

# Haematology consultant workforce: The next 10 years



Produced by the Intercollegiate Committee on Haematology and the  
British Society for Haematology

**Dr Tim Nokes**  
**Chair, Haematology Consultant Workforce Committee**

**Workforce Committee**

Dr Sarah Green  
Dr Graham Jackson  
Dr Elisabeth Logan  
Dr Andrew McMillan  
Dr Don Milligan  
Professor Adrian Newland  
Dr Archie Prentice  
Professor Isobel Walker

ARCHIVED



The British Society for Haematology

© January 2008

The Royal College of Pathologists  
2 Carlton House Terrace  
London SW1Y 5AF  
Tel 020 7451 6700  
Email [info@rcpath.org](mailto:info@rcpath.org)  
Web [www.rcpath.org](http://www.rcpath.org)



Registered charity in England and Wales, no. 261035

**The Royal College of Pathologists**

Pictures © Photos.com

*Pathology: the science behind the cure*

# Contents

Glossary of abbreviations	2
Executive summary	3
Chapter 1: Introduction	5
Chapter 2: The consultant haematologist: A profile	7
Chapter 3: The process	9
Chapter 4: Other factors affecting the consultant haematologist workforce	11
Chapter 5: Workforce	13
Chapter 6: Workload	16
Chapter 7: Consultant expansion	21
Chapter 8: The future for consultant haematologists	23
Bibliography and sources of useful information	24

ARCHIVED

# Glossary of abbreviations

BCSH	British Committee for Standards in Haematology
BSH	British Society for Haematology
CCC	Comprehensive care centre (for haemophilia)
CCT	Certificate of Completion of Training
CCST	Certificate of Completion of Specialist Training
CMO	Chief Medical Officer
DH	Department of Health
EWTD	European Working Time Directive
GPC	Good clinical practice
IOG	Improving outcomes guidance
ICH	Intercollegiate Committee for Haematology
MMC	Modernising Medical Careers
MRCPath	Member of The Royal College of Pathologists
NCCG	Non-consultant career grades
NSS	National service specification
NICE	National Institute for Health and Clinical Excellence
NPSA	National Patient Safety Agency
NPT	Near-patient testing
NTN	National training number
OP	Outpatient
PMETB	Postgraduate Medical Education and Training Board
PA	Programmed activity
RCP	The Royal College of Physicians
SPOT	Specialist Practitioner of Transfusion
SpR	Specialist registrar
vCJD	Variant Creutzfeldt Jacob Disease
VTE	Venous thromboembolism
WTE	Working time equivalents

The term 'hospital' is used in place of 'Trust' and 'health board' within this document.

The four countries of the UK have different health departments. Regulatory papers affecting healthcare initiatives are common to most. The generic term 'Departments of Health' (DH) will be used throughout this document.

# Executive summary

**Over the past five years, the Workforce Review Team at the Department of Health (DH) in England has repeatedly recognised the need to expand consultant numbers in haematology. This has recently been re-emphasised. This need is driven by the increasing complexity of treatment and sub-specialisation in haematology and other disciplines, the increasing impact of regulatory initiatives, (e.g. improving outcomes guidance, waiting time targets) and legislation, (e.g. European Working Time Directive, European Union Directive on Haemovigilance) plus growing multidisciplinary working and inter-hospital networking.**

The specialty has supported improvement in training programmes but these too place greater demands on consultants' and trainees' time. The sharing of some previously exclusive clinical practices with professions allied to medicine is evolving, together with the development of primary care pathways for certain chronic conditions. Limited NHS funding and the delay in converting greater numbers of trainees into consultants may fail to compensate for rising early retirement rates, the drive to reduce paid working hours and the growth of part-time contracts.

Without a greater rate of expansion in numbers of consultant haematologists, which should be prioritised to target single-handed working and the on-call service in small hospitals, the NHS will be unable to support essential on-call services in all hospitals. Moreover, this will severely affect the ability to develop the networking of small and large hospitals, which is designed to support the workload and specialty provision by single-handed consultants, and will fail to support the urgent needs of the subspecialties that are becoming an increasing demand on services (e.g. haemostasis and thrombosis, paediatrics, haemoglobinopathies).

Clinical workload continues to increase as the incidence of haematological malignancies rises in an aging population. Treatments are becoming more complex and intensive plus patient expectation is changing. Increasing complexity of disease management in other specialties further influences haematology advisory workload.

Laboratory workload increases by >5% per annum and generates rising patient referrals and the need for clinical guidance on the use of the laboratory and interpretation of results. At the same time an increasing clinical involvement in sub-specialty areas of haematology has led to a decreased involvement in and actual management of the laboratory. This needs addressing through workforce numbers and continuing development of workforce diversity through the whole pathology workforce. Each of the main sub-specialties of haemato-oncology, haemostasis and thrombosis, haemoglobinopathy and blood transfusion has requirements to meet national targets and standards.

These are difficult to achieve effectively, without greater collaboration across hospitals.

The continuing development of clinical and laboratory networks is imperative to facilitate the delivery of effective services for patients and users. This is inevitably time consuming for consultants who may need to spend more time off site, but does allow further sub-specialisation in some hospitals.

Increased practice-based commissioning may influence future use of the laboratory service but any increase in near patient testing in primary care environments will require continued guidance and support from consultant haematologists on result interpretation and quality standards.

The current trend toward plurality of providers (emphasised in the *Independent Review of Pathology Services by Lord Carter, 2006*) with increasing input from the independent sector, may reduce the NHS technical laboratory workload, but will have limited effect on the bulk of work or the advisory and interpretive role for consultants.

Due to the intensity of on call rotas (average 1:3.8) and what is an essentially consultant delivered service, the new consultant contract recognises the time required to be on site at weekends and in the evenings but has resulted in the average consultant haematologist working over 11.5 PAs. This is unsustainable, as hospitals seek to reduce PAs to 10, which will impact on time-management and availability for direct patient care and laboratory work.

Increased multidisciplinary team working is imperative to improve the quality of care for patients with haematological conditions. National Institute for Health and Clinical Excellence (NICE) standards on Improving Outcomes guidance (IOG), influences this process for cancer patients. Standards for care in other haematological conditions, in particular thrombosis management and haemoglobinopathy care is also driving the change. This will need coordination with the development in the role and numbers of the professions allied to medicine, but consultant input is also required for training and development.

Trainee medical staff are less able to provide significant service roles and also require more assessment and guidance under the influences of Modernising Medical Careers (MMC) and the European Working Time Directive (EWTD).

Other initiatives such as *Choose and Book* and *Payment by Results* have added a degree of administration that will add to the workload of consultants and is likely to also influence working practices further.

To deliver an effective service in the 21st century there is no longer a place for single-handed consultants unless working effectively within a network.

Time for clinical governance, audit and research must continue to be identified in job plans in order to ensure the effectiveness and safety of the service.

Developing primary care pathways may reduce the burden on haematologists; to enable community management of chronic haematological conditions, e.g. anticoagulation (particularly near-patient INR testing), stable pre-malignant conditions, e.g. myelodysplastic syndromes, myeloproliferative disorders and the benign gammopathies.

Although there have been increasing trainee numbers since 2000, most of the recent rise in numbers has not been funded centrally and this is ultimately unsustainable. The current policy of the DH's Workforce Review Team not to recommend the target numbers of trainees needed but to leave this to local negotiation is also likely to reduce the numbers of posts available. With the current increasing number of vacancies in consultants there is bound to be a delay before the increase in trainee numbers impact on staffing levels.

A review of working patterns and workload suggests that an additional 400 consultants will be needed over the next five to ten years to meet service requirements. These are in addition to those changes envisaged by an increasing incorporation of the non-medical workforce into service provision.

The total number consists of two main tranches. The current number of consultant vacancies, increased part time working, addressing the additional professional activities undertaken (including EWTD) and modernising

medical careers (MMC) will require 150 more consultants to maintain the status quo over the next five years.

