

How much of a doctor's on-call shift is spent searching for equipment and paperwork? A mixed methods study

Authors: Heather Milne,¹ Miles Rogers,¹ Jesse Blum,² James Pinchin² and John Blakey¹

'Out-of-hours' care (anything outwith 5pm–9am Monday–Friday) accounts for 75% of the NHS working year and recent health policy debates suggest that workforce planning at these times may need revising. However, informed decisions are difficult without detailed information on how doctors' time is spent. Most doctors in hospital 'out of hours' (on call) are in training grades. These junior doctors anecdotally report that time for direct patient care is compromised by organisational inefficiencies such as time wasted searching for equipment and paperwork.

Aims

This study of the time that junior doctors on call spend searching aimed:

- 1) to record the total amount of time searching
- 2) to identify barriers and facilitators to finding equipment and notes
- 3) to explore doctors' perceived hindrances to out-of-hours work.

Methods

The study employed a mixed methods design at two UK teaching hospitals. Structured observations using bespoke software on a tablet PC recorded the time that junior doctors spent searching while on call. Semi-structured interviews explored junior doctors' perceptions of hindrances to their on-call work. Process analysis recorded the proportion of notes in the notes trolley and the time to find and prepare cannulation equipment across wards. Spatial and organisational barriers and facilitators to locating equipment were noted.

Results

In 50 hours of structured observational data, doctors often multitasked. The largest proportion of time (59.5%) was spent 'looking at notes' and 16.7% of time was spent in direct patient care. 13% of time was spent searching (approximately 30 minutes of a 4-hour period), with 'searching for paperwork'

and 'searching for equipment' accounting for the majority. Process analysis showed that the time to find, prepare and dispose of cannulation equipment ranged from 206 to 480 seconds across wards. Having no standard layout for equipment drawers and code-lock doors increased the time taken, while printed guides to help locate equipment expedited the process. At interview, doctors identified hindrances across three themes: organisational (such as day jobs spilling over into nights); interdisciplinary working (such as handovers); and searching, which they described as one of their 'biggest frustrations'.

Conclusions

Our structured observation adds detail to previous findings that indirect care consumes the largest proportion of doctors' time on-call and suggests that doctors spend longer searching than previously estimated. Interviews and process analysis highlighted organisational and interdisciplinary factors which help explain why such a large proportion of junior doctors' time was spent searching. Addressing these factors may improve both efficiency and junior doctors' job satisfaction. ■

Authors: ¹The University of Liverpool, Liverpool, UK; ²The University of Nottingham, Nottingham, UK