

Title: [18F]PSMA-1007 PET for biochemical recurrence of prostate cancer, a comparison with [18F]Fluciclovine.

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Methods

Imaging procedures

For PET imaging patients received 4 Megabecquerel (MBq)/kg $\pm 10\%$ of [^{18}F]PSMA-1007 and a fixed dose of 370 MBq $\pm 10\%$ of [^{18}F]Fluciclovine (the latter included a preparation of six hours fasting and 24 hours without intensive exercise). Incubation time between PET imaging and intravenous injection of [^{18}F]PSMA-1007 was 90 minutes. Intravenous injection of [^{18}F]Fluciclovine was given on camera and PET imaging started between 3-5 minutes after injection. Both scans were performed on a Siemens Biograph mCT 4-ring scanner. A low-dose CT scan with 3 mm slice thickness was performed for each PET scan.

SUV_{max} assessment

Maximum standard uptake values (SUV_{max}) in lesions were measured on high resolution reconstructed images and compliant to the EARL/EANM guidelines (Aide, Lasnon et al. 2017).

References

Aide, N., et al. (2017). "EANM/EARL harmonization strategies in PET quantification: from daily practice to multicentre oncological studies." Eur J Nucl Med Mol Imaging **44**(Suppl 1): 17-31.