Increased demands on consultant time may be offset to some extent by further multidisciplinary team working but increased specialisation, rising patient numbers due to the aging population and successful treatments, together with numerous external initiatives, is likely to require an additional 250 consultants over the next five to ten years.

# 1 Introduction

Consultant haematologists fulfil both clinical and laboratory roles within NHS hospitals and because of their expertise in laboratory haematology, together with planning and managing systems, are increasingly influential within the local healthcare community. Their remit is to:

1. Run or participate in speciality clinical teams caring for patients with haematological conditions (haematological cancers, disorders of haemostasis and thrombosis, anaemias and haemoglobinopathies) or other conditions in both inpatient and outpatient settings

2. Have clinical responsibility for the haematology and blood bank laboratories and provide interpretation of results. They also give clinical advice related to all haematological matters (bleeding and clotting problems, blood transfusion enquiries, abnormal blood counts), across the whole healthcare community.

They also provide the strategic plans for both clinical and laboratory service development.

This document replaces the previous workforce document published jointly by the British Society for Haematology (BSH) and the Intercollegiate Committee on Haematology (ICH) in January 2001. Since that time, there have been many new initiatives, which have impacted on the working lives of consultant haematologists (table 1). Many of these are regulatory and others influential, some have significant service implications. Together these will increase the controls and demands on the working practices of haematologists.

The new consultants' contract will also influence consultant haematologists working patterns in the future because of the drive to reduce hours worked and the more regulated working environment. Similar to other disciplines, consultant haematologists are increasingly running a consultant delivered service as junior medical staff work shorter hours governed by the influence of the 'New Deal' and the EWTD, together with increasing emphasis on training defined by MMC. Consultant haematologists, like

**Table 1: Initiatives since the previous workforce document (2001)**

## Regulatory initiatives

- NICE: IOG guidelines for haematological cancers
- National Cancer Plan: two week cancer wait (31 & 62 day targets)
- European Working Time Directive
- New Consultant Contract: strict job planning
- MMC (formal assessment, training & career structure)
- National Service Specification for patients with bleeding disorders
- Chief Medical Officer (HCS 2002/009), Better Blood Transfusion - Better Use of Blood
- UK Blood Safety and Quality Regulation 2005 (UK law derived from European Blood Safety Directives 2002/93/EC and 2004/33/EC)
- NHS Sickle Cell and Thalassaemia Screening Programme
- Modernising Pathology Services, DH 2004; CPA mandatory
- 18-week treatment targets

## Influential initiatives

- Choose and Book
- Payment by Results
- VTE risk management programme (+NPSA anticoagulation focus)
- Network working
- Increasing BCSH guidelines
- Clinical governance influence
- 'New Deal' for junior doctors
- Standards for the clinical care of children & adults with thalassaemia within the UK
- Lord Carter's *Report of the review of NHS pathology services in England* (2006)

some other specialists will be particularly affected by the impact of these initiatives, as their patients are especially complex, often unstable, requiring intensive support and treatment, with long term follow-up.

A survey of consultant haematologists has been conducted on actual workloads, predicted retirement dates and non-consultant support in order to inform this report and to strengthen its conclusions.

There are currently an increasing number of vacancies in the speciality (6-8% of the workforce), which causes increasing difficulty in delivering a uniform level of safety and effectiveness of haematological care across the whole of the NHS. This will only worsen with the continuing pressure of the factors described above

The annual survey of UK laboratories by The Clinical Benchmarking Company, indicates that many consultants are working 14 PAs per week and some even more. This figure was confirmed by the survey undertaken by the Royal College of Physicians (RCP) in their *Census of Consultant Physicians in the UK* (2004).

ARCHIVED



## 2 The consultant haematologist: a profile

**The roles and duties of the modern consultant haematologist are complex. A function of this document is to clarify those roles, with a view to supporting the argument for an expansion in numbers and to influence the release of funding for such posts.**

### Roles and duties

Consultant haematologists work as both clinicians and laboratory specialists. They have full clinical responsibilities for their own patients with haematological conditions. In addition they participate in teams caring for patients with other clinical problems. They also have laboratory responsibilities in ensuring timely provision of a diagnostic service, interpretation of abnormal results and safe administration of blood and blood products. They have an increasing role in the interface with primary care.

In most centres, a large outpatient (OP) and day-case based clinical service to haematology patients is provided.

The inpatient treatment of patients is dominated by the treatment of haematological malignancy. The care of patients with neutropenic sepsis, acute leukaemia and stem cell transplant is labour intensive requiring highly complex, multidisciplinary clinical care. Increasingly haematologists are called upon to look after patients with neutropenic sepsis following chemotherapy for solid tumours.

### Workload

In addition to the care of their own patients, other specialists in relation to haematological problems within their own patients consult haematologists regularly. As treatment for non-haematological conditions becomes more complex, the impact on consultant haematologist's workload is increasing.

The management of patients with haematological conditions is becoming more complex and the need for sub-specialisation is increasing. However, in most hospitals apart from the very largest, the haematologists necessarily cross-cover and offer a broad, uninterrupted clinical and advisory service for all sub-speciality problems, 24 hours a day.

The core of most haematologists' workload is outpatient (OP) based (averaging 3 OP clinics per week plus continuous and increasing day-case cover, according to the recent survey). In line with the DH emphasis on



managing patients out of hospital, day-case workloads are increasing steeply (>10% per year). The incidence of haematological malignancies is rising and more complex treatments are being delivered in the day-case setting. Also, the recent DH and professional guidance on patients with haemoglobinopathies and on patients with bleeding and thrombotic disorders has emphasised the OP based nature of investigation and treatment.

Obstetric and paediatric haematological problems require specialist input and multidisciplinary care (often in joint clinics) within the hospital setting.

A consultant-delivered service for the interpretation of results and advice on clinical management is always available to the whole health community throughout the day. This frequently relates to quite basic problems such as investigation and management of anaemia but is very necessary and assists in keeping patients out of hospital.

Haematologists have an acknowledged record in supporting national trials. Predominantly these have been related to haematological cancers but increasingly involve non-malignant conditions. These require complex administration and organisation. A recent survey has shown that between 30 - 40% of trainees take time during training to undertake out-of-programme research. This has provided a strong source of support for academic

haematology and has in the past been readily available. It is imperative for the vitality of the specialty that the funding streams supporting research opportunities, continue in the future.

## Teaching and training

In addition to their own specialist trainees, consultant haematologists play a role in teaching doctors and professions allied to medicine in both basic clinical practice and laboratory interpretation. Because their patient base is often that of chronic disease, this makes them ideally placed to cover many of the acute and chronic aspects of care, including prevention, psychological support and palliative care. As a group they have pioneered the involvement of patient's and their families and carers in disease management.

## Teamworking

The ethos of team working is usual for many consultant haematologists in helping them provide an uninterrupted service to patients with haematological conditions. The increasing clinical deployment of nurses with extended roles and other specialist groups such as biomedical scientists (BMS), demonstrates this and is emphasised in regulatory documents such as the IOG haematological cancer guidelines and the National Service Specification for Bleeding Disorders. Hand-over and multidisciplinary team discussion are accepted as imperative for safe and effective team working and will be built into any assessment of consultant time and their job-planning exercises.

# 3 The process

## Haematology consultants' survey

The survey was posted to 793 consultants listed in the The Royal College of Pathologist's database, excluding, where possible, those retired and in non-consultant roles. Replies were received from 379, giving a response rate of 48%. It may be argued that the data retrieved from the survey is biased towards those hospitals that are experiencing workforce problems. Although that is acknowledged, the data do provide the most up-to-date information about workforce function, which was not available elsewhere. Furthermore, the response-rate of nearly 50% is very acceptable for this type of process. It was also clear that often departments returned one form rather than duplicate the response.

190 hospitals are represented in the survey (45% of total hospitals of 419). A division is made into hospital size by population served: <250K = 57 (30%), 250 - 500K = 96 (51%), >500K = 37 (19%). This is important, as some of the regulatory changes are influenced by the size of hospitals.

