

Respiratory medicine

i Description of the specialty and clinical needs of patients

Respiratory medicine is concerned with diagnosis, treatment and continuing care of patients with a considerable and challenging range of pathologies. They include:

- asthma
- chronic obstructive pulmonary disease (COPD)
- diffuse interstitial lung disease
- sarcoidosis
- asbestos related conditions including mesothelioma
- cystic fibrosis
- tuberculosis
- management of chronic and acute respiratory failure
- sleep disordered breathing
- pneumonia
- pulmonary disorders in the immunocompromised host
- bronchiectasis
- pulmonary hypertension
- pulmonary haemorrhage
- pulmonary embolism
- allergic lung disorders
- disorders of the pleura (including malignancy, pleural effusion and pneumothorax)
- pulmonary manifestations of systemic disease
- genetic and developmental lung disorders
- a major commitment towards lung cancer, being the most common cancer in both males and females in the uk.

Subspecialty interests also include:

- lung transplantation
- cystic fibrosis
- HIV/AIDS
- occupational lung disease
- palliative care and intensive care.

In addition, most respiratory physicians have a major commitment to the care of patients admitted as medical emergencies and conduct inpatient and post-take ward rounds. The expectation that all patients with respiratory disease have the option of being reviewed during their inpatient stay by a respiratory specialist represents a considerable increase in workload.

ii Organisation of the service and patterns of referral

Primary, secondary and tertiary levels

Primary care and community respiratory medicine Some GPs with an expertise in respiratory medicine provide asthma and chronic obstructive pulmonary disease (COPD) clinics within their surgeries, often serviced by nurse specialists. Such services should be developed further in collaboration with the local respiratory physicians and integrated with local services in secondary care. One area in particular where this is possible is respiratory rehabilitation.

Secondary care/inpatient service Respiratory medicine provides a hospital-based service and respiratory physicians have a major commitment to the care of patients admitted as medical emergencies on unselected medical take. All district general hospitals (DGHs) have at least one consultant with a special interest in respiratory medicine and most have two or three. The prevalence of respiratory diseases and inpatients under the care of other disciplines, both medical and surgical, with problems requiring respiratory specialist input have a significant impact upon workload.

Tertiary care Patients with certain conditions such as cystic fibrosis are usually managed in regional centres. Surgical and radiotherapy services are usually based in regional or subregional centres. Supraregional centres exist for the investigation of occupational lung disease, the management of patients with pulmonary hypertension and patients requiring assisted ventilation, and the assessment and management of patients requiring lung transplantation.

Most patients requiring admission are referred by their GP or via the A&E department. Most outpatient referrals are from GPs, specialist colleagues in the hospital and the A&E department. Suspected cases of lung cancer need to be seen within two weeks.¹ Facilities and resources need to be in place to enable all urgent referrals to be seen promptly. Patients with other life-threatening conditions such as severe asthma may need to be seen even more urgently.

Special patterns of referral The British Thoracic Society (BTS) is working to achieve a countrywide network of regional centres to coordinate and, where appropriate, to provide specialist care. Each centre should provide access to specialist services for thoracic surgery, sleep-related respiratory disorders, ventilatory support, cystic fibrosis, pulmonary hypertension and lung transplantation. These centres would be ideally placed to provide specialist advice on other rare respiratory disease and coordinate national programmes of research.

The BTS is also working closely with the Royal College of General Practitioners (RCGP) in the development of GPs with a special interest (GPSI) in respiratory disease.

iii Working with patients: patient-centred care

Patient choice and involving patients in decisions about their treatment

It is enshrined in *Good medical practice* that patients should be involved in decision-making about their treatment.² This is particularly important where potentially harmful drugs may be used such as in the treatment of lung cancer but also in the use of oral steroids and other immunosuppressants in respiratory disease. Respiratory physicians are totally committed to this and have led the way in regular discussions and educational sessions on ethical matters at BTS summer meetings for the last few years. Discussions have often included problems presented by ethnic and religious differences.

