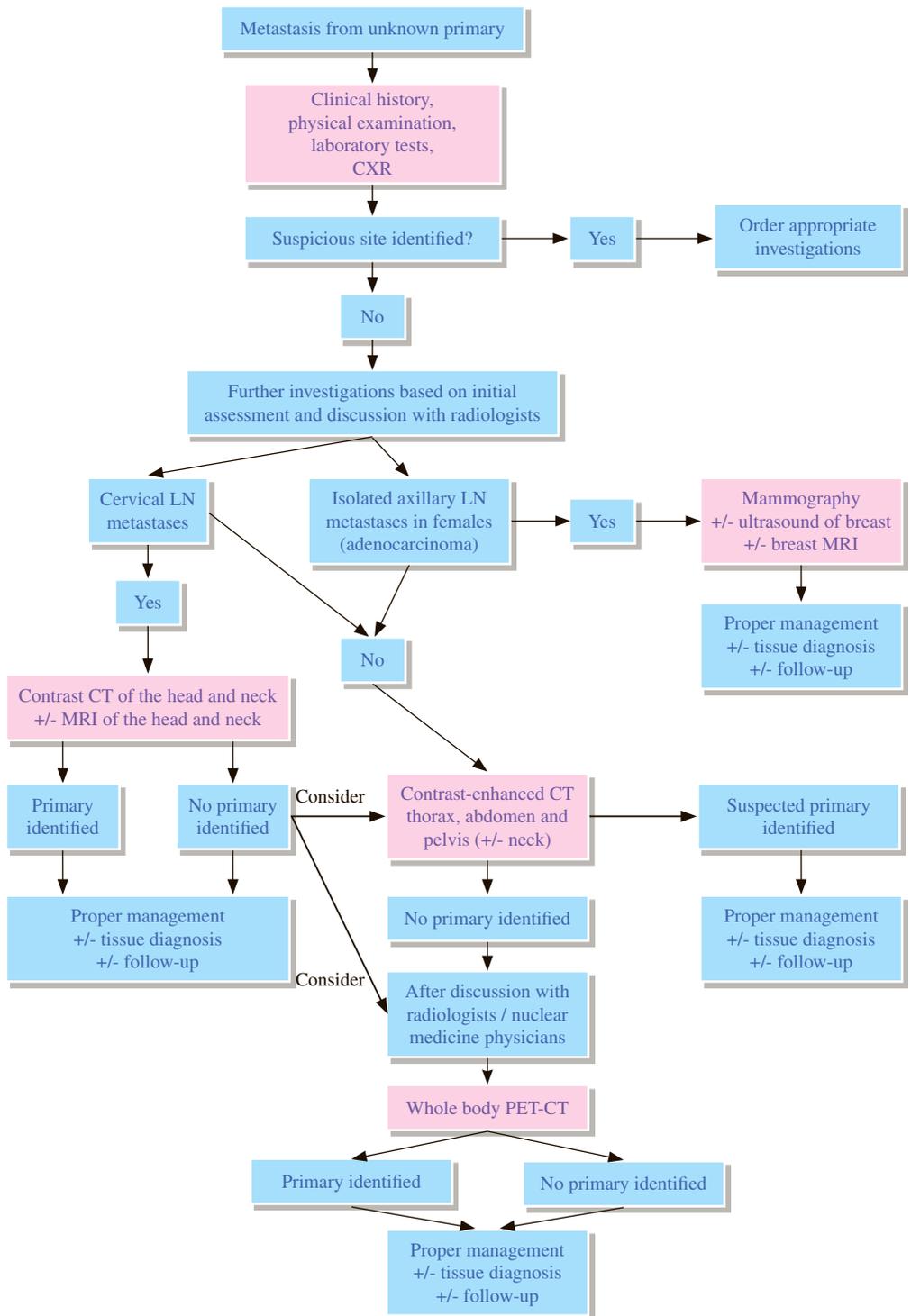


MC 2 Metastases from unknown primary



REMARKS

1 General

- 1.1 ‘Cancer of unknown primary’ refers to a condition in which a patient has metastatic malignancy without an identified primary source, which is a very heterogeneous disease.¹
- 1.1.1 Different terms have been used to differentiate patients at different stages of investigative pathway¹
- 1.1.1.1 ‘Malignancy of undefined primary origin’—metastatic malignancy identified on the basis of a limited number of tests, without an obvious primary site, before comprehensive investigation
- 1.1.1.2 ‘Provisional carcinoma of unknown primary’—metastatic epithelial or neuroendocrine malignancy identified on the basis of histology/cytology, with no primary site detected despite a selected initial screen of investigations, before specialist review and possible further specialized investigations
- 1.1.1.3 ‘Confirmed carcinoma of unknown primary’—metastatic epithelial or neuroendocrine malignancy identified on the basis of final histology, with no primary site detected despite a selected initial screen of investigations, specialist review and further specialized investigations as appropriate
- 1.2 Incidence is about 3-5% of all cancers registered in the United Kingdom.^{1,2}
- 1.3 Chest X-ray (CXR) and CT scan of the chest, abdomen and pelvis are among the initial radiological investigations offered to patients with malignancy of undefined primary origin, depending on patient’s symptoms.^{1,3}