Planned retirement (graph 1) shows a bimodal distribution, peaking between 2012 - 2015 and 2020 - 2026. This will require consideration when planning for consultant post numbers in the future.

## Programmed activities (PAs)

The survey demonstrates a mean of 11.4 PAs paid for the responding haematologists working full time. This figure is very similar to that derived from a selective survey on this subject from late 2004 from a relatively smaller sample of haematologists (289). From these figures it would seem

that hospitals are offering between 1 and 2 additional PAs for those consultant haematologists taking up the new contract. Therefore, an increase in consultant numbers as well as changes in working patterns is required to reduce total PAs paid to 10.

The average on-call rota is 1:3.8 (range 1:1 - 1:10), with four consultants working single handed, from those surveyed. It is not known from data collected whether this includes internal cover.

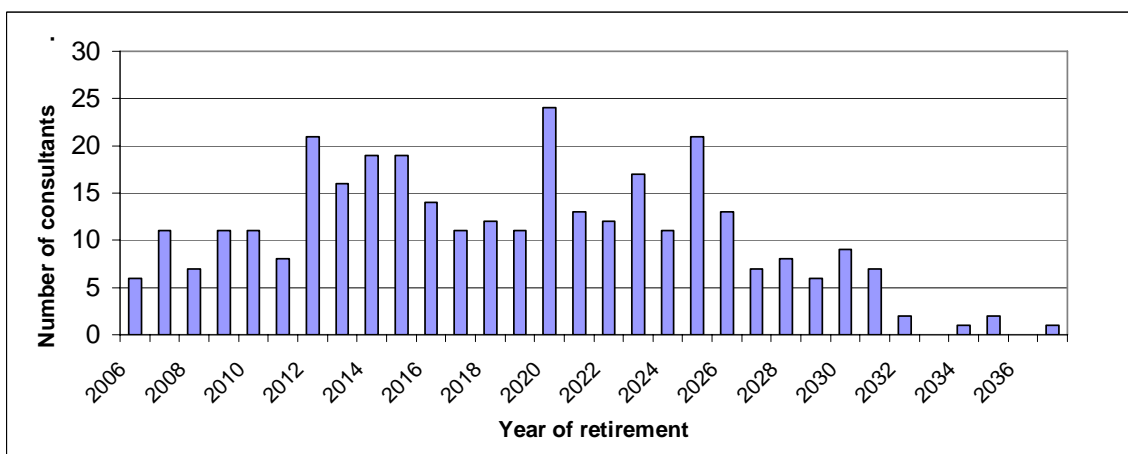
## OP clinics workload

The RCP has provided guidance on the safe numbers of patients managed by consultant haematologists (table 2).

Current workload figures show that an average of three OPs are attended per week. Further breakdown of these figures in 149 hospitals for which clear information is given, identifies that 4.4 new patients are seen per doctor per week and 35 follow-up patients. The figures could have been inflated by anticoagulation clinics but comparable numbers of patients are found in the returns from hospitals, which included and excluded anticoagulation clinics.

This equates to approximately 1,820 follow-up OPs per haematologist seen on average each year. This is 28% above the recommended workload figures for OP according to the RCP definitions (Table 2). Although the data for new patients is 15.6% below the recommended target, this is a relatively low level, which will soon be overcome by a small increase in new referrals.

Graph 1: Planned consultant haematologist retirements



**Table 2: Workload comparisons - patients per consultant haematologists**

(data taken from 'Consultant Physicians working with patients', 2005)

	Follow-up patients	New patients	Day-cases
2005/6 survey	1,920	211	1,180
RCP guideline	1,500	250	1,500
% Difference	+28%	-15.6%	-21%

Haematologists should resist the drive to increase referral numbers in relation to *Payment by Results* partly because the overall OP numbers are greater than recommended but also because recent work has shown that GPs respect and prefer written advice for many patients that would otherwise need to be referred.

Over the last four years, the day-case workload has increased by 42% on average over the hospitals surveyed. Although the feedback indicates that the number of day-case patients per doctor is below the maximum suggested by the RCP, this will soon change with an increasing emphasis on day care management.

Anticoagulation clinics are still held in most hospitals, with as many as 100 patients managed in a single session. However, increasingly these are being run by non-medical staff (clinical nurse specialist, biomedical scientist, pharmacists) and as they usually function well with no direct consultant input, are therefore not included in the breakdown of OP workload. Consultant haematologists are necessarily involved in providing clinical support for the anticoagulation practice.

Other figures generated by the survey, such as multidisciplinary support and specialist responsibilities, together with laboratory workloads, will be included in relevant sections within the document.

## Other sources of information

A variety of relevant documents (regulatory or advisory) were used as a source of information throughout this paper. All the documents used are listed in the bibliography.

When making judgements about workforce planning, this paper has sought to access this from the relevant sub-disciplinary task forces associated with the BSH (British Committee for Standards in Haematology, BCSH). On occasions, particularly in relation to smaller groups, opinion has been sought from senior figures with experience in relevant areas, also listed at the end of this document.

## 4 Other factors affecting the consultant haematology workforce

### Modernising Medical Careers

Modernising Medical Careers (MMC) will undoubtedly impact on the working practice of consultant haematologists. The emphasis on workplace-based competency assessment throughout training will certainly require input by haematologists in coordinating and conducting the learning programme for junior doctors, together with their increased supervision. More time spent in an official educational capacity, throughout their training will also reduce the service delivery by these doctors, leading to a further increase in consultant workload. These need factoring into workforce calculations.

MMC may provide the impetus to assist recruitment to the speciality with integral involvement within the foundation years, particularly F2. 'Taster sessions' in haematology may also be available for foundation doctors. These initiatives are especially important, as junior doctors are now required to make decisions about their career pathways at an earlier stage than historically. It is expected therefore that these plans will continue to provide exposure to haematology early in training and may increase the pool from which specialist trainees will be recruited. It is very important for haematologists to work together with their local MMC teams in an attempt to increase exposure of foundation programme doctors to haematology.

Examinations in haematology will continue to reflect the needs of the profession. The current MRCPPath examination is being developed to fulfil these requirements and will commence in its new format in 2007.

Academic haematology will be part of a separate programme for academic trainees. The opportunities for out-of-programme research experience will probably be less with the new structure but it is important that there should still be opportunities for trainees to undertake research projects or overseas working during their run-through programme.

### Consultant haematologists of the future

The new training structure and curriculum should provide a broad general experience. Once trainees have obtained the Certificate of Completion of Training (CCT), they may apply for consultant posts, or may undertake post-CCT training. As is the current practice many trainees will obtain their experience during their training programme. It is likely that many will embark on a career encompassing several different posts, each providing different levels of experience until settling on their final consultant post.



Such work patterns are increasingly recognised as a 'portfolio' career that builds up experience in different environments. Others may develop within the same department, more appropriate to the larger teaching units. The development of a large number of non-consultant career grade posts is undesirable, although it is expected these posts will be available for those who want to take time out or follow a non-conventional career pathway. All of these place further pressure on workforce planning for haematologists.

### The consultant contract

This contract was introduced to ensure that consultants are paid for what they do and has been taken up by the majority of consultant haematologists throughout the country. Annual monitoring of job plans is intended to ensure that no posts require more than 12 PAs (48 hours) by 2009 to conform to the EWTD. There are widespread reports of chief executives and medical directors attempting to impose 10 PA job plans without any reduction in workload and without any attempt to reduce demands on consultant haematologists.

### European Working Time Directive

In order to ensure compliance with the EWTD, consultants will have to reduce their working commitments considerably as discussed above.

## Payment by Results

This DH initiative will fund hospital services in the near future (although this has not been introduced in Scotland at the time of writing). Costs are being calculated through national tariffs, which are average costs calculated using Healthcare Resource Groups (HRGs).

Tariffs are still under debate but the ICD10/OPCS4 coding system is likely to seriously underestimate the costs of complex care packages for acute and chronic haematological problems. Underpayments related to *Payment by Results* could seriously undermine a hospital's ability to pay an appropriate number of specialists to run its services.

