quality of the PET scan the study should be rescheduled. Daily CT QC should be performed as recommended by the scanner vendor, but typically should include a "checkup/calibration" procedure and a water phantom scan. The checkup/calibration procedure guarantees optimum image quality by warming up the x-ray tube and should be performed at startup and within 1 hour prior to any scan. The water phantom provides quality measurements of 3 parameters, including the CT value of water calculated in Hounsfield units (HU), the pixel noise of images calculated as a standard deviation, and the tube voltages measured directly on the x-ray tubes. These three measurements should be determined for all intended kVp values.

**Dose Calibrator:** Quality control of the dose calibrator should be performed throughout the course of the study. This typically will include daily constancy, quarterly linearity and annual accuracy tests.

Quality assurance data, software upgrades, changes in hardware and any other manipulations or changes to the imaging scanner will be recorded on a Camera QA Event Log which will be provided to the imaging centers during the technical set-up visit (Appendix 1). This monthly log records any QC, software or other changes to the scanner and acquisition computer. The Camera QA Log(s) up to and including the date of each subject scan should be emailed or faxed with other documents at the time of the electronic transfer of the image data.

## 12. PET Scanner Replacement or Upgrade

**It is important that subjects are imaged on the same scanner throughout their participation in the study.**

If your center will be replacing or upgrading your PET scanner or acquisition software, it is critical that you inform IND *prior* to the replacement or upgrade occurring, so that IND can take the necessary steps to ensure the continuity of the imaging outcome measures in this longitudinal research study. IND may need to revisit the imaging center to acquire another phantom.

## 13. Study Data Archiving

Imaging centers are required to archive the reconstructed imaging data for this study as this is considered to be the source data. Additionally and if possible, raw (sinogram) data should be archived as well. The method of archiving should follow the imaging center's specific Standard Operating Procedures.

**NOTE: If your center does not have the capability to archive the raw (sinogram) data, IND requires that the data be saved for 30 days at minimum. Please contact IND if your center is unable to archive data for 30 days.**

Additionally, all study related source documentation should be maintained in the appropriate section of the Technical Binder. All queries and/or correspondence will also need to be maintained and filed in the Technical Binder. All study documentation and PET data must be retained by the imaging center in accordance with the protocol.

#### **14. Technical Binder**

The key source for the PET imaging details, technical documentation and guidance is found in the PET Imaging Center Technical Binder. It is recommended that the Nuclear Medicine group maintain the technical binder as a single source of information about the imaging aspects of the study, including recording when phantoms are acquired, QC changes, software upgrades, scan documents, etc. In addition, the technical binder serves as a reference document for the image center summarizing all technical procedures for the study. The technical binder contains the following:

- Contact information
- Technical Operations Manual (a.k.a. Imaging Protocol)
- Camera QA Event Log forms
- Instructions for completion of Camera QA Log
- PET Acquisition and Transfer Documents
- sFTP server, user, and password information, Web Upload, user, and password information, or DICOM push information
- PET Imaging Data Transfer Information Documents
- [18F] florbetaben Dose Ordering documents
- Study-specific subject numbering protocol
- Core Lab communications section for maintaining records of all communication with the Core Lab

The binder will be provided to each imaging center prior to the PET technical set-up visit along with instructions for maintenance of the technical source documents.

**Note:** It may be necessary for IND to update documents during the course of the trial. A copy of all versions of documents provided by IND should be kept in the Technical Binder, although the most recent version of any form should be used for subject scans. Also, many imaging centers will be participating in several trials with IND. It is critically important for the imaging center to use the right forms for each trial. IND will not accept data recorded for a subject in one trial on the forms that should be used for another trial.

## 15. Communication with IND and Trouble-shooting Problems

*ANY* question regarding the technical conductance of the trial, from issues around the scanner set-up, subject and phantom scan acquisition, image processing, file creation and transfer, etc. are appropriate to direct to IND.



**The Institute for Neurodegenerative Disorders**  
60 Temple Street, Suite 8B  
New Haven, Connecticut 06510

For all questions relating to electronic file transfer, and server issues please contact:

**Denise Jesko**

Imaging Coordinator

Telephone: 203-401-4339

Fax: 203-401-4303

Email: [djesko@indd.org](mailto:djesko@indd.org)

For all technical questions (scanner, image processing, file-naming, etc.):

**Karen Johnson**

Imaging Quality Control & Processing Specialist

Telephone: 203-508-1523

Fax : 203-401-4303

Email: [kjohnson@indd.org](mailto:kjohnson@indd.org)

For questions concerning completion of the forms, or if you need more supplies, please contact:

**Lindsay Hubbell**

Data Coordinator

Telephone: 203-508-1542

Fax: 203-401-4303

E-mail: [lhubbell@indd.org](mailto:lhubbell@indd.org)

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Appendix 2

PET Acquisition Document\*

	<b>PARKINSON'S PROGRESSION MARKERS INITIATIVE</b> <small>THE UNIVERSITY OF CHICAGO</small>	<b>PET Acquisition Document</b>	<b>PPMI [<sup>18</sup>F] Florbetaben</b>
Site Number	<input type="text"/>	Subject Number	<input type="text"/>
Scan Acquisition Date	<input type="text"/>	<input type="text"/>	<input type="text"/>
	DD	MON	YEAR
Imaging Center Name	<input type="text"/>		
Clinical Site Name	<input type="text"/>		
Visit Number:	<input type="checkbox"/> Month 12/V04 <input type="checkbox"/> Month 24/V06 <input type="checkbox"/> Month 36/V08 <input type="checkbox"/> Month 48/V10 <input type="checkbox"/> Month 60/V12 <input type="checkbox"/> Month 72/V13 <input type="checkbox"/> Month 84/V14 <input type="checkbox"/> Month 94/V15 <input type="checkbox"/> PW <input type="checkbox"/> Unscheduled		
Weight (kg)	<input type="text"/>		
<b>18F-Florbetaben Injection Information</b>			
Activity in Syringe Prior to Injection:	<input type="text"/>	<input type="checkbox"/> mCi <input type="checkbox"/> MBq	Time Measured*: <input type="text"/>
Activity in Syringe After Injection:	<input type="text"/>	<input type="checkbox"/> mCi <input type="checkbox"/> MBq	Time Measured*: <input type="text"/>
Note: Protocol calls for an injected dose of 8.1 mCi ± 20%. Please do not calculate decay correction when recording dose.			Time of Injection*: <input type="text"/>
<small>*Please record times using 24 hr (h:mm) format.</small>			
<b>Imaging Protocol Parameters:</b>			
<small>Use the same clock to document injection and scan times.</small> Camera: <input type="text"/>			
Acquisition Protocol Used: <input type="text"/>			
Recon Filter Type (e.g. Gaussian, All-pass...)	<input type="text"/>	Kernell (FWHM): <input type="text"/>	Iterations: <input type="text"/> Subsets: <input type="text"/>
CT/Transmission Scan:	Start Time: <input type="text"/>	Stop Time: <input type="text"/>	
Emission Scan:	Start Time: <input type="text"/>	Stop Time: <input type="text"/>	
<b>TECHNICAL COMMENTS:</b>			
<input type="text"/>			
**Please fax to IND at +1-203-401-4303 or email to corelab@indd.org when complete. **			
 * M N I I D 1 0 1 2 *			
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\*refer to Technical Binder for Actual Study Documents

	<b>PARKINSON'S PROGRESSION MARKERS INITIATIVE</b> <small>FOR A FURTHER UNDERSTANDING</small>	<b>PET Imaging Data Transfer Document</b>	<b>PPMI [<sup>18</sup>F] Flortbetaben</b>
Site Number	Subject Number	Scan Acquisition Date	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Imaging Center Name: <input type="text"/>		Clinical Site Name: <input type="text"/>	
Visit Number: <input type="checkbox"/> Month 12/V04 <input type="checkbox"/> Month 24/V08 <input type="checkbox"/> Month 36/V08 <input type="checkbox"/> Month 48/V10 <input type="checkbox"/> Month 60/V12 <input type="checkbox"/> Month 72/V13 <input type="checkbox"/> Month 84/V14 <input type="checkbox"/> Month 94/V15 <input type="checkbox"/> PW <input type="checkbox"/> Unscheduled			
Transfer Mode: <input type="checkbox"/> DICOM Transfer <input type="checkbox"/> sFTP <input type="checkbox"/> Web Upload <input type="checkbox"/> CD or DVD			
Data Format: <input type="checkbox"/> DICOM <input type="checkbox"/> Interfile <input type="checkbox"/> Native System File <input type="checkbox"/> Other: <input type="text"/>			
<b>SCANS SENT</b>			
<input type="checkbox"/> CT Scan/Transmission Reconstruction			
<input type="checkbox"/> Emission Reconstruction			
<b>COMMENTS:</b>			
Date Data Sent to IND:		Time Data Sent to IND (24 hour clock):	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
DD	MON	YEAR	HH : MM
Files Verified/Transferred By: <input type="text"/>			
**Once the imaging day is finished, fax or email completed form to IND at +1-203-401-4303 or email to corelab@indd.org**			
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