Medical staffing and training in the West Midlands region

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In 1984 the West Midlands Regional Health Authority set up a working party to study and make recommendations about the coordination of medical and dental training and staffing in the region.

Data collection

The first requirement was good information about current staffing levels and difficulties. Visits were made to each of the 22 health districts in the region to establish baseline data on all hospital medical and dental staff including clinical assistants, honorary and supernumerary staff, plus dependence on locums, etc. This provided improved regional data, and the way was opened for annual updating and refinement. The first update has now taken place.

The next step was to obtain estimates of future manpower needs. This can be done in various ways, all of which are imprecise and open to criticism. Our procedure was to make a second visit to each district, at which we met representatives of clinical specialties, who often acted as spokesmen for colleagues in related disciplines. The actual pattern of attendance varied, and it was not possible to meet doctors from every specialty and subspecialty in every district. It was emphasised, however, that opinions collected at these visits would represent merely the start of a dialogue, during which we hoped for ample opportunity to improve and amplify future projections. We asked about staffing needs in 10 years' time in order to have some kind of idealistic goal beyond the preoccupations of the immediate future. Emphasis was placed on consultant posts, having regard to district plans and commitments and local knowledge of population and age and sex structure projections, and hence the staff requirements for good patient care. We wished this, rather than likely funding or preconceived junior to consultant staff ratios, to be the basis of the estimates made. We indicated that junior staffing would be analysed as a second stage, regionally, from the consultant figures obtained. As a working basis it was assumed, however, that no more junior doctors than at present were likely to be available in 10 years' time and possibly fewer. Despite this, some demands for additional juniors were not surprisingly made, especially in connection with new hospital developments on green field sites. These demands were simply noted as we thought it important to record so far as possible the estimates of those doing the actual work in each district.

This part of the work was similar in concept to a study previously undertaken in the Northern region.1

Data and future estimates obtained were referred back by way of district general managers and district medical officers to ensure, so far as possible, that district management was aware of the forecasts being made and that individual specialties could offer comments. Furthermore, the revised district estimates derived in this way were then discussed with individual specialties through their advisory committees, through specially convened meetings, or by correspondence. The beginnings of a regional profile for the next 10 years were thus built up, by specialty across all districts and by district across all specialties.

Prospective retirements and other losses of consultants from the region can be estimated from the ages of those currently in post. Additionally, an analysis was made of actual losses over the period 1976-85. During this time the average age of consultants leaving their posts in the region in the psychiatric specialties, including mental handicap, for all reasons, was 56. This would represent a need to replace approximately 6-7% of these consultants each year. For other hospital specialties we were able to use West Midlands data analysed by Mrs Cynthia Corkill in the course of a separate study based in Manchester.2 The replacement need seemed to be approximately 4% a year.

Data analysis

Consultant expansion added to estimated retirements gives a figure for posts to be filled during the decade. Assuming an even spread of appointments over the years, this allows estimation of the numbers of senior registrars required and, by working back, the registrar and senior house officer posts needed for training in the specialty concerned. The times to be spent in each grade, for these calculations, were varied for different specialties with an average of rather more than six years as registrar and senior registrar.

We added an estimate for the numbers of registrar or senior house officer posts which might be needed in each specialty for trainees in other specialties—for example, orthopaedics for future general surgeons or consultants in accident and emergency; neurology for neurosurgeons and ophthalmologists; medicine for anaesthetists, paediatricians, or psychiatrists. The problem here is that junior posts differ considerably in their degree of specialisation, and opinions are likely to vary about what type and amounts of experience should, in an ideal world, be sought by various trainees. Present estimates can therefore give only a general lead for future planning.

The training requirements of community medicine were not specifically estimated, but an element of loss from the hospital training grades was incorporated in the allowance for movement between specialties.

Next must be added the number of senior house officer posts likely to be required, by specialty, for future general practitioners, whether in organised vocational training schemes or not. These estimates were made in consultation with the regional adviser in
general practice, bearing in mind the current content of vocational training packages and the perceived demand among trainees for various kinds of experience.

Emerging regional picture

The table shows preliminary estimates of consultant and junior staff requirements in relation to present establishments. As explained these cannot be regarded as accurate forecasts, but we believe that they provide a useful indication of district and specialty requirements, which form a basis for further refinement.

