



UNITED KINGDOM  
LUNG CANCER COALITION

## **The Dream MDT for lung cancer:**

*Delivering high quality lung cancer care  
and outcomes*

***UK Lung Cancer Coalition***  
*November 2012*



## Contents page

|   |           |
|---|-----------|
| <b>Introduction</b>                                       | <b>2</b>  |
| <b>The members of the UKLCC's Clinical Advisory Group</b> | <b>6</b>  |
| <b>Summary of recommendations</b>                         | <b>8</b>  |
| <b>The Dream MDT</b>                                      | <b>11</b> |
| <b>Lung Cancer Nurse Specialist (CNS) support</b>         | <b>12</b> |
| <b>Primary care</b>                                       | <b>15</b> |
| <b>Primary – secondary care interface</b>                 | <b>17</b> |
| <b>Respiratory medicine</b>                               | <b>18</b> |
| <b>MDT meeting structure</b>                              | <b>20</b> |
| <b>Radiology</b>  | <b>21</b> |
| <b>Pathology</b>  | <b>21</b> |
| <b>Surgery</b>  | <b>22</b> |
| <b>Medical and clinical oncology</b>                      | <b>24</b> |
| <b>Borderline case management</b>                         | <b>25</b> |
| <b>End of acute phase</b>                                 | <b>25</b> |
| <b>Supportive and palliative care</b>                     | <b>26</b> |
| <b>Research and clinical trials</b>                       | <b>27</b> |
| <b>References</b>   | <b>28</b> |

## Introduction

### *The challenge of lung cancer*

Wide variations persist in lung cancer treatment and care within the UK, whilst international studies have found that survival rates seriously lag behind other comparable EU countries<sup>1</sup>. Estimates suggest that more than 1,300 deaths from lung cancer could be avoided each year, were UK survival rates brought in line with the European average, and over 3,500 lives could be saved if we were to match the best in Europe<sup>2</sup>. More can, and indeed must, be done to reduce the death toll from this devastating disease.

Lung cancer has a very wide range of symptoms, speed of growth and patterns of local and distant spread. Many patients also have co-morbidities such as chronic obstructive pulmonary disease and ischaemic heart disease. It is the combination of all these factors, together with the individual circumstances of a patient and their families which means that every patient poses a unique challenge to clinical teams charged with their care.

Multi-disciplinary teams (MDTs) have been at the heart of delivering improved care for many cancers. However, in the UK there are insufficient specialists to service effectively the large number of lung cancer MDTs, of which there are currently well over 200. There is also a spectrum of expertise and varying depth of specialist thoracic interest across these MDTs. Unfortunately, some healthcare professionals still have a pessimistic and out-dated view of what outcomes can be achieved for patients with lung cancer. This is compounded by patients with low expectations who may be reluctant, lack information, or be too poorly to demand better care.

The UKLCC believes strongly that every lung cancer patient's case should be managed by a fully-equipped MDT in order to improve their chance of survival. We have therefore developed this document to set out how an effective multidisciplinary team – the 'dream MDT' - can improve the quality of care and clinical outcomes for lung cancer patients. Patients in the UK deserve no less.



**Dr Mick Peake**

**Consultant Respiratory  
Physician, Glenfield  
Hospital, Leicester &  
National Clinical Lead for  
Lung Cancer**

**Dr Richard Steyn**

**Consultant Thoracic  
Surgeon, Birmingham  
Heartlands Hospital,  
National Cancer  
Advisor & Chair of  
the UKLCC**

## *Improving outcomes: recommendations for lung cancer MDT*

The UK Lung Cancer Coalition (UKLCC) believes that to improve outcomes for patients in the UK, the lung cancer community must work together to reduce variations in practice and ensure that all areas are delivering high quality care.

The document is intended to stimulate discussion among the lung cancer community on how an effective MDT can help to deliver high quality lung cancer care which improves outcomes for patients. It sets out a number of standards for MDTs to use to benchmark against their current practices. These cover the whole patient pathway and not just the form and functioning of the diagnostic MDT meeting.

This document was developed originally by the UKLCC's Clinical Advisory Group – representatives of each specialist field involved in lung cancer care. They were brought together to identify a 'gold standard' of practice based on, but not constrained by, the highest level of evidence. The draft document was then published for public consultation, and a range of professional bodies and Royal Colleges actively approached for their professional opinion. We are grateful to all the organisations and individuals who took time to respond. One theme that appeared from a number of consultees was the extent to which the recommendations in the document were perceived to be too idealistic and unachievable.

This document was, in its conception, 'aspirational' but most if not all of the recommendations are already in place in some areas of the UK and the challenge for all of those striving to drive up standards is to find local and regional solutions for these difficult issues. It is clear that 'one size does not fit all' in terms of service configuration. This document will need to be considered alongside the quality standard for lung cancer published by the National Institute for Health and Clinical Excellence (NICE)<sup>3</sup>.

