National Clinical Pathway for suspected and confirmed lung cancer - adopted by the East of England: Detail of referral to treatment

Note: this was previously circulated for discussion as an “optimal” pathway but following discussion and feedback has been designated the standard pathway

Summary
The National Clinical Pathway represents a pathway that is achievable now, requiring no extra resources but reliant on appropriate logistics. The triage process may be new for some services, but in the face of increased referrals and lower conversion rates, will reduce the cost to commissioners whilst supporting the drive to improve early diagnosis rates. The curative intent treatment pathway is shown separately, in more detail, for secondary and tertiary care providers. In some services early referral to a tertiary unit may occur for management of the diagnostic and staging pathway, especially where there is the potential for curative intent treatment.

Use of guidelines
The diagnosis, staging and fitness assessments in this pathway should be completed with reference to the British Thoracic Society guidelines for the radical management of lung cancer and the NICE guidelines for the investigation and management of suspected lung cancer.

Maximum waiting times
The times in the pathway are the maximum allowed and should be substantially lower for the majority of patients, with treatment started well before day 62. There is randomised controlled trial evidence that faster pathways improve outcomes.

Providers: a note for commissioners
The initial identification and referral of patients with suspected lung cancer is dependent on primary care. Prompt recognition, risk assessment and referral is essential to reduce delay in diagnosis and to reduce the high proportion of lung cancer patients who are diagnosed via emergency admissions. The majority of the lung cancer diagnostic, staging and treatment is provided by secondary and tertiary care, although primary care may be involved in providing supportive care throughout. Supportive, palliative and end of life care is provided by both primary and secondary care.

Direct to CT option
The direct to CT element of the pathway reflects that some services are piloting the direct requesting of CT scans by GPs according to local protocols. This may be in patients with relatively low incidence of lung cancer so that they do not need to be seen in cancer clinics e.g. normal chest X-ray with resolved symptoms, or for high risk people, again according to locally agreed protocols. It should be noted that evidence for this approach is limited and some models are being evaluated as part of the Accelerate Coordinate and Evaluate (ACE) programme.
National Clinical Pathway for suspected and confirmed lung cancer – adopted by East of England:

**Detail of referral to treatment**

*Flowchart diagram with decision points and referral pathways.*

**Key Points**
- By Day 14:
  - FAST TRACK referral (suspected lung cancer)
  - CT abnormal?
  - CT suspicious of lung cancer?
- By Day 28:
  - Full MDT discussion of treatment options
  - OPA with treating specialist
- By Day 62:
  - Decision to Treat

*Further detailed protocol includes considerations for surgery, palliative care, chemotherapy, radiotherapy, and surgery.*

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**References and Further Reading**
- National Institute for Health and Care Excellence (NICE) guidelines
- Local protocols for management and referral

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*This document provides a comprehensive overview of the clinical pathway for lung cancer patients, including diagnostic and treatment phases.*
National Optimal Clinical Pathway for suspected and confirmed lung cancer:

Referral to treatment

Note: this was previously circulated for discussion as an “aspirational” pathway but following feedback has been designated the optimal pathway

Summary
This optimal pathway is designed to meet the waiting time targets as set out in the Independent Cancer Taskforce report. In addition it will reduce delays within primary care relating to chest X-ray reporting and referral times with a potential to shorten the time to diagnosis by 2 to 4 months. This is because we know that in England, chest X-ray rates increase substantially from 4 months prior to diagnosis of lung cancer.

Use of guidelines
The diagnosis, staging and fitness assessments in this pathway should be completed with reference to the British Thoracic Society guidelines for the radical management of lung cancer and the NICE guidelines for the investigation and management of suspected lung cancer.

Maximum waiting times
The times in the pathway are the maximum allowed and the aim should be for the majority of patients diagnosed within 14 days and treated within 28. There is randomised controlled trial evidence that faster pathways improve outcomes.

Providers: a note for commissioners
The initial identification and referral of patients with suspected lung cancer is dependent on primary care. Prompt recognition, risk assessment and referral is essential to reduce delay in diagnosis and to reduce the high proportion of lung cancer patients who are diagnosed via emergency admissions. The majority of the lung cancer diagnostic, staging and treatment is provided by secondary and tertiary care, although primary care may be involved in providing supportive care throughout. Supportive, palliative and end of life care is provided by both primary and secondary care.

Notes:
• Potential for reducing delay from CXR to CT and clinic to less than 24 hours
• Potential avoidance of emergency admission
• Allows triaged patients to be managed by primary or secondary care (see separate algorithms)
• Rapid progress to treatment

Requirements:
• Turnaround times have to be short, especially for radiology
• Hot reporting of all CXRs and subsequent CTs
• Daily respiratory medicine cancer clinic required
**National Optimal Clinical Pathway for suspected and confirmed lung cancer: Referral to treatment**

**Maximum times**

- **Day -3-0**
  - High clinical suspicion?
  - Yes: Urgent or routine CXR
  - No: CT within 24 hours if clinically indicated; inpatients seen within 48 hours by acute oncology, respiratory and/or palliative services

- **Day 0-3**
  - CT suspicious of lung cancer?
    - Yes: CT same day / within 72 hours
    - No: CT not indicated

- **Day 1-5**
  - CT abnormal?
    - Yes: TRIAGE
    - No: Further discussion needed

**TRIAGE**

(by radiology or respiratory medicine according to local protocol) Lung cancer suspected?

