

Activities of accident and emergency consultants—a time and motion study

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Abstract

The work of an accident and emergency (A&E) consultant is not clearly defined. There is difficulty in fixing a job plan due to the unpredictable workload. This study shows the daily activities of nine consultants in A&E over a one month period. The results suggest that A&E consultants vary tremendously in the content of their working day, although a large proportion of hours is spent on administrative duties in all cases. Predictable variations occur between a single handed clinical director who spends 60% of his time in management and the consultant in a multiconsultant department who spends 74% of his time in clinical care and teaching. None of the consultants studied spent more than 48% of their time in clinical contact. A&E remains a specialty with no consistency between activities of consultants, and where opportunities exist to pursue special interest. Training must ensure adequate attention to management and methods of support for new consultants in their management role must be found.

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There is no accepted definition of an accident and emergency (A&E) consultant's job plan, although the British Association for Accident and Emergency Medicine (BAEM) has recently circulated recommendations.¹ Many trainees are curious about the activities of their consultants and the perception sometimes exists of a predominance of meetings and administrative duties, particularly where consultants work single handedly or as a pair. Furthermore, the time allocated to different tasks can be expected to vary between consultants according to the nature of the department and the catchment population they serve. For instance, the workload and casemix for an inner city department may vary considerably from that of a more rural small district general hospital's department. This study is a time and motion study of nine A&E consultants who work in quite different departments. It demon-

strates the variation in their activities and the opportunities for individual consultants to develop their own interests within the specialty.

The aim of the study was to compare the work practices of nine A&E consultants working in different A&E departments and to investigate the degree of commonality of work practices.

Method

Eleven randomly chosen A&E consultants from different types of A&E departments were invited to participate in the study. Two were unable to take part. The participating consultants were asked to keep a work based diary for the month of June 1998. The diary required them to record, in half hour aliquots, the work related activities in which they engaged for the entire waking day. They were asked to be as specific as possible as to the nature of the activity, who they were with, and in which context the activity took place. A brief description of the department in which they work, including the number of consultants and the local on call rota was also documented as well as their contractual hours.

Data were collected by each consultant. Activities were then classified by the author into the following broad categories: clinical, management, staffing related activities, teaching, research, and medicolegal work. An additional category of meetings encompasses all meetings whatever the business of the meeting, excluding educational meetings. Individual subdivisions of the meeting hours were retained for later analysis. An Excel spreadsheet was used to collate and analyse the data.

Results

Nine consultants participated in the study. The characteristics of their department and contracts are shown in table 1. Two consultants worked flexible rotas from week to week but were contracted for six and seven sessions respectively. All nine consultants worked in departments with approved senior house officer posts and eight consultants had at least one specialist registrar.

The month of June 1998 consisted of 22 working days and eight weekend days. If each

Table 1 Description of consultants' contracts

	Consultant								
	1	2	3	4	5	6	7	8	9
No of consultants in department	1.6	2	7	2	3	1	3	2	3.5
No of contracted sessions	7	11	11	11	11	11	11 (senior lecturer)	11	6
On call commitments	1 night/week	1:2	1:7	1:2	1:3	1:1	1:3	1:2	1 night/week
Late shifts worked?	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes

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Table 2 Description of activities by percentage of total time

Type of activity (%)	Consultant								
	1	2	3	4	5	6	7	8	9
Clinical	30	18	21	35	48	15	32	40	29
Administration	15	19	12	26	12	28	15	20	17
Staffing	4	1	10	2	5	3	1	0	0
Teaching	10	36	38	15	26	17	13	14	23
Meetings	30	15	16	7	8	32	5	7	7
Research	10	11	3	9	1	1	32	14	24
Reports	1	0	0	6	0	5	2	5	0

full time consultant worked their 11 sessions per week, the notional hours expected to be worked for an individual consultant would be 170 hours in the month. The results show that all participants were doing somewhere between 2% and 47% extra hours on top of the notional contracted hours. All consultants engaged in out of hours working, the average time spent being 14% of the total, with a range of 2%–27% of time being spent out of hours.