Throughout we have tried to keep the needs of the patient at the heart of the dream MDT. We have deliberately described an 'aspirational' approach to the treatment and management of lung cancer: the sort of care that healthcare professionals would wish for members of their own family.

Clinical guidelines such as those published by NICE are, of course, an important part of the drive to improve standards of care. However, by the nature of their production, they are often out of date, can only make recommendations based on very firm published evidence and tend to concentrate on the technical elements of treatment.

The UKLCC's Clinical Advisory Group, whilst accepting the authority and role of such documents was keen to challenge lung cancer practice to strive to exceed, rather than simply meet, clinical guidelines.

### Contact details

The UKLCC is keen to work with all interested organisations and bodies to improve the quality and outcomes of lung cancer treatment and care. For more information about our work, please contact our secretariat:

Tricia Bryant, UKLCC Secretariat  
Email: [enquiries@uklcc.org](mailto:enquiries@uklcc.org)  
[www.uklcc.org.uk](http://www.uklcc.org.uk)

## The members of the UKLCC's Clinical Advisory Group

The UKLCC's Clinical Advisory Group is a panel of senior clinicians, each representing particular specialities involved in the care of lung cancer patients, from the time of first suspicion of the diagnosis through to palliative care. The members of this group are:

- Dr Mick Peake, Consultant Respiratory Physician, Glenfield Hospital, Leicester, and National Clinical Lead for Lung Cancer
- Dr David Bellamy, Retired GP with a specialist interest in respiratory medicine & member of Primary Care Respiratory Society (PCRS)
- Professor Michael Lind, Professor of Medical Oncology, The University of Hull
- Dr John Reynolds, Consultant Radiologist, Birmingham Heartlands Hospital
- Dr Robert Rintoul, Consultant Chest Physician, Department of Thoracic Oncology, Papworth Hospital NHS Foundation Trust
- Dr Mike Snee, Consultant Clinical and Medical Oncologist, St. James's University Hospital, Leeds
- Dr Richard Steyn, Consultant Thoracic Surgeon, Birmingham Heartlands Hospital, National Cancer Advisor and Chair of the UKLCC
- Mr John White, Lead Macmillan Lung Cancer Nurse Specialist, Leeds Teaching Hospitals NHS Trust
- Professor Dean Fennell, Chair, Thoracic Medical Oncology, University of Leicester & Leicester University Hospitals NHS Trust
- Professor Stephen Spiro, Professor of Respiratory Medicine, University College London Hospitals
- Professor Keith Kerr, Consultant Pathologist, Aberdeen Royal Infirmary
- Dr Andrew Wilcock, Palliative medicine, Nottingham University Hospitals NHS Trust
- Dr Andrea Williams, GP & member of Primary Care Respiratory Society (PCRS) representing Hereford
- Dr Ian Williamson, Consultant Respiratory Physician, Gwent Healthcare NHS Trust

Their views were further supplemented by input from the other members of the UK-LCC and, in particular, patient organisations including:

- British Lung Foundation
- Cancer Black Care
- Cancer Research UK
- Macmillan Cancer Support
- Marie Curie Cancer Care
- The Roy Castle Lung Cancer Foundation

## Summary of recommendations

**Recommendation 1:** The clinical MDT should be supported by an extended team that includes allied health professionals and social workers, to ensure patients' and carers' practical needs are addressed. This should be put in place from the time that detailed investigation is taking place by the specialist MDT in secondary care onwards through confirmation of diagnosis, to active treatment, chronic care and follow up support

**Recommendation 2:** All lung cancer patients should be able to access lung CNS support and advocacy when they need it throughout their whole patient journey to support their holistic needs

**Recommendation 3:** Lung CNSs should be involved with pre-diagnosis care of suspected lung cancer patients, from the point of detailed investigations in secondary care

**Recommendation 4:** Lung CNSs need to work closely with MDT coordinators, trackers and audit staff to ensure they are not taking on unnecessary administrative roles

**Recommendation 5:** Despite the financial pressures facing the NHS, the role of the lung CNS in ensuring optimal care for patients, must be protected

**Recommendation 6:** Where the results of a chest x-ray are normal and clinical suspicion of a diagnosis of lung cancer remains, GPs should consider an urgent referral under the two week wait pathway or have locally agreed arrangements for access to CT scans

**Recommendation 7:** Any chest x-ray or CT scan suggesting the possibility of a primary lung tumour, or a newly detected or growing nodule greater than 8mm in diameter should directly trigger an appointment in a rapid access lung cancer clinic

**Recommendation 8:** Communication between primary and secondary care is essential at all steps of the patient pathway. A greater focus should be given to improving communication between secondary and primary/community care in order that GPs are kept informed as rapidly as possible as to where patients (and their families) are along the care pathway