Departmental (and hospital) case-mix will be important in overall funding. There will be differential costs for new and follow-up patients. In haematology, the majority of the patients have chronic diseases (requiring frequent follow-up) and this will form the bulk of the haematology department's workload.

It is not known exactly how these will feature within *Payment by Results* framework and whether *Payment by Results* tariffs will be updated in a timely fashion to take account of new treatments. In a field that has been innovative in its treatment and where new drugs are often expensive this has a significant possibility of impeding both increased staffing and progress in the speciality.

## Practiced-based commissioning

The developing role of individual practices in commissioning services will increase the need for haematologists to liaise with primary care and to participate in commissioning processes. This is particularly related to support of near patient testing but also strategic advice on service development.

## Choose and Book

This DH initiative will allow patients' choice over where and when their outpatient appointments are held. By March 2007, all patients should be able to access hospital appointments through the *Choose and Book* programme, anywhere throughout the country. This is already placing further pressure on consultant's time, with rising referrals to specialist clinics and written guidance and advice on rejected referrals. This initiative will have a similar impact to PBR in affecting financial stability and long-term planning and should be identified in job plans.

## Clinical management teams

The role of consultant haematologists allows them an excellent overall view of the many clinical pathways in hospitals, which enables them to develop working relationships with multiple staff groups and GPs. Many develop management expertise and contribute to hospitals' clinical management teams and are clinical leaders in service reform. Frequently the time allocated for these tasks is insufficient, leading to further pressures on the provision of haematology services.

# 5 Workforce

The Royal College of Pathologists has collected workforce figures since 1996 and submitted them annually to the DH's Workforce Review Team to assist their analysis of workforce needs for the present and for future needs.

Table 3 shows consultant haematologists' posts for the whole of the UK, with comparisons to previous years. It should be noted that these figures relate to head-counts rather than WTEs. These will increasingly be an under-representation of workforce as the numbers of consultants working less than full-time increases.

The figures show the overall expansion of consultant numbers by an average of 3.8% per year since 1998 (range: 1.3–7.7%). As anticipated in the 2001 document, the largest yearly increase of 7.7% in 1999 has not been sustained. There has been a 5.1% increase in posts from last year. However, this increase occurs together with a rise in retirement accounting for the rise in vacancies, as posts cannot be filled. Scotland and Northern Ireland have in fact seen reductions in post numbers since 2002 and 2004 respectively.

Part-time posts continue to increase, accounting for 8.4% of the total, compared to 5% in 2001. Part-time posts are important to the workforce as they allow those who cannot offer a full-time commitment the ability to continue to contribute. Consultants working part-time either for the NBS or academic institutions and those with hospital management duties, dilute consultant numbers still further.

Consultant numbers are therefore better expressed as WTEs. The Royal College of Physicians document on the consultant haematologist workforce considers that each consultant is the equivalent of 0.94 WTE when making workforce calculations for medical specialities. The Royal College of Pathologists uses 0.75 in its presentations to the DH Workforce Numbers Advisory Group, which actual figures suggest is a more realistic figure in our speciality.

**Table 3a: Consultant haematologist posts (1998-2005)**

	England	Wales	Scotland	NI	Total
<b>2005</b>	688	44	94	24	<b>850</b>
<b>2004</b>	662	41	93	27	<b>823</b>
<b>2003</b>	658	40	92	22	<b>812</b>
<b>2002</b>	638	38	93	21	<b>790</b>
<b>2000</b>	602	33	87	21	<b>743</b>
<b>1999</b>	568	39	88	21	<b>716</b>
<b>1998</b>	536	35	78	16	<b>665</b>

This ratio needs to be kept under careful review, as there is an increasing tendency to part-time working in both sexes. Given the increasing feminisation of the workforce this will continue to be an issue. Currently 33% of the total consultant haematologists are female (32% in 2005), whereas this increases to 48% for trainees. Seven percent of the female consultant haematologist workforce is working part-time compared to two percent of males.

Vacant posts continue to rise, accounting for 8.4% of the total from the most recent figures. A survey of local workforce needs by Regional Training Directors in Haematology (2001) suggested that there would need to be an increase of approximately 250 consultants to maintain the current level of service, requiring an increase in appointments of approximately 7% per year for the next seven years. This figure was validated by the workload figures of the National Pathology Benchmarking review, which indicated that consultant haematologists were working, on average four 'notional half-days' (PAs) extra and concurred with the calculated DH figures on additional workforce requirements.

**Table 3: Consultant haematologist posts (2006)**

	England	Wales	Scotland	NI	Total
<b>NHS</b>	551	31	67	17	<b>666</b>
<b>BTS</b>	7	3	5		<b>15</b>
<b>Academic</b>	53	4	7	1	<b>65</b>
<b>Vacant</b>	59	5	6	4	<b>74</b>
<b>Part-time</b>	65	4	5	2	<b>76</b>
<b>Total</b>	735	47	90	24	<b>896</b>

## Paediatric haematologists

In 2006 there were 33 paediatric haematologists recorded in The Royal College of Pathologists database (table 4). However, in the recent survey of paediatric haematologists (2006) from the paediatric subcommittee of the BSH, there were 42 designated paediatric haematologists (WTE 43.1), with three vacancies and a need for 23 more expressed. This difference may represent the fact that not all paediatric haematologists are members of The Royal College of Pathologists. Clearly this is a specialist group and difficult to band together with the total consultant workforce. Although the most recent figures for the paediatric specialist group have risen for the first time in four years, this is modest, in an area where increasingly, shared-care of patients with acute leukaemia and other conditions is occurring. The expression of need for an expansion of greater than 50% reflects the shortage in this area. Of significant concern also is the reduction in time given for paediatric training within the haematology training curriculum. This also needs addressing.

## Transfusion medicine consultant posts

Consultant numbers in transfusion medicine have essentially remained stable over the last four years (table 5) from The Royal College of Pathologists' data. There are approximately 15 joint hospital/National Blood (transfusion) Service consultant posts committed to clinical practice, with an additional three posts with a research focus. These are typically jointly funded by hospitals and the National Blood (transfusion) Service and based in large hospitals with significant impact on regional hospital transfusion committees. This is the proposed model for the future. These posts are essential to drive improvements in hospital transfusion practice and continued reduction in red cell usage. It is envisaged that these will expand over the next few years.

## Retirements

The expected retirements from The Royal College of Pathologists' data, seems to mirror that of the most recent survey, showing peaks at 2014 and 2022 (table 6). These could be affected by current negotiations on changes to the NHS Pension Scheme (possibly from 2012), which may result in more early retirements. Relatively, retirements could have a greater impact in Wales and Scotland according to current workforce figures for these countries.

**Table 4: Paediatric haematologist posts**

	England	Wales	Scotland	NI	Total
<b>2006</b>	28		4	1	<b>33</b>
<b>2005</b>	28		3	1	<b>32</b>
<b>2004</b>	34		4	1	<b>39</b>
<b>2003</b>	30		4	1	<b>35</b>
<b>2002</b>	21		3	1	<b>25</b>
<b>2000</b>	21		2	1	<b>24</b>
<b>1999</b>	19			1	<b>20</b>
<b>1998</b>	15			1	<b>16</b>

**Table 5: Transfusion medicine consultant posts (NHS consultants with transfusion sessions)**

	England	Wales	Scotland	NI	Total
<b>2006</b>	62	7	24	4	<b>97</b>
<b>2005</b>	58	6	22	3	<b>89</b>
<b>2004</b>	62	5	23	4	<b>94</b>
<b>2003</b>	66	5	23	3	<b>97</b>
<b>2002</b>	59	3	23	3	<b>88</b>
<b>2000</b>	59	6	19	2	<b>86</b>
<b>1999</b>	28	7	17	3	<b>85</b>
<b>1998</b>	57	5	15	2	<b>79</b>

**Table 6: Expected retirements**

	England	Wales	Scotland	NI	Total
<b>2006-09</b>	37(5%)	4 (8.5%)	7 (7.8%)		<b>48</b>
<b>2010-13</b>	18	1	3	2	<b>24</b>
<b>2014-17</b>	22	3	3	2	<b>30</b>
<b>2018-21</b>	20	2	4		<b>25</b>
<b>2022-25</b>	23	2	4		<b>29</b>
<b>2026-29</b>	11	2	2		<b>15</b>
<b>2030-33</b>	18	1	2		<b>21</b>



## Non-consultant career grades (NCCGs)

The role of non-consultant career grades (NCCGs) is not clearly defined within the new MMC structure although it is believed that they will be subsumed into the career grade category, which is open to those who do not wish to follow a training programme. It is apparent from the survey that many hospitals rely on these doctors to help maintain service (mean of 0.6 WTE per hospital surveyed). The Royal College of Pathologists workforce figures for NCCGs indicate a substantial number (table 7) across haematology and blood transfusion. Many of these will be able to apply for entry to the specialist register through Article 14 of the Postgraduate Medical Education and Training Board regulations.