**Estimated consultant requirements by 1995 and consequential regional need for training posts compared with 1985 establishments**

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Surgery</th>
<th>Paediatrics</th>
<th>Obstetrics and gynaecology</th>
<th>Psychiatry</th>
<th>Pathology</th>
<th>Radiotherapy</th>
<th>Radiology</th>
<th>Anaesthetics</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No of consultants required by 1995</td>
<td>393</td>
<td>461</td>
<td>99</td>
<td>108</td>
<td>253</td>
<td>200</td>
<td>22</td>
<td>144</td>
<td>351</td>
</tr>
<tr>
<td>% Growth</td>
<td>46</td>
<td>42</td>
<td>62</td>
<td>54</td>
<td>52</td>
<td>56</td>
<td>39</td>
<td>50</td>
<td>70</td>
</tr>
<tr>
<td>Senior registrars</td>
<td>97</td>
<td>113</td>
<td>25</td>
<td>29</td>
<td>57</td>
<td>44</td>
<td>3</td>
<td>33</td>
<td>72</td>
</tr>
<tr>
<td>Gain/loss</td>
<td>+39</td>
<td>+55</td>
<td>+14</td>
<td>+17</td>
<td>+14</td>
<td>+9</td>
<td>0</td>
<td>+8</td>
<td>+41</td>
</tr>
<tr>
<td>For training in specialty Registrars</td>
<td>67</td>
<td>93</td>
<td>17</td>
<td>20</td>
<td>52</td>
<td>28</td>
<td>21</td>
<td>267</td>
<td>367</td>
</tr>
<tr>
<td>For training in other specialties</td>
<td>30</td>
<td>10</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Gain/loss</td>
<td>-8</td>
<td>-75</td>
<td>+4</td>
<td>-24</td>
<td>-34</td>
<td>-6</td>
<td>0</td>
<td>-4</td>
<td>-12</td>
</tr>
<tr>
<td>For training in specialty Senior house officers</td>
<td>59</td>
<td>68</td>
<td>15</td>
<td>18</td>
<td>34</td>
<td>23</td>
<td>2</td>
<td>44</td>
<td>263</td>
</tr>
<tr>
<td>For training in other specialties</td>
<td>60</td>
<td>35</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>For general practitioner vocational training</td>
<td>70</td>
<td>30</td>
<td>75</td>
<td>75</td>
<td>50</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Gain/loss</td>
<td>-31</td>
<td>-212</td>
<td>-1</td>
<td>-25</td>
<td>-4</td>
<td>+11</td>
<td>0</td>
<td>+3</td>
<td>-43</td>
</tr>
</tbody>
</table>

*Includes general (internal) medicine, infectious diseases, thoracic medicine, neurology, cardiology, rheumatology, clinical pharmacology, geriatrics, medical oncology, nephrology, endocrinology/diabetes, gastroenterology, and nuclear medicine.

*Includes general surgery, vascular surgery, transplant surgery, urology, paediatric surgery, plastic surgery, ear, nose, and throat surgery, ophthalmology, trauma and orthopaedics, accident and emergency, cardiothoracic surgery, and neurosurgery.

*Includes mental illness, psychogeriatrics, child and adolescent psychiatry, forensic psychiatry, and mental handicap.

Whole time equivalents.

Our district visits showed a demand for a 50% expansion in the number of consultants over the next 10 years. This was not dissimilar from the hopes for future consultant staffing expressed in the regional health authority’s regional strategy, except that in general medicine and general surgery consultants thought that additional posts were needed for adequate patient care while these specialties were not high among the regional health authority’s priorities for additional funding. Possible savings on junior staff had not, however, been considered by the regional health authority in this context. The demand for additional consultant posts in the support services such as anaesthetics, radiology, and pathology also exceeded the numbers in the regional health authority’s strategic plan, a fact at least partly explained by the demand for additional surgeons and physicians. Conversely, in obstetrics and gynaecology the desires expressed by consultants for additional posts in their districts substantially underestimated the future consultant needs of the specialty to meet regional strategic targets.

Taking all the hospital specialties together, it would seem that to be self-sufficient in meeting its future consultant requirements the region would need about 200 more senior registrars than at present. On the other hand there would seem to be an excess of about 160 registrar posts over the number required for training, even when movement from one specialty to another is taken into account. Similarly at senior house officer level, even after providing for general practitioner vocational training, there is an excess of about 300 posts, the majority of these (approximately 200) being in general surgery and some surgical specialties, such as trauma and orthopaedics and accident and emergency.