**Recommendation 9:** All suspected lung cancer cases should be dealt with by a respiratory physician with a specialist interest in lung cancer

**Recommendation 10:** Patients with a suspected lung cancer should be assessed at a dedicated rapid access clinic. Patients should have their CT scan before their

respiratory consultation to provide sufficient time for the respiratory physician and radiologist to examine the scan results in a diagnostic MDT meeting prior to the first face to face meeting in clinic

**Recommendation 11:** The diagnostic pathway should be refined to encourage use of fewer, but higher value tests, likely to provide the diagnosis and stage of the disease in one step

**Recommendation 12:** Each patient should be assigned a dedicated chest physician with a specialist commitment to lung cancer to manage their care through the whole pathway

**Recommendation 13:** Specialist regional lung cancer MDTs should be established to deal with specified complex management problems and to ensure access to the latest advances in treatment which may not be available in all centres

**Recommendation 14:** The MDT should be properly supported by an administrative and audit team with proper IT facilities

**Recommendation 15:** Care planning should be a two-stage process – with diagnostic planning taking place ahead of the rapid access clinic and separately from the treatment planning MDT meeting

**Recommendation 16:** Each MDT should be able to draw on a team of specialist thoracic radiologists, and ideally two should be present at each meeting

**Recommendation 17:** All imaging should be reported by a specialist radiologist and there should be local agreement on the wording of reports and recommendations to clinicians

**Recommendation 18:** Adequate preparation time should be set aside before and after the MDT meeting and radiologists should be given adequate notice of cases

**Recommendation 19:** Lung MDT pathologists should have specialist thoracic expertise and access to super-specialist opinion as and when necessary

**Recommendation 20:** All MDTs should have a thoracic surgeon (undertaking a minimum one full day thoracic operating, minimum one full MDT per week and a thoracic surgical outpatient clinic with lung nurse specialist support) as a core member. He or she should be present at, or have adequate cover, for all meetings

**Recommendation 21:** All patients with a disease identified as borderline for treatment (3A or 3B), or who are borderline fit for surgery, should have their case assessed by at least one specialist thoracic surgeon within a specialist MDT

**Recommendation 22:** High quality video-conferencing should be available wherever required to improve working between specialist centres and DGHs

**Recommendation 23:** Thoracic surgeons should not work as single surgeons in a cardiac unit

**Recommendation 24:** Every lung cancer patient should have access to at least two dedicated thoracic oncologists offering cross-modality cover and expertise

**Recommendation 25:** There should be an MDT discussion following completion of first-line surgical treatment, and patients should always be kept informed about the next step in their care pathway and their treatments options

**Recommendation 26:** Every MDT should collect a minimum data set for every patient, contribute to the National Lung Cancer Audit and publish an annual report including resection rates, other treatments given and patient outcomes

**Recommendation 27:** A clinical stock-take/end of treatment assessment should be held, when the CNS has sufficient time to go through what the patient knows, their prognosis, treatment options, point of contact and financial details

**Recommendation 28:** SPARC or an equivalent tool should be used to assess patients' needs. The results should form the basis for care plans and referral to other services for specialist support

**Recommendation 29:** Every MDT discussion should include an assessment of which clinical trials individual patients may be eligible for

**Recommendation 30:** Data on which clinical trials are open for lung cancer patients and the record of trial entry by each centre should be made publicly available and easily accessible

## The Dream MDT

We believe that patients' perspectives and needs should be kept at the forefront of the dream MDT. Patients have highlighted that their main priorities are:

- Informed choice: being able to make real informed choices about treatment based on authoritative and clear explanations of the options.
- Continuity of care: a consistent, accessible point of contact to avoid feeling abandoned by the system, particularly after hospital care.
- Holistic support: help and support with distressing physical, psychological, social, spiritual and financial needs.
- Support for carers: addressing their information and support needs which may differ from the patient.

Clinicians do tend to focus on treating the disease, and should focus more on treating the patient in the context of their environment. Social workers, while not needing to be present at the MDT meeting itself, should be linked more closely into the MDT in order to ensure patients' and carers' practical needs are addressed.

**Recommendation 1:** The clinical MDT should be supported by an extended team that includes allied health professionals and social workers, to ensure patients' and carers' practical needs are addressed. This should be put in place from the time that detailed investigation is taking place by the specialist MDT in secondary care, onwards through confirmation of diagnosis, to active treatment, chronic care and follow up support

## Lung Cancer Nurse Specialist (CNS) support

Many CNSs meet patients at the point of diagnosis but in the ideal lung cancer MDT they should be involved pre-diagnosis. Lung CNSs work differently to those caring for patients with other cancers, supporting patients from initial presentation through investigations to treatment, into palliation and supportive care, and are critical to ensuring continuity of care.

