CLINICAL INDICATIONS AND USEFULNESS OF FDG PET IMAGING WITHIN THE CONTEXT OF BREAST CANCER

1. Breast carcinoma
   - Assessment of multi-focal disease or suspected recurrence in patients with dense breasts in whom MRI is not available or is inconclusive
   - 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 disseminated breast cancer if aggressive therapy is being considered, e.g. metastatectomy
   - Assessment of response to chemotherapy in patients whose systemic disease is not well demonstrated using other techniques; for example, bone metastases.
   - Selected patients where conventional imaging is equivocal or conflicting.
   - Consider for patients with inflammatory breast cancer (in whom there is a significant incremental detection rate of distant metastases over and above conventional CT)

2. PET/CT should not be used for staging or routine surveillance as there is insufficient evidence to justify its use. 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.

3. PET/CT has low sensitivity for nodal metastases and should not be used as a substitute for sampling and the sentinel node procedure.

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References:

