Consultant post prospects in medical specialties

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ABSTRACT – Consultant post prospects for Specialist Registrars (SpRs) in all the medical specialties have been analysed using the databases of the Royal College of Physicians and the Joint Committee on Higher Medical Training (JCHMT). A 'bulge' in the numbers of SpRs obtaining Certificates of Completion of Specialist Training (CCSTs) is anticipated over the next 2–3 years, but this effect will be alleviated by the increasing trend to spend extra years in research or flexible training. There are profound differences between the specialties in the ratios of SpRs holding National Training Numbers (NTNs) to consultants, and in the proportions of female SpRs, and these factors will markedly influence consultant post prospects. The outlook within most specialties is favourable, but this is critically dependent on the rate of consultant expansion over the next few years.

Specialist Registrars (SpRs) in all the medical subspecialties need up-to-date information about the manpower situation within their discipline. Most are vaguely aware of impending problems due to a 'bulge' in the expected numbers of CCST holders in the next few years, but detailed information on this is not readily available. Many specialist societies produce excellent manpower data, but may not always distribute this effectively, and they tend to concentrate on the longterm situation, from 2004 onwards, which is of little interest to current SpRs. The object of this paper is to present an overview of the manpower situation in each specialty for the specific benefit of current medical SpRs, and to indicate to them the likely balance between the number of holders of a CCST and the available consultant posts in each discipline and year.

Limitations of these analyses

It is necessary to emphasise at the outset that this exercise is inherently flawed, because it depends on three variables which cannot be predicted with accuracy:

- the numbers of SpRs in each specialty who are expected to get a CCST date in a given year
- the percentage expansion of the total number of consultants within the specialty (ie the number of new posts) during the year
- the number of anticipated consultant retirements in that year.

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Nevertheless, this will undoubtedly interest current SpRs, and may indeed be useful to them in planning their careers.

Specialist registrar data

The data on the number of National Training Numbers holders in each of the 25 specialties of the UK, and the expected total of CCSTs per year, are taken from the JCHMT database, obtained in July 1999. Trainees in Scotland have been omitted from the current analyses in order to correspond with the database of consultants from the Royal College of Physicians, London. The postgraduate deans also hold a database of SpRs, obtained by collecting information from all the deaneries on a twice yearly basis. The JCHMT database is less complete than the deans', because of the failure or delay of some SpRs to register with the JCHMT, particularly those with old-style senior registrar contracts; but in practice, the differences between the two databases probably have little effect on the current analyses. The numbers of CCST holders per year quoted in these analyses refer to National Training Number (NTN) holders, and do not include holders of Visiting Training Numbers (VTNs), although some of the latter may apply for consultant posts after gaining their CCSTs, and choose to stay. This might affect consultant post prospects in some specialties, particularly in geriatric medicine. The data for SpRs expected to gain CCSTs this year are obviously incomplete, because some have already been removed from the database earlier in the year on gaining a consultant post; and the data for 2003 may be incomplete in those specialties which have a four-year training programme.

Consultant data

The total numbers of consultants in England, Wales and Northern Ireland have been obtained from the Royal College of Physicians Census of September, 1998, and – in the case of haematology and immunology – from the Royal College of Pathologists. The number of retirement vacancies per year in each specialty has been calculated by determining the number of current consultants aged 57 and above and dividing this by eight, to give an annual retirement rate. This is probably justified because the age distribution of consultants aged between 57 and 64 years is fairly smooth, and the mean retirement age is currently 61, but it may be a slight underestimate if more consultants decide to retire early in future years. Minor fluctuations in numbers of retirements from year to year will have relatively little

Key Points

There will be a 'bulge' in the numbers of Certificate of Completion of Specialist Training (CCST) holders in the next few years, but this will be alleviated because of extra years spent in research or flexible training

There are profound differencies within the specialties in the ratio of Specialist Registrars (SpRs) to consultants, and in the proportion of female SpRs, and these will markedly influence consultant prospects

The outlook for current SpRs within most specialties is favourable, but is critically dependent on the rate of consultant expansion

effect on the overall analyses, since most consultant vacancies arise from the creation of new posts rather than from retirements.

