

The cost of postgraduate training

The Modernising Medical Careers and European Working Time Directive have led to significant changes in the working patterns and training of junior doctors. This article seeks to explore the hidden costs incurred by trainees of various specialties and grades for postgraduate training.

How much does it cost to fund postgraduate medical education? Have the costs of training increased out of line with salary changes and inflation? How much are trainees spending on exams, compulsory registrations with colleges, courses and organization costs? Are trusts and deaneries providing adequate funding? What proportion of a trainee doctor's salary goes towards further education and career advancement?

In the current economic climate and with major changes to the training and organization of junior doctors, the authors felt it would be invaluable to see how junior doctors are really progressing in their postgraduate medical education and whether money is a major issue. This is especially pertinent with the further changes of the European Working Time Directive, which many argue has decreased the amount of real time, on-the-job training that trainees actually receive, hence forcing them to attend courses and pay hefty fees to gain the skills they are missing out on (Catto, 2002; Chesser et al, 2002; Marron et al, 2005).

Ewen Harrison, the previous vice-president of the Association of Surgeons in Training, highlighted the plight faced by surgical trainees. The Association calculated that the average total cost for a surgical trainee from the beginning of university to the time he/she became a consultant was £413 205 of which £131 397 came from the trainee's own pocket (Harrison, 2006).

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A further indication of the scale of the problem came in late 2007 when the British Medical Association revealed that the real cost of training for junior doctors as a whole had increased by around 80% since 2000 with only a 22% relative increase in basic salary as well as a fall of supplements paid for antisocial hours (British Medical Association, 2007). These figures included the rise in compulsory costs such as General Medical Council membership (35% increase) and the cost of obtaining a certificate of completion of training or eligibility for specialist or GP registration as well as essential training costs such as exam fees. This is even more relevant with the coalition government's announcement in the recent budget of pay freezes for public sector workers including doctors for at least 2 years.

In terms of salary and allocated study leave funding, junior doctors in the UK are paid in part by the postgraduate deanery and in part by the NHS trust for which the doctor is working. The funds provided by the deanery are to ensure the training needs of the doctor are being met; as well as contributing to salaries, they are designed to fund study leave and postgraduate resources such as journal subscriptions and libraries as well as to allow for flexible training. However, the budget for training is limited and rationed by deaneries. The way this money is rationed varies between deaneries and with the grade of the junior doctor applying for funding and to some the whole process can seem like a lottery.

In a statement focusing on surgical trainees Harrison and Shalhoub (2007) identified trainee costs of £2755 for 2 years of basic surgical training and £7905 for 6 years higher surgical training. No comparison was made with other specialties nor was there a breakdown of specific costs. The current study investigated the total costs spent by trainees per year related to their postgraduate training. An assessment of such costs across all grades and specialties was performed identifying

any trends. A further aim was to identify reimbursements received by trainees and any difficulties encountered.

Methods

Following a local pilot study, an internet-based survey was designed and made available online via LimeSurvey. The survey was promoted on the Remedy UK website and also advertised on the forum pages of the Doctors.net website. The questions evaluated all costs associated with training for doctors within the UK from August 2007 to August 2008. The survey was accessible for 4 months. Data were collated and analysed using Microsoft Excel 2007, and a student *t*-test used for comparison of the mean costs (significance <0.05). Relocation and travel costs were analysed separately as they were incurred by a smaller proportion of respondents. *Table 1* shows the questions in the survey.

Results

A total of 413 trainees in the UK from a wide variety of grades and specialties completed the survey. Of these 56.2% were male and 46.8% female. Respondents were categorized as foundation, basic specialty or higher specialty trainees, with other staff including research fellows and other academic positions such as teaching posts. Basic specialty trainees consisted of ST1/2 (now core trainees), including ST3 grades for both paediatrics and psychiatry as these are considered basic training posts. Higher specialty trainees included the Modernising Medical Careers run-through trainees (ST3 onwards) and the previous specialist registrar (including local appointment for training and local appointment for service) posts. *Figure 1* shows the breakdown of respondents according to their grade – over 44% were basic specialty trainees.