Access to information, opportunities for education and promoting self-care

Asthma care has led the way for the development of self-management plans, the proper administration of which includes significant education for patient groups. This has been developed by respiratory physicians jointly with the National Asthma Campaign and the British Lung Foundation.

In every respiratory clinic in the country there are locally produced and national information leaflets available, often produced by the British Lung Foundation and/or the National Asthma Campaign.

All patients have access to their own notes on request, but where clinically delicate information is involved respiratory physicians have developed training programmes for breaking bad news, both in the context of lung cancer and other potentially fatal conditions such as interstitial lung disease.

Patients with chronic conditions and the role of the expert patient

Asthma, COPD, cystic fibrosis and interstitial lung disease are followed up in respiratory outpatient clinics and in primary care. The BTS has long supported the British Lung Foundation in developing *Breathe Easy* patient-run patient support groups for these chronic conditions. The Cystic Fibrosis Trust helps patients and families with cystic fibrosis. Respiratory physicians are heavily involved in this group.

The concept of the expert patient is likely to be extremely helpful in the development of self-care and support for patients and families where chronic respiratory conditions are a problem.

iv Interspecialty and interdisciplinary liaison*Multidisciplinary team working*

Respiratory nurse specialists make an invaluable contribution to the services that respiratory units are able to offer and the quality of those services. Respiratory nurse specialists undertake many roles, including running asthma clinics, providing education for patients with asthma, and liaising with GPs and nurses in the community. In many districts the respiratory nurse specialists supervise the domiciliary nebuliser service, and assist in the assessment and monitoring of patients requiring long-term domiciliary oxygen. In some units respiratory nurse specialists have the primary role in supervising patients with COPD who are selected for hospital-at-home care, and in running the pulmonary rehabilitation service (this is likely to increase sharply within the next few years). Respiratory nurse specialists may be employed full-time to supervise patients requiring domiciliary non-invasive ventilation (NIV) and continuous positive airway pressure (CPAP) for sleep-related breathing disorders. In small units respiratory nurse specialists may undertake many of these tasks together, whereas in large units often one or more respiratory nurse specialists may be required for each service.

Tuberculosis (TB) liaison health visitors (nurses) organise and conduct the contact tracing service when patients with TB are identified and, in many cases, supervise treatment to check it is being taken correctly and chase up patients who default from treatment.

Lung cancer nurse specialists provide an invaluable counselling service to patients and their relatives when a diagnosis of lung cancer is made, and advise patients and other healthcare workers on the general management of symptoms caused by lung cancer. In some cases they will visit patients at home or may liaise with other nurses who provide the domiciliary service.

Respiratory function technicians undertake lung-function testing of various levels of complexity. In some units they are involved in the sleep service and in exercise testing.

Physiotherapists play an important role in the management of both inpatients and outpatients with respiratory diseases. They teach patients with cystic fibrosis and bronchiectasis how to undertake postural drainage and help patients with hyperventilation to control their breathing.

Respiratory physiotherapists help in cystic fibrosis and bronchiectasis clinics. They may run rehabilitation courses or treatment for hyperventilation. They often help run NIV services and have a major input to the care of ward patients with respiratory failure.

Working with other specialists

Respiratory medicine specialists work as members of a multidisciplinary team (MDT). The team includes career grade and doctors in training, ward-based and outpatient nurses, respiratory nurse specialists, physiotherapists, secretaries and respiratory lab technicians. Members of the team liaise with many other specialties, particularly with imaging, histopathology and radiology in hospital, and with the local thoracic surgery and oncology units, local palliative medicine services and social services.

Clinical networks have been established for lung cancer management and others may follow. There are already strong links between secondary care and primary care with respect to lung cancer care, TB care and asthma care. Other links are likely to develop, to enable early discharge of patients with COPD and pulmonary rehabilitation, and through smoking cessation clinics. Respiratory medicine welcomes the development of GPSIs in respiratory disease.

