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Current Surgical Senior House Officers in the UK Perform Only One Quarter of Emergency Open Appendicectomies

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Abstract: Current surgical Senior House Officers (SHOs) work roughly half the number of hours of their predecessors, who were trained before implementation of the European Working Time Directive (EWTD). Whilst this may result in less tired trainees and potentially better patient care, is there a detrimental impact to SHO experience and training? The case notes of 100 consecutive open appendicectomies from the years 1996/7 and 2003/4 were retrieved. Data was recorded concerning the presence of the surgical SHO at the operation and whether they had performed the surgery. Ninty four percent of case notes were retrieved. These showed that in 1996/7 surgical SHOs performed an average of 51% of all open emergency appendicectomies and were present at 63%. In 2003/4 the surgical SHO was the primary surgeon at 25% of all open appendicectomies and was present at only 40%. Since implementation of the EWTD the number of appendicectomies being performed by SHOs has halved. If surgical SHO trainees are being denied the opportunity of performing basic emergency surgical operations then they will enter their specialist registrar period still requiring training in basic emergency surgical procedures and consequently further reducing opportunities for the more advanced training, that is required to become a consultant.

Key words: Surgical training, operative experience, emergency, SHO, EWTD

INTRODUCTION

Surgical training has been extensively revised in recent years and concerns have been raised about the effects that recent changes in junior doctors' working patterns may have on the exposure to operative surgery achieved during surgical SHO training. Ten years ago it was commonplace for surgical SHOs in UK hospitals, to work in excess of 100 h^{-1} week. Despite the resulting fatigue, these long hours resulted in an abundance of surgical experience and it was not unusual for these trainees to enter the registrar grade having performed over 100 appendicectomies.

The EWTD (Council Directive, 1997) became law in the United Kingdom on 1st October 1998 and a time-table for junior doctors in training was agreed in May 2000 (Directive, 2000). The agreement between the European parliament and the Council of Ministers stipulated that from August 2004 , the maximum period of time that may be spent resident in hospital was to be 56 h^{-1} week and from August 2009, 48 h^{-1} week.

Whilst hospitals in other European nations have chosen not to adhere to the EWTD on doctors' working hours, the UK has complied, resulting in surgical SHOs working roughly half the number of hours of their predecessors who were trained before the EWTD was implemented.

Coupled to the fact that SHOs are often unable to attend emergency theatre, for fear of surgical patients in the Accident and Emergency department breaching the stipulated "four hour trolley waiting time", is the end result significantly less experienced trainees, unable to perform basic emergency surgical operations such as an appendicectomy?

MATERIALS AND METHODS

A retrospective audit was performed by case note review of the operation notes from 100 consecutive open appendicectomy procedures in a single English district general hospital from the years 1996/7, when the operating theatres' computerised records began and 2003/4. The presence or absence of the SHO was recorded, the grade of surgeon performing the operation was also recorded.

RESULTS

Complete data was recorded from 94% (187/200) of case notes; 90/100 (90%) from 1996/7 and 97/100 (97%) from 2003/4. The remaining 13 case notes were not recovered. The results are illustrated in Table 1.

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Table 1: Participation of surgical SHO in emergency appendicectomies

	1996/7	2003/4
SHO present	57/90 (63%)	39/97 (40%)
SHO performed op.	46/90 (51%)	24/97 (25%)
SHO performed op. with senior assistant	37/90 (41%)	23/97 (24%)

Table 2: Seniority of principal surgeon at appendicectomy

	1996/7	2003/4
SHO	46/90 (51%)	24/97 (25%)
House officer	0 (0%)	3/97 (3%)
Registrar	32/90 (36%)	66/97 (68%)
Consultant	12/90 (13%)	4/97 (4%)

Table 2 illustrates the grade of surgeon performing emergency appendicectomies.

DISCUSSION

In recent years surgical training has been significantly shortened. The combined effect of the implementation of the Calman (1993) report, the reduction in junior doctors' hours (Downe, 1989) the Confidential Enquiry into Post-Operative Deaths (Campling *et al*., 1993) waiting list initiatives and increased day-case surgery (UK Health Department, 1993; Sharp and Wellwood, 1996) have resulted in a continual erosion of training time and training opportunities.

Since implementation of the EWTD at our institution, 75% of appendicectomies are not being performed by surgical SHOs and the percentage of these procedures performed by SHOs in the past year (25%) is less than half of those in 1996/7 (51%).

A Welsh study found that there was no actual reduction in the total number of patients undergoing appendicectomy in the years between 1986 and 2002 (Morris *et al*., 2004).