2 Radiography

- 2.1 Lung Cancer is the most common cause of metastasis from unknown primary.^{2,4} CXR is a cheap and very rapidly performed test to detect lung cancer.²

3 CT

- 3.1 CT of the thorax, abdomen and pelvis with the use of intravenous contrast material is a useful initial investigation.^{1,2,3,5,6}
- 3.2 The recommendation of CT thorax is also based on its better detection of lung cancer than CXR.^{5,7}
- 3.3 Contrast-enhanced CT of the head and neck is also useful for identification of primary tumour in patients with cervical lymph node metastases from unknown head and neck primary cancers.^{8,9,10}

4 Breast Imaging

- 4.1 Do not routinely offer mammography to women with metastasis from unknown primary unless clinical or pathological features are compatible with breast cancer.¹
- 4.2 Breast MRI should be considered in women presenting with isolated axillary adenopathy which is adenocarcinoma on histology and suspicious of breast primary, after negative initial mammography and ultrasonography.^{1,2,5}

5 MRI

5.1 MRI has superior soft tissue contrast for head and neck imaging.^{8,11}

6 PET scan

6.1 Whole-body Fluorodeoxyglucose (FDG) PET-CT may contribute to the management of patients with cervical adenopathies from occult primary and those with a single metastasis from occult primary. For other cases of metastases from occult primary, the role of FDG PET-CT is limited.¹³

6.2 FDG PET-CT is not recommended in routine systematic work-up for all cases of metastasis from occult primary.^{13,14}

6.3 FDG PET-CT may be warranted in cases considered for local or regional therapy.¹⁴

7 Image-guided biopsy

7.1 It is recommended that needle core biopsy or surgical biopsy should be obtained for histological assessment for evaluation of metastasis from unknown primary.^{1,2}

REFERENCES

1. National Institute for Health and Care Excellence (2010). Metastatic malignant disease of unknown primary origin in adults: diagnosis and management. NICE guideline (CG104).
2. Taylor MB, Bromham NR, Arnold SE. Carcinoma of unknown primary: key radiological issues from the recent National institute for health and clinical excellence guidelines. *BJR*. 2012; 85: 661-671.
3. Fizazi K, Greco FA, Pavlidis N, Pentheroudakis G; ESMO Guidelines working Group. Cancers of unknown primary site. ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Ann Oncol*. 2011; 22 Suppl 6: vi64-vi68.
4. Moller AKH, Loft A, Berthelsen AK, Pedersen KD, Graff J, Christensen CB, et al. A prospective comparison of 18F-FDG PET/CT and CT as diagnostic tools to identify the primary tumor site in patients with extracervical carcinoma of unknown primary site. *The Oncologist*. 2012; 17: 1146-1154.
5. Varadhachary GR, Raber MN. Cancer of unknown primary site. *N Eng J Med*. 2014; 371: 757-765.
6. Losa Gaspa F, Germa JR, Albareda JM, Fernandex-Ortega A, Sanjose S, Fernandex TV. Metastatic cancer presentation. Validation of a diagnostic algorithm with 221 consecutive patients. [In Spain] *Rev Clin Esp*. 2002; 202: 313-319.
7. Latief KH, White CS, Protopapas Z, Attar S, Krasna MJ. Search for a primary lung neoplasm in patients with brain metastasis: is chest radiograph sufficient? *AJR Am J Roentgenol*. 1997; 168: 1339-1344.
8. Donta TS, Smoker WR. Head and Neck Cancer: Carcinoma of unknown primary. *Top Magn Reson Imaging*. 2007; 18: 281-292.
9. Cianchetti M, Mancuso AA, Amdur RJ, Werning JW, Kirwan J, Morris CG, et al. Diagnostic evaluation of squamous cell carcinoma metastatic to cervical lymph nodes from an unknown head and neck primary site. *Laryngoscope*. 2009; 119: 2348-2354.
10. Hermans R. Imaging in cervical nodal metastases of unknown primary. *Cancer Imaging*. 2011; 11: S9-S14.
11. Wippold II FJ. Head and Neck Imaging: the role of CT and MR. *JMIR*. 2007; 25: 453-465.
12. Wong WL, Sonoda LI, Gharpurhy A, Gollub F, Wellsted D, Goodchild K, et al. 18F-fluorodeoxyglucose positron emission tomography/computed tomography in the assessment of occult primary head and neck cancers—an audit and review of published studies. *Clin Oncology*. 2012; 24: 190-195.
13. Fizazi K, Greco FA, Pavlidis N, Daugaard G, Oien K, Pentheroudakis G. Cancers of unknown primary site: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Ann Oncol*. 2015; 26 Suppl 5: v133-v138.
14. National Comprehensive Cancer Network. NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) Occult Primary. Version 2.2016. Fort Washington, PA: National Comprehensive Cancer Network; 2016.