## Haematology training numbers

Although new National Training Numbers (NTNs) have been made available to haematology in recent years, these have not always been taken up as the funding is now from local sources rather than the deaneries. Currently, there are 12 unfunded NTNs, which remain unplaced.

There have been fluctuations in trainee numbers over recent years (Table 8), however these have been gradually increasing over the past two years (8% over the last year). It is difficult to obtain accurate figures for training posts within the pool at any one time as trainees take time-out for research. In keeping with the 2001 report, it would seem reasonable to assume that this number is in the region of 250.

The numbers given in The Royal College of Pathologists' workforce figures do not account for those taking time out for research (c. 100), which increases training time by at least two years. For the hospitals surveyed, there was a mean of 1.4 specialist registrars allocated, although the bulk of these are concentrated in larger hospitals. Haematology training may be shortened under the influence of MMC, producing a faster throughput if fewer take out of programme experience.

Over the last five years a mean of 44 Certificates of Completion of Specialist Training (CCST) yearly (range: 33–59) has been recommended by the The Joint Royal Colleges of Physicians Training Board (JRCPTB) (table 9).

**Table 7: NCCGs 2005 (associate specialists, staff grades, clinical assistants)**

	England	Wales	Scotland	NI	Total
<b>In-post</b>	72	7	4	3	<b>86</b>
<b>Part-time</b>	49	7	7	1	<b>64</b>
<b>Vacant</b>	6		3	1	<b>10</b>
<b>Total</b>	<b>127</b>	<b>14</b>	<b>14</b>	<b>5</b>	<b>160</b>

**Table 7a: NCCGs 2005 (transfusion medicine)**

	England	Wales	Scotland	NI	Total
<b>In-post</b>	20		8	1	<b>29</b>
<b>Part-time</b>	16	2	1	7	<b>26</b>
<b>Vacant</b>	2		2		<b>4</b>
<b>Total</b>	<b>38</b>	<b>2</b>	<b>11</b>	<b>8</b>	<b>59</b>

**Table 8: Haematology trainees 2006 with comparison to years 1998-2005**

	England	Wales	Scotland	NI	Total
<b>NHS</b>	223	8	31	9	<b>271</b>
<b>Academic</b>		1	1		<b>2</b>
<b>Part-time</b>	15	1	3	1	<b>20</b>
<b>Vacant</b>	3		1		<b>4</b>
<b>Research</b>	4	1	1		<b>6</b>
<b>VTN</b>	64	3	3	1	<b>71</b>
<b>2006</b>	<b>309</b>	<b>14</b>	<b>40</b>	<b>11</b>	<b>374</b>

	England	Wales	Scotland	NI	Total
<b>2005</b>	282	15	38	12	<b>347</b>
<b>2004</b>	260	11	40	10	<b>321</b>
<b>2003</b>	283	12	42	10	<b>347</b>
<b>2002</b>	252	11	36	11	<b>310</b>
<b>2000</b>	250	9	36	8	<b>303</b>
<b>1999</b>	278	7	27	7	<b>322</b>
<b>1998</b>	248	7	31	7	<b>299</b>

**Table 9: CCST recommended**

	Recommended CCST
<b>2002</b>	44
<b>2003</b>	33
<b>2004</b>	34
<b>2005</b>	59
<b>2006</b>	50 (predicted)

# 6 Workload

## Haematological malignancy

The incidence of haematological malignancies is increasing and currently stands at 40 new diagnoses for every 100,000 of the UK population per year (table 10). There is wide regional variation, with some evidence that the population source is unrepresentative (lacking many metropolitan and elderly populations) so these figures may be an underestimate. The figures quoted are also out of date, as taken from a Leukaemia Research Fund survey done 10 years ago. Most haematological malignancies have increasing incidence in older patients and the aging population is likely to give rise to increasing referrals over the next decade. At the same time, intensive treatment modalities (such as stem cell transplantation) are being extended to older patients, increasing the need for haematological care.

It is in the area of malignant haematology where most of the recent regulatory changes in practice are influencing consultant workforce:

- NICE guidance on cancer services, IOG in haematological cancers. The key recommendations of which include:
  - 1 Management by haem-oncology teams serving populations of >500,000.
  - 2 Formation of multidisciplinary teams and link networks with other hospitals

- 3 Rapid access for patients with lymphadenopathy clinical nurse and palliative care specialists to work with haem-oncology teams.
- 4 Treatment of acute leukaemia limited to hospitals treating at least five patients annually.
- 5 Bone marrow transplants should be commissioned in Joint Accreditation Committee-ISCT & EBMT (JACIE) accredited centres.

- The multidisciplinary team format for reviewing all patients with haematological malignancies has necessitated allocated time in most consultant haematologists job plans from 2005.
- Considerable network reorganisation is being undertaken to ensure that some of the key IOG guidelines are followed. Quite apart from the developmental time, this reorganisation will place a further considerable workload burden on hospitals serving populations >500,000, which must influence workforce requirements in those institutions. It is an expectation that there will be some rationalisation of services between hospitals, with increased networking so that some posts will be absorbed, rather than an expansion of new consultant posts at the 'centres'. This will reflect the sharing of work between hospitals.

Successful treatment regimens have resulted in improved

**Table 10: Incidence of malignant haematological disease (RCP figures)**

	Incidence England and Wales	Per million population	Per 500,000	Per 250,000
Acute leukaemia	1,400	48	24	12
Chronic Myeloid Leukaemia	500	10	5	2-3
Chronic Lymphocytic Leukaemia	4,000	80	40	20
Non-Hodgkin's Lymphoma (high grade)	2,000	40	20	10
Non-Hodgkin's Lymphoma (low grade)	5,000	100	50	25
Hodgkin's disease	1,200	24	12	6
Myeloma	3,000	60	30	15
Myelodysplasia/ myelo-proliferative disorder/ other	2,000	40	20	10

prognoses for many patients with haematological malignancies. Better survival together with rising treatments for elderly patients' impact further on workload.

- The two-week wait rule for suspected cancer referrals is generally not a problem for haematological cancers as these are usually seen rapidly in haematology clinics and often diagnosed from review of results and blood films by haematologists. There is however a recognised delay in the investigation of lymphadenopathy first presenting to other teams.
- NICE guidance for chemotherapy regimens, suggests more aggressive treatment of haematological malignancies. In the older patient population in particular, this has raised expectations. This undoubtedly increases the incidence of treatment related morbidity with its implications for consultant haematologist's workload.
- Peer review: haematological cancer services together with chemotherapy practices are now subject to a peer review process that necessitates a considerable amount of organisational work for consultant haematologists. The drive to ensuring safer chemotherapy practice with emphasis on consent and process (as emphasised by intra-theal chemotherapy guidelines) is time-consuming. Like-wise, JACIE accreditation and continuous quality management for bone marrow and stem cell transplantation, where appropriate, requires designated time.
- Good clinical practice (GCP): haematologists understand the importance of trials for treatment of haematological malignancies. Their diligence in including patients within trials is well respected in spite of the increased workload involved. GCP guidance for cancer trials also needs specific time-allocation, particularly time-consuming for hospitals with no designated trials supervisors. This process is also subject to review in the near future.
- There is very likely to be a change in the working patterns of consultant haematologist across networks, driven by the IOG guidelines, with larger hospitals potentially requiring a disproportionate increase in consultant numbers to cater for the changes. Some of this number will be accounted for by shifting of sessions by haematologists from smaller units.