The 'bulge' of expected CCST holders in the next few years

The numbers of trainees expected to gain CCSTs in each of the next four years in each specialty, and the numbers of expected retirements, are shown in Table 1. An excess or 'bulge' of trainees is expected to complete training in the years 2000–2, with the peak for most specialties occurring in 2001. This effect is largely lost by 2003, although the cumulative impact of the 'bulge' may persist beyond this. The pattern is observed in all specialties, and reflects the many clinical and research registrars who obtained an NTN at the 'Calman' transition date in 1997. In practice, the numbers of trainees gaining their CCSTs in a given year may be significantly less than these figures indicate, for two reasons. First, the CCST dates provided to the JCHMT do not usually allow for any postponement produced by extra periods of research which are now taken by many trainees, particularly in traditionally 'academic' specialties such as endocrinology, renal medicine or medical oncology where three years' research is almost the norm. The initial CCST date usually assumes a standard length of training, and this tends to remain on the JCHMT database until the extra research has been completed. Thus some of the bulge of trainees obtaining CCSTs in the next three years may be spread out over subsequent years. Second, the CCST dates of at least some trainees may be postponed because they become 'flexible trainees' or perhaps take maternity leave, reflecting the increasing proportion of women in many disciplines.

The rise in the proportion of women SpRs

The overall proportion of women NTNs in all medical specialties is currently 37% (Table 2). The proportion will rise sharply over the next few years, from 32% of all those expecting CCSTs in 1999 to 43% of those in 2003. This reflects the gender ratio of all medical graduates nowadays and the impact on manpower planning may well be profound. A high proportion of women trainees in a specialty may improve the consultant post prospects for both men and women, because a significant proportion may elect to work part-time as consultants, or switch to flexible training as SpRs. This may alleviate at least some of the pressures over the next few years in disciplines that are popular career choices for women.

The balance between expected CCST holders and available consultant posts

The calculations undertaken for these analyses are illustrated by considering one specialty – gastroenterology. The total number of consultants (excluding Scotland) in September 1998 was 487; 78 consultant gastroenterologists were aged 57 and over, and thus approximately ten may be expected to retire in each of the next few years. If the rate of expansion of the consultant grade in 1999 were, for example, 5%, there would be 24 new posts, making a total of 34 vacancies in gastroenterology. From the JCHMT database, 28 trainees are expected to obtain CCSTs this year, and thus the balance of expected CCST holders over available posts in 1999 is –6, ie there are apparently more posts than trainees available this year – although the total of CCSTs is an underestimate, because additional trainees

Table 1. Numbers of expected CCSTs and expected retirements in medical specialties, 1999–2003.

	1999	2000	2001	2002	2003	Consultant retirements per year
Audiology	2	0	3	4	0	0.5
Cardiology	29	46	72	65	45	10
Clinical genetics	6	15	10	5	3	1
Clinical neurophysiology	2	4	4	3	3	1
Clinical pharmacology	0	4	4	5	5	2
Dermatology	9	20	27	19	7	5
Endocrinology/diabetes	21	36	56	50	20	11
Gastroenterology	28	62	84	73	41	10
Geriatrics	27	60	60	66	71	14
Genito-urinary medicine	7	8	9	21	5	4
Haematology	19	38	38	30	22	11
Immunology	1	3	8	3	4	2
Infectious diseases	9	11	13	7	1	1
Medical oncology	12	26	20	10	18	1
Neurology	10	27	32	35	12	5
Nuclear medicine	1	1	1	0	0	1
Paediatric cardiology	4	4	1	2	2	2
Palliative care	9	25	22	27	7	3
Rehabilitation	5	9	10	3	4	2
Renal medicine	16	39	36	43	10	4
Respiratory medicine	29	58	83	34	12	7
Rheumatology	18	39	36	20	17	9

may have been removed from the database earlier in the year.

These calculations can be repeated for the next few years to provide both a yearly and a cumulative balance between the number of trained SpRs and available consultant posts.

