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The European Working Time Directive and the impact on training: the current evidence

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The full implementation of the European Working Time Directive (EWTD) as it applies to doctors in training has resulted in a significant fall in the number of hours worked by junior doctors. Considerable anxiety has been expressed by trainees, trainers, professional bodies (including the Royal College of Physicians (RCP)) and the national media about the effects of this reduction in hours on the quality and quantity of training.[1] Indeed, the level of concern is such that in late 2009 Alan Johnson, the former Secretary of State for Health, tasked Medical Education England (MEE) to formally assess the issue.[2] This editorial summarises the current evidence of the impact of the EWTD on the training of physicians.

The EWTD applies to all hospital doctors and has done so for consultants since 1998, but the full implementation of regulation has been staggered for junior doctors. Junior doctors' hours have been limited by the New Deal since 2003 to an average 56 hours per week and were limited further to the current 48 hours in August 2009. Any impact of reduction in junior doctors' hours on training should therefore be visible around these two specific time points. It is important to realise, however, that many hospitals have worked to 48 hours for the year prior to this deadline.[3]

The objective assessment of the impact of the EWTD on training is difficult to measure due to the lack of validated 'quality' measures of training.[4] There are also no firm definitions as to what counts as 'training' and what counts as 'service'. The surrogate measures that are available are the Record of In-Training Assessment (RITA) and the Annual Review of Competence Progression (ARCP) pass rates, data from the annual Postgraduate Medical Education and Training Board (PMETB) surveys of trainees and trainers, and some recent work done by the RCP. To complicate matters further, the advent of Modernising Medical Careers (MMC), new training techniques and increases in hospital medical admissions have all coincided with reductions in junior doctors' hours making a clear causal impact on training difficult to prove.

Summative assessments of training using the RITA and ARCP processes have shown an increase in 'failure' rate over the past two years. In 2007–8 (the last data available from the Joint Royal Colleges of Physicians Training Board annual specialty reports) only 0.22% of 4,626 specialist registrars (SpRs) in the medical specialties received a RITA E or ARCP outcome 3 (ie needed repeated training to gain competencies). Data from 2008–9, which are unpublished and incomplete (and therefore may be an underestimate), have shown a rate of 0.48% in 4,973 trainees. This is statistically significant but it remains to be seen whether this is a permanent increase. Furthermore, these assessments only state that minimum levels of training have been achieved and anecdotal reports of new consultants being more inexperienced can be neither confirmed nor refuted.

The PMETB surveys of trainees and trainers, while not objective, are the only tool we currently have in place to assess the impact of 48 hours prospectively. These surveys produce somewhat arbitrary composite scores for different aspects of training and by their nature are subjective. Comparing 2007 and 2009 surveys (which in itself has flaws because of the way the data are presented) shows no evidence of a fall in overall satisfaction of training by SpRs in any of the large medical specialties. For the five largest specialties, satisfaction scores were 77.65–80.20 in 2007 and 77.57–81.04 in 2009).[6,7] There appears to be a trend in increasing workload (lower workload composite scores) although no statistical comparison can be made.

The PMETB has also produced a review specifically looking at the impact of EWTD on training based on its surveys.[8] Many of the conclusions in this review relate to the effect of 56 hours rather than 48 hours and reflect subjective views by trainers about the impact of EWTD on training rather than any objective measures. Three findings are relevant to physicians. Firstly, 61.3% of trainers reported that the training needs of trainees were met within 56 hours (compared with 67.4% of all trainers, 93.0% of general practice trainers and 31.5% of surgical trainers). Secondly, 63.5% felt they would be able to deliver training to the same standard when the limit of 48 hours was introduced (compared with 70.7%, 93.0% and 38.1% respectively). Lastly, 22% of trainers expected trainees to work beyond 48 hours more frequently than 'rarely'.

The 'craft' medical specialties, which are procedure heavy, are theoretically more susceptible to a reduction in training hours. The craft medical specialty curricula have reflected an acceptance that sufficient experience in all procedures cannot be achieved by all (eg by the removal of colonoscopy from the gastroenterology curriculum as an essential procedure and the creation of subspecialties within cardiology). Furthermore, improvements in the way procedural training is delivered will have reduced the minimum number of procedures required for competence. Retrospective data on procedure numbers performed by 335 physicians completing training in the five years either side of 2003 do not show a significant difference in total numbers performed (Table 1).[9] However, the number of procedures performed by trainees before 2007 seems larger than can be easily accommodated in a 48-hour week.

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Table 1. Self-reported total numbers of procedures performed during training in physician trainee cohorts achieving their Certificate of Completion of Training in 1998–2002 and 2003–7 (expressed as a mean (95% confidence interval)).

	1998–2002	2003–7	p value
Colonoscopy	785 (660–911)	723 (603–850)	0.29
ERCP	233 (183–283)	161 (118–204)	0.02
ERCP*	256 (204–309)	229 (181–277)	0.74
Angiography	1,398 (1,170–1,626)	1,526 (1,264–1,788)	0.33
Echocardiography	980 (745–1215)	1,132 (795–1,469)	0.64
Chest drain	139 (104–174)	142 (113–171)	0.60
Bronchoscopy	448 (385–511)	383 (339–428)	0.12

*analysis of gastroenterologists excluding those who did no ERCP in training. ERCP = endoscopic retrograde cholangiopancreatography.

Data from a survey of medical teams across England and Wales in November 2009 showed that the 'average' SpR spends 66% of their time doing clinical work that could be considered as training when sickness, annual and other types of leave are excluded. Data from the 2008 SpR census conducted by the RCP are consistent with this with SpRs reporting 70.9% of time spent 'training' in their specialty and acute medicine.[10] A reduction in average hours from 56 to 48 therefore results in a loss of just under 1,400 hours training time for physicians over the five years of higher training.

The 2008 census also showed that SpRs spent an average of 47.4 hours working per week, showing most were 'compliant' with EWTD a year prior to its introduction. However, the range between specialties is striking from 38.1 hours for palliative care SpRs to 53.5 hours for cardiology SpRs (ie a difference of 15.4 hours per week worked of which 10.8 were 'training'). It is clear that some specialties will be hit much harder by EWTD than others, and it is unlikely that any further improvement in training methods will be able to mitigate for this.

In conclusion, the available evidence does not show a significant impact on the quality of training of physicians by the reduction to 56 hours. It is far too early to see any effects of the reduction to 48 hours. The total length of time available for training per year will undoubtedly fall for most specialties. This is almost certain to result in trainees being less well trained than in previous years and may result in the need for prolongation of training for some individuals.

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