Lung cancer: the diagnosis and treatment of lung cancer (partial update of NICE clinical guideline 24)

NICE guideline
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If you wish to comment on this version of the guideline, please be aware that all the supporting information and evidence is contained in the full version.

Appendix C The algorithms
Algorithms

Diagnostic and staging clinical pathway

Patient presents with features fitting criteria for either chest x-ray or immediate referral for suspected lung cancer.

- **Chest x-ray normal?**
  - Yes: **Low suspicion of lung cancer**
    - Yes: **Observe/ manage**
    - No: **CT thorax, upper abdomen and lower neck with intravenous contrast administration**

CT thorax, upper abdomen and lower neck with intravenous contrast administration

Diagnostic and Staging Assessment

Respiratory physician takes history and examines patient including fitness assessment, spirometry and basic blood tests. Lung Cancer Nurse Specialist is available to support the patient and carers. May include co-ordinators and radiologist. All respect the wishes of the patient.

Choose investigation(s) that give maximum diagnostic and staging information with least risk to the patient. Discuss at Lung cancer MDT if complex. Fitness of patient may influence choice and extent of investigations.

- **CT negative or inconclusive**
  - Peripheral lesion (without nodes) <10mm short axis. Low probability of malignant nodes
  - Nodes 10-20mm short axis. High probability of malignant nodes
  - Mediastinal nodes >20mm short axis. High probability of malignant nodes
  - Neck nodes
  - Central lesion
  - Clinical/radiological features of advanced and/or metastatic disease

Further imaging depending upon symptoms: PET-CT, CT brain, MRI, bone scan or observation

- Transthoracic needle biopsy
- EBUS/EUS

Surgical biopsy/definitive resection +/- mediastinal sampling and PET-CT if not already done. Consider this option at any stage in the pathway.

Early disease Treatment with curative intent

Consider multi-modality treatment

Advanced disease Treatment with palliative intent

Diagnosis and Stage

Updated 2011
Clinical Fitness Assessment (in parallel with diagnosis and stage):
Performance status, exercise tolerance, co-morbidity evaluation, spirometry and clinical and radiological stage.

Potentially suitable for treatment with curative intent

Risk Assessment for surgery including assessment of risk of post-operative dyspnoea, cardiovascular complications and mortality

See oncologist specialising in thoracic oncology for potentially curative radiotherapy/chemotherapy

Consider patients who are unfit but with early stage for other potentially curative treatments.

Treatment with curative intent

Stage of fitness suggests curative treatment not possible

Re-assess after any reversible elements improved or further staging tests

Treatment with palliative intent
Mediastinal diagnosis and staging

CT thorax, upper abdomen and lower neck with intravenous contrast administration

Nodal status influences management or is source of diagnosis?

No

Yes

Mediastinal sampling not indicated

Nodes <10mm short axis (peripheral lesion) Low probability of nodal malignancy

PET-CT
If suitable for potentially curative treatment, otherwise skip this step

EBUS/EUS

Surgical biopsy/mediastinal sampling. This can be an option at any stage in the pathway

Nodes 10-20mm short axis Intermediate probability of malignancy

Bronchoscopy and non-ultrasound guided TBNA if nodes or lesion is submucosal

Mediastinal nodes >20mm short axis High probability of malignancy

Neck nodes

US

Diagnosis and Stage

* Where risk of surgical sampling judged to be too high or local audit shows high negative predictive value of EBUS/EUS