Assuming that the rate of consultant expansion in gastroenterology were to remain at 5% for the next five years, the figures would be as shown in Table 3. Thus, 103 gastroenterology SpRs might expect to possess a CCST by 2003 but have no post if the consultant expansion in gastro-

Table 2. Overview of consultant post prospects for SpRs in medical specialties.

	Total consultants	Total NTNs (JCHMT database)	Ratio of NTNs to consultants (%)	Female NTNs (%)	Average annual expansion 1993–8 (RCP Census) (%)	Expansion required to achieve balance by 2003 (%)	Comments	Subjective overview of prospects for SpRs
Audiology	31	11	35	64	10	5	Low proportion of NTNs, expanding specialty, mainly women	Good
Cardiology	539	293	54	13	7	7	Needs rapid expansion, but hopefully will occur	Moderate
Clinical genetics	81	46	57	70	8	7	Expanding specialty, mainly women	Good
Clinical neurophysiology	66	16	24	12	2	4	Few NTNs, low expansion recently, difficult to predict	Moderate?
Clinical pharmacology	64	22	34	18	–2	2	Difficult to predict, probably in balance	Moderate
Dermatology	368	93	25	57	5	3	Relatively few NTNs, mainly women NTNs, some unfilled posts	Excellent
Endocrinology/ diabetes	441	202	46	41	6	6	May not achieve this rate of expansion	Moderate
Gastroenterology	487	325	67	25	6	9	Needs rapid expansion, but hopefully will occur	Moderate
Geriatrics	782	298	38	45	4	5	In reasonable balance, currently several posts unfilled	Good
Genito-urinary medicine	255	60	24	63	5	3	Relatively few NTNs, mainly women	Excellent
Haematology	587	182	31	49	?	3	Relatively few NTNs, equal gender ratio	Good
Immunology	104	27	26	44	?	2	Relatively few NTNs, small specialty, difficult to predict	Moderate?
Infectious diseases	83	52	63	19	4	8	Relatively high proportion NTNs, depends on HIV policies	Moderate?
Medical oncology	111	102	92	43	8	12	High ratio of NTNs, needs huge expansion, will probably occur	Moderate?
Neurology	281	131	47	24	5	6	In reasonable balance	Moderate
Nuclear medicine	39	3	8	67	8	0	Small specialty, difficult to predict	Good
Paediatric cardiology	53	15	28	33	4	2	Small specialty, difficult to predict	Good
Palliative care	196	97	49	77	32	7	Massive recent expansion, posts difficult to fill	Excellent
Rehabilitation	96	34	35	53	15	5	Huge recent expansion, posts difficult to fill	Excellent
Renal medicine	221	163	74	32	6	10	High ratio of NTNs, needs rapid expansion – may occur	Moderate?
Respiratory medicine	452	234	52	28	4	7	May not achieve this rate of expansion	Moderate?
Rheumatology	403	138	34	48	5	4	Low ratio of NTNs, high proportion women	Good

enterology were to be 5% for the next few years. However, this is a 'worst case' scenario. In reality, the situation for gastroenterology will almost certainly be more favourable because the rate of consultant expansion is likely to be considerably greater than 5%, and because fewer trainees gain CCSTs each year due to additional time spent in research or flexible training.

A comparison of the balance between CCST holders and posts in different specialties

Figure 1 shows the cumulative balance of expected CCSTs over posts for each specialty, assuming that they all experience a constant 5% consultant expansion over the next few years. The largest surplus of CCST holders would occur in gastroenterology, and renal medicine, cardiology, respiratory medicine and oncology would also have an excess of between 50 and 70 trained SpRs. Neurology, endocrinology and geriatrics would be approximately in balance, and there would be insufficient CCST holders to fill the available posts in rheumatology, dermatology and haematology.

Figure 2 expresses the same data as a percentage of the total pool of NTN holders in each specialty. This is relevant because in smaller disciplines, such as medical oncology, the potential surplus of CCST holders is proportionately greater. Almost 50% of NTNs in medical oncology would have no post available in 2003 if the expansion rate were to remain at 5% – although in reality it will almost certainly be much higher in this particular specialty. Neurology, endocrinology and geriatrics would again be roughly in balance, and rheumatology, haematology and dermatology would be under-provided with trainees.