Respiratory medicine specialists also work as members of a MDT in palliative care and some are responsible for HIV work. Close clinical liaisons have been developed between respiratory physicians and disciplines where multisystem disease often affects the lung. These include rheumatology, haematology, genitourinary medicine (GUM), renal medicine and oncology.

v Delivering a high quality service

Characteristics of a high quality service

A high quality service implies that inpatients and outpatients receive prompt, expert, effective and compassionate care and, with few exceptions, the care they need should be available locally. This requires a well-motivated, well-staffed team that has access to suitable facilities. Respiratory specialists should not work in isolation and must have appropriate dedicated support staff. Respiratory nurse specialists have a crucial role.

For referrals, there should be a respiratory physician available 24-hours a day for advice. Referral letters should be reviewed by the respiratory physicians and explicit standards concerning reasonable time from referral to first appointment for urgent and non-urgent patients should be followed.

*Resources required for a high quality service***Specialised facilities***Inpatient unit*

- a fully staffed high dependency unit (HDU)/acute lung unit in every DGH.

Outpatient clinics

- sufficient consultation and examination rooms for clinicians and respiratory nurse specialists
- dedicated outpatient area with rooms large enough for patient, consultant, medical students or other trainees
- natural lighting and additional lighting
- quiet room for bereavement counselling
- efficient imaging department in close proximity to the respiratory services
- bronchoscopy suite
- seminar room for unit meetings and multidisciplinary lung cancer meetings
- flexible appointment system
- experienced respiratory nurse specialists to assist in clinic
- pharmacy service available to meet needs identified in clinic
- adequate secretarial staff
- fully supportive pulmonary function laboratory.

Therapeutic services Many consultants offer therapeutic services in addition to their routine respiratory work and job descriptions should recognise this. Nurse specialists may offer a valuable contribution in many areas and consultant sessional contributions will vary.

- long-term oxygen therapy and other domiciliary oxygen treatment
- treatment of sleep disorders (especially CPAP)
- pulmonary rehabilitation service, including the organisation of programmes, patient assessment and participation, utilising outpatient and day care facilities
- terminal care, incorporating terminal care beds with a specified commitment from the respiratory physician
- nebuliser services and asthma support services
- NIV/acute respiratory failure in the form of a respiratory HDU in larger centres (perhaps five programmed activities (PAs) per week for the consultant, and consultant supervision accounting for up to 2.5 PAs per week in winter, less in summer)
- treatment of neuromuscular disorders (assisted ventilation) using laboratory and inpatient services
- NIV outpatient service (increasingly needed for COPD patients and patients with neuromuscular disorders).

Diagnostic services Investigation of patients with respiratory disorders requires access to specialised facilities, including a bronchoscopy suite, for diagnostic (bronchoscopy, transbronchial biopsy, medical thoracoscopy) and therapeutic (brachytherapy, endobronchial stenting, laser treatment or electrocauterising) procedures. Facilities for the investigation of sleep-related breathing disorders (overnight oximetry and sleep rooms) and their treatment (funded supply of CPAP machines) may be required. With the increasing provision of NIV, both in hospital and in the patient's home, specialised facilities and support are necessary.

vi Quality standards and measures of the quality of specialist services

The concept of a quality driven service with standards of care clearly defined in contracts is a framework in which the quality of respiratory medicine for a community can be improved. The standards should be set in relation to:

- referral system
- outpatient clinics
- thoracic surgery
- outpatient treatment
- inpatient care
- discharge from the respiratory service
- training of medical and nursing staff
- the availability of the appropriate facilities and equipment
- administration, information and education for patients
- storage and handling of medical records.

The contracting process should include the use of treatment guidelines when constructing local arrangements for referral, for shared care and for clinical audit criteria, which are necessary for quality control. Possible outcome measures include quality of life assessments and patient satisfaction questionnaires. Guidelines produced by the BTS, and in association with others where appropriate, cover all the major conditions. Recent guidelines from the National Institute for Clinical Excellence (NICE) for COPD care and obstructive sleep apnoea will soon be joined by NICE guidelines for TB treatment.

