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Main Article

Covering ENT out of hours: how confident are senior house officers?

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Abstract

Background: The implementation of the European working time directive has led to an increase in cross-speciality out-of-hours cover. This survey illustrates ENT out-of-hours cover arrangements and assesses the implications for senior house officers (SHOs) responsible for managing emergencies.

Methods: A telephone survey of 100 ENT departments was conducted, asking the on-call SHO about departmental structure, on-call rota design, their previous ENT experience, access to SHO training and their confidence in managing emergencies.

Results: 44 per cent of departments used only ENT SHOs on the on-call rota. 73 per cent always had an ENT middle grade on call. In 60 per cent of hospitals, the ENT consultant was sometimes on call with only a non-ENT SHO. At the time of the study, 5 per cent of SHOs had no ENT experience, no access to training, were not confident in managing simple emergencies and were on-call without middle-grade cover.

Conclusion: The current junior on-call structure for ENT has implications for patient management.

Key words: Otolaryngology; Emergencies; Education; UK; Out-of-hours

Introduction

Since the introduction of the New Deal,[1] the provision of out-of-hours hospital care has been a contentious topic. The European working time directive set limits on the on-call commitments of senior house officers (SHOs).[2] This has had implications for the organization of out-of-hours medical cover, particularly in smaller departments with fewer SHOs.

A number of strategies for dealing with this issue have been put in place at some hospitals. An example is the 'hospital at night' service,[3,4] in which a core of doctors and nurse-practitioners cover a wide range of specialties. Other trusts use a cross-cover system between ENT and other specialties.

The level of competence of the on-call doctor in a rapidly changing training environment is an important issue worth debating and studying. This study aimed to assess SHOs' confidence, a potential guide to competence. Factors that were thought to influence confidence were analysed.

Materials and methods

One hundred hospitals in England, Scotland, Wales and Northern Ireland were selected at random from a hospital telephone book. Between 15 May and 28 June 2005, a sole investigator (SD) contacted each hospital's on-call ENT SHO between the hours of 1700 and 2300 and obtained consent to proceed with the questionnaire. The questions listed in Figure 1 were asked of the doctor on duty. There was no prompting in the questioning process.

'Previous experience' was defined as at least six months' experience of ENT obtained prior to the position currently being undertaken. The availability of the middle-grade doctor was defined as being easily contactable by telephone for advice. 'Access to training' was defined as readily available instruction on nasal packing, quinsy aspiration and pope wick insertion, within the current post. 'Confidence' was defined as feeling comfortable performing nasal packing, quinsy aspiration and pope wick insertion, without the supervision of, or contact with, a middle-grade doctor. When the on-call doctor reported 'no confidence', a record was made of the reasons for this.

Previous experience in ENT, a day job in ENT, access to training and the type of cover system employed were all analysed as to their relation to SHO confidence. All results were analysed using Fisher's exact test to determine statistical significance.

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Within which deanery is hospital located?
What is your usual post?
How many ENT SHOs are involved in the 1st on-call rota?
How many non- ENT SHOs are involved in the 1st on-call rota?
How many middle grade doctors are involved in the 2nd on-call rota?
Is middle grade cover always provided?
How many consultants work in the hospital?
Have you obtained six months ENT experience prior to this post?
Have SHOs in your specialty received formal ENT training during this post?
Do you feel confident dealing with epistaxis, quinsies and ear wick placement?
Why do you lack confidence?
What range of specialties are involved in covering ENT out of hours?

FIG. 1
Questions asked of on-call ENT doctors.

Results and analysis

Of the 100 hospitals contacted, ENT out-of-hours cover was supplied solely by the ENT department in 44 (44 per cent) and by a cross-cover system in 56 (56 per cent). Figure 2 shows which specialties contributed to cross-cover systems. Figure 3 illustrates the range of number of specialties involved in cross-covering systems.

Tables I, II and III show all the questionnaire results and all other relevant data, including statistical results.

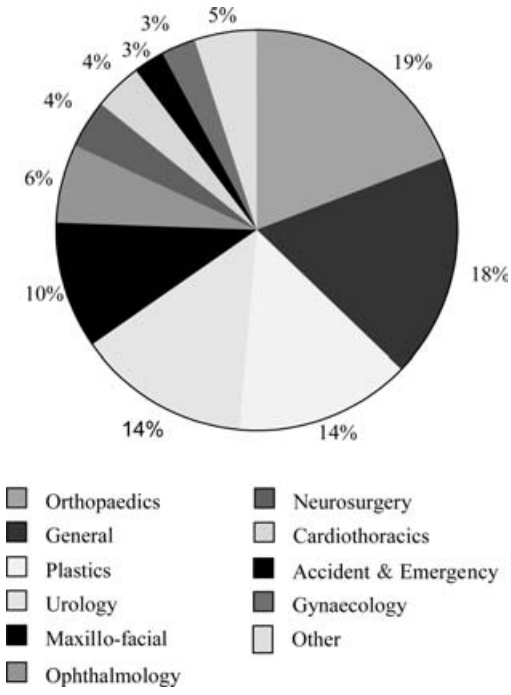

FIG. 2
Specialties employed in cross-cover systems, and frequency of doing so. 'Other' includes haematology, dermatology, general practice and transplant surgery.

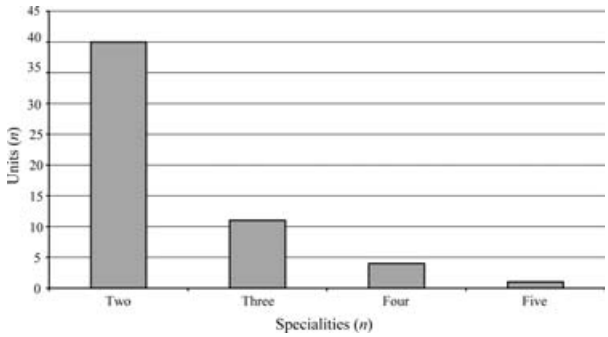

FIG. 3
Number of specialties employed as cross-covering units, amongst the units surveyed.

Discussion

The results can be discussed under two main headings.

Middle-grade cover

Twenty-seven per cent of units did not have middle-grade cover on the night the unit was telephoned. This may reflect changes in working practice to accommodate reduction in working hours. Some units were reported to be in the process of developing a 'no overnight on-call' system for specialist registrars in order to maximize daytime training.

Experience, training and confidence

The lower level of experience amongst SHOs in cross-covering units was expected. However, the lack of access to training in both ENT-run units and cross-covering units was not expected. Reported 'no confidence' was found in 30 per cent of the SHOs interviewed overall. Confidence was lower in the cross-covering units where there were fewer experienced SHOs and less access to training.

Previous ENT experience, having a day job in ENT and access to formal training individually influenced confidence, and this effect was statistically significant. Previous experience was six times more likely to lead to confidence. Working in ENT on a daily basis resulted in nearly five times the amount of confidence expressed by non-ENT doctors. Having access to formal training yielded three times the number of confident SHOs. These findings are illustrated by Figures 4 and 5. It is clear that ENT experience and access to training count in terms of SHO confidence. The triad of no experience, no access to training and no confidence was found in 21.0 per cent of units. This represented 28.6 per cent of cross-covering units as compared with 11.4 per cent of ENT units. Overall, 5 per cent of SHOs reported a triad of no experience, no access to training and no confidence, in addition to no middle-grade cover. This was found in a higher proportion of cross-covering units (5.4 per cent) compared with ENT-run units (4.5 per cent), but the difference was not statistically significant.

The possibility that an SHO with no previous experience and no day-to-day exposure to ENT

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TABLE I

RESULTS FOR ALL UNITS AND BY TYPE OF UNIT

Category	All units ($n = 100$)	ENT-run units ($n = 44$)	Cross-cover units ($n = 56$)
Overall system of cover used (%)	100	44	56
Average ENT SHOs in rota* (n)	4.25	5.4	3.4
Average non-ENT SHOs in rota* (n)	3.25	N/A	5.6
Average middle-grades in rota (n)	4.14	4.3	4.2
Units without continual middle-grade cover (%)	27	31.9	21.4
Average consultants in rota (n)	4.79	5.2	4.5
SHOs with ENT day job† (%)	71	100	27.0
SHOs experienced in ENT† (%)	44	63.6	28.6
SHOs with access to ENT training† (%)	42	45.4	39.3
Non-confident on-call SHOs (%)	30	20.4	37.5
Reason for above SHO non-confidence	Inadequate training (100% respondents)		

*$p < 0.05$ for difference in means between ENT-run units and cross-cover units (t-test). †$p < 0.05$ for difference in proportions between ENT-run units and cross-cover units (Fisher's exact test). N/A = not applicable; SHO = senior house officer

TABLE II

TYPES OF INADEQUATE COVER, BY UNIT

Category	ENT-run units ($n = 44$)	Cross-cover units ($n = 56$)
SHOs with no experience, no access to training and not confident* (n)	5 (11.4%)	16 (28.6%)
SHOs with no experience, no access to training and not confident, plus no middle-grade cover (n)	2 (4.5%)	3 (5.4%)

*$p < 0.05$ for difference in proportions between ENT-run units and cross-cover units (Fisher's exact test). SHO = senior house officer

TABLE III

ANALYSIS OF CONFIDENCE AND IMPORTANCE OF ASSOCIATED FACTORS

Factor	Confidence		OR (95%CI)	Adjusted OR* (95%CI)	p*
	Yes n (%)	No n (%)			
Formal training					
Yes	35 (50.0)	7 (23.3)	3.3 (1.2–8.6)	3.0 (1.0–9.3)	0.05
No	35 (50.0)	23 (76.7)			
Prior experience					
Yes	39 (55.7)	5 (16.7)	6.3 (2.2–18.3)	6.0 (1.9–19.6)	0.003
No	31 (44.3)	25 (83.3)			
ENT day job					
Yes	58 (82.9)	13 (43.3)	6.3 (2.4–16.4)	4.8 (1.7–13.7)	0.003
No	12 (17.1)	17 (56.7)			
Unit					
ENT	35 (50.0)	9 (30.0)	2.3 (0.9–5.8)	†	N/A
Cross-cover	35 (50.0)	21 (70.0)			

*Value adjusted for all other variables using a stepwise regression model. †Variable not included in the final model because difference was not significant; additional variables (average number of ENT senior house officers (SHOs), non-ENT SHOs, middle-grades and consultants in rota) were also removed for non-significance (i.e. $p \geq 0.05$). OR = odds ratio; CI = confidence intervals; N/A = not applicable

should be responsible for managing night-time emergencies is of concern. The source of the problem may be traced back to medical school training.[5] In Mace and Narula's survey of 27 medical schools,[6] only 78 per cent had a compulsory ENT attachment, with only 58 per cent of students undertaking a formal assessment at the end of the placement. The average length of attachment was one and a half weeks. Fifty-eight per cent of ENT attachments were combined with other specialties, including dermatology, ophthalmology and neurology. The lack of experience in working practice may be compounded by lack of exposure at medical school. The focus at medical school ought to be directed at maximizing experience.

It was interesting to note that 'inadequate training' was cited by some as their reason for not feeling confident, despite the fact that experience was statistically more important. The introduction of a nationwide basic ENT training programme needs to be considered for all those responsible for covering ENT out of hours. This should build upon experience gained at medical school, test any gaps in understanding and develop confidence.

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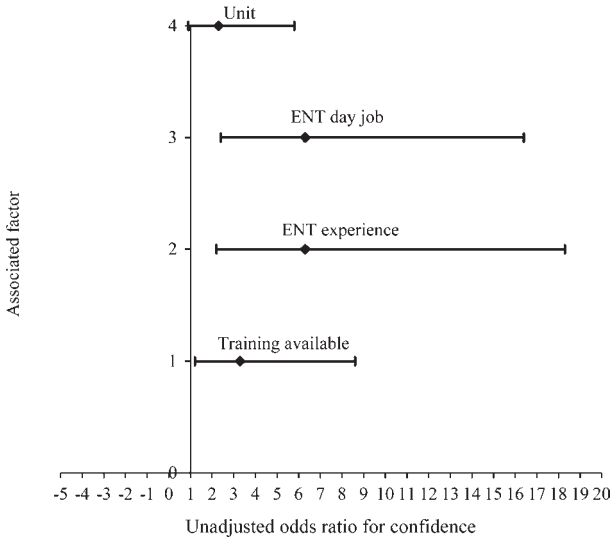

FIG. 4
Unadjusted odds ratios for confidence, for associated factors.

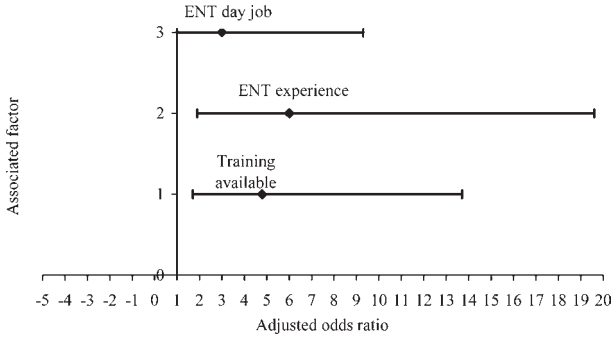

FIG. 5
Adjusted odds ratios for confidence, for associated factors.

Conclusions

There is little in the literature that focuses directly on assessment of junior doctors providing out-of-hours ENT cover. This study showed a shortfall in SHOs' access to training and reported confidence. Experience, training and working in ENT each led to increased confidence; experience had the greatest effect. Place of work did not seem to make a difference.

The results of this study represent a snapshot of the level of confidence amongst SHOs covering ENT out of hours. However, these findings may provide valuable data for the ongoing process of evaluation of junior doctors' work, particularly of positions involved in specialty cross-cover out of hours. Furthermore, the issues raised may add to the debate on which specialties should co-operate in cross-cover. The authors accept that a more accurate reflection requires a larger study.

- **This paper reports the results of a survey of UK resident hospital doctors providing first-line emergency care of otolaryngology patients**
- **A significant number of senior house officers (SHOs) covering ENT out of hours were not confident, and felt that inadequate training was the sole cause of this**
- **Confidence was improved by previous experience, an ENT day job and access to training. Five per cent of units surveyed had an inexperienced on-call SHO who was not confident and had no access to either training or middle-grade cover**

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