Table 3. Hypothetical balance between number of trained SpRs and available consultant posts in gastroenterology, assuming a 5% consultant expansion rate (see text).

	Consultant total	New posts	Retirements	Total posts	CCSTs in that year	Excess of CCSTs over posts: Yearly	Excess of CCSTs over posts: Cumulative
1999	511	24	10	34	28	–6	–6
2000	537	26	10	36	62	26	20
2001	564	27	10	37	84	47	67
2002	592	28	10	38	73	35	102
2003	622	30	10	40	41	1	103

The impact of different rates of consultant expansion

The above comparisons are interesting, but are artificial and misleading, because they assume a uniform rate of consultant expansion of 5% in the different specialties over the next few years. In practice, this is unlikely to happen. Relatively minor changes in the rate of expansion have a dramatic effect on the overall balance between trainees and posts. This is illustrated in Fig 3, where the manpower balance for gastroenterology is recalculated for different consultant expansion rates varying between 3% and 9% per year. A consistent consultant expansion rate of 9% over the next few years would be needed to produce a balance between trainees and posts by 2003. The expansion rates required to achieve balance by 2003 in other medical specialties vary markedly. They have been calculated for each discipline, and are shown in Table 2.

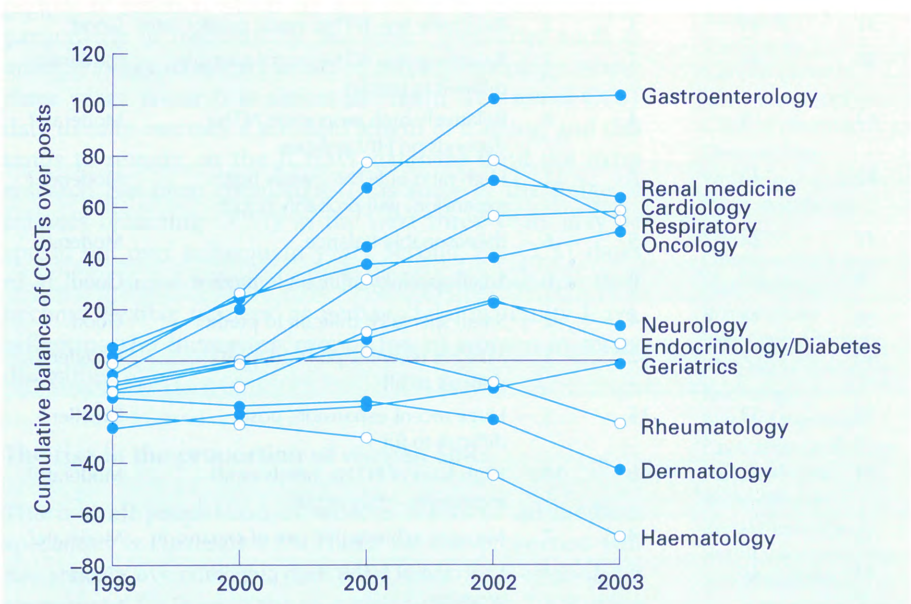

Fig 1. Cumulative balance of CCSTs over available posts, assuming a 5% consultant expansion rate in all specialties.

Overview of the situation in all medical specialties

Table 2 presents an overview of the important statistics affecting the prospects for consultant posts in each medical specialty. The annual consultant expansion rate required to provide more trainees than posts by 2003 has been calculated for each specialty, and provides a good indicator of the manpower situation within that specialty. It is important to compare this with the expansion observed over the past few years, the ratio of NTNs to consultants, the proportion of women trainees, and the likelihood for more posts within particular disciplines. The final column in the table contains a personal 'guestimate' of the situation within each specialty, but the author cannot vouch for its accuracy.