CLINICAL WORK OF CONSULTANTS IN RESPIRATORY MEDICINE

Contributions made to acute medicine

Most respiratory physicians working in DGHs and teaching hospitals have a commitment to general medicine in addition to caring for patients with respiratory disease. The commitment varies from hospital to hospital, dependent on local practices and staffing levels. Most spend at least 60% of their time on respiratory work, and some undertake respiratory work exclusively. Approximately one-third of all acute medical admissions have respiratory problems.

Direct clinical care

Inpatient work

Consultants usually undertake at least two ward rounds per week (two sessions) with the respiratory team. Teaching and training are an important component of the ward rounds. With the development of HDUs and specialist care, it is likely that daily ward rounds will become necessary. This could be shared between the consultants on the unit but it is likely to involve each consultant in an additional 0.5 PAs per week. In addition, consultants conduct post-take ward rounds in respect of unselected medical admissions, according to the on-take rota. Ward referrals are seen on the wards or in outpatient clinics as required.

In general, each consultant team should have no more than 20–25 inpatients under their care. However, with the current drive for patients to be admitted under the care of appropriate specialists, and with the wide seasonal variation in the admission of patients with respiratory disease, respiratory physicians often have more than this number. This has implications for the appointment of additional respiratory physicians. The inpatient work of the majority of respiratory physicians predominantly involves the investigation and management of patients admitted acutely but also includes the investigation and management of patients admitted electively. Many units are able to offer a self-admission policy to patients with conditions such as cystic fibrosis, lung cancer or asthma.

Referral work Respiratory physicians undertake a considerable amount of referral work for patients under the care of other specialists in the hospital (0.5–1 PA needs to be set aside for this).

Interspecialty and interdisciplinary liaison Respiratory physicians caring for patients with lung cancer attend weekly MDT meetings with oncologists, thoracic surgeons, pathologists and radiologists, requiring one to two hours. Some consultants have close links with the intensive therapy unit (ITU) and attend regular meetings. Consultants offering other specialist services such as transplantation assessment and follow up have close links with thoracic surgeons.

Outpatient work

Most consultants undertake three outpatient clinics a week though some undertake four or five.

New patients Two new patients (general or specialist) can be seen per hour per consultant.

Follow-up clinic Five patients per hour can be seen for general work, fewer if juniors are working alongside. Three to four patients per hour can be seen for specialist work.

Specialty clinics It is difficult to be prescriptive about the number of patients that can be seen by a consultant and his/her team as this depends largely on the nature of the patients and on the size and experience of the team. A consultant working alone in a clinic is often expected to see six new patients or 15 follow-up patients, or a combination of the two. Such numbers are increasingly difficult to justify, and it is difficult to offer a high standard of care to those numbers of patients. Trained assistants such as Calman trainees in their final two years, associate specialists or experienced staff grades should see slightly fewer patients. Junior Calman trainees or senior house officers (SHOs) should see a fraction of these numbers. The number of new patients and follow-up patients seen with complex respiratory problems could be much less than suggested above.

General medical clinics Respiratory physicians working in DGHs may see new general medical referrals and most see follow-up general medical patients following discharge from hospital. The numbers seen are as above.

Specialist investigative and therapeutic procedure services

Bronchoscopy Most respiratory physicians undertake one bronchoscopy session each week. The number of sessions needed will depend on the demography of the local population. No more than six bronchoscopies can be undertaken in one session, fewer if complex procedures are added such as transbronchial biopsy or if junior doctors are being trained. Additional sessional requirements are needed where there is a regular commitment to therapeutic procedures such as brachytherapy, endobronchial stenting, laser treatment or electrocautery.

Medical thoracoscopy This is a growing service offered by respiratory physicians and may require 0.5–1 session per week with two patients per session.

