

Introduction

Lung cancer is the commonest cancer in the UK with about 35 000 new cases per year.¹ More than 100 patients will present annually to an average district general hospital serving a population of 250 000 and about five to each general practice partnership looking after 10 000 patients.² Although the overall prognosis is poor, with a mean survival in the UK of less than six months,³ rapid diagnosis and assessment are important to determine operability, suitability for radiotherapy, chemotherapy, or palliative interventions, and to minimise the anxieties of patients and their families.

The British Thoracic Society (BTS) recognises that it is of paramount importance to ensure that all patients with a working diagnosis of lung cancer have access to first class care. These recommendations have been produced because the BTS believes that they will represent an important contribution to the delivery of better patient care and will be an essential contribution to other UK national initiatives.

There are four additional reasons for the production of these recommendations.

(1) As a result of the publication of the Calman-Hine Committee report⁴ the organisation of cancer services in England and Wales is undergoing a fundamental review and a subsequent document from the Department of Health has given support to "the development of specific multidisciplinary teams in the treatment of lung cancer".⁵

(2) Three sets of recommendations comprising technical recommendations for lung cancer management and based on literature reviews have recently been published,^{2 6 7} and there is a need for physicians to attempt to implement them.

(3) There are presently ongoing initiatives from Regional Cancer Service Review Groups, the Clinical Outcome Group (subgroup on cancer guidance for purchasers), and from the Research Unit of the Royal College of Physicians concerning the organisation and audit of lung cancer services to which the BTS needs to contribute.

(4) There is accumulating evidence of considerable variation in the investigation and treatment of patients with lung cancer which appears to be affected by age and place of residence, and management policy.⁸⁻¹¹

Scope of the British Thoracic Society recommendations

This document therefore focuses on the process of lung cancer management as seen from the perspective of respiratory physicians. It does not purport to be a description of the detailed management of lung cancer nor to lay down guidelines for other specialist groups such as oncologists or surgeons. Its intended

audiences are (1) all health care professionals involved in the investigation, diagnosis, and management of lung cancer, including general practitioners; (2) lung cancer patients and their relatives and representatives; and (3) in the UK, purchasers and the Department of Health.

Evidence

Because these recommendations principally concern the process of patient care, most of them represent considered clinical opinion—compatible with what evidence there is—and are not recommendations based just upon published scientific evidence. In cases where we believe that our recommendations are supported by published evidence, they are designated according to the grading recommendations of the SIGN Committee (see Appendix 1).¹²

Method

The recommendations have been developed under the auspices of the BTS Standards of Care Committee. A Working Party of the Committee considered the published recommendations,^{2 6 7} together with their background reviews and references, the service specifications already suggested for different regions of England and Wales, and the report of a recent multidisciplinary meeting in Yorkshire between general practitioners and hospital specialists.¹³

The draft recommendations were considered by the full Standards of Care Committee and were then sent, after correction, to 20 respiratory physicians with an interest in lung cancer representing the 12 regional health authorities in the UK, the BTS Executive, and the Respiratory Committee of the Royal College of Physicians. After adjustment in the light of their comments, an amended draft was sent to all 255 consultant respiratory physicians in the UK listed in the 1995 directory. Their individual comments were collated by the regional representatives and the document was further revised. This revised document was then sent to the following bodies for their comments: The Association of Cardiothoracic Surgeons of Great Britain; The Royal College of Physicians' Respiratory Committee; The Association of Palliative Medicine of Great Britain & Ireland; The Royal College of Radiologists; The Royal College of General Practitioners; The Department of Health observer on the British Thoracic Society Standards of Care Committee; The Cancer Relief Macmillan Fund; and The British Association of Cancer United Patients (BACUP).

In the light of the comments received from these bodies, the present document was further revised and submitted finally to the Standards

of Care Committee and the British Thoracic Society Executive for final approval.

Definitions

Respiratory physician—an accredited hospital specialist on the UK General Medical Council Specialist list.

Oncologist—includes medical oncologists (chemotherapy) and clinical oncologists (radiotherapy and chemotherapy).

Specialist—one of the above or a thoracic or cardiothoracic surgeon or a palliative medicine physician.

Radiologist—a clinical radiologist often with a sub-specialty thoracic interest.

Nurse—trained nurses in the context of this document include Macmillan funded nurses, district nurses working for general practitioners, and hospital nurses who have attended recognised courses in cancer counselling and management.

