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MAIN ARTICLE

The ENT emergency clinic: does senior input matter?

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Abstract

Background: Many ENT conditions can be treated in the emergency clinic on an ambulatory basis. Our clinic traditionally had been run by foundation year two and specialty trainee doctors (period one). However, with perceived increasing inexperience, a dedicated registrar was assigned to support the clinic (period two). This study compared admission and discharge rates for periods one and two to assess if greater registrar input affected discharge rate; an increase in discharge rate was used as a surrogate marker of efficiency.

Method: Data was collected prospectively for patients seen in the ENT emergency clinic between 1 August 2009 and 31 July 2011. Time period one included data from patients seen between 1 August 2009 and 31 July 2010, and time period two included data collected between 1 August 2010 and 31 July 2011.

Results: The introduction of greater registrar support increased the number of patients that were discharged, and led to a reduction in the number of children requiring the operating theatre.

Conclusion: The findings, which were determined using clinic outcomes as markers of the quality of care, highlighted the benefits of increasing senior input within the ENT emergency clinic.

Key words: Ambulatory Care Facilities; Otorhinolaryngology; Emergency Care

Introduction

The ENT emergency clinic provides a rapid access service for the management of straightforward, non-life-threatening conditions.[1] Most ENT emergency clinic patients can be managed on an ambulatory basis, thereby avoiding unnecessary admissions[2] and enabling beds to be reserved for those requiring in-patient care. However, the appropriate management and avoidance of admission requires a certain amount of knowledge, skill and experience.

Senior input has been shown to be effective in improving patient care. For instance, there was a 70 per cent reduction in appointments when all patients attending the ENT emergency clinic for a second presentation were reviewed by a senior member of the ENT team.[3] In addition, accident and emergency (A&E) patients that are reviewed by a more senior doctor are less likely to re-attend, and subsequent additional clinical appointments are avoided.[3]

Recent changes in the training of junior doctors and the implementation of working time regulations, especially the 1993 European Working Time Directive,[4] have resulted in an overall reduction in the level of experience of junior doctors.[5] The European Working Time Directive was introduced as a health and safety measure, but the general reduction in working hours has led to concern that the training of junior doctors may be adversely affected.[6] The ENT emergency clinics, which operate alongside out-patient clinics, were once run by relatively experienced senior house officers (SHOs), but are now the domain of less experienced doctors, that is, doctors in foundation year two, and core trainee and specialty trainee doctors in years one and two. These doctors are likely to have less medical experience in general, and this, coupled with limited undergraduate ENT exposure, means that many will be less confident when managing ENT problems.[7]

In response to the generally lower level of experience amongst doctors on the first tier of the emergency rota, our department introduced greater registrar presence in the emergency clinic. The registrars were freed from other elective commitments on a rotational basis, thus giving them more time to see patients in the emergency clinic, to support more junior trainees and to train doctors new to ENT. This period was defined as the 'hot week'. In this registrar-led service, the senior doctor was immediately available for advice and supervision, unlike the previous system led by the SHO, wherein the requirement of senior help necessitated pulling a registrar from an adjacent clinic.

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During the hot weeks the registrar would carry the on-call pager, take referrals, and offer telephone advice to general practitioners, the local community and the hospital. Other duties included the day-to-day review of all ENT in-patients in order to preserve the continuity of care that had been lost at the junior level by the introduction of shift systems, and overseeing the emergency operating theatre. Importantly, by freeing the registrar from their normal work timetable, the registrar was available to provide full support in the ENT emergency clinic and supervise the more junior doctors as necessary.

In order to examine the effect of greater registrar support on the emergency clinic, the rates of admission and discharge (used as markers of the quality of patient care) were compared before and after the institution of a registrar-led service.

Materials and methods

Data was collected prospectively for all new patients seen in the ENT emergency clinic at our institution between 1 August 2009 and 31 July 2011. Two time periods were compared: period one, which included data from patients seen between 1 August 2009 and 31 July 2010, and period two, which comprised data collected between 1 August 2010 and 31 July 2011. These time periods were representative of a junior doctor and a registrar-led service, respectively. The following outcomes were assessed: patient discharged without admission or further follow up (for which the response was either 'yes' or 'no'), any type of admission required (yes or no), immediate admission required (yes or no), and necessity for the operating theatre (yes or no). Data were analysed using the Statistical Package for the Social Sciences version 19 statistical software program (SPSS Inc, Chicago, Illinois, USA).

Results

Of the 6878 patients studied, 3371 were in period one and 3507 were in period two. There were 1576 (46.8 per cent) females in period one and 1544 (44.0 per cent) in period two. Comparisons between the two time periods (in terms of rates of complete discharge, any admission, immediate admission or requirement of the operating theatre) are presented in Table I and Figures 1 and 2 (all patients). Table II and Figures 3 and 4 show the results for these outcomes in children (aged less than 18 years). The findings reveal that the introduction of greater registrar support led to a statistically significant rise in the number of patients completely discharged, and a significant reduction in the number of children requiring the operating theatre.