Sleep-related breathing disorders This is a rapidly developing subspecialty. Many units are able to offer a basic overnight oximetry service though they do not hold dedicated clinics. Some units now offer a comprehensive sleep service and hold dedicated clinics for patients with sleep-related breathing disorders, both for diagnosis and monitoring of patients receiving CPAP treatment. The provision of a comprehensive sleep service requires the provision of one to two sleep rooms and a funded supply of CPAP machines. Consultants providing a comprehensive sleep service spend at least one session a week on this work.

Domiciliary assisted ventilation service This is provided by specialist centres and, increasingly, in large DGHs. The sessional commitment varies enormously depending on the number of patients seen. With the introduction of domiciliary NIV for patients with COPD, in addition to the use of this therapy for patients with neuromuscular disorders, it is likely that the sessional commitment of consultants offering this service will increase significantly.

Occupational lung diseases Relatively few units have consultants who offer a comprehensive occupational lung disease investigation service. Consultants working in such units probably spend at least two to three sessions per week on this work.

Specialist services within the specialty

Examples of specialist services provided at a local level:

Lung cancer Most respiratory physicians investigate and provide supportive care for patients with lung cancer. This is included in their inpatient and outpatient sessional commitment, although the introduction of MDT meetings has added one to two hours per week to this. The lead lung cancer physician spends at least 0.5 PAs per week coordinating services. If clinicians provide a chemotherapy service, 0.5 PAs per week needs to be allowed for this.

Pulmonary rehabilitation service This is a rapidly developing service in which patients are seen one to two times a week for six to eight weeks for education about their condition, support and a supervised exercise programme. The service is largely provided by respiratory nurse specialists and physiotherapists, though may include dietitians and occupational therapists. The lead clinician probably needs to allocate 0.5 PAs per week for this.

Sleep-related breathing disorders See above.

NIV for acute respiratory failure NIV is rapidly being established as a routine service in most hospitals. Although the service is largely provided by trained nursing staff and physiotherapists, consultant supervision of this service is essential and accounts for up to 2.5 PAs per week in the winter months, fewer during the summer. In most hospitals one consultant takes the lead role in supervision of the service and, depending on the number of patients requiring NIV, could spend two PAs a week on this. In large centres, where NIV is also used to assist with the weaning of patients on ventilators in the ITU, more sessions would be required and the service could be provided in a respiratory HDU with up to five PAs per week for the consultant in charge. The rapid and necessary growth in acute lung units and HDUs to maintain those needing respiratory support outside ITUs has significantly increased the involvement of respiratory physicians.

Pulmonary TB contact tracing In most units, consultants see and manage patients with pulmonary TB, although one consultant needs to take the lead for supervision of the contact tracing service and management of difficult cases such as multidrug-resistance. The lead clinician is likely to need to spend 0.5–1 PA per week on this, depending upon the numbers of local cases.

Assessment of patients for nebulisers and oxygen therapy This is largely undertaken by a respiratory nurse specialist and the time spent by consultants on this work is encompassed in their normal outpatient commitments.

Specialist clinics Many consultants offer dedicated clinics for patients with asthma, bronchiectasis and interstitial lung diseases. This may be in addition to their usual three clinics per week.

GP X-ray reporting service The commitment necessary for consultants providing this service is 0.5 sessions per week.

Examples of specialist services provided at a regional or supra-regional level:

Cystic fibrosis Patients with cystic fibrosis are usually cared for in large regional centres, although some units provide care for small numbers of patients and others share the care with the regional centre. Most large centres require the services of at least one whole time equivalent (WTE) consultant physician and supporting staff. Consultants supervising the care of only a few patients probably need to allocate one PA per week.

Lung transplantation There are four centres in England where lung transplantation is undertaken. Each centre requires a consultant physician specialising in the assessment and management of patients post-transplantation. At least five PAs per week are necessary.

Domiciliary assisted ventilation service See above.

Occupational lung diseases See above.