The figures discussed above and shown in the table make no allowance for the postgraduate training of overseas doctors. It is a reasonable assumption that in future the output of the British medical schools will provide enough doctors to meet training requirements for career posts in the National Health Service. It is not considered likely nor is it thought desirable that in future there will be any large pool of overseas doctors available for casual employment as pairs of hands in junior hospital posts surplus to domestic requirements.

**Discussion**

A previous study in the Northern region indicated a desire for an overall 70% consultant expansion over 15 years, with obstetrics and gynaecology falling below the average; a need for a 90% increase in the number of senior registrars; a surplus of registrars and also of senior house officers, mainly in medicine and surgery; and a loss rate of consultants from the region of 4-5% a year.1 Bearing in mind that the study methods were similar, this shows a considerable resemblance between the problems and philosophies of the two regions.

For the West Midlands region calculations show that a 50% increase in the number of consultants, with the number of junior posts required to train people for these consultant posts and for general practice, would provide a total number of hospital medical staff somewhat larger than the present figure, without any dependence on overseas doctors. Indeed, the overall growth rate in hospital medical staff, even allowing for some overseas trainees, would be no greater than that for the region during the years 1980-5. The preponderance of consultant expansion, however, would mean that salary costs would be around £0-5m a year more than the annual average for 1980-5.

A smaller increase in the number of consultants would require a proportionately smaller number of trainees, and hence would open up a potential gap in service provision unless alternative sources of manpower were available from overseas doctors, a non-consultant grade, or the increasing participation of general practitioners in hospital work.

These general conclusions do not apply evenly across all specialties. Radiology and pathology, where current numbers of juniors or possibly more are needed to sustain consultant growth, are different from specialties such as trauma and orthopaedics and accident and emergency, where there is a large discrepancy between the number of junior posts required for training and the number deemed to be necessary for service provision. It is in these latter specialties that the major problem will be encountered, both in the immediate future and in the long term, in trying to achieve a sensible career structure and at the same time an acceptable level of patient care.

The demand for well organised postgraduate training from overseas doctors is likely to vary greatly between specialties. In some, where junior staffing is now a problem and the gap between training needs and service needs is most apparent, this demand is not likely to be great. This would apply, for example, in mental handicap, psychogeriatrics, and accident and emergency. This is a factor to be taken into account in future planning, and some realistic estimates of the likely demand would be worth having.

This and the previous study1 show that in the regions with a relative deficiency of senior registrars the career structure problems that exist in some specialties could readily be solved by converting a considerable number of registrar posts to senior registrar posts. To arrange satisfactory training nationally it would be necessary for all regions to estimate future career prospects in the specialties concerned, and this exercise would
MERGING REGISTRAR AND SENIOR REGISTRAR GRADES

A variation of this strategy would be to construct specialty training programmes in which the registrar and senior registrar grades were merged. Many of the effects of this might be considered highly desirable. The region would gain a higher proportion of senior and experienced trainees, who would be much more widely deployed in non-teaching districts for part of their training. Consultants would appreciate this greater contact with trainees at the senior level, and it is likely that a shift of balance towards the more senior training grade would result in a higher level of patient care with better supervision of preregistration house officers, senior house officers, and overseas trainees. For consultant recruitment the regions that are currently undersupplied with senior registrars would have a higher proportion of candidates conversant with local conditions and aware of the excellent opportunities available close at hand. A reduced infrastructure at senior house officer and registrar level would create service problems in some specialties, highlighting the need for a thorough reappraisal of the means of providing patient care at the intermediate level. This seems likely to be necessary in any case.

The relation between general medicine and the medical specialties received detailed attention as part of this study. All relevant consultants in the region were asked about the division of their time between general medicine and one or more medical specialties, and about their participation in the management of unselected medical admissions. From this it became clear that, according to the prevailing census definition whereby a consultant is attached to the specialty in which he spends the majority of his time, a considerable number of general physicians in the region should have been designated as gastroenterologists, chest physicians, etc. Conversely, applying the Köner criterion of involvement in the management of unselected medical admissions, several specialists, such as cardiologists and nephrologists, would be classified as general physicians. District staffing requirements and the way that service provision is envisaged are sometimes difficult to reconcile with the norms advocated by specialties and subspecialties. This is a confused matter, which should be resolved not only for future manpower planning but also for the organisation of postgraduate training.

