INDICATIONS FOR THE USE OF ^{18}F-FDG PET CT IN BREAST CANCER PATIENTS IN SCOTLAND

Version 3

Background

Original guidance for the use of FDG PET CT in the context of Breast cancer was first produced in 2016 (updated 2021). This updated document is part of a planned guideline review process. During this time period there has been no significant change in the available evidence base to result in any substantial change of current guidance.

There remains insufficient evidence to justify the use of PET CT in routine staging or surveillance of Breast cancer patients. Breast cancer staging requires the detection of small <1cm tumours which are beyond the resolution of the technique. Low grade tumours may also be falsely negative. PET CT also has low sensitivity for nodal metastases and should not be used as a substitute for sampling and the sentinel node procedure. FDG PET is also of limited value in the assessment of patients with lobular breast cancer due to the low FDG avidity of this cancer subtype.

As with all cases, PET referrals should only be considered where the outcome of the investigation will directly influence individual patient management and treatment. Given the low number of patients likely to benefit, Multidisciplinary Team (MDT) discussion is advised to ensure appropriate use.

Routine indications

- Patients with inflammatory breast cancer (in whom there is a significant incremental detection rate of distant metastases over and above conventional CT), diagnosed by an experienced breast clinician and following MDT review.

- Differentiation of treatment-induced brachial plexopathy from tumour infiltration in symptomatic patients with an equivocal or normal MR.

- Assessment of extent of disease in carefully selected patients (following MDT discussion) with limited metastatic breast cancer being considered for treatment with radical intent.

- Assessment of response to chemotherapy in patients whose systemic disease is not well demonstrated with other modalities for example, bone metastases.

- Selected patients (undergoing primary staging or being assessed for suspected recurrence) where conventional imaging is equivocal or conflicting and confirmation or exclusion of disease will alter management.

Future Considerations

These guidelines will be reviewed on an ongoing basis in order to incorporate any significant changes to the existing evidence base.

References

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