



Scottish Clinical Imaging network

Scottish Clinical Imaging Network (SCIN)

INDICATIONS FOR THE USE OF PSMA PET CT IN PROSTATE CANCER PATIENTS

Background

⁶⁸Ga-PSMA (prostate specific membrane antigen) PETCT scans has been proven to be an extremely useful tool in the investigation of patients with prostate cancer and, following Scottish Government approval of funding, has been rolled out successfully across Scotland. This is an updated version of guidance originally produced in 2020 as part of a planned review. The development of ¹⁸F-PSMA compounds has increased availability and access with comparable efficacy, and for the purposes of these guidelines the term PSMA will be used to encompass the available radiopharmaceuticals currently in clinical use.

PSMA has been shown to be more effective (at least similar) than conventional imaging modalities and has been integrated into the investigation pathway for patients with biochemical occurrence as per previous version of this guidance. Although there is ongoing research into the use of PSMA in the primary staging of high-risk patients there is still debate regarding its role in this setting including the impact on patient outcomes. As such this remains a non-routine indication for use in selected cases only. There are therefore no recommended changes to the advised indications for the use of PSMA PET at this time.

Input was gratefully received from the regional clinical networks who have endorsed this guideline.

Routine Indications

- Biochemical recurrence after radical prostatectomy (PSA ≥ 0.2 ng/mL on ≥ 2 consecutive samples). PSMA is particularly useful in investigating patients with low PSA values between 0.2 and 10 ng/ml. In patients with PSA > 5 , or rapidly rising (doubling time < 6 months), PSMA should only be considered where conventional imaging has been performed and has been negative or equivocal.
- Biochemical recurrence after radical radiotherapy/brachytherapy (PSA nadir + 2ng/ml) in patients being considered for salvage therapy following negative or equivocal conventional imaging.
- Biochemical recurrence (PSA ≥ 0.2 ng/ml) after surgery and salvage radiotherapy where there is intent for further salvage therapy (e.g. salvage lymphadenectomy, nodal RT, SABR) and conventional imaging has been negative or equivocal.

Non-routine Indications

- Patients being considered for Lutetium PSMA therapy
- In selected high risk patients with equivocal lesions on baseline staging investigations where management will be directly influenced by PSMA result

Future Considerations

As the evidence base for PSMA is continuing to evolve, particularly with regards to the evaluation of high-risk patients prior to curative treatment, this guidance will be kept under regular review. Any expansion to the current indications will need to be balanced with availability of resource. A prospective audit of use will therefore be undertaken.

References

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