The consensus opinion of the Haematological Cancer Task Force is that these complex processes require a further consultant expansion of 1 WTE for larger hospitals (population >500,000) and 0.5 WTE for all other hospitals. The NHS Cancer Plan estimated that at least 149 additional consultants would be needed to implement the plan. These have been incorporated in the calculations in this document.

## Laboratory haematology

Consultant haematologists need to retain professional direction and supervision of the laboratories in order to maintain the areas of sub-specialisation currently evident. Operational management should be left in the hands of senior biomedical scientists and laboratory managers.

The current and proposed new curriculum for trainees in haematology, the MRCPPath exam and the CCT all ensure competence in laboratory practice. Clinicians will always be required to provide interpretation of results, guidance on best use of laboratory service and strategic direction needed to meet clinical needs. There are currently insufficient numbers of clinical scientists trained to give clinical advice, (i.e. having passed the MRCPPath exam) who could undertake this role. The obstacles to their development are only now being addressed (largely due to a lack of higher grade career posts post-registration). The additional legal requirements within blood transfusion practice require active consultant participation in hospital transfusion teams and committees.

- Increasing workload: *The National Pathology Alliance Review* (2005) has demonstrated a yearly increase for 2004 in haematology and transfusion laboratory workload of 6.6% for haematology requests, 16% for routine coagulation and 10% for blood transfusion. While much of this is automated, increasing test numbers gives rise to minor abnormalities, which leads to referral of patients for trivial problems.

This independent review of 46 hospitals of varying sizes revealed that 52% of laboratories in the sample were working on one site, with 65% working within a network. The source of laboratory requests is very variable across hospitals with requests from primary care ranging from 30-50%.

The average laboratory PAs totalled 1.25 in the benchmarking sample. This compares with 7.5 hours (nearly 2 PAs) in the most recent survey of haematologists.

- The BSH recommendations: The BSH recommends a maximum of 100,000 requests per consultant haematologist annually but the benchmark document demonstrates that 74% of haematology departments are above this limit, with 22% exceeding 150,000 requests per WTE and 11% greater than 200,000 requests per WTE. Furthermore, the median requests per WTE, for consultant haematologists is steadily increasing: 112,000 (2001/2002), 125,172 (2002/2003), 126,629 (2003/2004), confirming that consultant staffing numbers are not keeping up with laboratory workload.

Apart from a general increase in laboratory workload, there is also a rise in complex investigations such as flow-cytometry, requiring expert interpretation. There are a number of other changes occurring within the haematology and transfusion laboratory:

- *The Blood Safety and Quality Regulations (2005)* influencing blood transfusion practice, relates to traceability by maintaining a 30-year audit trail for all blood products. This will undoubtedly impact on the workload of both laboratory staff and consultant haematologists.
- The use of the independent sector will presumably increase its stake in the laboratory market, in line with other clinical areas within the NHS. The Carter Report (2006) cautioned against the uncontrolled involvement of the independent sector emphasising the dangers of fragmentation and the impact on overall costs but the likelihood is that there will be an increasing involvement. This will certainly lead to a mixed market of NHS and private laboratories. This is unlikely however to affect haematology consultant workload related to the need to interpret results, but in the future there may be less flexibility, if the bulk of service is located in a smaller number of off-site centralised laboratories, whether these are in the NHS or the independent sector. Travelling between sites will also affect time allocation.

Oral anticoagulant monitoring is already moving into the community, with increasing near patient testing. This is driven partly by financial incentives for GPs but also patient convenience and backed by DH initiatives. Current experience suggests that the time saved by a reduction in patient numbers is more than offset by the clinical and laboratory supervision required to ensure the protection of quality control and governance issues, often poorly understood by non-scientific teams. The

appropriate management of this service is labour-intensive, requiring considerable administrative involvement from a multidisciplinary team. The NPSA is currently working with the BCSH to formulate recommendations for safe anticoagulation practice.

The increasing volume of laboratory workload requires addressing, with steadily decreasing biomedical scientist numbers. The increasing demands for rapid turn-around of results, with open access and an extended working day (particularly related to the increased drive to take disease management out into the community) will require close performance management and supervision at consultant level. There is a Royal College of Pathologists/DH joint initiative, involving the Institute of Biomedical Science to extend the roles of biomedical scientist staff to oversee this process but this should not undermine the broad role of consultant haematologists in this respect.

## Haemostasis and thrombosis

### Inherited bleeding disorders

The United Kingdom Haemophilia Centre Doctor's Organisation provides guidance for the care of patients with inherited bleeding disorders. Patients with inherited severe bleeding disorders now have a normal life expectancy. The increasing provision of home treatment packages, though very important for patients, requires careful administration.

A National Service Specification has been produced, which sets out acceptable standards of care. Consultant haematologists responsible for patients with inherited bleeding disorders are required to manage a multidisciplinary team, providing 24 hour cover for all these patients. Although care is often centred on the 23 Comprehensive Care Haemophilia Centres (CCCs) within the UK, many smaller haemophilia centres share the day-to-day responsibility and all of these centres are now being subjected to peer audit review.

- Concerns surrounding vCJD transmission have recently caused several labour-intensive look-back exercises and these are likely to continue for the immediate future. Counselling related to this is also time-consuming.
- Outcome data for patients with bleeding disorders is increasingly required by commissioning bodies, relating to the use of expensive clotting products. This requires careful data collection and assessment of patients.

## Acquired bleeding disorders

As more patients are being treated with anticoagulants and anti-platelet agents, the incidence of bleeding complications is rising.

- Guidelines drive the increase in patients on long-term oral anticoagulation (OAC), particularly for prophylaxis against stroke, in those with atrial fibrillation. Generally these are elderly patients, where bleeding is problematic, even with reasonable anticoagulation control. Ensuring safe monitoring of OAC is the responsibility of haematologists, whether on-site in hospital clinics or community based.

## Thrombosis

The incidence of venous thromboembolism (VTE) in hospitalised patients is increasingly recognised. Outpatient management for VTE (DVT and PE) is now near-normal practice and requires involvement of a multidisciplinary team, frequently led by consultant haematologists.

- The increasing priority for VTE risk management is being driven by the DH in response to a report by an expert committee on hospital associated VTE in March 2005. Analysis of the recent survey has shown that 34% of hospitals do not have a designated thrombosis lead. This will require rectifying in the very near future in response to the DH requirements, soon to be emphasised in NICE guidelines.
- Thrombosis committees are being formed and consultant haematologists, in most hospitals, are driving a multidisciplinary approach to thrombosis risk management and VTE investigation and treatment.
- Thrombophilia testing is a continuing requirement within most hospitals. Much time is spent discussing this issue with GPs and hospital colleagues related to the relevance of testing. Consultations with patients, often with intensive counselling and interpretation of results are time-consuming, particularly as the evidence changes quite rapidly.
- Pregnancy associated VTE risk management is an increasing requirement. This entails close liaison between consultants in haematology and obstetrics with a rising emphasis on prophylaxis in this patient group. There is often a need to run joint clinics in large hospitals, with a designated haematology/obstetric lead.

- The coronary heart disease National Service Framework produced the target of an additional 3000 re-vascularisation procedures, which will also increase the demand for haematologists to support haemostasis and transfusion requirements.