This pathway crosses multiple specialities and the lung CNS is essential for ensuring continuity of care in what can be a swift, confusing and short patient journey. CNSs serve important roles as links between clinicians from different specialities acting as advocates and liaising between specialities (including primary care and palliative care teams). They also have an important training and teaching role, especially with junior doctors and non-specialist nurses.

CNSs provide holistic assessment for patients, covering physical, emotional, social, spiritual, sexual, financial and everyday life needs, triaging to other services if needed. Lung CNSs have a special role to play in communicating information and enabling patients to take a full role in decisions around their care, with patients often willing to divulge information on their symptoms and condition with lung CNSs that they may otherwise withhold from their doctor. Data from the National Lung Cancer Audit have also revealed the influence that CNSs may have in supporting patients to choose active treatment.

**Recommendation 2:** All lung cancer patients should be able to access lung CNS support and advocacy when they need it throughout their whole patient journey to support their holistic needs

**Recommendation 3:** Lung CNSs should be involved with pre-diagnosis care of suspected lung cancer patients, from the point of detailed investigations in secondary care

The Royal College of Radiologists was keen to advocate the essential role of Clinical Nurse Specialists, noting that it is important that, in the current financial climate, “the role of specialist lung nurses is fully recognised, expanded and retained”.

This was echoed by the Royal College of Surgeons of Edinburgh, who stated that: "We support the greater role of Lung Cancer Nurse Specialist as they are extremely effective and their role in the MDT is important. This should be highlighted to the Trusts."

CNSs should be patient advocates at MDT meetings and throughout the pathway. This is especially important as patients may transfer rapidly between a surgeon, radiotherapist and chemotherapist, when their initial treatment is being evaluated. This frequently causes confusion to the patient as to who is in charge. CNSs influence the smooth running of the pathway for the patient, especially in complex cases, and should be able to access other clinical services quickly if needed. However, they should not be deployed as a general administrator.

***"The role of specialist lung nurses is fully recognised, expanded and retained."***

**The Royal College of Radiologists**

In some cases, patients may revert to the tertiary centres to seek out information or support. There is a burden of workload and it is not uncommon for follow-up clinics to be seeing 30 or 40 people, some of whom probably don't need to be seen but could be supported at home through outreach services. There is the potential for nurse-led clinics for patients after active treatment to provide a holistic assessment and to co-ordinate any care needs; this may prevent unnecessary hospital admissions or facilitate a planned admission to an appropriate speciality.

Analysis of data from the National Lung Cancer Audit has demonstrated that, even after case-mix factors are taken into account, patients who are seen by a Lung Cancer CNS are twice as likely to go on to receive active anti-cancer treatment, especially chemotherapy (BTS abstract). In addition, a finding from the National Cancer Patient Experience Survey 2011 was that patients who had been seen by a CNS were much more likely to have had a good experience of care.

***"We support the greater role of Lung Cancer Nurse Specialist as they are extremely effective and their role in the MDT is important. This should be highlighted to the Trusts."***

**The Royal College of Surgeons of Edinburgh**

However, it must be recognised that the lung CNS workforce is already overstretched with, on average, every lung CNS having an annual case load of 122 patients, compared with, for example, breast cancer where that figure is only 79. In small units with only one full-time or part-time CNS there are therefore issues around providing effective cover for leave and training. It is therefore crucial that the lung CNS role is protected in the face of financial cutbacks across the NHS and pressure for CNSs to take on general ward duties.

**Recommendation 4:** Lung CNSs need to work closely with MDT coordinators, trackers and audit staff to ensure they are not taking on unnecessary administrative roles

**Recommendation 5:** Despite the financial pressures facing the NHS, the role of the lung CNS in ensuring optimal care for patients, must be protected

## Primary care

Patients with lung cancer often fail to identify symptoms or ignore symptoms, meaning that they present late, with an average of three months' delay before seeking help. Action is therefore needed to increase public awareness of the early symptoms of lung cancer.

In the UK, each GP sees on average fewer than two patients with a new presentation of lung cancer each year. They may confuse lung cancer symptoms with much more common conditions with a similar presentation such as COPD, persistent wheeze, or cough, or fail to connect less common symptoms (e.g. fatigue or weight loss) with the disease. Action is still needed to improve patient and GP awareness and new risk assessment tools may help to trigger alerts and initiate earlier referral<sup>4</sup>.



Practice in Scandinavia indicates the importance of access to diagnostics for early diagnosis, and there is a significant minority of patients (perhaps 3,500 a year) who if diagnosed earlier could be successfully treated. Primary care physicians should also be well informed and have a low threshold for referral of patients for investigation as soon as there is any reasonable level of suspicion of a diagnosis of lung cancer. GPs should review the diagnostic pathway of every new lung cancer patient they see, to assess whether lessons could be learnt to shorten any diagnostic delay in the future.

GPs should have access to high quality electronic decision support systems and rapid, open access to chest x-rays. Chest x-rays should be a routine part of the diagnostic work up of COPD patients and repeated when there is any unexplained change in the symptoms.