Figure 2 shows the breakdown of respondents according to intended career specialty at the time of completing the survey. Just over 30% intended a career in medicine and under a quarter a surgical specialty.

As the foundation programme provides trainees with specific courses built into the programme, in most cases there is a lower or absent study leave budget. Bearing this in mind analysis of mean costs excluded foundation trainees in many cases. The mean cost for respondents excluding foundation trainees during the time period was

£2305.97 (excluding travel and relocation costs) compared with £2178.99 for the total population. The mean total for basic specialty trainees (£2356.51) amounted to 9.0% of the minimum basic salary before tax received by basic or core trainees during 2007–8. The mean total for higher specialty trainees was £2233.19, or 7.6% of

their minimum basic salary before tax during the same year (NHS Employers, 2007).

Figure 3 shows the mean total cost (excluding relocation and travel) according to grade. Minimal variation is seen in the mean total costs between basic and higher specialty trainees, with a significant difference between foundation trainees and other groups. Figure 4 compares mean total costs according to intended career specialties. The highest group by far was the surgical specialties (mean total cost £2921.20), significantly higher than the mean total cost of the population ($P=0.014$). The mean total cost among medical trainees was slightly greater than the group as a whole ($P=0.560$). There was no significant difference between medical and surgical specialties ($P=0.127$). Figure 5 shows the relocation costs associated with training, reported by a proportion of trainees. Over 20% of respondents to this question described costs of over £5000.

Discussion

This is the only study to date assessing the costs associated with postgraduate training across all specialties. The results suggest that a significant amount of money is being spent by trainees as part of their training and career progression. With the changes in working patterns dictated by the European Working Time Directive, banding categories and thus salaries have seen dramatic modifications. Despite this the costs incurred by trainees (some mandatory) continue to rise.

Changes in postgraduate medical education in the UK have led to development of portfolios consisting of workplace-based

Table 1. Survey questions (relating to the period August 2007 to August 2008)

Demographics	Gender	
Current and intended career	Current place of employment (including institution and locality)	
	Year of graduation	
	Job title and specialty between August 2007 and August 2008	
	Intended career or specialty	
Breakdown of trainee expenses	All examinations attempted	
	All conferences attended	
	All courses you attended	
	Postgraduate degree details if applicable and costs incurred in relevant time period	
	Relocation details if applicable and costs incurred in relevant time period and funding made available for this	
	Travel expenses incurred plus amount of reimbursement	
	Details of other related costs not mentioned in previous questions if applicable	
	Work or training-related costs incurred with details. This includes	Publications
		Membership of organizations, e.g. Royal Colleges, British Medical Association
		Other
	Total cost of training between August 2007 and August 2008	
	Proportion of the total cost paid by trainee	
	Proportion of total cost subsidised and by who, e.g. trust, hospital, charity, drug company, research grant, loan	
	Details of any unexpected difficulties when it came to getting costs reimbursed or applying for funding if applicable	

Figure 1. Demographics of respondents by grade.