The objective of_this proposal would not introduce major conceptual differences from the approach to manpower planning outlined in this paper. The emphasis is still very strongly on consultant expansion, with adjustment of the numbers of trainees to achieve a proper career structure. The introduction of an intermediate service grade would provide some scope for bridging the potential gaps between service and training at the present registrar level, although if the size of the new grade were restricted to 10% of the number of consultants it would by no means offer a complete solution in some specialties. Although the idea of providing organised training programmes for overseas doctors, alongside of and of equal quality to those for British graduates, is admirable, the practicability of achieving this by appointing some registrars regionally and others at district level is open to question. It is doubtful from our figures whether additional senior house officer posts would be needed, and indeed present evidence suggests that there might be difficulty in filling such posts. A longer period spent in the senior house officer grade is not desirable as an end in itself or as a staging operation for doctors unable to make career progress. Some justification would exist if the senior house officer grade were to be used partly as a means of providing general clinical training as an alternative to doubling the length of the preregistration year, but even with this the present number of senior house officer posts, overall, would probably be sufficient.

Conclusion

The next steps in this exercise are to refine the data obtained from district visits and to reconcile this with the regional views of individual specialties and with regional strategic plans. District views need to concentrate on local problems, working relationships, and financial constraints while specialty views tend to emphasise regional planning and the best interests of postgraduate training. Small specialties, such as dermatology, genitourinary medicine, and mental handicap, in which a consultant often has to serve several districts tend to fare badly in district bids, and a regional view of service and training provision is needed, whatever problems may arise in reconciling local and personal ambitions.

The data obtained from this study to date have already made it possible for the region to supply manpower information to the Joint Planning Advisory Committee in considerable detail. We presume that the committee would wish to have similar regional returns, based on the self-sufficiency principle in order to build up a realistic national picture.

Close collaboration is needed at regional level between regional health authorities and regional postgraduate committees in ensuring that good training is provided for overseas doctors wishing to return home, and in working out the full training and staffing implications of getting our own career structure right. With appropriate central guidance it should prove possible to do this for the individual specialties, particularly at senior house officer and registrar level, while also developing arrangements for general clinical training for British graduates at the preregistration and senior house officer stage using, as a model, some elements of the way in which vocational training for general practice has so successfully been organised.

It is essential for all regions to plan their levels of consultant expansion and junior career structures in order to make progress nationally. Persistently retaining excessive numbers of senior registrars in some regions and authorities, while holding to a fixed number for the whole country, must keep other regions in an unacceptable straitjacket from which, in the absence of very marked improvement in the present position, some form of escape would have to be devised. It should be emphasised again that regional self-sufficiency in training, especially at the senior registrar level, does not imply restriction of movement of individual trainees between regions. It simply expresses the right, which each region feels, to have a proper staffing structure and hence a proper balance in the levels at which patient care is provided as well as a prospect of good career progress and recruitment.

References


30 YEARS AGO

International Medicine

Str.—While conducting a village surgery, a Hungarian refugee who had been in this country since February came to me and wished me to let her have a prescription for 'serpasil.' She thereupon showed me an ancient prescription, the only word of which was legible being the name serpasil. I could find no suspicion of blood pressure and with great difficulty made her understand that she was not getting the prescription. She then showed me an old photograph, which I guessed correctly was that of her husband, who in fact needed the serpasil. I then got hold of her husband who spoke a few words of English, and with his help elicited the following information.

The woman and many others like her had, since their arrival in this country, found our National Health Service a minor gold mine. She had got her mother to send her Hungarian prescription over here, hence the difficulty in deciphering it.

This prescription was written in our script as the Hungarian physician had written it. She had with the aid of this been able to send monthly supplies of the drug at a shilling a time to her mother. Also three pairs of elastic stockings and other items. They told me that there was nothing unusual in this. Many refugees did it. I think it is even possible that she told the doctors whom the prescription was for, if they could have understood her. I may add that she was not even registered with any doctor.

I wonder how many others have had similar experience? If it is many, it is small wonder the Health Service does not pay. —I am, etc.,

Oundle.

(Vincent Grantham.

(British Medical Journal 1957;ii:348.)

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