NICE recommends urgent referral for a chest x-ray (CXR) if a patient has persistent symptoms for 3 weeks and even then not all CXRs are abnormal (5-10% may not show any evidence of a tumour). Small tumours or those in upper zones or positioned behind overlying structures can be easily missed on chest x-rays. Whilst CXR may be an acceptable first test it should not be relied upon to exclude a diagnosis of lung cancer and the threshold for having access to a CT scan should be significantly lower than at present in the UK.

**Recommendation 6:** Where the results of a chest x-ray are normal and clinical suspicion of a diagnosis of lung cancer remains, GPs should consider an urgent referral under the two week wait pathway or have locally agreed arrangements for access to CT scans

Risk assessment tools (RATs) are now available for GPs to assess the risk of a patient with any particular symptom or group of symptoms having lung cancer (more information available via: <http://www.ncat.nhs.uk/our-work/diagnosing-cancer-earlier/gps-and-primary-care>) These 'RATs' should be made widely available for GPs and other clinical staff working in primary care. The Department of Health has recently supported efforts to increase primary care access to diagnostic tests and has supported the development and publication of best practice guidelines for referral for Chest X-Rays and CT scans (available via: <http://www.dh.gov.uk/health/2012/04/access-cancer-tests>).

Complementary to this, NHS Improvement will shortly be publishing guidelines for hospital radiology departments for the handling of GP requests for diagnostic tests.

**Recommendation 7:** Any chest x-ray or CT scan suggesting the possibility of a primary lung tumour, or a newly detected or growing nodule greater than 8mm in diameter should directly trigger an appointment in a rapid access lung cancer clinic

## Primary – secondary care interface

GPs could be better linked into the MDT given that they are an important point of contact and information for patients and carers. GPs should receive sufficient information from the hospital to determine what has and has not been discussed, and to be able to answer questions from patients and carers. It is important that GPs are informed about what isn't appropriate for the patient, as well as what is. More time at consultation and copying patients into correspondence would also be a valuable change to practice.

**Recommendation 8:** Communication between primary and secondary care is essential at all steps of the patient pathway. A greater focus should be given to improving communication between secondary and primary/community care in order that GPs are kept informed as rapidly as possible as to where patients (and their families) are along the care pathway.

Reports of all chest x-rays and CT scans where the possibility of a lung cancer diagnosis is raised should be sent urgently both to the referring clinician and to the lung cancer team, or should automatically trigger a referral. Where the chest x-ray is suspicious of a lung tumour, a contrast-enhanced CT scan of the chest, neck and upper abdomen should be carried out and be available at the first clinic visit.

The interval between referral from the GP to first being seen in the specialist clinic should be as short as possible – ideally no more than a week. Patients should be told why they are being referred and be given access to a clinical nurse specialist from the time of referral.

## Respiratory medicine

Referrals should be directed to a single specialist, rapid access, diagnostic clinic led by a respiratory physician with adequate training, experience and interest in thoracic oncology.

Whilst acknowledging that there is no evidence to set a minimum number of cases per year to make a clinician or a team viable, we believe that patients would prefer to be cared for by clinicians who are dealing with lung cancer as a major part of their everyday working life. Thus, physicians in smaller units should not look after low numbers of patients 'to keep their hand in'. Care should be configured around the needs of patients and achieving best outcomes, rather than the wishes of physicians. In order to avoid deskilling physicians in hospitals with smaller numbers of patients, interested physicians should be involved in MDTs wherever possible (e.g. using videoconference technology).

**Recommendation 9:** All suspected lung cancer cases should be dealt with by a respiratory physician with a specialist interest in lung cancer

Waiting time targets (for England but not applicable in Wales) dictate that a patient must be seen in secondary care within 14 days from primary care referral. While this target has generally been fairly well met, patients do not always have their CT scan before their secondary care consultation, rendering this less useful and adding an additional appointment to the patient journey.

In a number of leading centres dedicated rapid access clinics have been created. The patient has a CT scan prior to seeing the chest physician, or at the same visit. The radiologist reviews the scan, and meets with the physician, surgeon, CNS and radiologist to discuss the findings in a diagnostic and planning MDT meeting prior to the face to face meeting with the patient in clinic. This results in a much more rapid and co-ordinated diagnostic and staging pathway and one where it is possible to give the patient a great deal more information early in the course of their care.