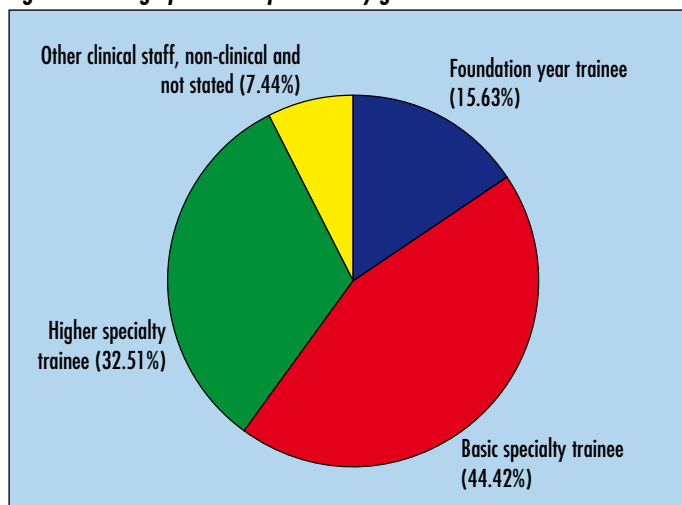
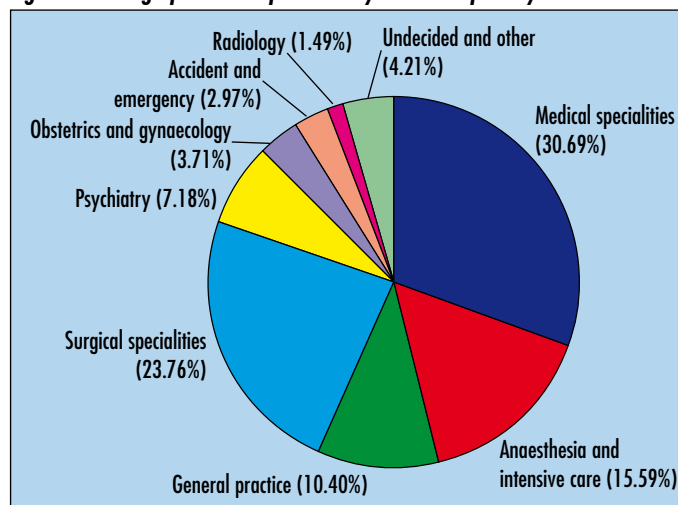


Figure 2. Demographics of respondents by intended specialty.



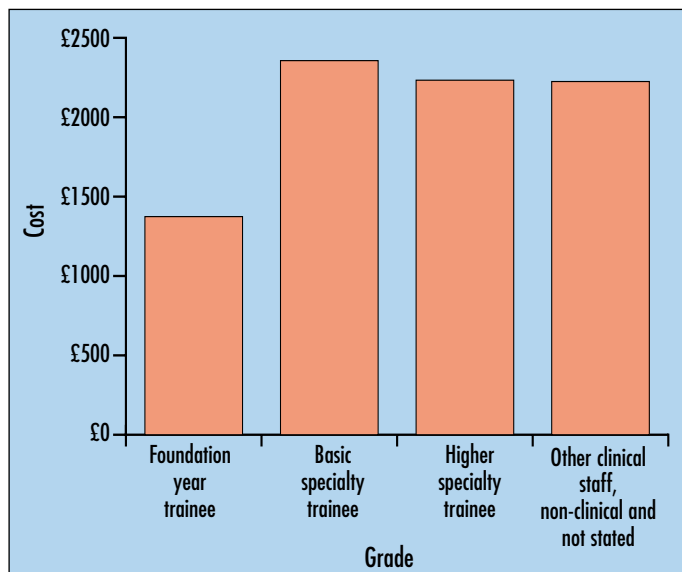


Figure 3. Mean total cost (excluding relocation and travel) according to grade.

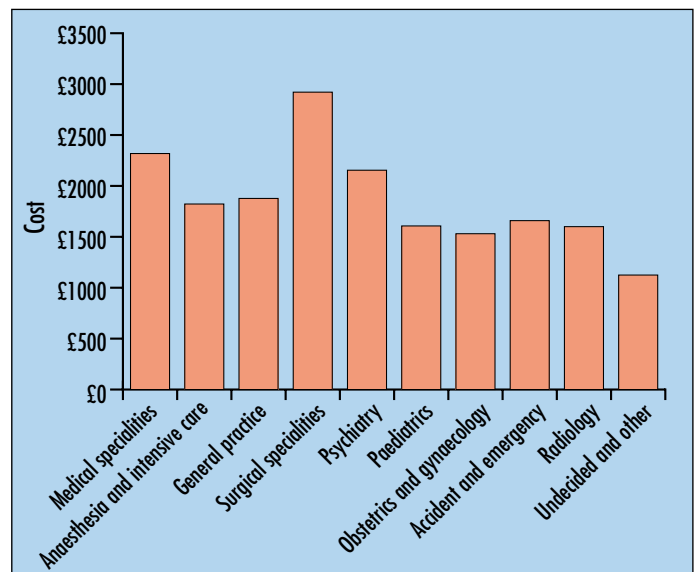


Figure 4. Mean total cost (excluding relocation and travel) according to specialty.