Palliative care—the palliative phase of lung cancer management is taken to be when symptom relief is paramount and a limited prognosis is obvious. However, it is recognised that palliation of symptoms may be needed at any stage.

Management plan—this comprises the actions to be taken at a time when a diagnosis of lung cancer is accepted, and includes any

investigations required, the intended treatment, arrangements for concurrent psychological support, information to patients and their relatives, and arrangements for follow up.

Cancer unit—this is represented by a team of hospital consultants with a declared interest in cancer management, and their supporting staff and facilities. Cancer units are defined thus by their staffing, not by site since they may operate on more than one site.⁵

Duration of validity

The Working Party considers that these recommendations should be applicable for a maximum of three years, at which time they should be reviewed.

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Recommendations

Presentation

- General practitioners and hospital doctors should immediately refer to a respiratory physician for an opinion about future investigations and management all patients whose radiography report or other evidence suggests the possible diagnosis of lung cancer [C].²
- Patients referred by general practitioners who have obvious clinical evidence of lung cancer should be seen within one week of referral receipt in a respiratory physician's clinic [C].²
- There should be a delay of no more than two weeks between a patient having radiography, requested by a general practitioner, and being shown to have a high probability of cancer, and the patient being seen in a respiratory physician's clinic [C].²
- Respiratory physicians, radiologists, and general practitioners should collaborate to organise a service with minimal delays [C].
- Inpatient referrals to respiratory physicians from other hospital consultants should be seen within two working days of receipt, and outpatient referrals within one week [C].

Confirming the diagnosis

- The results of bronchoscopy or any other similar diagnostic test, including the histological or cytological result, should be available and communicated to the patient within two weeks of a decision to do it [C].^{2 14}
- Because histological or cytological confirmation is associated with a higher rate of specific oncological treatment,^{15 16} it should be sought unless a respiratory physician or other specialist has given an explicit opinion that this would be inappropriate [C].
- All patients, regardless of age, should be referred and investigated in the same way unless there are compelling reasons to the contrary, which should be specified in the clinical record.^{8 15-17}
- When a diagnosis of lung cancer is accepted, all patients should receive advice about their management plan from their respiratory physician. This may comprise further investigations and/or treatment plan after consultation with other specialists such as a cardiothoracic surgeon, a medical or clinical oncologist, or a palliative medicine physician [C].

Communicating the diagnosis

There are several factors which should always be considered when the diagnosis is given.¹⁸⁻²²

- *The place.* A quiet room is essential [C]. The consultation should be private and uninterrupted [C].
- *Family support.* The patient should be encouraged to be accompanied by a relative or carer [B].²³
- *Nurse support.* A nurse should be present and should stay with the patient afterwards [C].
- *Management plan.* A management plan should accompany the diagnosis and be discussed and agreed with the patient [C]. Whenever possible estimates should be given of the interval to the next clinic appointment, test, admission, or treatment [C].
- *Giving a prognosis.* Physicians and their staff should be cautious about giving a precise prognosis before adequate staging and other information is available [B].²⁴
- *Communication.* If the diagnosis is given in hospital, there should be telephone or written communication with the general practitioner within two working days [C]. This should include the known extent of tumour spread, what the patient has been told, and what the management plan is [C].
- *Further information.* The patient should have access to written information, appropriate to his or her case, to supplement the interview [C].
- Respiratory physicians should ensure that, if they themselves do not communicate the diagnosis, it is done by a member of their team who has had appropriate training in breaking bad news [B].^{21 22}
- The essential facts of the interview should be recorded in the patient's records [C].
- Respiratory physicians and their colleagues should be aware of the need for and be prepared to deploy similar skills and support at other particular times (such as when disease recurs or is recognised to be resistant to treatment).

NURSE SUPPORT

A recommended pattern is for all cancer units to have a trained nurse who sees patients at the time of and after diagnosis, and either provides continuing support or then liaises with the general practitioner and community team to establish such a link with another colleague [C].

Treatment

GENERAL

The BTS recommends that respiratory physicians collaborate with their surgical and oncological colleagues to establish explicit patterns of work and targets for minimising delays to treatment. To facilitate this planning the BTS makes the following suggestions.

SURGERY

- There should be a maximum of eight weeks between the first consultation with a respiratory physician, in an uncomplicated operable case, and thoracotomy [C].^{2, 25}
- Physicians should discuss local arrangements with their surgeon colleagues to ensure that there is a delay of no more than four weeks between acceptance on a surgeon's waiting list and thoracotomy [C].²
- Cancer units should ensure that all patients who are candidates for thoracotomy should have a staging computed tomographic (CT) scan [B].²⁶⁻²⁸ There should be a formal agreement between the respiratory physician and the surgeon about the timing of the CT scan [C].