**Recommendation 10:** Patients with a suspected lung cancer should be assessed at a dedicated rapid access clinic. Patients should have their CT scan before their respiratory consultation to provide sufficient time for the respiratory physician and radiologist to examine the scan results in a diagnostic MDT meeting prior to the first face to face meeting in clinic

Patients should undergo the minimum number of investigations to establish an accurate tissue diagnosis, the stage of disease and their fitness for treatment. This approach would improve patient experience, save time and potentially reduce the cost to the NHS. For example, CT scans should cover the neck as well as the chest and thorax, and be available in clinic (as they are in breast clinics). Bronchoscopy should only be carried out after CT scan and every effort should be made to derive both a tissue diagnosis and disease stage from a single invasive investigation. Where there is mediastinal lymphadenopathy on CT scan consideration should always be given to how the enlarged nodes can be sampled, either by neck ultrasound, Trans-Bronchial Needle Aspiration or endoscopic ultrasound guided node biopsy (EBUS or EUS). Rapid access to PET-CT scanning for all appropriate patients is essential for optimal diagnosis and management.

**Recommendation 11:** The diagnostic pathway should be refined to encourage use of fewer, but higher value tests, likely to provide the diagnosis and stage of the disease in one step

Dedicated chest physicians should take control of diagnostic and staging pathways.

**Recommendation 12:** Each patient should be assigned a dedicated chest physician with a specialist commitment to lung cancer to manage their care through the whole pathway

Lung cancer management is becoming increasingly complex and some of the most difficult problems (eg the treatment of limited stage Small Cell Carcinoma, the management of Stage IIIA/IIIB Non-Small Cell Lung Cancer, the radical treatment of patients with early stage NSCLC and poor lung function, etc.) are relatively uncommon and so may be seen quite irregularly. To manage such patients optimally it is of fundamental importance that all members of the MDT are both highly specialised and are able to attend the MDT meetings regularly. It is not possible to achieve this in every hospital. Such MDT specialisation has already occurred in many other cancer types including gynaecological, upper GI and urological cancers.

**Recommendation 13:** Specialist regional lung cancer MDTs should be established to deal with specified complex management problems and to ensure access to the latest advances in treatment which may not be available in all centres

## MDT meeting structure

All patients should have their case discussed by a MDT made up of a full range of expert clinicians from the fields of respiratory medicine, thoracic surgery, pathology, radiology, medical and clinical oncology, palliative care and lung cancer nursing. These individuals should be required to attend MDT meetings as part of their job description. All MDTs should be chaired by a clinician with an active interest in lung cancer.

It is recommended that the diagnostic decisions are agreed and investigations pre-booked in a meeting ahead of the rapid access clinic and separate from the treatment planning MDT meeting, in order to streamline the diagnostic and staging process. This process is already practiced by many MDTs.

Meetings themselves benefit from a clear structure, firm chairmanship and a collegiate approach with all members able to contribute fully. Discussions should start with a succinct presentation and a clear objective for the meeting. The case details should be presented by an individual who knows the patient and is familiar with their history and preferences, and therefore in a position to confidently answer further questions from other members of the team.

Technology now allows decisions and data to be added in real time during the MDT meeting to regional and national data submissions. A written summary of the MDT discussion should be available to all team members and provided to and discussed with the patient at their next visit. Clearly defined roles would enable follow up actions to be carried out in a timely and proficient manner. For example identifying who is responsible for booking follow up investigations and/or clinic appointments – in the best units a patient 'tracker' captures this information. A dedicated MDT coordinator and IT support are also vital.

**Recommendation 14:** The MDT should be properly supported by an administrative and audit team with proper IT facilities

Patients and carers want to know that the MDT meeting is happening, and wish to have face-to-face time with a clinician afterwards to understand what the recommended next steps are and what decisions they now need to make. The clinical advocacy of the CNS is vital in this process. The National Cancer Action Team's report The Characteristics of an Effective Multidisciplinary Team (MDT) also provides a useful reference point<sup>5</sup>.

**Recommendation 15:** Care planning should be a two-stage process – with diagnostic planning taking place ahead of the rapid access clinic and separately from the treatment planning MDT meeting

## Radiology

MDTs need ready access to more than one radiological opinion but, as in other specialities, radiologists are stretched and few MDTs benefit from more than one specialist thoracic radiologist at their meetings. All trusts should ensure that there is sufficient time allocated in radiologists' working schedules to enable them to prepare for each MDT meeting. At the MDT meeting itself PACS, suitable projection facilities and low-level lighting should be made available to allow proper radiographical presentation.

**Recommendation 16:** Each MDT should be able to draw on a team of specialist thoracic radiologists, and ideally two should be present at each meeting

**Recommendation 17:** All imaging should be reported by a specialist radiologist and there should be local agreement on the wording of reports and recommendations to clinicians

**Recommendation 18:** Adequate preparation time should be set aside before and after the MDT meeting and radiologists should be given adequate notice of cases

## Pathology

The role of the pathologist is to provide timely accurate diagnostic and staging information. The pathologist's attendance at the MDT meeting is critical and they should be fully integrated members of the MDT. A lung MDT pathologist should have specialist thoracic expertise as well as access to super-specialist opinion as and when necessary. This specialist resource is limited in the UK, estimated at around 40-50 consultants, underlining the need for specialist training and dedicated fellowships.