Services outwith the base hospital Some consultants undertake outpatient clinics in hospitals other than their base hospital, either at a city's central chest clinic or specialised clinics at another hospital. Some consultants provide general medical/respiratory clinics in outlying towns in rural areas. In general terms, the time commitment for such clinics is included in their usual three clinics per week, though travel time must be included.

On call for specialist advice and emergencies

Very few DGHs are able to provide continuous specialist advice from on-call consultant physicians in respiratory medicine, though specialist advice is usually available. Larger centres are able to provide such advice from on-call physicians and the frequency of the on-call work depends on the number of consultants in the unit or city if a city-wide service is provided.

Work to maintain and improve the quality of care

This work encompasses duties in clinical governance, professional self-regulation, continuing professional development (CPD), education and training of others. For many consultants, at various times in their careers, it may include research, serving in management, and providing specialist advice at local, regional and national levels.

Leadership role and development of service

There are many service developments that deliver improved patient care, for example:

- *Multidisciplinary clinics and MDT meetings* – largely depend on organisational factors.
- *Hospital-at-home schemes for patients with COPD* – require the appointment of respiratory nurse specialists but this is offset by the savings in inpatient costs.
- *Development of pulmonary rehabilitation services* – requires the appointment of respiratory nurse specialists or respiratory physiotherapists.
- *Nurse-led outpatient clinics.*
- *Acute lung unit* – assisted ventilation for patients with COPD has been shown not only to reduce length of stay but also to improve survival and reduce ICU workload.

ACADEMIC MEDICINE

Each region should have an academic centre adequately staffed to coordinate regional teaching and research. Teaching should include undergraduate and postgraduate contribution to the specialist registrar (SpR) training programme. Research should range from basic laboratory work through human studies to clinical trials. The BTS research committee and the BTS/Medical Research Council (MRC) clinical trials group currently run nationwide multi-centre trials involving interested centres.

WORKFORCE REQUIREMENTS FOR RESPIRATORY MEDICINE

Clinical programmed activities required in respiratory medicine for a nominal DGH of 250,000

Emergency medical take The specialty will be on call typically one in five with SpRs. In the average DGH, twice-daily post-take ward rounds are necessary in order to cope with increasing numbers and to keep to the College recommendation of <25 patients per round. Approximately one-third of the activity takes place outside the normal working day as defined in the 2003 consultant contract so, on average, 16 PAs per week are spent on post-take ward rounds. A further four PAs per week will accrue in administration time as a result of these ward rounds. The specialty's share of these 20 PAs will therefore be four PAs per hospital.

General medical follow-up clinics A DGH of 250,000 admits 230–250 patients per week. The one in five share per specialty will therefore be 45–50 per week. The percentage of these patients requiring follow-up will vary across the country, but will typically be around 25–40%, that is 12–23 patients per week. Some of these will need more than one follow-up visit, and so the average DGH will need to provide two PAs of this activity per specialty (32 follow-up patients at four patients per hour). Allowing for administration time, this amounts to three PAs per hospital.

Ward referrals A DGH of this size typically generates 10 ward referrals per week to respiratory medicine from other specialties. At 30 minutes per new patient, this is two PAs per hospital.

Ward rounds Each consultant will need to perform two ward rounds per week in addition to the on-call ward rounds. Each ward round generates its own share of administrative duties including discharge-planning meetings, meetings with relatives and so on. One PA per consultant is needed for this activity.

Lung cancer There are strict performance targets relating to lung cancer. Incidence varies across the population. In an average DGH of 250,000, 10 PAs are required to deliver the relevant quality standards for a DGH with an average standardised mortality ratio (SMR) for lung cancer. This includes time spent in MDT meetings, time spent as lead clinician for lung cancer, and the necessary bronchoscopy sessions. In DGHs with SMRs for lung cancer significantly above average, up to 12 PAs per week will be required, therefore 8–12 PAs per hospital (average 10) are required.

