Positron emission tomography (PET) and magnetic resonance imaging (MRI) for the assessment of axillary lymph node metastases in early breast cancer: systematic review and economic evaluation

Cooper KL, Meng Y, Harnan S, Ward SE, Fitzgerald P, Papaioannou D, Wyld L, Ingram C, Wilkinson ID, Lorenz E

Record Status

This is a bibliographic record of a published health technology assessment from a member of INAHTA. No evaluation of the quality of this assessment has been made for the HTA database.

Citation

Cooper KL, Meng Y, Harnan S, Ward SE, Fitzgerald P, Papaioannou D, Wyld L, Ingram C, Wilkinson ID, Lorenz E. Positron emission tomography (PET) and magnetic resonance imaging (MRI) for the assessment of axillary lymph node metastases in early breast cancer: systematic review and economic evaluation. Health Technology Assessment 2011; 15(4): 1-134

Authors' objectives

The objectives of this assessment were to evaluate the diagnostic accuracy, cost-effectiveness and effect on patient outcomes of positron emission tomography (PET), with or without computed tomography (CT), and magnetic resonance imaging (MRI) in the evaluation of axillary lymph node metastases in patients with newly diagnosed early-stage breast cancer. PET and MRI are assessed firstly as a replacement for SLNB or 4-NS, and secondly as an additional test prior to SLNB or 4-NS.

Authors' conclusions

Study found that ultrasmall super-paramagnetic iron oxide (USPIO)-enhanced magnetic resonance imaging (MRI) for detection of axillary lymph node metastases in early breast cancer may have similar diagnostic accuracy to current surgical techniques (sentinel lymph node biopsy and 4-node sampling), and that MRI was more cost-effective owing to reduction in adverse events. MRI had greater sensitivity than positron emission tomography (PET) in this setting.

Project page URL

http://www.hta.ac.uk/1848

URL for DARE abstract

http://www.crd.york.ac.uk/crdweb/ShowRecord.asp?AccessionNumber=12011001554& amp;UserID=0

Link to NHS EED abstract

http://www.crd.york.ac.uk/crdweb/ShowRecord.asp?AccessionNumber=22011000392& amp;UserID=0

INAHTA brief and checklist

http://www.inahta.org/upload/Briefs_11/11029_NETSCC_Positron_Emission_Tomography_PET_Magnetic_Resonance_Imaging_MRI_Assessment_Axillary_Lymph.pdf

http://www.inahta.org/Publications/Briefs-Checklist-Impact/2011/4741/?type=checknew

Indexing Status

Subject indexing assigned by CRD

MeSH

Axilla; Breast Neoplasmss; Lymph Nodes; Magnetic Resonance Imaging; Positron-Emission Tomography

Language Published

English

Country of organisation
England

Address for correspondence
NETSCC, Health Technology Assessment, Alpha House, University of Southampton Science Park, Southampton, SO16 7NS UK Tel: +44 23 8059 5586 Email: hta@hta.ac.uk

AccessionNumber
32010000253

Date abstract record published
14/04/2010