SELECT RADIOLOGY SOLUTIONS A Division of Radiology Imaging Associates	PET PSMA		
	Approval: K. Shamlou, MD	rev:2	7/15/2026

Ga-68 PSMA-11 (Gozetotide) PET/CT SCAN

Radiopharmaceutical: Ga68 PSMA-11 Gozetotide
Dose: 5 mCi
T ½: 110 min
Energy: 511 keV
CPT: 78815 (skull to mid-thigh**)**

Indications

PSMA is indicated for PET of prostate-specific membrane antigen (PSMA) positive lesions in men with prostate cancer:

- Initial staging prostate cancer.
- with suspected metastasis who are candidates for initial definitive therapy
- with suspected recurrence based on elevated serum prostate-specific antigen (PSA) level

Radiopharmaceutical

- 5 mCi administered as an intravenous bolus injection.

Patient Instructions

- Instruct patients to drink water the day prior to ensure adequate hydration prior to administration of PSMA.
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EQUIPMENT

- Philips Vereos

Procedure

- Perform detailed patient history and initial IV placement.
- After injection of Ga68 PSMA ensure patient stays relaxed and comfortable with warmed blankets.
- Patient is to consume at least two 8 ounce glasses of water after injection staying well hydrated.
- After a waiting period of 60 min post injection, obtain PET/CT scan from distal thigh to skull vertex (top of head).
- Arms over head is the preferred method for imaging, if patient is unable to keep arms over head secure them across the chest DO NOT PUT HANDS/ARMS OVER PELVIS.

Acquisition Protocol

- Position patient on scan table and move into scanner until innermost positioning laser is just above patient's head
- Enter proper and accurate patient data on acquisition computer
- Perform CT Surview (Scout)
- Set parameters for CT, PET and lung window.
- Perform low dose CT scan for attenuation correction and follow prompts to move patient into PET gantry to perform PET scan.
- When scanning is complete follow prompts to "End Study".

CT Parameters

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Scout:

Length	1400mm
kV	120
Ma	30

Lung:

Slice Thickness	5 mm
Increment	5 mm
FOV	350 mm

Low Dose CT scan:

Slice Thickness	5 mm (2mm through pelvis on the Vereos)
Increment	5 mm
kV	120
mAs/slice (mA)	150
Collimation	64 x 0.625
Pitch	0.829
Matrix	512
Filter	Sharp (C)
FOV	600 mm (700 mm)

PET:

3 bed positions through pelvis	5 min/bed
All remaining bed positions	2 min/bed

Processing

1. From Directory screen on PET/CT Host, highlight the patient's name you wish to begin processing.
2. Highlight the following image sets:
   - WB_CTAC PET
   - WB_NAC PET
   - Low Dose Sharp
3. Left click on the FUSION VIEWER button in the upper left corner of the Directory screen. This will take a few moments to open the images.
4. Ensure that all image sets are open on the proper image layout:

AXIAL AC	AXIAL CT	FUSED AXIAL	AXIAL NOAC
COR AC	COR CT	FUSED COR	COR NOAC
SAG AC	SAG CT	FUSED SAG	COR ROT VOL

5. Left click on STOP button on MOVIE box below COR ROT VOL, and then left click on the X to remove this box.

6. Adjust the intensity of the COR ROT VOL image by holding down the scroll button I the middle of mouse and dragging down to brighten and push up to decrease intensity. You want to see a small amount of the skin in the background of image.
7. Adjust the intensity of the NOAC images by holding scroll button down and increasing or decreasing intensity accordingly.
8. Right click again on FUSED COR image towards the top of the head and write down the first slice number that has data in all sets. (usually 3 or 4 images into the AXIAL AC data set)
9. Scroll through the AXIAL AC image until you get to end of images (usually just 2 to 3 images from each end of the AXIAL AC images). Write down the slice numbers from each end. Make sure that the AXIAL start and end numbers match for the PET and the CT data.
10. Scroll through COR AC until no activity is seen on each end and write the slice numbers down. Do the same for the SAG AC images.
11. Left click on the arrow next to the blue box and select ALL ANNOTATION OFF.
12. Left click on the triangulation tool on the left side of screen to turn OFF triangulation.
13. Left click on COR ROT VOL, then left click on the SAVE IMAGES AS icon (pencil writing on a disk).
14. In the description box type COR ROT VOL. Set Start Offset to 1, and End Offset to 30.
15. Left click on OK.
16. Left click on AXIAL AC, and then SAVE IMAGE AS.
17. In the Description box type AXIAL AC. Set Start Offset to smaller number and End Offset to larger one. Left click in the box next to ACTIVITY CONCENTRATION.
18. Do the same for the COR AC and the SAG AC images
19. Left click on AXIAL NOAC image, and then SAVE IMAGES AS.
20. In the Description box type AXIAL NOAC, and set Start Offset to smaller number for axial images and End Offset to larger number.
21. Left click on OK.
22. Do the same for COR NOAC, AXIAL CT, and the COR CT images.
23. Left click on OK.
24. Left click on the FUSED AXIAL images, and then SAVE IMAGES AS.
25. In the Description box type FUSED AXIAL SMART RGB. Change DATA in top right drop-down box to SECONDARY CAPTURE (SF). Set Start Offset to smaller number, and the End Offset to the larger one.
26. Left click on OK.
27. Do the same for the FUSED COR SMART RGB images and the FUSED SAG SMART IMAGES.
28. Once all of the images are saved, return to the DIRECTORY page, and left click on the REFRESH button at the top right of the screen. Verify that the AXIAL AC, AXIAL CT, AXIAL NOAC, and FUSED AXIAL SMART RGB saved images have the same number of images by looking at the # IMAGES column.
29. Do the same for the COR AC, COR CT, COR NOAC, and FUSED COR SMART RGB images.
30. Next, select the AXIAL AC, AXIAL NOAC, COR AC, COR NOAC, COR ROT VOL, and SAG AC images and the left click on COPY TO button at the upper left corner of screen. This will open a new window.
31. Highlight FUJIPACS at the right of the screen. Ensure that no other icons are highlighted. Left click on OK.

32. Do the same for the AXIAL CT, COR CT, CT SCOUT, DOSE INFO, FUSED AXIAL SMART RGB, FUSED COR SMART RGB, FUSED SAG SMART RGB and LUNG images.
33. VIEW images for accuracy.
34. Ensure that all image sets match in number of slices (i.e. axial images all have same number of slices).
35. Ensure that the COR ROT VOL has 30 images.
36. Verify that all image sets are complete with no slices missing.
37. Place online for Radiologists' interpretation.