RADIO THERAPY

- All patients should be seen by a clinical oncologist within one week of referral receipt from the general practitioner or hospital [C].
- Delays to the start of radiotherapy should be within the Joint Council for Clinical Oncology guidelines²⁹; urgent: within two working days; radical: within four weeks (complex planning needed); palliative: within two weeks [C].

CHEMOTHERAPY

- Patients with small cell lung cancer should be referred either to a respiratory physician who has experience of supervising chemotherapy or to an oncologist, unless there are compelling reasons to the contrary which should be specified in the hospital records and communicated to the patient and family where appropriate [C]. Patients with non-small cell lung cancer in whom chemotherapy is being considered should be referred similarly.
- All patients should be seen by such a specialist within one week of the referral being received [C].
- In cancer units where respiratory physicians give chemotherapy for lung cancer, patients should begin treatment within seven working days of the decision to employ a particular protocol [C]. In other units physicians should liaise with their oncology colleagues to ensure that similar arrangements are in place for their patients [C].
- Chemotherapy given by respiratory physicians should be in accordance with published recommendations of the Joint Council for Clinical Oncology³⁰ using local

protocols jointly agreed with their oncologist colleagues [C].

TREATMENT COMMUNICATION

- Telephone or written reports should be sent to general practitioners within two working days of the consultation at which treatment is decided [C].
- All patients should have access to and an opportunity to receive comprehensive and relevant written information about their proposed treatment [C].

FOLLOW UP

- The BTS recommends that respiratory physicians develop with their colleagues an explicit follow up policy within their cancer units, which is appropriate to local needs and resources and takes particular note of the wishes and interests of patients and their general practitioners. It should be clear to patients who their supervising consultant is [C].
- Hospital follow up should be continued: (a) while there is a reasonable prospect of hospital treatment or specialist advice being needed [C]; (b) where this is perceived to be important to sustain a patient's morale [C]; (c) after surgery: all patients should be followed up initially by their surgeon and later follow up should be according to local policy [C]; (d) after chemotherapy or radical radiotherapy or entry to any trial all patients should be regularly followed up by the treating specialist [C]; (e) after palliative radiotherapy the follow up policy should be formally agreed between the radiotherapist and respiratory physician [C].

PALLIATIVE CARE

- Local arrangements for palliative care vary widely. The BTS believes that these arrangements should be explicit within each cancer unit [C].
- Agreeing the initial organisation of the palliative phase with the patient, his or her family, and the general practitioner should be the responsibility of the relevant hospital specialist [C]. This specialist will often be the patient's respiratory physician and his or her team, or may be an oncologist or a hospital based palliative medicine physician. Such specialists should recognise that palliative care may often be best undertaken in general practice, and sometimes by other hospital colleagues such as consultants in medicine for the elderly.
- All patients should receive regular follow up, either by a specialist or general practitioner, or by a nurse member of the managing team [C]. In this phase frequency depends on circumstances, and arrangements should be according to the needs and wishes of patients and their carers [C].

- Detailed co-ordination and liaison between the patient, his or her general practitioner, and the hospital is usually best done by a nominated specialist nurse—for example, a Macmillan nurse or community district nurse [C].
- All patients should be aware of the doctor(s) supervising their care—for example, general practitioner, general practitioner and hospital specialist, or general practitioner and palliative medicine physician—and who their named nurse is—for example, Macmillan nurse or district nurse [C].
- Patients should be aware of who and how to call for urgent problems [C].
- Patients' wishes should be explicitly sought when there are major decisions to be made about changes in care pattern. Ideally, such decisions should be taken after verbal consultation between the general practitioner and either the hospital specialist or specialist nurse [C].
- It is recommended that all hospital cancer units should consider holding sessions with a palliative medicine physician to ensure good liaison between the hospital and community.
- All cancer units should have the facility to admit patients directly from general practice for symptom control [C]. General practitioners should have access to specialist clinics within a week [C].
- All letters detailing care plans or reviews should be copied to community/Macmillan nurses as well as to general practitioners [C].