assessments and assessment of competencies. There is greater pressure on junior doctors to attain extra competencies to expand their portfolio, highlighted by the competitiveness associated with the Modernising Medical Careers application process. In a study of foundation doctors, 67.3% claimed they undertook further educational activities primarily to secure specialist training (Keogh et al, 2010). At the same time study budgets offered by trust and deaneries in certain areas continue to fall, with many trainees reporting difficulty obtaining reimbursement.

Exams, courses and conferences made up a large portion of most trainees' costs. Between August 2007 and 2008, 43.8% of basic and higher specialty trainees undertook one exam or more, paying on average £863 for the year, including fees and indirect costs. The costs of membership exami-

nations are considerable and often make up the bulk of overall training costs. Many trainees felt that all exam costs should be paid for by the trusts or postgraduate deaneries in a similar system to that used in New Zealand where the costs are covered by the health board. During the study period 18.4% of respondents attended conferences incurring an average (mean) cost of £623. Trainees felt they were being financially penalized for trying to excel in their field by attending and presenting at conferences.

Of basic and higher specialty trainees, 47.6% attended postgraduate courses during the study period incurring an average (mean) cost of £883 on courses alone. Some trainees raised the concern that part of their allocated study budget was for compulsory courses, even if they had previously attended the course (e.g. Advanced Life Support) and this could not be allocated to other courses. Reimbursement for courses, examinations or conferences was obtained by 32% of basic and higher specialty trainees with a mean value of £420.30. Many trainees experienced difficulties when claiming funding or reimbursement for part of their training, putting a number of them off further application. In addition many trainees were unaware of their entitlements with their trusts and deaneries, and the process of applying.

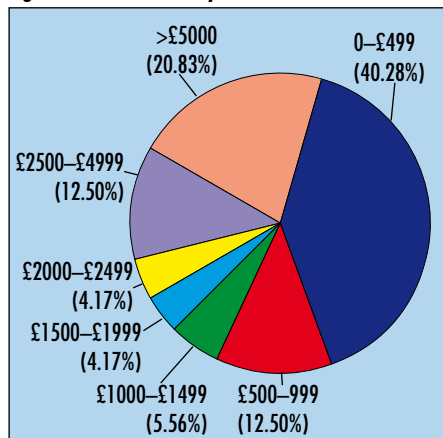
Of the group excluding foundation trainees 11.2% undertook a postgraduate degree (masters or doctorate level) during the time period incurring an average cost of £1948. A significant number of these trainees stated that they undertook their degree because

they were unable to secure a post after the introduction of Modernising Medical Careers and were significantly out of pocket from loss of earnings. Another cohort had to pay for part-time degrees, which were compulsory for their chosen career path.

Another issue which generated strong opinions was relocation. Many felt that with the massive structural changes brought about by Modernising Medical Careers, they have had to relocate more frequently than would otherwise have been the case and often trusts and deaneries do not do enough to ensure that this is as painless as possible for trainees, including providing adequate funding. The removal expenses contract drawn up between the British Medical Association Junior Doctors Committee and NHS Employers states that '...a practitioner should not be financially disadvantaged by reasonable costs incurred through a move in the interests of the service, or to further their training' (NHS Employers, 2009). In some regions such as Scotland, there is a nationally agreed relocation budget of around £8000 in place (excluding foundation doctors) and some survey participants had benefited from this but there have been difficulties in its implementation and availability. The cap in Wales is £3700, but can be claimed by all grades of trainees. There is no such widely agreed plan in England but the national average for most trusts is around £6000.