The mean length of the day worked, in hours, was nine with a range of 8–12 hours. There was some discrepancy in how the work was recorded, some individuals recorded considerable time spent at home perusing journals as working, whereas others have not recorded this time as time spent in work related activities.

The average time spent in clinical activities was 30% of total time with a range of 15%–48% of total hours. At least 50% of this time was “hands on” contact with new patients, and 20% of this time was in review clinics. Only three individuals spent more time supervising than seeing patients directly (mean time direct contact 28 hours, range 6–67 hours, mean time supervising 8 hours, range 1–12.5 hours). Not surprisingly perhaps, given the relative infrequency of major trauma and cardiac arrests relative to the total attendances, the amount of time recorded seeing patients requiring resuscitation was very low, with some consultants not recording any time. The maximum percentage of clinical hours spend seeing resuscitation patients was 26%, equating to nine hours out of a total of 166 hours worked.

Time spent alone involved in administration in the office accounted for 12%–28% of the total hours, the clinical director spending the biggest proportion of time in duties and those in multiconsultant departments the least. The two part time consultants each spend around 15% of their time in administrative duties.

The mean proportion of hours spent in meetings was 14% (range 5%–32%) with the clinical director spending 32% of his time in meetings. The subject of meetings varied, but every consultant was involved in staff, hospital business, and departmental meetings. Those heavily committed to education spent significant proportions of time in education related meetings, whereas other consultants were particularly involved in hospital clinical meetings.

If the number of hours spent in meetings is added to the administration hours (regardless of the nature of the meeting) then proportions rise to 20%–60% of total time (mean 33%). Again the consultant spending the most cumu-

lative time in administration and meetings was the single handed clinical director.

Teaching and education related work amounted to an average of 21% of time worked. This category produced the biggest variation. Five consultants spent 17% or less of their time teaching, while three (in teaching hospitals) spent 27% or more. One of the part time consultants spent 23% of her time teaching. The teaching environment varied widely, for example, one consultant spent most (75%) of his teaching time with senior house officers, while two others spent the majority with medical students (26%–27%). Three consultants instructed on one or other of the Advanced Life Support courses within the month studied.

Interestingly all consultants spent some time in research, audit and continuing medical education (CME), the maximum time being spent by the senior lecturer who recorded 32% of his hours involved in research. Other consultants spent considerable time either on audit (5%) or CME (18%).

Less than 3% of the total time on average was spent in medicolegal reports, and four participants did not record any time on medicolegal work.

Table 2 shows the breakdown of total hours for each consultant in each category.

Discussion

The BAEM has circulated advice on job plans which identifies a maximum number of fixed sessions, in order to accommodate the unpredictable workload.¹ This document also gives a recommended outline of the distribution of hours, in which it is recommended 47% of the 40 hour week is spent in “work in the department” and 21% on management, committees, and administration. This is different to the documented activities of the majority of the consultants in this small study. Previous papers have suggested that there are five areas within a consultant’s work: administration, diagnosis, resuscitation, teaching, and liaison with other services and the community.² This study has identified additional activities such as staffing, research, reports, audit, etc. These are particularly relevant in the light of current developments such as clinical governance with the need for continuing professional development and evidence based medicine. This study also specifically included day to day management of all types of patients in the diagnosis category as well as the assessment of seriously ill and injured patients.

A recent study has looked at the activities of emergency department personnel in the United States but this only addressed activities during a clinical shift, did not look at activities unrelated to the “shop floor”, and was a study from a quite different health care system.³ Academic emergency physicians represent a small group of American emergency physicians. Most emergency physicians in the United States are clinically based and may spend as much as 90% of their time in supervision.⁴ This contrasts with our study, which showed a considerably smaller proportion of time. The

apparent paucity of time spent in resuscitation in our study may be a recording issue, where consultants did not indicate resuscitation as distinct from other direct clinical contact.