It is important to have the facilities to present pathology results properly in the MDT room, linking pathology and radiology information systems as well as linking back to old pathology results. Dual projection of pathology and radiology is also desirable as it enables easy comparison.

Pathological sub-classification of NSCLC should be pursued wherever possible. Relevant mutation testing should be undertaken wherever locally or nationally funded therapies exist.

**Recommendation 19:** Lung MDT pathologists should have specialist thoracic expertise and access to super-specialist opinion as and when necessary

## Surgery

Currently there are issues over variability of access to surgery and to specialist thoracic surgeons, as well as significant variations in practice and resection rates between units. There are only around 70 specialist thoracic surgeons in the UK supporting over 200 MDTs, making it impossible to offer year round cover. Peer review of specialist surgical opinion in the MDT is vital to prevent drifts in practice and inappropriate decisions being made.



Different models operate in different parts of the country to help address this shortage of specialist thoracic surgeons. In some areas a hub and spoke model of cross-working may be appropriate, whilst increased use of video-conferencing would also help to manage requirements of smaller centres and reduce travel time. There needs to be more robustness on configuring local and regional models that meet patients' rather than Trusts' interests. Cancer Networks should have a central role in establishing and monitoring the best possible access to specialist thoracic surgical input into treatment decisions for lung cancer patients.

An immediate necessity is that all surgeons who are core members of an MDT should have a clear thoracic specialist interest - a minimum one full day thoracic operating, minimum one full MDT per week and a thoracic surgical outpatient clinic with lung nurse specialist support present at clinic.

Surgeons need to be involved in preparation and review of CXRs and CT scans. In addition, surgeons need more time to spend with each patient and carer in the surgical consultation. However, they may not be best placed to undertake follow up and long term care.

**Recommendation 20:** All MDTs should have a thoracic surgeon (undertaking a minimum one full day thoracic operating, minimum one full MDT per week and a thoracic surgical outpatient clinic with lung nurse specialist support) as a core member. He or she should be present at, or have adequate cover, for all meetings

The UKLCC believes that all core members of a lung MDT should have a clearly demonstrable specialist interest in thoracic oncology. As yet, definitions of special thoracic interest only exist for surgery. The UKLCC is keen to work with professional bodies to develop definitions of special interest for other key areas essential to lung cancer treatment and care.

**Recommendation 21:** All patients with a disease identified as borderline for treatment (3A or 3B), or who are borderline fit for surgery, should have their case assessed by at least one specialist thoracic surgeon within a specialist MDT

**Recommendation 22:** High quality video-conferencing should be available wherever required to improve working between specialist centres and DGHs

**Recommendation 23:** Thoracic surgeons should not work as single surgeons in a cardiac unit

## Medical and clinical oncology

Medical oncologists provide detailed expertise on chemotherapy and should be able to provide important advice on integrating new therapeutic advances. Although the unique expertise of clinical oncologists is their knowledge of radiotherapy techniques, many also have wide experience in the use of chemotherapy.

Both clinical and medical oncologists should have expertise in clinical trials and an understanding of translational research, which should be part and parcel of the information available to the dream MDT. Currently many oncologists treat a wide range of cancer types and may not be fully up to date with regard to the management of lung cancer. The Royal College of Radiologists' latest guidance states that "*a consultant should normally undertake no more than two broad areas of site-specialist practice.*"<sup>6</sup>

Specialism in thoracic oncology is a requirement for any high quality service and there should be at least two oncologists per MDT to ensure cross-modality cover.

In order to optimise and personalise radiotherapy, wider access should be given to PET-CT, stereotactic targeted therapies and other recent or more advanced techniques. Patients for whom radical radiotherapy or combination chemotherapy are possible therapeutic options should be seen within a week of diagnosis by an oncologist with wide experience in these treatments and rapid access to the full range of radiotherapy techniques and planning facilities, including the options of CHART, IMRT, IGRT, SABR/SBRT, and online imaging with cone beam CT.

**Recommendation 24:** Every lung cancer patient should have access to at least two dedicated thoracic oncologists offering cross-modality cover and expertise

Following surgery all patients should have an MDT discussion with consideration made to adjuvant chemotherapy and radiotherapy if indicated. Informed consent to treatment should include what the likely survival benefit will be and what the alternatives are, recognising and clearly conveying that patients' response to treatments vary. It is imperative that efforts are made to create the right setting for a full discussion with patients, enabling them to ask the questions they want supported with clear information and CNS input. For all patients completing any first line therapy, an MDT discussion should take place to consider further therapies.