TABLE I
PERIOD 1 VERSUS PERIOD 2 FOR ALL PATIENTS*

Outcome	Difference (% (p value))
Discharge	↑3.7 (0.001)
Any admission	↓1.0 (0.116)
Immediate admission	↓0.9 (0.228)
Operating theatre	↓0.6 (0.070)

*For all 6878 patients. ↑ = increase; ↓ = decrease

Discussion

This study compared rates of admission and discharge in the junior doctor led ENT emergency clinic with those in the registrar-led emergency clinic. Using clinic outcomes as measures of performance and clinical care, we found that patients were more likely to be discharged when the registrar-led service was in operation, compared with when more junior doctors were practising with less supervision. In addition, children were less likely to require transfer to the operating theatre when the registrar-led clinic was in place. The ability to review a patient and treat or discharge without follow up is a skill that is obtained with experience, and this is reflected in the fact that registrars were more likely to achieve this.

No differences were observed in the need for immediate admission. This may be explained by the fact that registrars would have been consulted regarding all severe acute admissions, even when the less experienced junior doctors were running the clinic. Inappropriate admission can form a considerable bulk of in-patient work.[8] Recent evidence suggests that reviews by senior doctors can reduce in-patient admissions to emergency departments by 11.9 per cent.[9] This finding was not seen in our study; however, this discrepancy may be due to the fact that, even prior to changes in the conduct of the emergency clinic, there was a strong horizontal hierarchical culture in our department that encouraged the junior team members

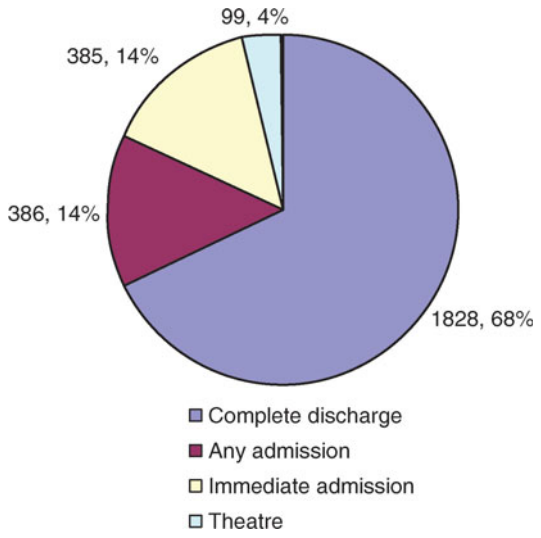

FIG. 1
Outcomes for all patients in the junior doctor led ENT emergency clinic (period one). Data values represent numbers and percentages of patients.

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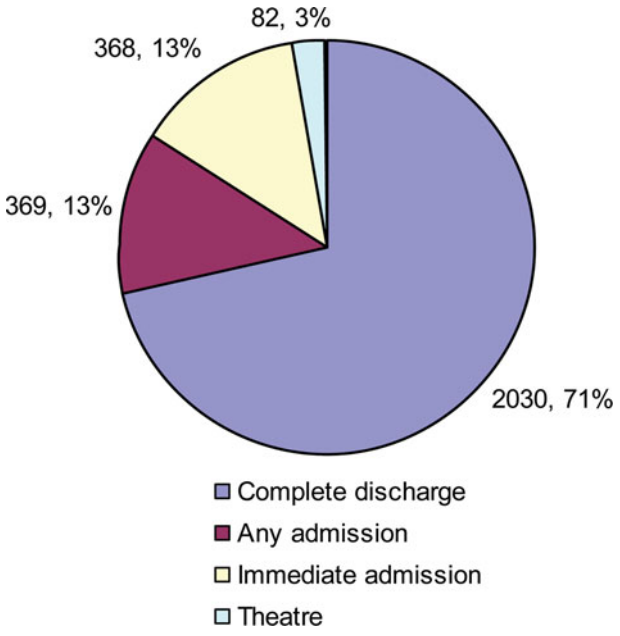

FIG. 2

Outcomes for all patients in the registrar-led ENT emergency clinic (period two). Data values represent numbers and percentages of patients.