Administrative duties and research time is also timetabled separately from clinical duties.⁴ A separate study of family practitioners showed that university based faculty were more likely to have protected time for scholarly activities than those in the community.⁵ In addition, studies have looked at the total time spent teaching by faculty in a university department of medicine and the relevant reimbursement. One paper showed that faculty were likely to have contributed around 245 hours per year in teaching, over 75% of which was to house staff.⁶ Our study showed that the mean hours teaching or engaged in meetings regarding teaching, over a year, would be 450 hours, and that of this 42% was with reference to departmental staff, nurses, senior house officers, and registrars. The mean time spent in CME in our study was five hours in one month, contrasting with a Canadian study where 80–100 hours were spent annually in CME.⁷

In 1994, Wyatt published a similar breakdown of the work of a single A&E registrar over a one year period, and found that only 4% of his total hours involved teaching, research, or administration.⁸ This paper recommended tailoring training and experience to the expected work pattern of the consultant. Clearly, documentation of one year may not represent the full spectrum of activities a specialist registrar can expect to engage in over the training period. However, if the results of this consultant study are representative of most A&E consultants, then in service training needs to be adapted to incorporate more time for training and supervised experience in areas other than clinical management of patients.

This limited study serves to show the wide variety in work interests of emergency physicians, and documents the flexibility of the specialty. There is a wide but predictable discrepancy between the commitment to administration and meetings of a single handed clinical director compared with a consultant working in a multiconsultant department in a teaching hospital. The ability to develop a personal interest may be illustrated by the diversity of the amount of time spent, for example, on teaching or the nature of meetings attended.

This study shows that many consultants, whatever their interests, are unable to spend much time on clinical activities. The maximum recorded direct patient contact was 48%, or 90 hours, which compares favourably with the trainee time spent and the recommendations issued by the BAEM. However, other consultants spent a considerably smaller proportion in clinical activities. There is very little time recorded in supervisory patient contact rather than “hands on” patient contact. This does not take into account any supervision that occurs while administrative tasks are completed, by virtue of an open door access to the consultant’s office. This may be a recording error or may reflect the pressure of work in departments. However, it is clear that currently, even

in multiconsultant departments the demands on an A&E consultant’s time for management as well as teaching results in relatively little time being spent with patients.

Only two consultants spent much time in medicolegal work. This may be due to the relatively young cohort who volunteered, all participants being five years or less in post. Interestingly two consultants who were more senior, although they initially volunteered to participate, were unable to complete the study. Alternatively it may be that some performed medicolegal work in the non-work time, and therefore did not record this.

In terms of personal wellbeing it was interesting to note that only one consultant recorded going to lunch as an activity in itself. It would appear that all others combine these personal maintenance activities with work related activity such as letter writing and other administrative duties. In contrast, the American study showed personnel spent 21% of the study period in personal activities.

There are some individual anomalies, such as the difference in recording of time spent reading journals. The study was informal, consultants were specifically asked to record activity while at work, and it may be that the other individuals simply did not record this item. It is unlikely that there was no other consultant who reads any journal. For this reason, detailed analysis is not possible and we cannot draw specific conclusions. A repeat or larger study would benefit from including this category specifically.

Conclusions

The results of this small and informal study show that there is great variation in the way the participating A&E consultants spend their time. The consultants who participated are all relatively young and have been through a full training programme. Their activities could be expected to be representative of the activities that will be expected of future consultants. The relatively low proportion of time spent in direct patient care confirms the perception that administrative and other non-clinical activities consume a significant proportion of the A&E consultant’s time. However, it is of interest to see the variety of work practice and to confirm that A&E is a specialty in which consultants can create their own job plans and pursue their own interests tailored to the needs of an individual community and department. The large proportion of time spent in management reinforces the need both for training in management issues but also for support in the early days of a new consultant appointment.

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