**Recommendation 25:** There should be an MDT discussion following completion of first-line surgical treatment, and patients should always be kept informed about the next step in their care pathway and their treatments options

## Borderline case management

In general 6-8% of lung cancer patients are clearly operable and of low risk, 50% have advanced cancer and 35-40% are borderline cases. Given that lung is a common cancer there is potential for improving and extending thousands of patients' lives by focusing clinicians on this borderline group. There are currently huge variations in resection rates and other radical therapy rates between different teams and areas of the country. The regular collection of data and review of treatment and outcomes is a vital element of a high quality service.

**Recommendation 26:** Every MDT should collect a minimum data set for every patient, contribute to the National Lung Cancer Audit and publish an annual report including resection rates, other treatments given and patient outcomes

## End of acute phase

Patients often feel 'abandoned' after the initial period of intensive investigation and first line treatment, with little understanding of what the future holds. Within one month of the end of treatment the patient and a close carer should be invited to attend a 'stock-take' clinic to assess their current problems, their understanding of what has happened to them to date, what to look for in the future and to be given a clear and single point of contact if problems arise. The CNS is best placed to carry this out, but may require support from allied health care professionals, social workers and psychologists.

**Recommendation 27:** A clinical stock-take/end of treatment assessment should be held, when the CNS has sufficient time to go through what the patient knows, their prognosis, treatment options, point of contact and financial details

## Supportive and palliative care

Providing effective supportive and palliative care requires patients and their carer's holistic needs to be identified, including for rehabilitation. Thus, it is recommended that the SPARC questionnaire, or an equivalent tool, be used to assess patients' needs. These should form the basis for care plans and referral to other services for specialist support.

**Recommendation 28:** SPARC or an equivalent tool should be used to assess patients' needs. The results should form the basis for care plans and referral to other services for specialist support

It is important to recognise and be realistic about the likely outcome for lung cancer patients. Healthcare professionals should have an open discussion with the patient about their palliative care options when it becomes apparent that continued treatments are not likely to offer any specific therapeutic benefit. Some doctors are still hesitant to initiate a discussion, and it is also noted that cases need to be handled carefully particularly when patients and carers have conflicting views on wanting to obtain a prognosis.

Palliative care practitioners are thinly spread, and this presents problems with securing specialist input at the MDT meeting. A focus on building the palliative care workforce is therefore required. It is also vital that there are clear links between the palliative care team and primary and community care.

## Research and clinical trials

Research is central to any high quality team. This will most commonly involve the entry of patients into national clinical trials (i.e. NCRN 'badged' studies) and all MDTs should have available a list of all such trials that are open for recruitment and consider whether trial entry is an option that can be offered to every patient that is discussed. Links with translational and more basic research are to be encouraged and it is important that links are established between units which carry out such research and those which are more clinically oriented.



Access and entry to clinical trials varies hugely from one centre to another. Some treatment options will only be available to patients through clinical trials and patients should be made aware of this and given the option to travel to other centres if they are eligible for, and wish to participate in, trials available in other areas.

**Recommendation 29:** Every MDT discussion should include an assessment of which clinical trials individual patients may be eligible for

**Recommendation 30:** Data on which clinical trials are open for lung cancer patients and the record of trial entry at each centre should be made publicly available and easily accessible

## References

- <sup>1</sup> 'Cancer survival in Australia, Canada, Denmark, Norway, Sweden & the UK, 1995-2007', *The Lancet* 377: 127-138, MP Coleman, D Forman, H Bryant, et al., 2011
- <sup>2</sup> 'What if cancer survival in Britain were the same as in Europe: how many deaths are avoidable?' *British Journal of Cancer*, 2009 December 3; 101(S2): S115-S124. M Abdel-Rahman, D Stockton, B Rachet, T Hakulinen, and MP Coleman
- <sup>3</sup> National Institute for Health and Clinical Excellence (2011), Lung cancer for adults quality standard, London: National Institute for Health and Clinical Excellence
- <sup>4</sup> 'The CAPER studies: five case-control studies aimed at identifying and quantifying the risk of cancer in symptomatic primary care patients', *British Journal of Cancer* 101, S80-S86, Hamilton W et al., 2009
- <sup>5</sup> 'The Characteristics of an Effective Multidisciplinary Team (MDT)', National Cancer Action Team. Accessed at: <http://www.ncat.nhs.uk/our-work/ensuring-better-treatment/multi-disciplinary-team-development> (February 2010)
- <sup>6</sup> 'Guide to Job Planning for Clinical Oncology', The Royal College of Radiologists. Accessed at: [http://www.rcr.ac.uk/docs/oncology/pdf/BFCO\(11\)3\\_job\\_planning.pdf](http://www.rcr.ac.uk/docs/oncology/pdf/BFCO(11)3_job_planning.pdf) (July 2011)



UNITED KINGDOM  
LUNG CANCER COALITION

© United Kingdom Lung Cancer Coalition 2012

This document has been produced with support from AstraZeneca, Lily UK, Pfizer Ltd, Pierre Fabre, Roche Products Limited, Novartis, Sanofi-Aventis and Merck Serono