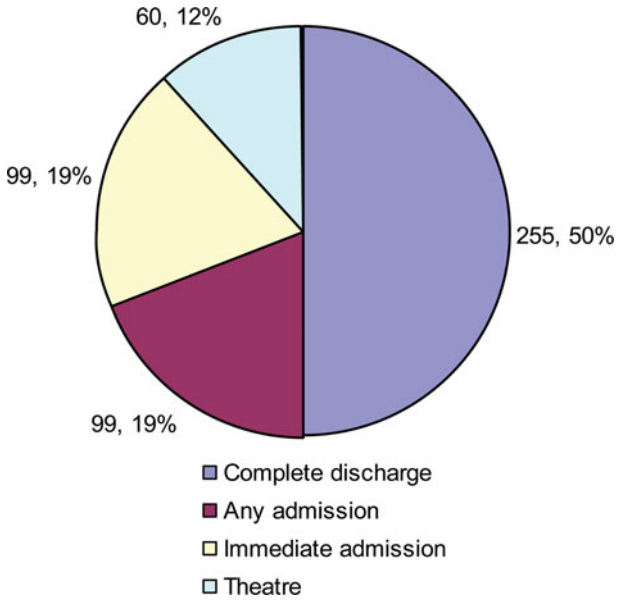

FIG. 3

Outcomes for paediatrics in the junior doctor led ENT emergency clinic (period one). Data values represent numbers and percentages of patients.

to discuss any patient that may require admission with any available experienced doctor.

The registrar-led clinic also reduced the need for children to be dealt with in the operating theatre. A possible explanation for this is the frequent presentation of foreign bodies in the noses and ears of children. Many of these can be removed in the clinic by an experienced doctor, especially if they are involved early on in the child's care. An inexperienced doctor is more likely to fail at this initial attempt and, not wishing to cause the child further distress, is more likely to enlist the child for the operating theatre.

Study limitations

This study used admission and discharge rates as indicators of the quality of patient care. Whilst this assumes that a patient that was treated and discharged was managed well, the converse may also be a possibility, that is, patients which should have been followed up or admitted were in fact discharged. This study did not examine repeat presentations of the discharged patients. However, the authors feel that junior doctors tend to be overcautious rather than incautious, and that unnecessary admission and follow up are larger issues than inappropriate discharge. This is in keeping with the results of White *et al.* (2010), who demonstrated that inappropriate admission rates (7.2 per cent) were more common than inappropriate discharges (6.2 per cent) from A&E junior doctors.[9]

Although admission and discharge rates are relatively crude measures of clinical care, they do have the advantage of being readily available, as this data

TABLE II
PERIOD 1 VERSUS PERIOD 2 FOR PAEDIATRICS*

Outcome	Difference (% (p value))
Discharge	↑7.4 (0.008)
Any admission	↓1.9 (0.227)
Immediate admission	↓1.9 (0.227)
Operating theatre	↓3.8 (0.022)

*For the 1110 paediatrics only. ↑ = increase; ↓ = decrease

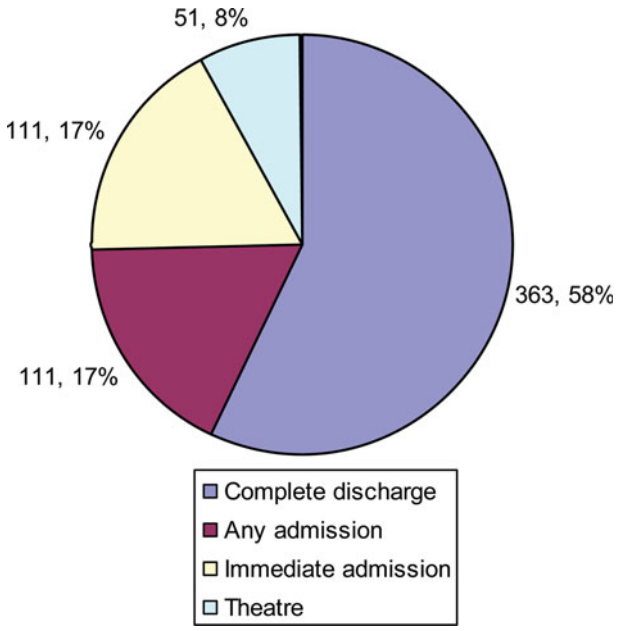

FIG. 4

Outcomes for paediatrics in the registrar-led ENT emergency clinic (period two). Data values represent numbers and percentages of patients.

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is routinely collected. Admission and follow-up rates are also of interest to the Trust and local commissioners who, in striving to provide efficient care, are keen to preserve secondary care for those that cannot be managed in the community. Fewer unnecessary follow-up appointments ensures that more clinic appointments are available for new attendees, whilst appropriate treatment at the first visit minimises the inconvenience to patients of having to revisit hospital to seek another opinion.