- Yes: Curative Intent Management pathway*
  - Test bundle requested at first OPA including at least: PET-CT and as required: detailed lung function and cardiac assessment / ECHO. Meet with LCNS and receive information.
  - Further investigation(s) indicated? Yes: Further investigation(s)? No: Full MDT discussion of treatment options

- No: Lung cancer unlikely
  - Further management according to local protocol with options of further management of CT findings by primary care or secondary care (see separate detailed algorithm)

**Curative Intent Management pathway***

Test bundle requested at first OPA including at least: PET-CT and as required: detailed lung function and cardiac assessment / ECHO. Meet with LCNS and receive information.

- Further investigation(s) indicated? Yes: Further investigation(s)? No: Full MDT discussion of treatment options

- Will pathological diagnosis influence treatment and is potential treatment appropriate to patient’s wishes?
  - Yes: Investigations to yield maximum diagnostic AND staging information with least harm. Results available within 3 days for subtype and 10 days for molecular markers.
  - No: Clinical diagnosis or patient preference means biopsy not required.

**Full MDT discussion of treatment options**

- Further investigation(s)?
  - Yes: Further discussion needed?
  - No: No cancer: Manage/discharge

- Follow-up Lung Cancer Clinic
  - Cancer Confirmed and treatment options discussed. Research trial considered. LCNS present

- OPA with treating specialist (within 3 working days)
  - Further investigation(s)?
    - Yes: No cancer: Manage/discharge
    - No: Further discussion needed?

**First Treatment**

- Specialist palliative care
- Other palliative treatments
- Chemotherapy
- Radiotherapy
- Surgery

**Throughout pathway:** 
- consider entry into a research trial
- offer supportive & palliative care, e.g. by LCNS, GP, specialists in palliative care
- encourage smoking cessation

**Day 21**

**By Day 28**

**Day 33**

**Day 42**

**By Day 62**

- **High clinical suspicion?**
  - Yes: Urgent or routine CXR
  - No: CT within 24 hours if clinically indicated; inpatients seen within 48 hours by acute oncology, respiratory and/or palliative services

- **CXR (reported before patient leaves dept.) suspicious of lung cancer?**
  - Yes: CT same day / within 72 hours
  - No: CT not indicated

- **CT abnormal?**
  - Yes: TRIAGE
  - No: Further discussion needed

- **TRIAGE**
  - Lung cancer suspected?
    - Yes: Curative Intent Management pathway*
    - No: Lung cancer unlikely
      - Further management according to local protocol with options of further management of CT findings by primary care or secondary care (see separate detailed algorithm)

- **Curative Intent Management pathway***
  - Test bundle requested at first OPA including at least: PET-CT and as required: detailed lung function and cardiac assessment / ECHO. Meet with LCNS and receive information.
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  - Yes: Investigations to yield maximum diagnostic AND staging information with least harm. Results available within 3 days for subtype and 10 days for molecular markers.
  - No: Clinical diagnosis or patient preference means biopsy not required.

- **Full MDT discussion of treatment options**
  - Further investigation(s)?
    - Yes: Further discussion needed?
    - No: No cancer: Manage/discharge

- **Follow-up Lung Cancer Clinic**
  - Cancer Confirmed and treatment options discussed. Research trial considered. LCNS present

- **OPA with treating specialist**
  - (within 3 working days)
  - Further investigation(s)?
    - Yes: No cancer: Manage/discharge
    - No: Further discussion needed?

**First Treatment**

- Specialist palliative care
- Other palliative treatments
- Chemotherapy
- Radiotherapy
- Surgery

*Refer to further pathway detail

+ Low threshold for curative intent pathway; may discuss with wider MDT if unsure

$ Some or all diagnosis and staging tests may be in a tertiary centre
This pathway places the responsibility for managing all patients referred for suspected lung cancer within secondary care. It ensures patients with other conditions that may require secondary care are given appointments and patients not requiring secondary care are directed back to primary care without the need for an outpatient appointment in secondary care.

Recommendations for the management of pulmonary nodule can be found in the British Thoracic Society guidelines on the investigation and management of pulmonary nodules.
Triage system for referrals to the lung cancer service: primary care leads the management process

This pathways places the responsibility for managing patients that are unlikely to have lung cancer within primary care following a CT report that is not suspicious for lung cancer. This means fewer non-lung cancer patients are seen by the lung cancer services but relies on management of other conditions in primary care.

![Triage Diagram]

Recommendations for the management of pulmonary nodules can be found in the British Thoracic Society guidelines on the investigation and management of pulmonary nodules.
Patients who are potentially suitable for curative treatment often require a complex combination of investigations to ensure they are accurately diagnosed, staged and their fitness assessed. This means they are more likely to endure longer waits for treatment. Hospitals face different challenges owing to variability in capacity to provide different investigations. The aim of this pathway is therefore to fast track such patients by requesting tests concurrently, supported by pre-planned availability of urgent test appointments e.g. lung biopsy, bronchoscopy, endobronchial ultrasound, mediastinoscopy, ECHO and complex lung function. Reference should be made to the British Thoracic Society guidelines for the radical management of lung cancer and the NICE guidelines for the investigation and management of suspected lung cancer. To prevent delays in treatment, consider early notification of thoracic surgeons or clinical oncology to help with scheduling.

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There is no agreed definition of borderline fitness. NICE QS 17 (Lung Cancer) defines this as a level of fitness that could lead to a greater than average morbidity or mortality from surgery. However, modern radiotherapy techniques mean that assessment for curative treatment can be applied at lower levels of fitness than defined in QS17.