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Worksheet Only
Must Complete Online
(See Online Testing)

Phantom Site Scanning Data Forms



PET Accreditation Program

Type of Unit: ☐ PET/CT ☐ PET/MR ☐ PET only

Equipment

PROCESSING SOFTWARE

Version of Software	Vendor

Has all submitted data from the PET system been processed with this computer system? ☐ Y ☐ N

TRANSMISSION SOURCES (for attenuation correction)? ☐ Y ☐ N

Type / Number of Sources	Vendor	Total Activity, mCi	Date of Installation		Frequency of Updates

Rod sizes (small to large):	4.8	6.4	7.9	9.5	11.1	12.7 mm
Cylinder sizes (small to large):	8	12	16	25 mm		

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Phantom Dilution Worksheet

Enter dose and time below

	Dose	Time	Dose Ratios
Patient Dose:			
FDG dose (A), mCi:			FDG Doses: B/A
FDG dose (B), mCi:			
Test dose #1, µCi:			Test Doses: 1/2
Test dose #2, µCi:			
Actual start time of phantom scan:			

When entering SUV parameters for the PET scanning protocol use a 70 kg patient and use the Patient Dose (e.g. 10 mCi) from above with the measurement time entered for dose A.

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PET Quality Control Summary

Are you following the manufacturer's recommended QC?- ☐ Yes ☐ No
If no, please explain why?

Acquisition and Reconstruction Parameters (Whole Body Protocol)

Enter all appropriate acquisition parameters below (list other parameters that may be relevant):

Type of PET(/CT) unit: _____

Acquisition used: (Select one)

☐ Bed position

☐ Continuous bed motion

Emission scan (time per bed): _____ min Transmission scan (time per bed): _____ min

Number of bed positions used for phantom: _____

Total scan time: _____ min

Are different protocols used for children? ☐ Y ☐ N

Describe any modified pediatric protocols and dose reduction techniques: _____

Enter all reconstruction parameters below:

Reconstruction Parameters

Type of reconstruction (OSEM, FBP, etc.): _____

OSEM: Iterations _____, Subsets _____ Processing Filter: _____,

Setting: _____

Slice Thickness: _____ cm

Do you use PSF (Point Spread Function) correction? ☐ Y ☐ N

Do you use time of flight? ☐ Y ☐ N

Please select one of the following if PET/MR is selected as the unit type:

Type of attenuation correction applied: ☐ MR ☐ CT Template ☐ Other _____

Additional information _____

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SUV Analysis Worksheet

For SUV calculations, enter the following into the site's computer: Use the **patient dose** previously selected from the phantom dose chart on page 10. **DO NOT use the value of dose B. Use 70 kg (154 pounds) as the patient's weight.** Use the ROI data obtained for the minimum (min.), maximum(max.) and mean SUV values to complete tables 1 & 2 below.

Patient Dose: _____ mCi PET(/CT) Model: _____

From the ROI data of minimum (min.), maximum (max.) and mean SUVs (SUV parameters: patient dose and 70 kg weight) fill in Table 1 and 2 below. If the smallest vials are not visible, please enter "0".

Slice Number where SUV Measurements were Obtained: _____

A) Contrast – Table 1

	Hot Vial 8 mm	Hot Vial 12 mm	Hot Vial 16 mm	Hot Vial 25 mm
<u>Max.</u> SUV				

B) Scatter/Attenuation – Table 2

	Background	Bone	Air	Water
<u>Mean</u> SUV				
<u>Min.</u> SUV				

C) Ratio Calculations (using data from Tables 1 & 2 above):

<u>max. vial SUV to mean background SUV</u> e.g., Contrast = 8mm SUV / bkgd SUV	8mm/bkgd	12mm/bkgd	16mm/bkgd	25mm/bkgd

<u>max. vial SUV to max. 25 mm vial</u> e.g., Contrast = max16 mm SUV / max 25 mm SUV	8mm/25mm	12mm/25mm	16mm/25mm

<u>min. air or water to min. bone</u> e.g., ratio = min air SUV / min bone SUV	Air/bone	Water/bone

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