Protocol for use of PET/CT scanning in the management of patients with colorectal cancer

This protocol is based on best available evidence and has been produced with the assistance of experts from across NHSScotland. The PET Advisory Group and the three Regional Cancer Advisory Groups have endorsed this protocol.

Positron Emission Tomography using radio-labelled glucose ($^{18}$FDG) has been shown in many studies to be more accurate than standard staging investigations using CT scanning for the detection of occult metastatic disease. Recent evidence (HTA, 2007; Fletcher et al, 2008) confirmed earlier findings that there were cost effective indications for the use of PET/CT scanning in the management of colorectal cancer.

Indications for the use of PET scanning

All patients with metastatic colorectal cancer (mCRC) being considered for treatments with surgery or non-surgical therapy (chemotherapy and / or radiotherapy) are discussed and imaging reviewed at a colorectal cancer multidisciplinary team (MDT) meeting. A PET/CT scan is only appropriate on an individual named patient basis where there is some indication that it would change their management.

1. Patients with apparently organ-restricted liver or lung metastases (either at primary presentation or during follow-up) who are being considered for resection. A PET/CT scan should be considered prior to the administration of cytoreductive chemotherapy. The identification of occult metastatic disease prior to resection or chemotherapy may render resection inappropriate or may alter a patient’s management.

2. PET/CT is recommended in the assessment of patients with a solitary pulmonary nodule (a minimum of 8mm).

3. PET/CT in addition to conventional imaging is beneficial for evaluating recurrence if:
   a) conventional imaging is inconclusive
   b) CEA levels are raised and conventional imaging is normal
   c) local relapse is suspected clinically.

References


