

PSMA PET-CT for Prostate Cancer Imaging, now at SKG Subiaco

SKG Radiology Subiaco has recently installed a Gallium⁶⁸ generator and laboratory infrastructure to enable the production of Gallium⁶⁸-PSMA for PET-CT imaging.

What is Gallium⁶⁸-PSMA (Prostate Specific Membrane Antigen)?

- o Prostate specific membrane antigen (PSMA) is a cell surface protein with significantly increased expression in prostate cancer cells. Imaging with Gallium⁶⁸ PSMA can demonstrate intense uptake in metastatic prostate cancer cells.
- o PSMA PET-CT is a newly available technology which can enable the early detection and localisation of prostate cancer metastases for targeted radiation treatment and other therapy planning. Positron emission tomography (PET) and computerised tomography (CT) are both state-of-the-art imaging tools that allow physicians to pinpoint the location of cancer within the body before making treatment recommendations.
- o The Gallium⁶⁸ generator allows SKG Subiaco to produce several novel PET tracers not previously available, including Ga⁶⁸ PSMA (Prostate Specific Membrane Antigen) and Gallium⁶⁸ Octreotate for neuroendocrine tumours.

PSMA PET-CT is able to detect small volume recurrent prostate carcinoma when there is a PSA rise on follow-up after prostatectomy or other definitive treatment for prostate carcinoma. It is particularly useful when conventional imaging with CT and Bone Scan is negative, but the PSA indicates that tumour has recurred.

The availability of PSMA PET-CT imaging is currently very limited in Australia, and as yet PSMA PET-CT does not attract a Medicare rebate.

The addition of PSMA PET-CT imaging complements the multi-parametric 3T prostate MRI and biopsy services that are currently available at SKG Subiaco.