In this study there was a 23% reduction in the number of these procedures that SHOs attended over a seven year time period. The authors' view is that the SHOs attended less than half the appendicectomies performed in 2003/4 because they were otherwise occupied, assessing emergency referrals in the Accident and Emergency department, duty bound to avoid delays there, according to "trolley wait" guidelines. They also do not have the benefit of a pre-registration house officer covering the wards after midnight which further prevents them attending the emergency theatre. With the introduction of full shift rotas, the night duty SHO often admits patients with appendicitis and is then required to leave the hospital the next morning before the appendicectomy is performed. This is detrimental to his/her experience and has obvious issues with continuity of care. Disgruntled surgical SHOs may choose to leave the specialty, resulting in a dearth of surgeons applying for specialist registrar posts and ultimately becoming the consultant surgeons of the future. Gilmour *et al*. (2000) observed that surgical SHOs felt that their experiences as a junior surgical doctor had a major influence on their desire to pursue a career in surgery and this finding is echoed by another study which reported that basic surgical trainee satisfaction is dependent on the operative experience they gain (Pring and Singh, 1999).

Compliance with the EWTD in the United Kingdom most frequently necessitates shift working patterns. Recent studies (Morris *et al*., 2005; Aitken and Paice, 2002) reported that 63-82% of surgeons expressed their opposition to shifts, with their prime concern being a perceived adverse dimunition of clinical experience for surgeons in training. Another study detailed concern amongst consultant surgeons regarding the relative inexperience of current surgical trainees (Morris *et al*., 2002) and a further study reported the reduction in trainees' operative experience compared to their predecessors. Morris-Stiff *et al*. (2004) found that 80% of surgeons at all grades, felt that surgical training should be exempt from EWTD regulations and that surgeons were willing to work whatever hours were required to allow adequate training and continuity of patient care. 85% of surgeons felt that its implementation would have a detrimental effect on patient care.

The EWTD legislation was introduced to medicine without balloting of doctors and without any evidence that a reduction in hours will improve patient care or be of overall benefit to all doctors (Morris *et al*., 2005).

CONCLUSION

These combined issues dramatically decrease the emergency surgical experience of surgical trainees. With the time available for training reduced by 60%, (Bulstrode and Holsgrove, 1996) SHOs today need to gain experience more quickly and efficiently and consultants must be prepared to play a more pivotal role. If these apparent deficits in SHO training are not addressed, there will be an increase in the evolution of inexperienced specialist registrars who will require increased consultant supervision for basic surgical procedures.

REFERENCES

Aitken, M. and E. Paice, 2002. Trainees' attitudes to shift work depend on grade and specialty. BMJ., pp: 326-348.

Bulstrode, C. and G. Holsgrove, 1996. Education for educating surgeons. BMJ., 312: 326-327.

Campling, E.A., H.B. Devlin, R.W. Hale and J.N. Lunn, 1993. The Report of the National Enquiry into Perioperative Deaths 1991/1992. London: The Royal College of Surgeons of England.

Council Directive, 1993. 93/104/EC. Official J. Eur. Communities, 307: 18-24.

Directive, 2000. 2000/34/EC of the European Parliament and Council. Official J. Eur. Communities, 195: 41-45.

Downe, R., 1989. Patterns of Hospital Medical Staffing: Interim Report. Junior Doctors' Hours. London: British Postgraduate Federation.

Gilmour, J., B. Valdkamp, R.B. Galland, R. Collins and M.H. Lewis, 2000. Can changes to junior surgical jobs improve training and make a career in surgery more attractive? Ann. R. Coll. Surg. Eng., 82: 154-156.

Morris-Stiff, G., E. Ball, J. Torkington, M.E. Foster, M.H. Lewis and T.J. Havard, 2004. Registrar operating experience over a 15-year period: More, less or more or less the same? Surgery J. R. Coll. Surg. Edinb. Irel., 2: 161-164.

Morris-Stiff, G., D. Clarke, J. Torkington, D.J. Bowrey and R. Mansel, 2002. Training in the Calman era: What the consultants have to say. Ann. R. Coll. Surg. Eng., 84: 345-347.

Morris-Stiff, G.J., S. Sarasin, P. Edwards, W.G. Lewis and M.H. Lewis, 2005. The European Working Time Directive: One for all and all for one? Surgery, 137: 293-297.

Pring, C.M. and S. Singh, 1999. Nation-wide survey of basic surgical training and trainee satisfaction. Ann. R. Coll. Surg. Eng., 82: 80-82.

Sharp, R.J. and J. Wellwood, 1996. The training implications of day-case surgery. Br. J. Hosp. Med., 55: 472-475.

The Working Group on Specialist Medical Training. Hospital Doctors, 1993. Training for the Future. The report of the Working Group on Specialist Medical Training (The Calman Report) London: Department of Health.

UK Health Departments, 1993. Joint Consultants Committee and Chairman of Regional Health Authorities. Hospital Medical Staffing: Achieving a Balance-Plan for Action. London: Department of Health.