This figure generally does not include foundation doctors. One must spare a thought for foundation year 1 doctors

Figure 5. Relocation expenses.



where the removal of free accommodation in England, Scotland and Northern Ireland (and now Wales) amounts to an average extra cost of £4800 per annum to add to their financial burdens. This survey found that 17.4% of trainees incurred relocation costs between August 2007 and August 2008, with the mean cost £3119.

There was much animosity among trainees at the cost of joining and maintaining membership of organizations. A particular bone of contention for senior trainees was the vastly increasing costs of the certificate of completion of training fees, rising up to £805 (reduced to £500 in December 2010) and the additional costs associated with the certificate of eligibility for specialist or GP registration, rising up to £1905 (reduced to £1600 in December 2010). Introduction of the Intercollegiate Surgical Programme has led to another cost which many surgical trainees have raised issue with (Jackson and Gibbin, 2006; Pothier and Giddings, 2009).

Comparing the mean total costs among grades, as expected a lower mean total cost was seen for foundation year trainees with interestingly little difference between basic and higher specialty trainees. Comparing the mean total costs among intended specialties, both surgical and medical specialties had higher costs than the others. Surgical trainees had the highest total cost, mostly associated with costs for conferences and courses (core and specialty). Subgroup analysis identified the highest costs to be associated with basic surgical trainees (mean total £3060), significantly higher than the mean for the total population ($P=0.013$). As one would expect the lowest costs were reported by trainees with undecided specialty.

The foundation trainees are an interesting group of respondents. While their curriculum includes all necessary courses for their training, many trainees attended additional courses in order to gain extra competencies. Completion of parts of membership examinations is not advised during the foundation programme and is therefore not funded. However, certain foundation trainees completed parts of such examinations in an attempt to help secure core specialty training posts.

The study has certain limitations. An element of bias within respondents must be acknowledged, as many trainees completing the survey would have had negative feelings toward the costs associated with

their training. The total number of respondents, while from across the country, represents less than 1% of the total population of junior doctors within the UK. The survey was performed during a period of maximum disruption in junior doctor recruitment. The medical training application service led to considerable problems with trainee placement affecting relocation costs. Similarly with the high application to job ratios in many specialties trainees were focussing more on adding to their portfolios with examinations, courses and presenting at conferences.

The cause of such high costs has been questioned. Some commentators have postulated whether this all related to the increased competition for jobs associated with Modernising Medical Careers, or perhaps the additional pressure placed on trainees to expand their portfolios. An important question is whether the changes in training brought on by the European Working Time Directive are causing such a reduction in workplace training opportunities that trainees feel they need to undertake further educational activities outside work to achieve the necessary competencies.

Conclusions

This survey has identified the hidden costs associated with postgraduate medical training for junior doctors in the UK. The impacts of Modernising Medical Careers and the European Working Time Directive on these costs need to be explored to ensure adequate workplace training is provided for trainees. Assessment of trainee competency needs should be regularly evaluated to minimize trainees seeking to fulfil these outside their programmes. Costs related to membership examinations, a requirement for specialty progression, should be funded by the trusts or deaneries at set points in training programmes as occurs in New Zealand.

Further transparency is required regarding reimbursement and study budgets for trainees within both trusts and deaneries so that appropriate applications can be made and resolved within minimum time frames. Given the increased stability in postgraduate training and recruitment since the introduction of medical training application service, perhaps one can hope such costs have altered. However, in reality given the precedent set by the newer application system and continuously increasing focus on trainee portfo-

lios, this may not be the case. Further studies involving a larger number of junior doctors within the country are crucial, particularly in the current financial climate. **BJHM**

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KEY POINTS

- Despite changes in the working patterns of junior doctors the costs incurred by trainees continue to rise.
- This study identified a mean total cost of £2179 incurred by trainees during 1 year.
- Trainees from surgical specialties incurred a significantly higher mean total cost than the mean total cost of the population.
- Transparency about the process of reimbursement and study budgets for trainees within trusts and deaneries is essential.