DEATH AND BEREAVEMENT

- Where a terminally ill patient and his/her family wish the patient to die should be ascertained [C].
- After death in hospital a message should be passed to the general practitioner, usually by telephone, within one working day. Likewise, cancer unit teams and hospices should be informed by general practitioners of deaths at home [C].
- Hospital and (where possible) community services should provide bereavement information packs detailing the availability of support from, for example, general practitioners, the patient's Macmillan or district nurse, or CRUSE, UK [C].

Organisation of cancer units in the UK

Introduction

It is not possible to be prescriptive about how individual lung cancer services should be organised. However, one of the concepts being very strongly developed as a result of the Calman-Hine report⁴ and detailed in EL (96) 15⁵ is that of the “team” approach to decision making for all cancer patients, requiring regular meetings or contacts between involved clinicians. Members of teams may not necessarily be based on the same site.

The constituent members of a lung cancer team should include the respiratory physician, specialist nurse(s), oncologist(s), surgeon, pathologist, radiologist, and palliative medicine physician.

Recommendations

- Cancer units should identify a lead (co-ordinating) clinician for lung cancer services, usually a respiratory physician [C].
- Cancer units should develop a local policy for the referral and management of patients with lung cancer presenting to specialities other than respiratory medicine [C].
- Cancer units should issue guidelines for lung cancer management which should be consistent with those issued by their local cancer centre [C].
- Cancer units should move towards a system of joint discussion in the management of individual cases of lung cancer. Meetings should be regular and, in small cancer units, should first be between the respiratory physician and a radiologist and specialist nurse and, later, should include the local visiting oncologist(s) and surgeon wherever possible. Discussion of most cases will involve the arrangements for palliation. The establishment of parallel or joint clinics by a respiratory physician and, where possible, a palliative medicine physician should be encouraged [C].

Audit

- Cancer units should ensure that their activity in diagnosing and managing lung cancer is measurable [C].
- Cancer units should audit their activity on a regular basis [C].
- Collaborative audit should be encouraged—for example, using the tool being developed by the Research Unit of the Royal College of Physicians [C].

Training

It is recommended that specific training in oncology, palliative medicine, and communication skills is considered as part of specialist training for respiratory physicians, and is necessary for doctors with a major responsibility for a lung cancer unit [C].

Education

Lung cancer units, individually or in groups, should consider regular formal educational initiatives in collaboration with their local general practitioner or GP tutor [C]. The BTS should organise regular educational activities for respiratory physicians relating to the management of lung cancer [C].

Research

- The BTS should support local and national initiatives, either by individual units or groups.
- Purchasers should be encouraged to facilitate research in the diagnosis and management of lung cancer by, for example, supporting the treatment costs of patients entered into peer reviewed trials [C].
- Individuals specifically charged with the collection of data in cancer units may need support from either research and development levy funds allocated by the local offices and/or clinical audit funds devolved from purchasers.

Appendix 1: Grading scheme for recommendations in the guidelines

The criteria for the grading of recommendations in the guidelines are based upon a paper by Petrie et al published on behalf of the Scottish Intercollegiate Guidelines Network.¹

Levels of evidence

Level	Type of evidence (based on AHCPR 1992) ²
Ia	Evidence obtained from meta-analysis of randomised controlled trials
Ib	Evidence obtained from at least one randomised controlled trial
IIa	Evidence obtained from at least one well designed controlled study without randomisation
IIb	Evidence obtained from at least one other type of well designed quasi-experimental study
III	Evidence obtained from well designed non-experimental descriptive studies, such as comparative studies, correlation studies and case control studies
IV	Evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities

Grading of recommendations

Grade	Type of recommendations (based on AHCPR 1992) ²
A (levels Ia, Ib)	Requires at least one randomised controlled trial as part of the body of literature of overall good quality and consistency addressing the specific recommendation
B (levels IIa, IIb, III)	Requires availability of well conducted clinical studies but no randomised clinical trials on the topic of recommendation
C (level IV)	Requires evidence from expert committee reports or opinions and/or clinical experience of respected authorities. Indicates absence of directly applicable studies of good quality

1 Petrie, GJ, Barnwell E, Grimshaw J. on behalf of the Scottish Intercollegiate Guidelines Network. *Clinical guidelines: criteria for appraisal for national use*. Edinburgh: Royal College of Physicians, 1995.

2 Agency for Health Care Policy and Research. *Acute pain management, operative or medical procedures and trauma 92-0032. Clinical practice guideline*. Rockville, Maryland, USA: Agency for Healthcare Policy and Research Publications, 1992.

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