Consultant expansion – the key factor

These analyses clearly show the overwhelming importance of consultant expansion in achieving manpower balance, as well as in improving patient services. The annual expansion rate has fluctuated widely in recent years, and between different specialties, but the average in the medical specialties has fallen from around 8% in 1995–6 to around 3% in 1997–8. Unfortunately, there is no central planning of new posts. Instead, each Trust decides whether it needs an extra, expensive colleague, and whether it can justify the funding – and the plans need to be approved by its health authority and primary care groups, who may be more concerned with short-term service pressures than with

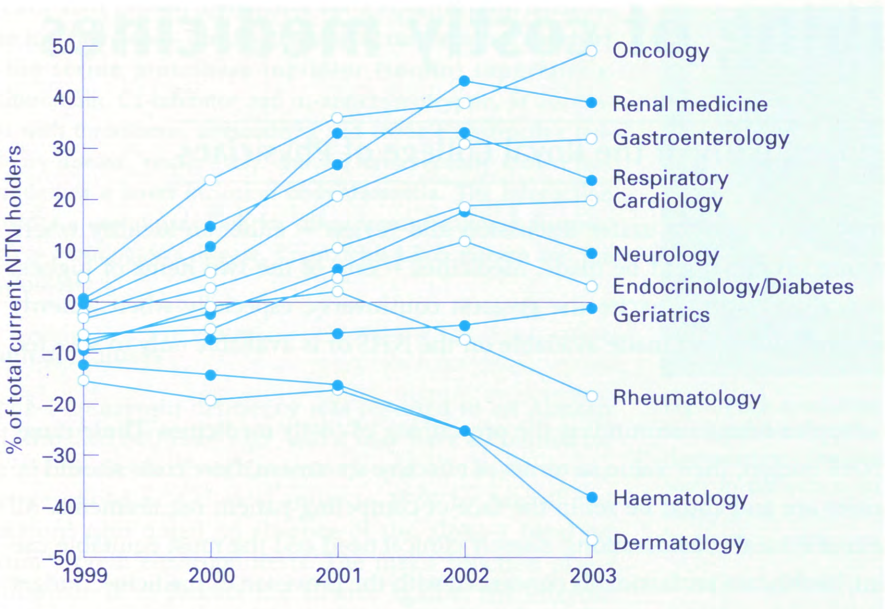

Fig 2. Cumulative balance of expected CCSTs over posts, expressed as a percentage of current NTNs, assuming a uniform 5% expansion in all specialties.

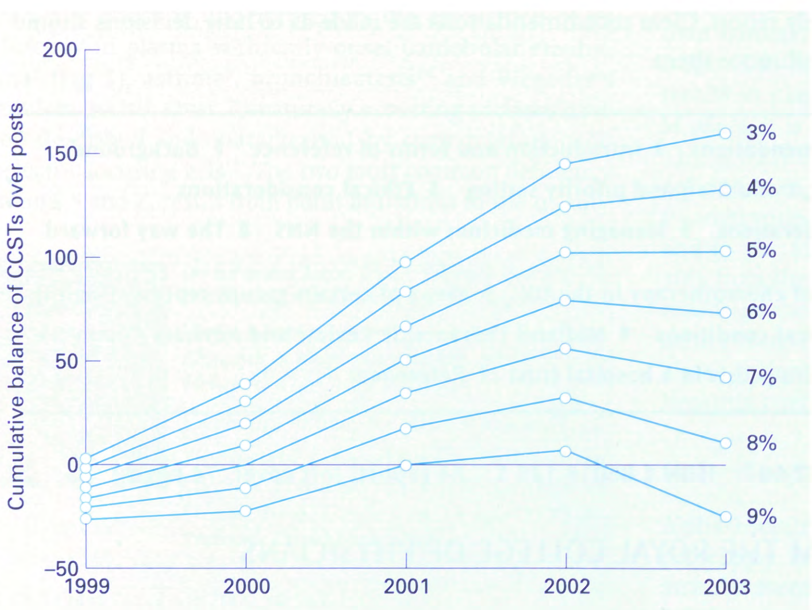

Fig 3. The effect of different rates of consultant expansion (%) on the balance between CCSTs and posts in gastroenterology.

education and training issues. In this situation it is obviously impossible to predict which specialties will achieve the expansion needed to achieve manpower balance by 2003. The Royal College of Physicians is pressing the case for consultant expansion as vigorously as possible. Data from the Advisory Appointments Committee department will allow the trends in consultant expansion to be closely monitored, and this information will be regularly relayed to all SpRs.

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