## Other clinical areas

### Paediatric haematology

Expertise in this area is increasingly needed in all hospitals as the focus is shifting towards more shared care of patients with haematological cancers and other disorders such as haemophilia and the haemoglobinopathies. The majority of large hospitals have dedicated paediatric haematologists but all hospitals should have one designated haematologist to work in close liaison with the local paediatric team. Clearly, paediatric experience during training is essential, as all haematologists will be faced with paediatric enquiries during on-call cover.

### Transfusion

Some of the new initiatives affecting transfusion practice have already been discussed in the laboratory section. However, there are other developments that require ongoing and increasing consultant support. It is encouraging that only 20 hospitals (11%) of those surveyed do not have a designated transfusion lead. The survey did not address how much time is dedicated to this imperative service or whether dedicated PAs are allocated.

The increased demands in blood transfusion came through the Chief Medical Officer's *Better Use of Blood* document (HSC 2005/009), the impact of which has been increased by the recent *European Directive on Haemovigilance* (represented in UK law as blood safety and quality regulation, 2005). This states that hospital blood banks will be inspected every two years, and will need to meet enhanced quality standards and a new requirement for blood component tracking from donor to the recipient.

At present this only exists in a partial state and will need input from haematologists, BMS staff and quality managers. This is estimated to require 0.4 WTE in total into each hospital blood bank, although this will vary depending on the size and complexity of the service. Taking into account current dedicated activity, this will need an additional 30 - 40 consultant posts.

Based on evidence from the Blood Stocks Management Scheme, there are 50 high users of blood (27 with cardiac

units) and 100 moderate users (large medical/ haem-onc units), which will require increased WTE input to maintain safe controls. The UK is a high blood user compared to many countries so appropriate and safer use of blood is the increasing focus with a reduction in use of 15% over the last four years.

Transfusion committees are extremely important bodies (required by HSC 2002/009/BSQR2005) in the current climate of transfusion medicine to ensure the effective implementation of several initiatives. Consultant haematologists, generally manage these with input from regional transfusion consultants, though good practice recommends that consultants from other specialities chair them.

Maximum blood ordering schedules (MBOS), blood contingency and major incident planning have all had been recent initiatives which require continuing development and scrutiny.

Specialist Practitioners of Transfusion (SPOTs) are essential in the effective application of guidelines and reviewing strategies. Consultant haematologists generally manage them.

### **Haemoglobinopathy**

Linked newborn and antenatal screening for haemoglobinopathy is a DH initiative, which is impacting on many hospitals, particularly in high prevalence sites, usually associated with large conurbations. Even low prevalence sites require a screening programme with a designated lead clinician, usually a consultant haematologist. This initiative requires careful links with obstetric teams and procurement of new laboratory equipment on many sites.

Disorders of blood production and destruction (including bone marrow failure, unspecified anaemias and autoimmune blood diseases): haematology teams usually manage these. They require careful investigation, usually in close association with the haematology laboratories. *Choose and Book* may well add to the workload in this disparate group of patients as many patients develop haematological abnormalities related to other diseases.

# 7 Consultant expansion

## Trainee recruitment

The DH's Workforce Review Team has estimated the required growth rate to achieve the necessary number of consultant haematologists. It is categorised as one of the most deficient specialities, with a serious discrepancy between the need for growth and current capacity. It is hoped that this document will assist the recruitment of trainees in haematology.

The continuing expansion of trainee numbers seen over the last few years must at least be maintained if the projected increase in consultant numbers is to be achieved. In order to fill these training numbers, efforts must be made to attract trainees into haematology. This can best be achieved by development of haematology posts at F1 and F2 level and increasing exposure at undergraduate level.

Over a seven to eight year period this would lead to a predicted increase in specialist registrars (SpRs) of approximately 70%, giving a total of 630 trainees. If the current period of training were maintained, this would eventually lead to approximately 90 consultants per year (60 WTEs). Although there will be a delay, gradually this will replace the vacancies and expected retirements and lead to a continuing expansion of 30-40 posts a year, being the approximate number of new posts created yearly over the last five to seven years.

Currently many trainee posts are funded locally. It remains to be seen whether this can continue at the current rate and whether the impact of *Payment by Results* will affect trainee recruitment.

Many of the sub-speciality areas within the specialty of haematology show particular shortages of consultant staff, with major difficulties in recruitment to thrombosis and haemostasis, haemoglobinopathy, paediatric haematology and transfusion medicine.

The majority of in-patient workload in most hospitals relates to haematological malignancies. This has an impact on the balance of training and will continue to do so with an increasing amount of practical experience in the cancer setting. It could be argued that trainees seeking consultant posts may be drawn to the areas in which they are most clinically experienced, with an adverse impact on those non-malignant posts.

With the changing curriculum under the influence of MMC and an emphasis on assessment and a controlled learning

environment the training grade will be less involved in service delivery, which will become increasingly consultant led and non-medically delivered. This should allow a change in the balance of the curriculum, imperative in supporting the development of designated, protected time for training in the sub-specialty areas.

By improving the global training experience, this will help to ensure a broad knowledge base and experience, imperative for the consultant haematologist in the majority of hospitals. Such a policy may also serve to improve recruitment to the under-supported areas.

There is currently a concentration of trainees in large conurbations, particularly London. Historically, this may have been related to the perceived excellence of training experience in these hospitals. Although that is usually the case, other hospitals around the UK with enthusiastic haematologists have produced excellent training programmes. In order to train the increasing numbers in future, efforts should be made to distribute trainees more evenly throughout the UK whilst ensuring the quality of training experience.

## Calculating numbers

It is clear that there is a general shortage of consultant haematologists in all sub-speciality areas. This will only worsen as the previously highlighted initiatives impact further and if trainee numbers are allowed to fall behind consultant vacancies.

The detailed mechanisms for calculating numbers were described in the 2001 workforce document and will not be repeated here. These numbers depend on, and will vary, depending on the specialities present within the hospital and the sub-specialities within the department.

In simple terms most acute district general hospitals require at least three consultants, and those serving a population greater than 450,000 should have four. Units providing allogeneic transplantation (Level 4 services) and academic units require a minimum of five consultants. Hospitals with comprehensive care haemophilia centres also require five haematologists.

A previous survey of haematology regional specialty advisors estimated that an extra 110 consultants were needed immediately, with a further 130 - 140 in England over the following five-year period. These would absorb

the pressures currently identified, with excess working and for those in single-handed practice. We estimate that of these additional 250 posts over 200 have been appointed since the survey in 2001 (see table 2).

- **50 consultants still required**

### **Haematological malignancy**

The need for increased consultant numbers to implement and manage cancer standards according to IOG has already been identified in the National Cancer Plan as approximately 140 consultant haematologists.

The total numbers of staff considered necessary to provide the service was assessed as 250 WTE (0.5 WTE x 339 smaller Hospitals = 169 + 1.0 WTE x 80 larger Hospitals = 80 WTE) of which 40% could be Nurse Consultants, Clinical Nurse Specialists (CNS) or Clinical Scientists (C grade with MRCPATH).

- **140 consultants required**

### **Blood Transfusion**

Implementation of the initiatives in blood transfusion is assessed as requiring 60 - 70 WTE of which a third (25) could be non-medical staff. Therefore, up to 40 consultants in transfusion have been calculated.

- **40 consultants required**

### **Haemostasis and Thrombosis**

An increase in numbers to address current deficiencies in this sub-speciality together with implementation of initiatives in bleeding disorders and thrombosis is required and assessed by expert opinion to be at least 80 WTE. 30 - 40% of these could be non-medical staff, leaving a requirement for 50 haematologists.

- **50 consultants required**

### **Haemoglobinopathy**

Haemoglobinopathy guidelines would require an input of 17 WTE including 50% non-medical staff.

- **9 consultants required**

### **European Working Time Directive**

These calculations are based on current workload and have not taken into account the impact of the EWTD. The figures obtained through the RCP *Census of Consultant*

*Physicians in the UK* (2005), would indicate that the speciality requires an additional 100 consultants as well as those already identified, in order to create legal rotas. It is assumed in these figures that other members of multidisciplinary teams would undertake a proportion of the workload.

