Clinical summary

- Female 57 year-old with left breast carcinoma
- Positive left axillary lymph nodes and subcentimetre diameter pulmonary nodules
- PET/CT performed for staging
PET/CT findings

Moderate focal metabolic activity in the left breast can be explained by uptake in the known breast carcinoma and/or activity at the biopsy site. No locoregional or distant metastases.
Clinical summary

- Female 32 year-old presented with palpable breast mass, biopsy positive for infiltrative duct carcinoma
- Clinically T1N0M0 stage
- PET/CT done for pretreatment staging
PET/CT findings

Intense FDG uptake in left breast mass (A), ipsilateral subcentimeter axillary lymph nodes (arrow), with preserved fatty hilum on CT scan (B). Further uptake in the right scapula (arrowhead).

Multiple metastases elsewhere in mediastinum (D) and skeletal foci in the vertebrae, pelvic bones and in femora (E).

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Clinical summary

• Female 70 year-old with large left breast carcinoma with ipsilateral nodal disease

• PET/CT performed for staging
PET/CT findings

- Multicentric left breast disease
- Left axillary nodal metastases
- No distant metastases
Clinical summary

- Female 49 year-old with breast carcinoma for staging
- Multiple pulmonary nodules seen on diagnostic CT scan
PET/CT findings

• Top row: Hypermetabolic primary left breast carcinoma with multiple ipsilateral axillary and internal mammary lymph nodes, as well as right pulmonary nodule.

• Bottom row: Further multiple pulmonary nodules are also hypermetabolic consistent with pulmonary metastases.
Clinical summary

- Female 49 year-old post-menopausal with left breast mass, diagnosed as locally advanced breast carcinoma (LABC)

- For staging PET/CT
FDG PET shows hypermetabolic left breast carcinoma (A); ipsilateral axillary lymph node (B); skeletal (C) and liver (D) metastases.
Teaching points

• FDG PET/CT is potentially appropriate in staging of breast carcinoma for identification of distant metastatic disease.

• Role in axillary staging is considered inappropriate in view of the inability to identify microscopic disease.

• FDG PET does not replace the role of sentinel lymph node biopsy in axillary nodal staging.