A number of alternative methods of measuring the quality of care are available. The quality of a patient's clinical care can be assessed by examining specific notes that are subjectively assessed and reviewed on a case by case basis, or specific criteria can be used to mark a patient's care based upon an agreed set of guidelines.[10] There are merits to both, but the efficiency of triage for ENT patients is often overlooked. For patients presenting with foreign bodies, appropriate care is represented by the quick and easy removal of the object. For those with otitis externa, aural toilet and local medical treatment with advice about avoiding instrumentation and keeping the canal dry often help. Common to almost all of these presentations is the possibility for 'one-off' ambulatory treatment, and for this reason the rates of discharge or admission may be an appropriate marker of good ENT care in the emergency clinic.

Data used in this study were entirely collated from clinic outcome records that were recorded prospectively at the time of clinic appointment. Whilst this method is a quick and straightforward method of collecting data, a review of clinical entries made by physicians would provide additional and complementary information. Clinical entries of interest may include exact diagnosis and management plan, the exact training level of the consulting doctor, and the amount of senior support required. Although time-consuming to assess, the addition of these variables may provide a useful perspective for future similar studies.

The fact that registrars were freed of their regular commitments in order to participate in the emergency clinic initially led to concerns about what effect this may have on registrars' training. However, our experience suggested that these changes had a positive effect on both registrars' working conditions and training: they had more time to see emergency patients and were able to learn from such cases themselves, whilst at the same time being free to join their teams in a purely learning supernumerary capacity when the emergency workload was light. Registrars not on hot week were not interrupted by emergency-related calls. In addition, as there were a satisfactory number of doctors on the registrar rota, disruption to elective clinics and operating theatres was minimal and contributed positively to the registrars' education. Most importantly, the availability of a registrar ensured the continued commitment of an excellent patient service, and indeed, this is where our clinical priorities should lie.

Recent changes in junior doctors' experience levels

Ear, nose and throat emergencies constitute a considerable workload for the junior doctor, although most cases can be safely and appropriately managed in an open access emergency clinic.[11] Their management, however, is dependent upon the knowledge and expertise of the clinician, and many current junior doctors are less experienced than previous cohorts following the introduction of the European Working Time Directive medical reform.

Surgical specialties appear to be the most concerned about changes to working hours.[12] In one survey, 90 per cent of surgical trainees felt that revised working patterns had significantly hindered their training.[5] Within ENT, this may be compounded by undergraduate inexperience; as recent surveys suggest that mean undergraduate ENT exposure was only 3.5 pre-clinical and 5 clinical days.[7,13] With such concern over training, the traditional roles and responsibilities of the junior doctor have come under question, which includes their role within the ENT emergency clinic.[14]

Methods of overcoming junior doctor inexperience

Our institution has addressed the relative clinical inexperience of junior doctors in several ways. New doctors are trained by way of an informal introductory meeting led by the administrative registrar, followed by a formal 2-day course approved by the Royal College of Surgeons. This short course, which is accompanied by a comprehensive book written by practising registrars, not only teaches the management of basic and everyday ENT emergencies, but also holds smaller workshops where fundamental skills such as the use of an otoscope, microscope and flexible nasendoscopy are taught. By addressing clearly defined outcomes, using an array of different speakers, and making use of small groups and ancillary materials, this course provides an excellent learning experience for the ENT novice.[15]

- **Evidence suggests that senior doctors provide better clinical management of patients**
- **Most acute ENT pathology can be managed on an ambulatory basis**
- **The inexperience of junior trainees affects confidence in patient management**
- **This study examined the effect of registrar support on ENT emergency clinic outcomes**
- **Registrar support led to increased patient discharge rates, and a reduction in children requiring the operating theatre**
- **Greater senior doctor support was beneficial to patient management**

In addition to the introductory course, which is completed in the first week, each new trainee spends time

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in the emergency clinic under the supervision of the hot week registrar. Following this period, their practice is unaccompanied but remains closely supervised, with the hot week registrar either in the emergency clinic or easily available.

Addressing the lack of clinician experience in ENT is crucial to improving patient care. Efforts could also focus on education, by generally increasing undergraduate exposure, undertaking formal assessments where none currently exist, and meeting the repeated requests of students[7] for greater and improved special study modules. However, this is a sizeable venture, and ENT is just one of many specialties competing for exposure in the undergraduate curriculum. It has been difficult to assign time for ENT teaching in the medical school curriculum in spite of written requests to undergraduate deans by the British Association of Otorhinolaryngology Head and Neck Surgeons.

Conclusion

The introduction of greater registrar support within the ENT emergency clinic led to a greater proportion of patients being treated and discharged without follow up, and fewer children were listed for the operating theatre. Using clinic outcomes as indicators of the quality of care, these findings highlight the benefits of increasing senior input within the ENT emergency clinic. The introduction of a hot week registrar who was dedicated to overseeing emergencies as well as the continuity of care of in-patients was helpful in supporting junior doctors whose level of experience was lower than in previous years, primarily as a result of the European Working Time Directive.

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