- **100 consultants required**

## **Conclusion**

Overall, from these calculations, the workforce requires an approximate increase of 400 consultants to fulfil the recognised responsibilities and planning for the future five to 10 years.

In the present climate this is a challenging target but if current trainee and consultant expansion is maintained it can be achieved. At the same time however, some changes in working practice are essential, with the increased development of multidisciplinary teams although this should not detract from the fact that an expansion in consultant haematologist numbers is imperative.



# 8 The future for consultant haematologists

## Networks

The changing nature of practice is such that haematologists in the majority of areas will work more closely in networks. This is particularly the case for malignant haematology where the IOG guidelines are explicit. The management of bleeding disorders is already following a network model with comprehensive care haemophilia centres providing the leading role. Patients with haemoglobinopathies, by virtue of their location within large conurbations are also focussed in a small number of hospitals. It would seem sensible therefore that energy is focussed into developing effective working networks for future management of haematological conditions.

In general training in the sub-specialities for specialist trainees will continue to occur principally in the larger centres where the critical mass of patients and specialist teaching should be available to provide appropriate exposure. Currently, the training is very focused around the teaching hospitals, especially in London. Expansion of trainees into other areas of the UK is envisaged, within suitable hospitals, to cope with the expansion and in order to continue to produce haematologists with a wide knowledge and experience base. This may well require further consultant expansion in these hospitals, but the funding will be challenging in view of *Payment by Results*.

## Multidisciplinary practice

The financial constraints within the NHS will place limitations on the implementation of the suggestions within this document. It will therefore be essential at the same time to consider alternative ways of working and in particular workforce diversity within the service. The development of teams of varying skill-mix will be required to provide the service.

With an increasing emphasis on a consultant-led service there will be an increasing reliance on career grade posts, clinical scientists, clinical nurse and nurse consultants. It is likely that there will be an increasing development of BMS staff at advanced practitioner level as a result of the chief scientist's training programme. Haematology has always been in the forefront of working closely with nursing staff across all sub-specialties and a significant rise in their number is recommended. This would improve the experience of patients and their management of disease in a multidisciplinary set-up. Increasingly, senior nurses could be relied upon to provide patient-focused care, in nurse-led clinics using disease-focused protocols.

Clinical scientists may have a larger part to play both in laboratory haematology and supporting clinical haematology practice.

## Single-handed practice

There are currently approximately 40 consultants working single handed and it is essential that single-handed haematology practice cease. This could be addressed by additional appointments or networking effectively with local hospitals. The appropriate solution will depend on geography, workload and the general requirements of the local configuration of specialties.

## Minimum standard

If only a proportion of the suggested numbers are achieved then this will have an impact on working patterns and job planning. With only 50% (200 WTE) of the suggested increase in consultant numbers it must be accepted that consultant haematologists will not be able to reduce their working week to 10 PAs. Furthermore, it is desirable that a shift to network working must occur quickly, to ensure that the essentials of IOG, SpR training needs and the other initiatives previously mentioned, can be safely implemented.

Hospitals must therefore review their workforce requirements as a matter of urgency. The larger hospitals may need an additional WTE haematologist as a priority but this should not ignore the needs of the smaller hospitals, which may not be able to benefit from networking and require support on clinical governance terms. The on-call commitment within the smaller hospitals in particular is becoming unsustainable. As there will be insufficient workforce available to fulfil all needs rapidly, prioritisation is required, according to workload (consultant per patient ratios) as discussed earlier in this document. Where hospitals with less than 500,000 population cannot attract or provide additional consultant staff, resources must be provided to appoint consultant alternatives (career grade posts, clinical scientists, nurse consultants, clinical nurses) as appropriate to the locality needs.

The delivery of all the initiatives highlighted within this document will be unsustainable with anything less than 50% of the recommended increase in consultant haematologist workforce. This assessment acknowledges the considerable future changes in working practice envisaged for haematology as a speciality.

# Bibliography and sources of information

## Bibliography

Department of Health. *Better Blood transfusion: better use of blood (HSC 2002/009)*. 2002.

Department of Health. *The Blood Safety and Quality Regulations*. 2005.

Department of Health. *Modernising Medical Careers: response of the four UK health ministers to unfinished business – proposals for reform of the senior house officer grade*. 2003.

Department of Health. *Our health, Our care, Our say: a new direction for community services*. 2006.

Department of Health. *Report of the Review of NHS Pathology Services in England - Chaired by Lord Carter of Coles*. 2006.

Department of Health. *Speciality Proforma – Haematology: NHS workforce review team (England)*. 2005.

European Union. *European Blood Safety Directive 2002/98/EC*. 2003.

Keele University. *National Pathology Alliance Benchmarking Review 2004-05*. 2005.

NICE. *Guidance on Cancer Services: improving outcomes in haematological cancers*. 2003.

The Royal College of Pathologists & British Society for Haematology. *Haematology Consultant Workforce in the 21st Century: a joint Intercollegiate Committee on Haematology*. 2001.

The Royal College of Physicians. *Consultant Physicians Working with Patients: the duties, responsibilities and practice of physicians in general medicine and the specialities (3rd edition)*. 2005.

The Royal College of Physicians. *Census of Consultant Physicians in the UK*. 2004.

The Royal College of Physicians. *Training Tomorrow's Physicians*. 2005.

## Useful information

Blood Stocks Management Scheme  
[www.bloodstocks.co.uk](http://www.bloodstocks.co.uk)

The British Committee for Standards in Haematology  
[www.bcshguidelines.com](http://www.bcshguidelines.com)

British Society for Haematology  
[www.b-s-h.org.uk](http://www.b-s-h.org.uk)

Department of Health  
[www.dh.gov.uk](http://www.dh.gov.uk)

European Working Time Directive  
[www.dh.gov.uk/en/Policyandguidance/Humanresourcesandtraining/Workingdifferently/Europeanworkingtimedirective/index.htm](http://www.dh.gov.uk/en/Policyandguidance/Humanresourcesandtraining/Workingdifferently/Europeanworkingtimedirective/index.htm)

Modernising Medical Careers  
[www.mmc.nhs.uk](http://www.mmc.nhs.uk)

National Institute for Health & Clinical Excellence  
[www.nice.org](http://www.nice.org)

National Pathology Alliance Benchmarking Review  
[www.keele.ac.uk/depts/hm/key\\_topics/benchmarking.htm](http://www.keele.ac.uk/depts/hm/key_topics/benchmarking.htm)

NHS Sickle Cell and Thalassaemia screening programme  
[www.sct.screening.nhs.uk](http://www.sct.screening.nhs.uk)

The Royal College of Pathologists  
[www.rcpath.org](http://www.rcpath.org)

**With thanks to:**

Fiona Addiscott, Workforce Planning Department, The Royal College of Pathologists

Martin Beaman, Lead Dean for Haematology, Peninsula Deanery

Gareth Bland, Specialist Advisory Committee Coordinator for Haematology

Adrian Coppleson, Chair, CMOs National Transfusion Committee

Finbarr Cotter, Professor of Haematology, Barts and the London NHS Trust

Mike Galloway, Consultant Haematologist, Sunderland City Hospital

David Linch, Professor of Haematology, UCLH

Michael Murphy, Professor of Transfusion Medicine, NBS Clinical Director for Patient Services.

Denise O'Shaughnessy, Senior Medical Advisor on Blood Policy and General Health Protection to the Department of Health

Charles Singer, BSH Treasurer and Chief Examiner for Haematology, RCPATH

Angela Thomas, Chairman of Paediatric Haematology Forum, BSH

---

Unique document number	G052
Document name	Haematology consultant workforce: The next 10 years
Version number	2
Produced by	Dr Tim Nokes, Chair of the Haematology Consultant Workforce Committee
Date active	October 2007
Date for review	November 2009
Comments	Replaces the <i>BSH paper - Haematology Consultant Manpower in the 21st Century</i> (2001)



The British Society for Haematology



The Royal College of Pathologists

*Pathology: the science behind the cure*