General clinics in respiratory medicine A DGH of this size will generate typically 900 new non-cancer referrals per year in respiratory medicine. A consultant is able to provide clinics for 40 weeks per year. The consultant will see seven new patients per PA, requiring 3.2 PAs. Respiratory medicine is a specialty with a significant burden of chronic conditions and there are typically three to four follow-up patients for every new patient seen. Allowing each follow-up patient half the time of a new patient, a further 5.6 PAs are required. Finally, allowing 0.25 PAs per clinic for administration (screening referrals, following up results, dictating and signing letters) makes 11 per hospital.

Table 1. Specialised services within the specialty

Service	PAs per DGH per week
Acute NIV	1–2
Terminal care	0.5–1
Nebuliser assessment	0–0.5
Oxygen assessment	0.5
Sleep	1–2 in addition to any clinics
Pulmonary rehabilitation	0.5
Home ventilation support	0.5
Hospital-at-home services for COPD	0–1 depending on availability
Occupational respiratory medicine	0.5
Cystic fibrosis	0.5
TB treatment and contact tracing	0.5–2 depending on incidence
Total	6–11 (assume 9 on average)

Conclusion An average of 39 consultant PAs are required to provide the services above, identified as being on a per-hospital basis (ie all activity listed above apart from respiratory ward rounds). Each consultant will provide one further PA in ward rounds and work related to running of the respiratory ward(s). Assuming a 7.5 PA contract, one PA of which is taken up by respiratory ward rounds, the 39 PAs of work for each DGH serving 250,000 population requires six consultants for its delivery.

Workforce requirements

The calculation above demonstrates the requirement for six respiratory physicians for an average DGH serving 250,000 population. The total requirement for the consultant respiratory workforce is 1,236 WTEs.

The flexible working party of the BTS surveyed all members in 2003, and published the results in *Thorax*.³ This revealed that 39% of current SpRs are female and that, of these, over 50% plan to work part-time. Respiratory physicians are unusual in that a higher than average percentage perform

sessional commitments in other specialties including emergency medicine, intensive care and palliative care. Because of these two factors it is anticipated that by 2012, 1.4 actual consultants will be required to equate to one WTE consultant. The actual number of respiratory physicians required to deliver a quality service in respiratory medicine for England and Wales is therefore 1,851 consultants.

In January 2004 there were 560 consultants working in respiratory medicine in England and Wales (data on file with BTS workforce committee). Based on the current stock of national training numbers in England and Wales it is anticipated that by 2012 there will be approximately 910 consultants in the specialty. Therefore, without significant further expansion or international recruitment, by 2012 there will still be fewer than half the number of consultants required to deliver a quality service in respiratory medicine.

CONSULTANT WORK PROGRAMME/SPECIMEN JOB PLAN

Activity	Workload	Programmed activities (PAs)
Direct clinical care		
Outpatient clinics		3
Ward rounds		2
Specialist investigative/therapeutic procedures/bronchoscopy		1
Clinically related administration		1–2
General medical on-call/post-take ward rounds/MDT meetings		0.5–1.5
Total number of direct clinical care PAs		7.5 on average
Supporting professional activities (SPA)		
Work to maintain and improve the quality of healthcare	Education and training, appraisal, departmental management and service development, audit and clinical governance, CPD and revalidation, research	2.5 on average
Other NHS responsibilities	eg medical director/clinical director/lead consultant in specialty/clinical tutor	Local agreement with trust
External duties	eg work for deaneries/Royal Colleges/specialist societies/Department of Health or other government bodies etc	Local agreement with trust

References

1. Department of Health. *The NHS cancer plan: a plan for investment, a plan for reform*. London: DH, 2000.
2. General medical council. *Good medical practice: protecting patients, guiding doctors*. London: GMC, 2001.
3. Abstracts of the British Thoracic Society winter meeting. 3–5 December 2003, London, United Kingdom. *Thorax* 2003;58(Suppl 3):iii1–100.